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Delegations will find attached document SWD(2025) 943 final.

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Glossary

Term	Meaning or definition
AIF	Alternative Investment Fund
AIFM	Alternative Investment Fund Manager
AIFMD	Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers
AuM	Assets under Management
CBDD	Directive (EU) 2019/1160 of the European Parliament and of the Council of 20 June 2019 amending Directives 2009/65/EC and 2011/61/EU with regard to cross-border distribution of collective investment undertakings
CBDR	Regulation (EU) 2019/1156 of the European Parliament and of the Council of 20 June 2019 on facilitating cross-border distribution of collective investment undertakings
CBD framework	Refers collectively to the CBDD and the CBDR
Central counterparty ('CCP')	An entity that interposes itself, in one or more markets, between the counterparties to the contracts traded, becoming the buyer to every seller and the seller to every buyer and thereby guaranteeing the performance of open contracts.
CRD	Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms.
CSD	Central Securities Depository. A legal person that operates a securities settlement system and provides at least a notary service or a central maintenance service.
CSDR	Regulation (EU) No 909/2014 of the European Parliament and of the Council on improving securities settlement in the EU and on central securities depositories.
Distributed ledger technology ('DLT')	Distributed ledger is used to describe a decentralised dataset architecture which allows the keeping and sharing of records in a synchronised way, while ensuring their integrity through the use of consensus-based validation protocols and cryptographic signatures.
DLT pilot regulation ('DLTPR')	Regulation (EU) 2022/858 of the European Parliament and of the Council of 30 May 2022 on a pilot regime for market infrastructures based on distributed ledger technology
DORA	Digital Operational Resilience Act
EFAMA	European Fund and Asset Management Association
ELTIF	European Long Term Investment Fund

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ESMA	European Securities and Market Authority
EuSEF	European Social Entrepreneurship Fund
EuVECA	European Venture Capital Fund
MiCA	Regulation (EU) 2023/1114 of the European Parliament and of the Council of 31 May 2023 on markets in crypto-assets.
MiFID	Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments.
MiFIR	Regulation (EU) No 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments.
Multilateral trading facility ('MTF')	A multilateral system, operated by an investment firm or a market operator, which brings together multiple third-party buying and selling interests in financial instruments – in the system and in accordance with non-discretionary rules – in a way that results in a contract.
NAV	Net Asset Value
NCA	National Competent Authority
Organised trading facility ('OTF')	A multilateral system which is not a regulated market or an MTF and in which multiple third-party buying and selling interests in bonds, structured finance products, emission allowances or derivatives are able to interact in the system in a way that results in a contract.
PEMO	Pan-European Market Operator
Regulated market ('RM')	A multilateral system operated and/or managed by a market operator, which brings together or facilitates the bringing together of multiple third-party buying and selling interests in financial instruments – in the system and in accordance with its non-discretionary rules – in a way that results in a contract, in respect of the financial instruments admitted to trading under its rules and/or systems, and which is authorised and functions regularly.
SIU	Savings and Investments Union
T2S	Target2 Securities. The Eurosystem's single technical platform enabling CSDs and national central banks to provide core, borderless and neutral securities settlement services in central bank money in Europe.
UCITS	Undertakings for Collective Investment in Transferable Securities
UCITSD or UCITS Directive	Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities.

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1. INTRODUCTION

In the rapidly evolving global landscape, the European Union should strengthen its competitive edge, bringing widespread benefits to its citizens and businesses. Revitalising the EU's economy and strengthening its international position are central to the European Commission's mandate. Europe's economy has been underperforming in recent years due to structural barriers and weaknesses that hold it back. To address these challenges, it is crucial to reform how Europe's capital markets operate.

In March 2025, the Commission unveiled its Savings and Investments Union (SIU) strategy[1] to make it easier for citizens to grow their wealth by investing in capital markets, to increase the investment capacity in the EU, and to integrate the EU's capital markets. By breaking down barriers in financial markets and facilitating cross-border capital flows, the strategy can support the EU economy, stimulate job creation, and enhance competitiveness.[2]

Implementing the Savings and Investments Union involves comprehensive policy measures impacting various aspects of the EU's financial system, with a holistic approach that encompasses capital markets and the banking sector. These measures are grouped into four interconnected pillars: citizens and savings, investments and financing, market integration and scale, and efficient supervision.

Measures on "citizens and savings" seek to enable EU citizens to build their wealth by investing in capital markets, thereby also increasing funding for the EU economy. Measures on "investment and financing" aim to make it easier for companies to access diversified sources of finance, including cross-border options in the EU, so that they can raise the funds they need to grow and create jobs in Europe. The effectiveness of both these pillars requires well-functioning financial markets and supervision. Deeper and more integrated capital markets will also enable companies operating under the upcoming 28th regime to fully benefit from accessing finance across the Single Market.

Therefore, this initiative and impact assessment focus on the market integration and scale and efficient supervision pillars of the SIU strategy. Challenges arising from market fragmentation are significant, as shown by various prior analyses and impact assessments[3], with differences in regulatory and supervisory practices across Member States identified as key barriers hindering EU capital market integration.

This initiative focuses on three essential sectors for the smooth and efficient functioning of EU capital markets: trading, post-trading, and asset management. Trading is where buyers and sellers meet, setting prices, providing liquidity, and channelling capital to its most productive use. Post-trading encompasses activities after a trade is executed: clearing, settlement, and custody. It ensures the actual transfer of financial instruments and the discharge of associated obligations (e.g. payment in cash against the delivery of securities), manages counterparty risk, and maintains

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[1] COM/2025/124 final

[2] It is therefore considered to be a key enabler of EU economic competitiveness in the Commission's Competitiveness Compass.

[3] See for example Giovannini reports and the European Post-trade Forum (EPTF) report, the impact assessments on the cross-border distribution of funds initiative, the 2020 COM "Study on the costs of compliance for the financial sector", the 2025 "Study on consolidation and reducing fragmentation in trading and post-trading infrastructures in Europe".

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accurate records of ownership and asset servicing. Asset management enables investors to pool and allocate their money into these markets to grow wealth and achieve investment objectives. Together, these three sectors form the backbone of our capital markets. Achieving a more integrated and efficient capital market will require removing the existing cross-border regulatory and supervisory barriers in the trading, post trading and asset management sectors.

The initiative also emphasises the importance of innovation in the financial sector, specifically through Distributed Ledger Technology (DLT), which underpins crypto asset markets and the tokenisation of assets. These innovations have the potential to improve financial services for citizens and businesses. Therefore, it is crucial to remove barriers and complexities hindering the uptake of these innovations in the EU financial sector.

Beyond regulatory barriers, it is also important to address supervisory barriers that are hindering market integration. An integrated capital market requires integrated EU supervision. Existing non-aligned supervisory approaches and weak governance tools at EU level add to the costs of doing business, create legal uncertainty and an unlevel playing field, and make investing in the EU more difficult and more expensive.

By removing regulatory and supervisory barriers that are hindering the integration of and innovation in capital markets, this package aims to enable financial market participants to grow efficiently across the EU, lower costs of financial services for businesses and citizens, while ensuring strong supervision, and safeguarding the stability and integrity of EU capital markets.

The scope of this impact assessment is complex and multifaceted. To assist the reader, the impact assessment is organised with a main part presenting the overall summary assessment and analysis of the most significant problems, options and impacts, further supported by Annexes 1 to 6, which enrich the overall analysis. Additionally, sector-specific Annexes 7 to 11 provide in-depth examinations of the key sectors and areas covered in this impact assessment: trading, post-trading, asset management, innovation, and supervision. Annex 12 provides country-specific information as regards the state of capital markets across different EU Member States.

1.1. POLITICAL CONTEXT

The Commission's Competitiveness Compass[4] outlines a comprehensive plan to enhance the EU's economic strength and fully harness its vast potential. The SIU is one of the five horizontal enablers of the Compass, as achieving this vision requires significant financing.

In her State of the Union address, Commission President Ursula von der Leyen highlighted the opportunity cost Europeans face due to gaps in the single market. The President specifically identified finance as a key area where persistent barriers are holding back progress.

The EU has vast investment needs in strategic sectors such as defence, space, biotech, cleantech, and artificial intelligence. While rich in talent and ideas, the EU lacks the financing ecosystem needed to transform these assets into global champions. The issue is not capacity – EU entrepreneurs are among the best in the world – but rather opportunity. Too often, insufficient risk capital forces innovators to rely on foreign investors and relocate abroad. This results in the EU losing businesses, jobs, innovative capacity, and overall competitiveness.

[4] COM(2025) 30 final

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The urgency to act has been widely recognised at the highest political level. In 2024, at the request of the European Council and the President of the European Commission respectively, Enrico Letta and Mario Draghi delivered landmark reports recommending measures to improve capital market integration and supervision.[5] In addition, the Eurogroup[6] and the European Council[7,8] have urged steps towards integrated EU capital markets accessible to all citizens and businesses across the EU. This objective is shared between across EU institutions and enjoys widespread support throughout EU capitals.

For example, the Euro Summit of March 2025 emphasised the urgency and shared responsibility for rapid progress on creating the SIU.[9] The European Parliament asserted that capital markets integration is a necessary pillar of the EU's investment strategy and supported the Commission's intention to propose measures to strengthen supervisory convergence tools and achieve more unified direct supervision of capital markets.[10] The European Central Bank ('ECB') has also been vocal in its support for the project.[11]

Beyond Europe, international organisations such as the International Monetary Fund ('IMF')[12], and the Organisation for Economic Cooperation and Development ('OECD')[13] have called for action to address remaining barriers to EU financial market integration.

In summary, calls from both within and outside the EU point to the same response: creating a more integrated EU capital market is now a necessity, not just a desirable goal.

1.2. LEGAL CONTEXT

This section presents the legal context and current EU legal framework of the trading, post-trading asset management sector and innovation (1.2.1), as well as on the supervision of these sectors (1.2.2).

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[5] E. Letta "Report on the Future of the Single Market". Available here: https://single-market-economy.ec.europa.eu/news/enrico-lettas-report-future-single-market-2024-04-10_en; Mario Draghi, 'The Future of European Competitiveness,' 2025. https://commission.europa.eu/topics/eu-competitiveness/draghi-report_en

[6] https://www.consilium.europa.eu/en/press/press-releases/2024/03/11/statement-of-the-eurogroup-in-inclusive-format-on-the-future-of-capital-markets-union/

[7] https://www.consilium.europa.eu/media/m5jlwe0p/euco-conclusions-20240417-18-en.pdf

[8] https://www.consilium.europa.eu/media/viyhc2m4/20250320-european-council-conclusions-en.pdf

[9] "*We underline the sense of urgency and the shared responsibility for fast and decisive progress on a Savings and Investments Union with a particular focus on the Capital Markets Union to mobilise savings and unlock the financing of necessary investments to support EU competitiveness*". See EU Summit meeting (20 March 2025) – Statement – page 1, https://www.consilium.europa.eu/media/ce3fkikz/20250320-euro-summit-statement-en.pdf

[10] https://www.europarl.europa.eu/doceo/document/TA-10-2025-0185_EN.pdf

[11] European Central Bank: "Capital markets union: a deep dive". Revised May 2025. Available here: https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op369~246a103ed8.en.pdf?503a501a41fd4b4659d3b0616c405190

[12] International Monetary Fund: "A Recovery Short of Europe's Full Potential", 24 October 2024. Available here: https://www.imf.org/en/Publications/REO/EU/Issues/2024/10/24/regional-economic-outlook-Europe-october-2024

[13] OECD, Economic Surveys: European Union and Euro Area 2025, July 2025, Available here: https://www.oecd.org/content/dam/oecd/en/publications/reports/2025/07/oecd-economic-surveys-european-union-and-euro-area-2025_af6b738a/5ec8dcc2-en.pdf

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1.2.1. Trading, post-trading, asset management and innovation

In the *trading sector,* the EU has developed a comprehensive legislative framework to regulate financial markets, enhance investor protection and ensure market transparency and stability. Central to this framework are the Markets in Financial Instruments Directive II ('MiFID II') and the Markets in Financial Instruments Regulation ('MiFIR'). These two legislative instruments are the cornerstone of EU's legislation for trading venues and investment firms. MiFID II and MiFIR regulate the provision of investment services and activities by investment firms[14] and govern the operation of trading venues.

Under MiFID II, there are three types of trading venues: regulated markets ('RMs'/exchanges), multilateral trading facilities ('MTFs') and organised trading facilities ('OTFs'). All are multilateral systems that bring together multiple third-party buying and selling interests. RMs are operated by a market operator. RMs are essentially regulated as a market infrastructure, as opposed to the operation of an MTF or an OTF, which is an investment activity under MiFID II. MTFs and OTFs there can also be performed by an investment firm. The MiFID II rulebook only explicitly foresees the possibility for RMs to set up 'trading arrangements' to accommodate remote access of members through trading screens to facilitate access to and trading on those markets by remote members or participants.[15] However, unlike for investment firms operating MTFs or OTFs who benefit from a comprehensive passporting mechanism under MiFID II, which is supporting their freedom to provide services (Article 34 for investment firms) or the establishment of a branch (Article 35 for investment firms), beyond the above mentioned 'trading arrangements', the framework applicable to RMs does not contain any explicit provisions relating to the rights of RMs as regards the provision of cross-border services in the EU on the basis of their initial licence. In addition, the current MiFID II framework requires each RM to be subject to an individual licence in the Member State where it is operated, and therefore to be subject to the supervision of each individual competent authority. There is currently no possibility for a market operator, to operate several trading venues in different Member States on the basis of a single licence.

MiFID II establishes organisational requirements for trading venues, notably to ensure fit-for-purpose governance, investor protection, solid processes and effective risk management. In addition, the Directive mandates that trading venues must operate under a system that promotes fair and orderly trading and ensures non-discriminatory access to market participants. Further, MiFIR governs how trading works in the EU, mainly focusing on trade transparency and transaction reporting.

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[14] An investment firm is a legal person (and in certain cases other undertakings that are not legal person) whose regular occupation or business is the provision of one or more investment services to third parties and/or the performance of one or more investment activities on a professional basis. The list of investment services and activities includes: reception and transmission of orders in relation to one or more financial instruments; execution of orders on behalf of clients; dealing on own account; portfolio management; investment advice; underwriting of financial instruments and/or placing of financial instruments on a firm commitment basis; placing of financial instruments without a firm commitment basis; operation of an MTF; operation of an OTF.

[15] See Article 53(6) MiFID: "Member States shall, without further legal or administrative requirements, allow RMs from other Member States to provide appropriate arrangements on their territory so as to facilitate access to and trading on those markets by remote members or participants established in their territory".

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While trading venues constitute multilateral trading systems under MiFID II/MiFIR, it is worth mentioning that trading also takes place in the bilateral/off-venue space. Under MiFID II/MiFIR, most bilateral/off-venue execution by investment firms is regulated as an investment service. Since MiFID I, investors also have the possibility to trade with 'systematic internalisers' ('SIs'), i.e. investment banks that act as dealers and trade bilaterally using their own funds. Annex 7 provides a more detailed analysis of the legal framework and the specific provisions of relevance to this initiative.

In the *post-trading sector*, clearing is governed by the European Market Infrastructure Regulation ('EMIR'), which aims to make derivatives markets safer and more transparent, in particular mandating standardised over-the-counter ('OTC') derivatives to be centrally cleared through central counterparties ('CCPs'), imposing risk mitigation rules for non-cleared trades, and mandating reporting of derivatives activity to trade repositories ('TRs').[16] Settlement in the EU is governed by a legislative framework mainly composed of the Central Securities Depositories Regulation ('CSDR'), the Settlement Finality Directive ('SFD') and the Financial Collateral Directive ('FCD'). These measures collectively address the legal, prudential, operational, and systemic risks associated with securities settlement (i.e. the completion of a securities transaction through the transfer of cash, securities, or both) and collateral arrangements (i.e. the use of assets as security to support financial transactions) in the EU's financial system.

The CSDR establishes uniform requirements for the settlement of financial instruments and the operations of central securities depositories ('CSDs') across the EU. A CSD is a specialized financial institution that executes transfer orders in relation to securities transactions and provides at least one of the following two services: initial recording of securities and provision and maintenance of securities accounts. CSDs play a crucial role in financial markets by enabling the transfer of securities and ensuring the finality of settlement. The CSDR sets out the procedure of authorisation and supervision of CSDs and imposes prudential, organisational, and conduct of business requirements. It also contains rules on access and interoperability between CSDs and trading venues, thereby fostering competition and integration in the trading and post-trading markets. In addition, it provides a passporting regime that allows authorised CSDs to offer services in other Member States.

The SFD plays a key role in the legal certainty of payment and securities settlement systems within the EU. It aims to minimise systemic risk arising from the insolvency of a participant in those systems. It does so by ensuring that transfer orders entered into systems designated by Member States are legally enforceable and irrevocable once correctly entered into such systems. It also safeguards the netting and collateral arrangements within those systems from being unwound or affected by insolvency proceedings. This legal certainty is vital for maintaining confidence in settlement processes, particularly during periods of financial stress. For participants in such systems, this means they can trust that their transactions entered into the system will be executed and settled as planned, even if one of the parties involved in the transactions faces financial difficulties, thereby reducing the risk of financial loss for the participants protected under the SFD and promoting stability in the financial market.

The FCD complements the SFD by providing a framework for the use of financial collateral in transactions between market participants (e.g. between two banks), thereby reducing complexity and costs for the parties engaged in such transactions. Overall, the FCD simplifies the process

[16] The scope of the proposals related to clearing outlined in this document are limited to the supervision of CCPs.

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of taking and enforcing collateral in the form of cash, financial instruments, or credit claims. It also eliminates certain formal requirements, such as notarisation, and ensures the enforceability of close-out netting arrangements and title transfer collateral agreements. Annex 8 provides a detailed overview of the legal framework for post-trading and the relevant provisions for this assessment.

The EU *asset management sector* is largely governed by the Alternative Investment Fund Managers Directive ('AIFMD'), the Undertakings for Collective Investment in Transferable Securities Directive ('UCITSD' or 'UCITS Directive'), and the Cross-Border Distribution of Funds Regulation ('CBDR'). Together, these instruments aim to ensure investor protection, market integrity and the efficient functioning of the single market for investment funds.

The UCITS Directive provides a regulatory regime for collective investment undertakings (mutual funds) that invest in transferable securities[17] and provides common rules covering *inter alia* marketing, investor protection, supervision, diversification and risk management. UCITS funds are primarily meant as retail investment vehicles, though also in demand by institutional investors and are subject to restrictions and transparency requirements to safeguard retail investors' interests. UCITS management companies must meet detailed organisational, conduct and risk management requirements. These include obligations to act in the best interests of investors, maintain adequate capital and implement the necessary internal control mechanisms. It also imposes strict rules on liquidity management and leverage, and mandates comprehensive disclosure requirements to investors, including through the provision of a key investor information.

The UCITSD grants management companies and UCITS funds a passport, allowing them to manage and market UCITS across the EU once authorised in one Member State, without the need for additional local licenses. However, in practice, the notification process and review of fund marketing documents by the host Member States where the UCITS is marketed can be a heavy process, with divergences in Member State requirements. The depositary regime ensures that each UCITS appoints a single independent depositary responsible for the safekeeping of assets, oversight of fund operations, and monitoring cash flows to protect investors.

In parallel, the AIFMD regulates managers of alternative investment funds ('AIFs'), which encompass a wide variety of non-UCITS funds, including hedge funds, private equity funds, real estate funds and infrastructure funds. Unlike UCITS funds, AIFs are typically targeted at professional investors, though some AIFs may also be sold to retail investors if Member States decide so. The AIFMD establishes requirements for the authorisation, operation and transparency of AIF managers ('AIFMs'), particularly in the areas of risk management, valuation, delegation of AIFM functions to third parties, such as portfolio or risk management to specialised service providers or external asset managers, liquidity management and remuneration policies. AIFMs must also disclose detailed information to both investors and regulators, including data on portfolio composition, leverage and systemic risk indicators. While the AIFMD does not harmonise the structure or marketing of AIFs themselves, it grants authorised EU AIFMs a passport

[17] According to Article 2(1)(n) of the UCITS Directive, transferable securities are (i) shares in companies and other securities equivalent to shares in companies (shares), (ii) bonds and other forms of securitised debt (debt securities) or (iii) any other negotiable securities which carry the right to acquire any such transferable securities by subscription or exchange.

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to manage EU AIFs and market EU AIFs to professional investors across the EU subject to a notification process. The depositary regime also applies to AIFs.

To complement these frameworks, the CBDR aims to facilitate the smoother cross-border marketing of UCITS funds and AIFs. The CBDR introduced principle-based requirements for marketing communications, ensuring that they are fair, clear and not misleading. It also enhanced transparency regarding regulatory fees and streamlined notification procedures for cross-border marketing. Annex 9 presents the legal framework and the related specific issues for the asset management sector in more detail.

In the area of *innovation*, distributed ledgers are a key technology which is being developed to lower the costs and realise efficiencies in trading and post-trading. The Distributed Ledger Technology Pilot Regulation ('DLTPR'), which aims to create a legal framework to foster the use of this technology in financial markets, came into force in March 2023. It enables market participants to derogate from certain provisions applicable to trading venues and CSDs. The main objectives of the DLTPR are to support innovation in DLT by attracting businesses to deploy their solutions within an adapted and clearly delimited framework, and to integrate the learnings obtained from the industry into further changes to the common rulebook.

The CSDR was devised before DLT or other disruptive technologies were developed and thus relies on "legacy" systems at its core. For example, the assumptions about intermediary roles and functions, definitions of certain key notions and other requirements embedded in the CSDR may act as a barrier to the uptake of this technology. The aim of the DLTPR is precisely to create an adapted framework within which participants can test and develop their solutions for the issuance, recording, trading and transfer of financial instruments using DLT.

In addition, the Markets in Crypto-Assets Regulation ('MiCA') has created a comprehensive legal framework for crypto-assets, including stablecoins and e-money tokens. MiCA's primary goals is to improve consumer protection, enhance market integrity, and provide legal clarity for issuers and service providers.[18] MiCA entered into full application on 30 December 2024 but crypto-asset service providers ('CASPs') that were providing services in accordance with the applicable national law before that date may continue to provide their services without additional MiCA authorisation until 01 July 2026, in accordance with various transitional periods set by the Member States to improve consumer protection, enhance market integrity, and provide legal clarity for issuers and service providers.

1.2.2. Supervision

[18] The scope of the measures related to MiCA outlined in this document are limited to the supervision of CASPs.

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The supervision of entities and activities in trading[19], post-trading[20], asset management[21] and crypto-asset services[22] in the EU is carried out by national competent authorities ('NCAs'), sometimes including the National Central Banks ('NCBs'). More details on supervisory set up can be found in the Annex on Supervision.

At EU level, the European Securities Markets Authority ('ESMA')[23] is responsible for ensuring the integrity, transparency, and efficiency of financial markets and fostering consumer and investor protection.[24] ESMA's founding regulation[25] sets out ESMA's objectives, tasks, and powers as well as its responsibility for coordinating the supervision of EU financial markets and the enforcement of EU market and investment rules.[26]

ESMA plays a key role in promoting consistency and convergence in supervision across the EU and has a range of tools at its disposal, such as issuing guidelines, making recommendations, conducting peer reviews, investigating suspected breaches of Union law by national authorities and resolving disputes between supervisors through binding mediation.[27] Most of these powers are, however, soft in nature and therefore do not allow ESMA to fully ensure supervisory convergence. As a result, significant divergences and national supervisory approaches prevail (see problem definition).

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[19] In general, each Member State designates one national competent authority. However, in some Member States multiple supervisors co-exist for different reasons.

[20] There are 25 CSDs authorised in the EU under the CSD Regulation ('CSDR'). CSDR Refit introduced a college of supervisors for CSDs of substantial importance in at least two host Member States, which is comprised of NCAs, ESMA and of relevant authorities, including the European System of Central Banks (ESCB). There are 14 CCPs that have been authorised in the EU under the European Market Infrastructure Regulation (EMIR). For key decisions (authorisation, risk model changes, etc.), NCAs must consult a college of supervisors.

[21] Each UCITS fund must be authorised and supervised by the NCA of the Member State where it is domiciled. The home NCA of the UCITS is responsible for supervising the management company in relation to the UCITS.

[22] Beyond its regular coordination role, ESMA has a limited role in the supervision of CASPs designated as "significant" (i.e. having at least 15 million users in the EU).

[23] See Article 1 REGULATION (EU) No 1095/2010 of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), (OJ L 331 15.12.2010, p. 84).

[24] ESMA, together with the European Banking Authority ('EBA'), the European Insurance and Occupational Pensions Authority ('EIOPA'), and the European Systemic Risk Board ('ESRB'), form the European System of Financial Supervision ('ESFS'), a framework for supervising and regulating the EU's financial system. Within this framework, ESMA's competences are focused on financial markets, including securities and investment services, while EBA and EIOPA oversee banking and insurance/pensions, respectively, allowing for specialized expertise and a coordinated approach to financial supervision across the EU.

[25] Regulation (EU) No 1095/2010 of the European Parliament and of the Council.

[26] In certain limited areas, ESMA exercises direct supervisory powers, i.e. with regard to credit rating agencies and trade repositories, CCPs established in third countries deemed to be of substantial systemic importance and operating in the EU (such as LCH Ltd (UK CCP) and ICE EU (UK CCP)), recognised third-country benchmark administrators and third-country benchmarks endorsed in the EU, securitisation repositories, and EU Green Bonds external reviewers and ESG rating providers. Under the MiFIR framework, ESMA is also granted direct responsibilities regarding the authorisation and supervision of certain Data Reporting Services Providers.

[27] Binding mediation is a conflict-resolution mechanism used when there is a dispute between two or more NCAs particularly in cases specified in legislative acts. ESMA resolves disputes by issuing a legally binding decision that all parties must follow and may eventually also adopt individual binding decisions applicable to market participants (Article 19 ESMA Regulation).

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While the other European Supervisory Authorities ('ESAs'), such as the European Insurance and Occupational Pensions Authority ('EIOPA') and the European Banking Authority ('EBA') also play a role in integrating capital markets, they are not directly overseeing the sectors that are in scope of this impact assessment.[28] For this reason, this impact assessment focuses on ESMA. This does not preclude the possibility that, in the future, broader reforms may also consider the roles of the other ESAs as part of further efforts to strengthen financial supervision in the EU if specific problems are identified.

1.3. MARKET CONTEXT

As confirmed by a large body of literature, EU capital markets are underdeveloped in both size and depth,[29,30] and there are significant differences in capital market development across Member States (see Annex 12 for Member State specific evidence on capital market developments).

Figure 1 illustrates that total (traded and untraded) equity market capitalisation amounted to 73% of GDP in the EU in 2024, compared to 130% in the UK and 270% in the US (see also e.g. ECB (2025)[31]). Over the past 15 years, major stock markets have grown significantly but unevenly across jurisdictions: the US S&P 500 index increased by more than 350%, the Asia Nikkei 225 by more than 200%, the STOXX Europe 600 by about 100% and the UK FTSE 100 by about 50%. The US share of global free-float market capitalisation therefore rose from about 40% after the global financial crisis to over 60% by early 2025.[32]

Other indicators also show the relative underdevelopment of EU capital markets. For example, the number of IPOs (initial public offerings) in the US has been more than triple the number in the EU over the last decade (on average 107 IPOs in the EU annually versus 360 IPOs in the US) (Figure 2). However, EU IPOs still exceeded the number of IPOs in the UK (59 on average). A significant number of EU companies have moved their primary listing to the US market, where new listings – including IPOs, direct listings, and listing via Special Purpose Acquisition Companies (SPACs) – account for nearly 90% of relocations.[33]

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[28] In case of MiCA, EBA has been given direct supervision of issuers of significant asset-referenced tokens and e-money tokens.

[29] Market depth refers to the ability of a market to absorb large orders without significantly impacting the price of a security, hence showing strong liquidity.

[30] See for example: IMF, September 2019, "A Capital Market Union for Europe"; New Financial, January 2024, "Searching for Growth: the Future of EU Capital Markets"; New Financial, January 2019, "The New Financial Global Capital Markets Growth Index: Analysis of the size, depth & growth potential of capital markets in 60 economies around the world"; AFME, November 2024, "Capital Markets Union – Key performance indicators seventh edition"; Bruegel, June 2021, "Europe should not neglect its capital markets union"; European Investment Bank, March 2025, "Investment Report 2024/2025: Innovation, integration and simplification in Europe".

[31] Capital markets union: a deep dive - Five measures to foster a single market for capital, ECB Occasional paper Series, May 2025.

[32] See pages 22-23 of European Financial Stability and Integration Review 2025. The sector composition of the EU and US indexes diverges significantly. DG FISMA calculations illustrate that sector weighting alone does not account for the return disparities. Even if the EU index would match the US index's sector composition, it would still significantly underperform.

[33] The proportion of European IPOs listing in the US has tripled since 2015 to 22% of all IPOs by European companies by value. In particular in the biotech sector, over a quarter of European biotech companies that did an IPO over the past decade listed in the US market, representing nearly two thirds of the value of IPOs by European biotech companies. New Financial, April 2025, "A reality check on international listings".

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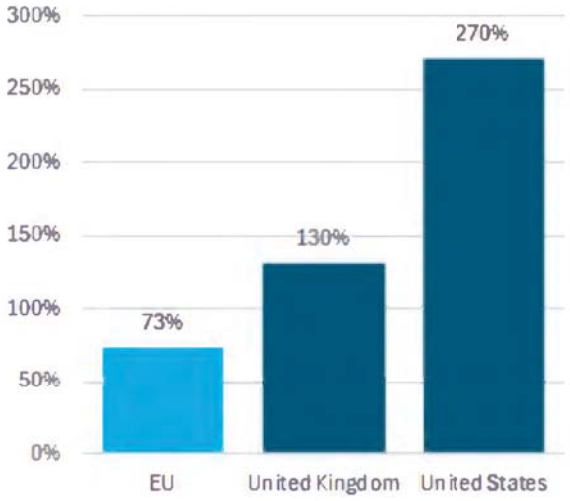
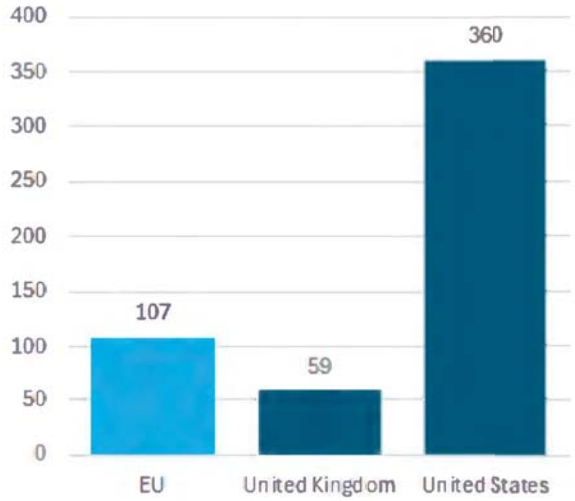
Figure 1: Total market capitalisation relative to total domestic GDP in 2024



Source: S&P Capital IQ, OECD, DG FISMA calculations

Note: Company level market capitalisation is calculated as aggregate market capitalization of all issues of common equity whether traded or non-traded. If pricing is not available for secondary classes, the price of the primary class is applied. Total market capitalisation is calculated as the sum of company level market capitalisation of all companies with their domicile in the respective region at end-of year 2024. Relative market capitalisation is calculated by dividing the values by the regional GDP.

Figure 2: Number of IPOs by region of IPO exchange – 2015-2024 average



Source: S&P Capital IQ, DG FISMA calculations

Note: Number of IPOs by location of IPO stock exchange (indicates the best of exchange where the company got listed/will list pursuant to the IPO or the exchange where it is currently trading. If there is no exchange indicated in the IPO filings, it will indicate the current exchange for the primary listing of the company.).

The lack of capital market development also shows in corporate funding structures. European non-financial corporations ('NFCs') are much more reliant on bank loans than market funding, i.e. debt securities and listed shares, compared to NFCs in the UK and the US. As shown in Figure 3, debt securities and listed shares make up just 3% and 14% of NFC liabilities in the EU whereas they respectively account for 7% and 31% in the UK and 6% and 38% in the US.

While the development of capital markets depends on many different demand and supply factors, one key driving factor is the market fragmentation which is at the heart of this impact assessment. Figure 4 illustrates the development of financial integration in the euro area between 2000-2025. Financial integration indicators fell sharply due to the combined impact of the 2008 Global Financial Crisis ('GFC') and 2010-2012 euro-area sovereign debt crisis. Since reaching a low point in 2012, both the price-based and quantity-based composite indicators of financial integration have been slowly recovering. By the end of 2024, the quantity-based indicator of financial integration, which reflects increased cross-border holdings of financial assets, has finally reached its 2006 pre-crisis value again. The more volatile price-based index, which increases with reduced dispersion in asset prices or returns across borders, indicates that financial markets have been gradually pricing assets more uniformly across the euro area, but has not yet reached its pre-GFC level. The slow progress and protracted recovery towards past levels of financial integration suggests that persistent fragmentation continues to hinder efforts to fully integrate the financial system, thereby preventing the EU from fully realising the advantages of the single market.

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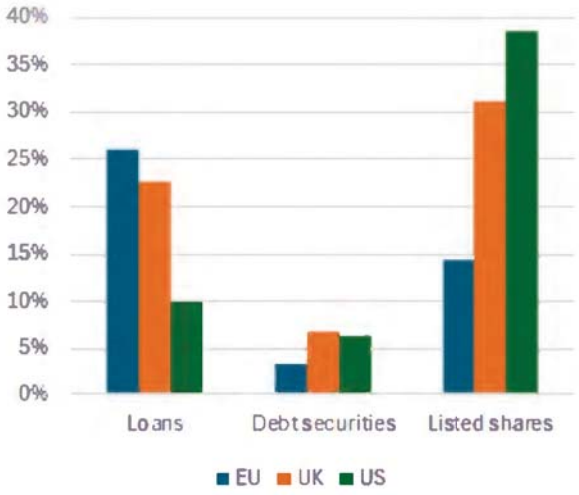
Figure 3: NCF financial liabilities breakdown as share of total liabilities in 2024



Source: Eurostat, OECD, DG FISMA calculations

Note: NFC financial liabilities based on non-consolidated annual sector accounts. The following categories are not included: currency and deposits, investment fund shares/units, unlisted shares, life insurance and annuity entitlements, pension entitlements, claims of pension funds on pension managers and entitlements to non-pension benefits, other equity, non-life insurance technical reserves, provisions for calls under standardised guarantees, financial derivatives and employee stock options and other accounts receivable/payable.

Figure 4: Price-based and quantity-based composite indicators of euro area financial integration

Source: ECB

Note: The price-based composite indicator aggregates 10 indicators. The quantity-based composite indicator aggregates 5 indicators. A value of 1 corresponds to the highest degree of integration. The quantity-based indicator uses quarterly data between Q1 1999 and Q4 2024. The price-based indicator uses monthly data (converted into quarterly values) between Q1 1999 and Q4 2024.

Against this wider context, this impact assessment specifically looks at fragmentation in the EU trading, post-trading and asset management sector.

The "Study on consolidation and reducing fragmentation in trading and post-trading infrastructures in Europe" (henceforth referred to as the "study on trading and post-trading")[34], has been prepared for the Commission to support this assessment (see also Annex 4 and references throughout this report). It analyses the evolution of the structure and ownership of EU market infrastructures over the past 50 years until today. As shown in Figure 5, taken from the study, there is no common pattern in the development of EU capital market infrastructure. Two main types of market structure emerged at national level: horizontal (where stock exchanges and CSDs are under different ownership), and vertical (where stock exchanges and CSDs share common ownership). There is also a distinct difference between northern and western Europe, which features numerous cross-border groups and operations, and eastern and southern Europe, where market infrastructures operate almost entirely within national borders (indicated by grey areas).

[34] https://op.europa.eu/en/publication/doi/10.2874/2649452.

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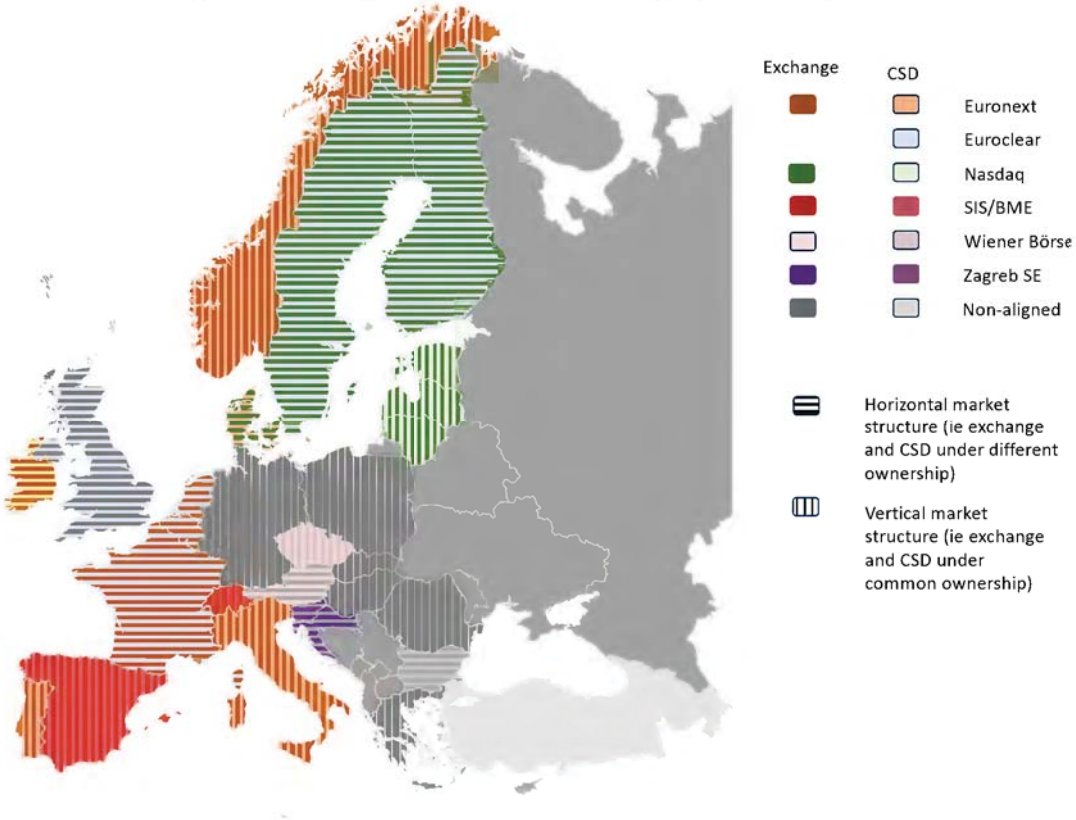
Figure 5: Ownership of exchanges and CSDs in Europe (end-2024)



Source: Study on consolidation and reducing fragmentation in trading and post-trading markets infrastructures in Europe.

In the EU *trading sector*, there is a proliferation of execution venues where financial instruments can be traded. More precisely, there are 314 trading venues[35], of which 119 RMs , 165 MTFs and 30 OTFs. In addition to these trading venues, there are 167 authorised SIs in the EU. Consequently, EU trading venues remain smaller and less liquid than their international peers, notably in the US. The market capitalisation of trading venues in the EU was about USD 12 trillion (60% of EU GDP) in 2024 whereas the two largest stock exchanges in the US had a combined market capitalisation of USD 60 trillion, or over 200 of domestic GDP highlighting significantly greater market depth compared to the EU. This lack of depth and liquidity and fragmented infrastructure discourage company listings as it indirectly increases their cost of financing

[35] In the context of this analysis, trading venues are identified at segment Market Identifier Code (MIC) level. Segment different MICs are often used to distinguish trading systems. This allows for a precise identification of trading facilities by market type, in instances in which the same market operator runs both a RM or a multilateral trading facility, for example.

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and deters investors from investing into EU markets as they face higher transaction costs and risks.[36,37,38]

The large number of RMs in the EU is a direct heritage of national contexts, where each EU Member State usually has a local RM providing listing services for local issuers. Despite around 20 years of regulatory changes aimed at fostering competition in market operations, primary listings remain highly concentrated, with 4 exchange groups accounting for over 90% of market capitalisation.[39] Vertical integration among exchange groups is also highly prevalent, with many providers owning two or all three parts of the market infrastructure value chain (trading, clearing, settlement). Conversely, market trading has experienced substantial shifts in market structure, with numerous new entrants and trading flows increasingly moving to alternative venues.[40] This shift has yielded significant benefits, in particular lower transaction fees and liquidity gains (including via competition in the quality and speed of matching engines). However, the resulting fragmentation has simultaneously increased other costs for market participants, particularly those associated with determining where and when the best trading opportunities exist.[41]

In the *post-trading sector*, there are 14 CCPs and 32 CSDs operating in the EU. 25 CSDs are authorised under the CSDR, including two international CSDs ('ICSDs')[42], Euroclear Bank and Clearstream Banking SA, and 7 CSDs benefit from the public authorities' exemption under Art. 1(4) CSDR. In contrast, the US market is more concentrated and specialised, in particular with respect to settlement, with 2 CSDs and 8 CCPs.[43] The fact that EU CSDs are the market infrastructures most segmented along national lines is primarily due to historical developments and established practices. National CSDs were established to serve local market needs to provide

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[36] International Monetary Fund ('IMF'), June 2025, FINANCE & DEVELOPMENT: "Europe's integration imperative".

[37] Relation between liquidity and cost of equity see: Stock Market Liquidity and the Cost of Issuing Equity, A. Butler, G. Grullon and J. P. Weston, Journal of Financial and Quantitative Analysis, 2005, vol. 40, issue 2, 331-348 – Link & Liquidity and the implied cost of equity capital, M. Saad, A. Same, Journal of International Financial Markets, Institutions and Money, Volume 51, 2017 – Link; et.al.

[38] Relation between liquidity and risks see: Stock Market Liquidity: A Literature Review, P. Naik, Y.V Reddy, Sage Open, 11(1), 2021 – Link ; Market liquidity: theory, evidence, and policy, T. Foucault, M. Pagano, A. Röell, Oxford University Press, 2023; et.al.

[39] 'Capital Market Infrastructure: Preparing the Financial Railway Tracks to Unlock the Untapped Potential of EU Capital Markets', Implement Consulting Group, June 2025 (pre-release version shared with COM – to be updated once published).

[40] See for example 'Evolution of EEA share market structure since MiFID II', ESMA, October 2023 – Link

[41] Other jurisdictions are also characterised by a multiplicity of listing exchanges. In the US, the so-called 'Reg. NMS' has, twenty years ago, intended to address the inefficiencies stemming from the existence of several stock exchanges in the US, and (indirectly) mandated the interconnection of all such exchanges. In China, the 'Stock Connect' system, which amounts to a mutual market access program for the Shenzhen, Hong Kong and Shanghai stock exchanges, sought to make the Chinese stock markets more interoperable and reduce effects of fragmentation by allowing members of one of such exchanges to trade on the other ones. In Europe, the open access provisions included in MiFIR pursue a similar regulatory objective. See Regulation (EU) No 600/2014 (MiFIR), Article 35&36.

[42] ICSDs are CSDs that provide services for international securities, such as Eurobonds.

[43] In the US corporate bonds and equities are settled through the Depository Trust and Clearing Corporation (DTCC) while government securities and related entities are settled through Fedwire Securities Service, which is operated by the Federal Reserve System. The CCPs in the US are: ICE Clear Credit, ICE Clear US, the Chicago Mercantile Exchange (CME), the National Securities Clearing Corporation (NSCC), the Fixed Income Clearing Corporation (FICC), the Options Clearing Corporation (OCC), Nodal Clear, and MIAX Futures Exchange.

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for the safe custody of securities and for the efficient settlement of securities transactions at a time when cross-border transactions involving securities were limited.

In 2024[44], EU CSDs handled approximately 606 million securities settlement instructions worth over EUR 70 trillion in value of securities and representing a total turnover of securities of over EUR 2 770 trillion. These figures have increased annually by 20%, 25%, and 105%, respectively since 2020. This activity however is not spread evenly across all EU CSDs. In fact, in 2024, the four largest EU CSDs held over 76% of all securities in the EU.

There has been limited development in the provision of cross-border CSD services within the EU.[45] By 2024, the volume and value of cross-CSD settlement represented, respectively, only 1.61% and 3.45% of the total volume and value of settlement in TARGET2-Securities ('T2S') - a platform launched in 2015 and operated by the Eurosystem that offers harmonised and streamlined securities settlement in central bank money to facilitate cross-CSD settlement. The volume of settlement processed in T2S averaged 700,000 transactions daily with an average daily value of EUR 790 billion in 2023. This was equivalent to 75% of the number of transactions processed by T2S-participating CSDs and 50% of their value, suggesting that T2S is not capturing all the settlement (including both domestic and cross-border) activity of its participating CSDs.[46]

The *EU asset management sector* has grown significantly, with net assets under management almost doubling (+95%) to EUR 20.5 trillion between 2014 and 2024 (see Table 1). The EU is the second-largest asset management market worldwide, accounting for around 29% of global net asset value in 2024, according to the European Fund and Asset Management Association (EFAMA).[47] The sector is diverse, with approximately 65,000 funds (30,000 UCITS funds and 35,000 AIFs) and low market concentration. Ongoing costs of investing in key EU financial products have gradually declined, although these costs were already at high levels and costs in the EU remain high by international standards. Although total assets are smaller than in the US (see Annex 12 for the share of investment funds in households' financial asset holdings in EU Member States), the EU shows a much larger number of investment funds and asset managers. The average fund size in the EU is correspondingly significantly lower than in the US (and the UK), as further discussed in Section 2 as part of the problem definition. According to an ESMA study on costs, the small size of funds in the EU has generally been associated with the comparatively high levels of costs and charges, in line with the logic of economies of scale, i.e. larger funds may benefit from economies of scale, potentially lowering expense ratios as fixed costs are spread over a larger asset base.[48] This is supported by data in an ESMA Market report on costs, which provides that total costs of smaller equity, bond and mixed funds are higher by respectively 14%, 27% and 17% than the total costs of larger funds.[49]

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[44] Securities settlement statistics on the ECB securities trading, clearing and settlement database. See: https://data.ecb.europa.eu/publications/payments-statistics/3032564

[45] "Provision of cross-border services by CSDs and handling of applications under Article 23 of CSDR from 2020 to 2022", European Securities and Markets Authority, ESMA74-2119945925-1568, 31 January 2024.

[46] Study on fragmentation in trading and post-trading markets infrastructures in Europe: https://op.europa.eu/en/publication/doi/10.2874/2649452

[47] EFAMA Factbook 2025, available here: https://www.efama.org/sites/default/files/fact-book-2025_lowres.pdf

[48] ESMA Study, The scale factor: Impact of size on EU fund cost structures, available here: ESMA50-524821-3575 The scale factor: Impact of size on EU fund cost structures

[49] ESMA Market report on Costs and Performance of EU Retail Investment Products 2024, available here: ESMA50-524821-3525 Market Report on the Costs and Performance of EU Retail Investment Products 2024

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Table 1: Characteristics of the asset management market in the EU, US, and UK

Indicator	EU	US	UK
Total net assets (2024)	EUR 20.5 trillion	~EUR 37.7 trillion[1]	~EUR 2.2 trillion[2]
Average fund size (2024)	~EUR 313 million[4]	~EUR 2.3 billion	~EUR 660 million
Number of funds (2024)	~65,000[3]	~7,500	~3,300
Number of asset managers (2024)	6,200[5]	N/A (*)	~1000
Growth in net assets (2014 – 2024)	95%	~120%	~110%

Source: ESMA data 2024, EFAMA 2024, Morningstar data, ICI (2024 Fact Book, for US data and on the growth of the AM sector), the Investment Association (Investment Management in the UK 2023-2024)
Note: [1] USD ~39.2 trillion; [2] GBP ~2.4 trillion; [3] Of which approximately 30,000 are UCITS and approximately 35,000 are AIFs; [4] ~EUR 420 million for UCITS and ~EUR 224 million for AIFs [5] of which 1,700 are UCITS management companies and 4,500 are AIFMs.
(*) The structure of the US financial industry is centred on financial advisors, a concept that differs substantially from that of asset managers in the EU regulatory framework.

2. PROBLEM DEFINITION

This initiative seeks to remove specific barriers stemming from the lack of harmonisation of EU rules and supervisory approaches that give rise to the fragmentation and underperformance of EU capital markets. These barriers hinder market-driven efforts to expand business and build scale across the single market in the area of trading, post-trading and asset management services, also using innovative digital technologies.

For analytical clarity, the assessment is structured around three interrelated problems, as illustrated in the below stylised problem tree, the assessment is structured around three interrelated problems: 1) the fragmentation and lack of scale in the provision of trading, post-trading and asset management services; 2) the fragmented and, as a result, less efficient and effective supervision of those services; and 3) regulatory obstacles to the uptake of innovative digital technologies, in particular DLT in trading and post-trading.

These problems impede the efficient functioning of EU capital markets, ultimately resulting in higher costs and less investment opportunities for investors; higher costs and reduced financing opportunities for firms; and other wider consequences that have long been associated with the underdevelopment and fragmentation of EU capital markets, such as overall lower size and depth of EU capital markets, lower economic growth, limited risk sharing and shock resilience.

While the focus is on the specific regulatory and supervisory barriers (the problem drivers) that negatively affect the provision of trading, post-trading and asset management services, and the uptake of innovative technologies, there are a myriad of other factors that continue to impede EU capital market development and integration. Whereas some of these other factors can and are being addressed in other initiatives under the SIU strategy (e.g. measures on financial literacy, pensions, access to finance), others lie outside the financial services regulatory and supervisory framework (e.g. differences across Member States in tax, company and insolvency law) or are non-legal in nature (e.g. differences across Member States in culture, preferences, habits, risk-taking behaviour, language, or wider macroeconomic conditions).

The general problems and wider consequences of the fragmentation and underdevelopment of EU capital markets have been well-documented. Hence, to keep this assessment targeted,

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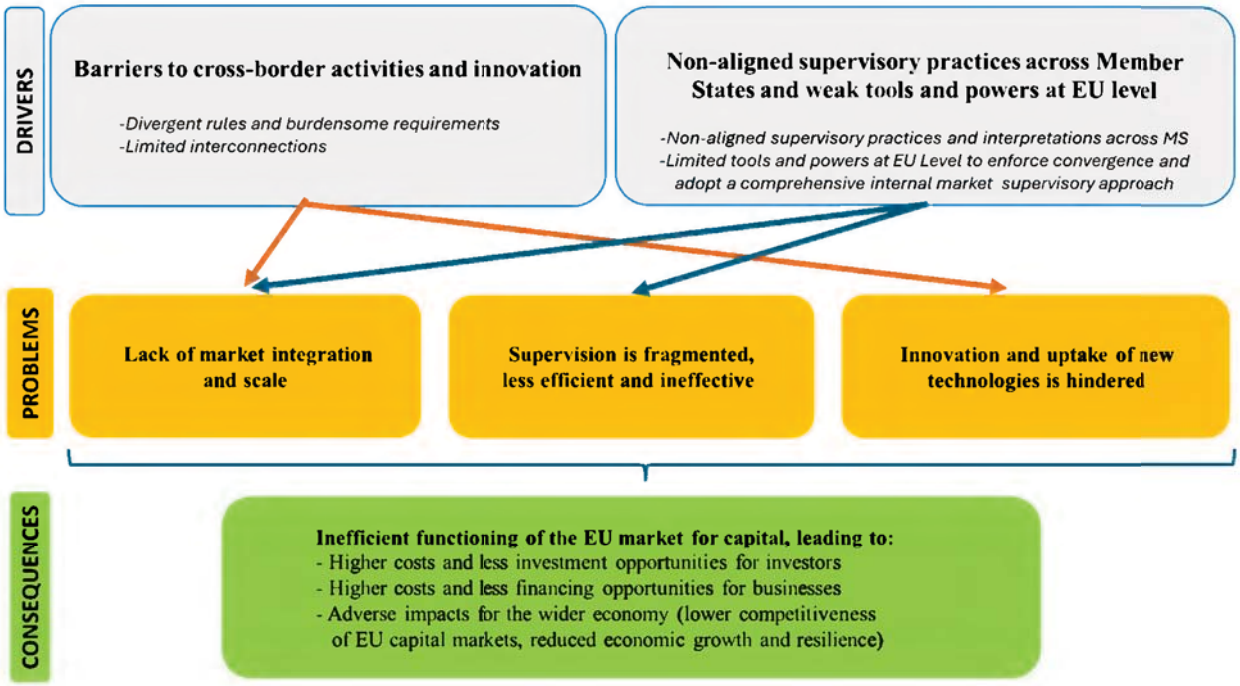
proportionate and manageable, references are introduced to existing studies and reports documenting the magnitude of the general problems. The assessment is focused on the specific problems and underlying problem drivers that are in scope of this initiative, explaining to the extent possible their relation to and relative impact on the wider problem.

As further explained below and in Annex 4, quantifying the relative importance of the specific problems is challenging, given the many external factors at play that cannot be easily controlled for and the data limitations to model how the specific factors influence market outcomes. The assessment therefore comprises quantitative and qualitative evidence, drawing also from various sources, including the "Study on trading and post-trading" and the "Study of barriers to, and drivers of, the scaling-up of funds investing in innovative and growth companies" conducted on behalf of the Commission.

This section provides the more high-level summary assessment of the problems, with the more granular and technical assessment of specific barriers and resulting problems in the different sectors described in the separate annexes (indicated by cross-references in the text).



2.1. WHAT ARE THE PROBLEMS?

2.1.1. Lack of market integration and scale

The provision of trading, post-trading and asset management services in the EU are fragmented and lack scale. This is illustrated by the larger number of entities and the smaller size compared

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to other well integrated markets (e.g. the US), and indicated in Section 1.3 on the market context.[50] Operating across-borders in such a fragmented environment results into higher transaction costs and fees for financial market participants and, ultimately, higher costs for investors and companies seeking financing. Fragmented markets mean European firms have a narrower investor base and less liquid markets, which increases their cost of issuing equity or debt, as investors demand a higher return to compensate for lower liquidity and higher information costs.

The majority of stakeholders (especially relevant stakeholders and associations of the sectors covered in this initiative) supported removing cross-border operational and regulatory obstacles and duplicative requirements, called for more interoperability between market infrastructures, and underlined the need to modernise EU rules on trading, clearing and settlement, to achieve greater efficiency and scale. In the area of asset management, relevant industry associations and market players stressed the need to reduce gold-plating and simplify rules on marketing, disclosures and enhance funds' passporting. Many financial institutions and market operators favoured a technology-neutral regulatory approach that accommodates innovation, including distributed ledger technologies. Stakeholders also warned that harmonisation must not compromise flexibility or investor protection and cautioned that integration should preserve competitiveness and diversity across Member States. A recurring theme was the need for regulatory coherence, legal certainty and predictability. Other stakeholders, including professional bodies, law firms and chambers of commerce, stressed the importance of harmonisation in post-trade processes and legal clarity in areas such as settlement finality and collateral and securities law. They called for proportionality in regulatory reforms and alignment with accounting and tax frameworks to reduce cross-border frictions.

Trading in Europe exhibits a high degree of fragmentation. As noted in Section 1.3., there are more than 300 trading venues which offer similar or overlapping services in trade execution / matching (see figure 4). In addition, there is fragmentation across lit (pre-trade transparent) and dark (non-pre-trade transparent) execution protocols. This latter split is, to a large extent, demand driven and arises from different priorities of market participants at different times, notably speed of execution (lit venues will offer faster matching) and market impact of execution (dark venues will not 'leak' information on trading interest to the market). Increased competition between trading venues has reduced the direct costs of trade execution in the EU and benefited liquidity. However, an excessive degree of fragmentation also tends to raise other costs for market participants. For example, order book data needs to be collected from multiple markets to find the best execution conditions. In addition, increased speed in order entry and matching (arising from competition effects), while decreasing bid-ask spreads, implies that market participants require more sophisticated IT and hardware (thereby increasing costs) to address quotes and act on incoming market data. An increased number of trading venues can also lead to more arbitrage opportunities and heightened adverse selection for liquidity providers. Liquidity providers engage in arbitrage trades to profit from small price differences across venues, thereby keeping prices aligned,

[50] At the same time, it should be acknowledged that extreme forms of consolidation (e.g. where only one or two players remain) may lead to a worse-off outcome by reducing competitive pressure on players and, consequently, potentially leading to higher prices and lower quality of services. Hence, any measures seeking increasing integration should be taken in knowledge of their impact on competition, to ensure that a careful balance between consolidation and competition is preserved.

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but with a large number of venues it becomes increasingly difficult to source and aggregate pricing information at the high speeds necessary to compete. This in turn can lead to reduced liquidity provision and an increase in spreads[51] thus decreasing overall market efficiency.

Fragmentation effects are normally not linear. For instance, effects can be positive for large caps but negative for less traded small caps.[52] This makes it difficult to determine what market structure would maximise downstream user benefits. Stakeholder input received, the external market study conducted for the Commission as well as other reports[53] point to significant increases in indirect costs due to fragmentation in trading in the EU. This lowers efficiencies, regardless of optimal market structures. At the same time, there is little evidence that benefits of further fragmentation (e.g. lower fees) can outweigh these costs.[54] Stakeholders also often note disproportionate negative effects of fragmentation on small and micro caps.[55] Comparison with the US reveals that a high level of concentration enables US operators to exploit scale effects that benefit downstream users through lower costs and indirect liquidity effects, reducing capital costs (see also Section 2.3. on consequences). Data shows that the top five US venues account for 74 % of on-exchange share turn-over whereas in the EU it is only the top 10 venues that capture a similar share (+-75%).[56] At the same time, at aggregate level, the average daily value traded is more than 4 times higher in the US than in Europe (EUR 288bn vs EUR 65bn in 2023[57]). According to some figures, liquidity on US regulated markets alone is more than double the total liquidity across all channels in Europe.[58] It is difficult to compare EU-US direct transactions costs across operators, different asset classes and professional / retail clients given factors such as detailed pricing schedules, rebates and trade-external costs (e.g. one study finds that settlement costs are on average 65% higher in Europe[59]). There are however indications that indirect costs (lower bid-ask spreads due to higher liquidity) are lower in the US.

EU operators are typically structured across groups and market operating entities (see Figure 5). This organisational structure allows operators to generate some, though limited, synergies at group level while navigating persistent barriers at national level. The national factor remains crucial for multiple reasons, notably differences in (i) interpretation and transposition of EU law, (ii) supervisory approaches, and (iii) other national legal frameworks (such as securities law, company law, transparency, and taxation). This initiative focuses only on the first two factors. Stakeholder feedback also points to the fact that local presence, and the perception of markets being linked to national ecosystems, plays a strong role in maintaining separate markets at local level, especially

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[51] See for example 'Trading in Fragmented Markets', M. Baldauf, L. Mollner, Journal of Financial and Quantitative Analysis 2021;56(1):93-121, June 2020.

[52] See 'Drivers and Effects of Stock Market Fragmentation – Insights on SME Stocks', J. Lausen, Jens, B. Clapham, P. Gomber, M. Bender, SAFE Working Paper No. 367, March 2022 – Link

[53] E.g. 'There's No Market in Market Data', Market Structure Partners, January 2025.

[54] Initial fragmentation (pre-MiFID national monopolies) to a structure with competing alternative venues operators had strong positive impacts on costs and bid-ask spreads initially but these effects tend to reduce in size with increasing fragmentation.

[55] One likely explanation is that low trading volumes are insufficient to attract other large market makers which could bridge fragmentation across markets more efficiently and would boost liquidity. Absence of efficient hedging products is a further factor which increases risks for market makers. Large caps tend to face less problems due to high trading interests.

[56] Evolution of EEA share market structure since MiFID II, ESMA, October 2023

[57] Figure for all companies above €250m market cap; Source: Demystifying the liquidity gap between European and US equities, Euronext, March 2024 – Link

[58] Oliver Wyman, The Liquidity Matrix - Addressing fragmentation in European equity markets, July 2025 – Link

[59] See 'Analysis of CSD Fees in Major European Markets' – AFME – Link

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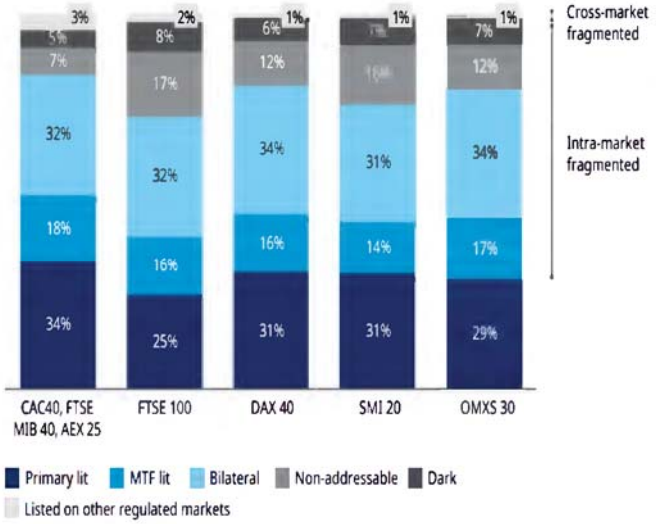
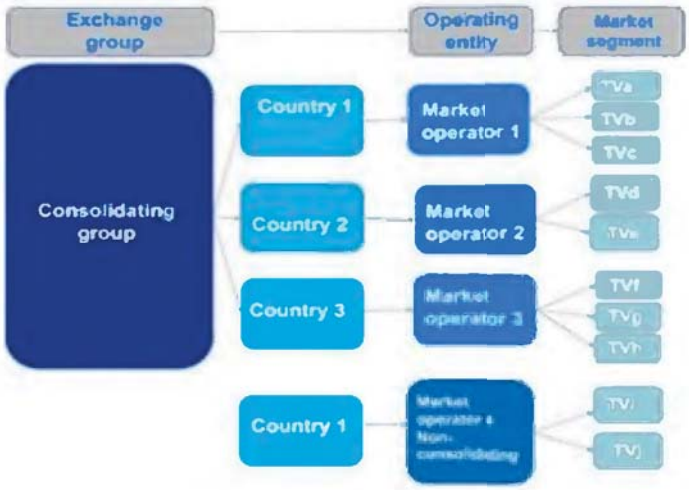
for listing purposes. An additional demand-driven factor for local presence is that some investors (e.g. public pension funds) may wish to invest in companies on a domestic market.

Figure 4: Fragmentation across different execution venues



Source: Oliver Wyman, The Liquidity Matrix - Addressing fragmentation in European equity markets – Link
Note: Liquidity fragmentation at the single-stock level - Share of total traded notional, %, Jan–May 2025.

Figure 5: Example on-exchange market structure



Source: ESMA
Note: 'market segments' may be better labelled as 'trading venue' (which operate multiple segments) depending on setup.

Market operators have reported incurring extra costs linked to diverging practices of how the trading platform operates, and additional procedures not required in EU legislation, amounting to an estimated EUR 1 million per group-level changes (e.g. approval of change of trading platform such as function of order types or microstructure setup / matching process). Different supervisory approaches and the lack of a single licence to operate markets cross-border in all EU Member States add further administrative and other compliance costs.

Problems at the trading level are exacerbated by similar fragmentation issues in EU *post-trade infrastructures*. Users, particularly smaller brokers, are often not able to navigate the EU trading infrastructure as a single, integrated pool of liquidity, which limits their ability to operate efficiently and effectively across the EU. There is a significant discrepancy in the fees brokers charge for executing transactions on their domestic markets, as opposed to those in other Member States. A key reason for these high costs is higher clearing and settlement fees. Clearing and settlement of equity transaction across national borders have been found to be two to six times more expensive than an equivalent transaction cleared and settled domestically.[60] Multiple brokers across different Member States impose fees that are up to three times higher for executing trades in other markets in the EU compared to their domestic market, and often these fees exceed what the same broker charges for trading US securities. Out of a sample of brokers and neo-brokers

[60] From Giovannini barriers to Capital Markets Union – Bank of Finland Bulletin

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located in 5 Member States, it was evidenced that trading securities from another Member State was systematically as least as expensive, and usually significantly more expensive, than trading US securities.[61]

These higher costs stem from the need to interact with multiple national systems and comply with varied procedures and national laws. The presence of multiple CCPs and CSDs implies higher transaction costs for cross-border investors, which in turn translates into less cross-border investment in securities. The average total settlement cost to a CSD client in Europe is EUR 0.53 per transaction, with approximately EUR 0.10 attributed to pass-through of T2S charges. For T2S CSDs, the average settlement instruction fee is EUR 0.34, including T2S charges.[62] This compares unfavourably with the US, where the average total settlement cost per transaction is EUR 0.25.[63]

In 2022, cross-border settlement constituted less than 20% of total settlement.[64] The domestic nature of settlement infrastructure creates technical complexities and increased operational risk because of market participants having to connect to different systems to access different national markets. This effectively means that there are technical and legal barriers inhibiting the development of a truly European post-trade landscape, with implications for the straightforward availability of investment opportunities for investors. Due to its operational complexity, the settlement infrastructure in the EU (i.e. CSDs, including T2S costs passed on by CSDs, but not including the ICSDs) is estimated to cost the industry around EUR 1bn annually, roughly double the cost of the two CSDs in the USA (DTCC for Securities, Fedwire Securities Services for Treasuries).[65]

The market fragmentation prevents financial intermediaries from exploiting potential economies of scale, thereby limiting their ability to achieve efficiency gains by increasing cross-border activity. For example, Figure 4 from the study carried out for the Commission shows that revenue per transaction, and consequently costs for the clients, decreases as the number of settled transactions increases, clearly pointing to economies of scale. These economies of scale occur when the fixed cost associated with building and maintaining the necessary technical infrastructure and ensuring regulatory compliance can be spread over a larger number of transactions. Currently, regulatory barriers hinder efficiency gains enabled by a market structure with higher concentration of trading and clearing activities.

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[61] Information based on internal analysis of the publicly available fee schedules of a representative sample of neo-brokers and banks active in 8 Member States. See Annex 7 'Trading' for more details.
[62] AFME (2025) "Analysis of CSD Fees in Major European Markets".
[63] Study on consolidation and reducing fragmentation in trading and post-trading infrastructures in Europe: https://op.europa.eu/en/publication/doi/10.2874/2649452
[64] Based on ESMA data for cross-border activity (ESMA74-2119945925-1568) and the total value of settlement instructions from the ECB securities trading, clearing and settlement data base.
[65] Ibid.

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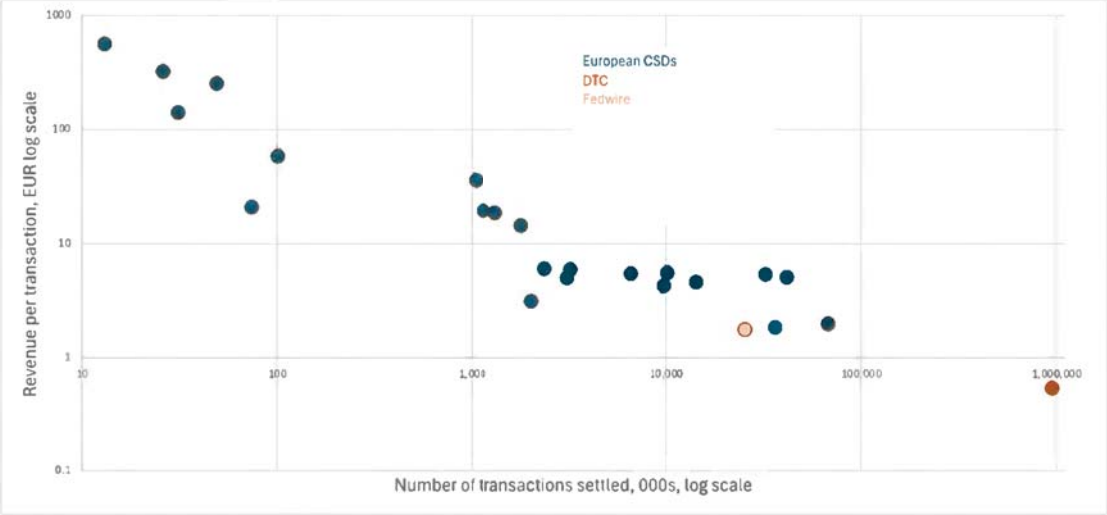
Figure 6:[66] Economies of scale in CSDs (2023)[67]



Source: ECSDA database, annual reports of DTC, DTCC and FRB

The *EU asset management sector* has experienced significant growth while also reducing ongoing costs (see Section 1.3). As the world's second-largest market, it holds 29% of global assets and encompasses approximately 65,000 funds. However, despite this growth, regulatory barriers and other challenges hinder its optimal development, leading to unfavourable market outcomes.

First, the EU asset management market is highly fragmented, which restricts investor choice, hinders fund competition[68], and prevents the creation of a true single market. Although there are many funds available, most are only sold in one country[69] and almost none are marketed in all 27 Member States. In addition, funds that are distributed on a cross-border basis are typically available in only a few countries (see Table 2). As a result, these funds have limited market penetration outside their home country. This restricts investor choice, falling short of what a genuine single market should offer. Furthermore, this fragmentation also affects the funds themselves, as being available in multiple national markets would give them access to more investors and enable them to achieve economies of scale.

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[66] Final report of the High Level Forum on the Capital Markets Union (p. 69).

[67] From the Study on consolidation and reducing fragmentation in trading and post-trading infrastructures in Europe: https://op.europa.eu/en/publication/doi/10.2874/2649452

[68] Economic research shows that new entry impacts incumbents through price and quantity competition, with the effect of new funds entering depending on competition intensity in the market. Incumbents facing high competitive intensity engage in price competition by reducing management fees. It should be noted that this research also concludes that investors did not benefit from the price competition in terms of lower fees as the lower management fees were offset by an increase in distribution fees. However, where funds enter the market and face low levels of competition for incumbents, investors still profit from increased diversification opportunities. This is particularly the case for the smaller markets that currently benefit less from the cross-border distribution of funds. For further details, see Wahal, S., & Wang, A. Y. (2011). Competition among mutual funds. *Journal of Financial Economics*, 99(1), 40-59.

[69] According to ESMA (2025), most UCITS funds are sold domestically. However, practices differ across countries. Some countries mainly sell domestic funds, while others predominantly market their funds abroad. ESMA, *ESMA Market report on costs and performance of EU Retail Investment Products 2024*, ESMA50-524821-3525, 14 January 2025. Available at: https://www.esma.europa.eu/sites/default/files/2025-01/ESMA50-524821-3525_ESMA_Market_Report_-_Costs_and_Performance_of_EU_Retail_Investment_Products.pdf

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Table 2: Cross-border distribution of UCITS funds in the EU

Range	UCITS Domicile	Average number of Member States where UCITS funds are marketed cross-border
More than 4	Luxembourg, Lithuania	4.8
	Ireland	4.1
Between 2 and 4	Estonia	3.3
	Malta	2.4
Less than 2	France	1.7
	Finland	1.6
	Belgium, Netherlands, Sweden	1.5
	Austria, Germany, Latvia	1.3
	Denmark	1.1
	Italy, Poland, Portugal, Spain	1.0
Average across EU Member States		**2.0**

Source: Morningstar; DG FISMA calculations.

Significant obstacles to fund consolidation across Europe, including regulatory inconsistencies and local distribution agreements, contribute to the prevailing fragmentation.[70] Moreover, funds marketed in multiple EU countries tend to have higher ongoing costs, partly due to the local requirements and market practices imposed by host Member States on the marketing of cross-border funds.[71]

These findings are corroborated by stakeholders' feedback provided in interviews conducted in a recent study[72] that was commissioned by the European Commission. Interview respondents often highlighted that national requirements on marketing and fees significantly diverge across Member States. Consequently, fund managers often limit marketing to home or familiar jurisdictions. In addition, in the targeted consultation accompanying this initiative, a majority of respondents (mainly large asset managers and investment associations) considered fees and charges levied by approximately 17 host NCAs to be a significant barrier to the distribution of investment funds. They pointed out that these fees can discourage fund managers, particularly smaller or newer market entrants, from pursuing cross-border notifications, particularly for smaller markets. It is especially the cumulative effect of regulatory fees and the complexity of some fee structures that affect the decisions of fund managers. This issue is closely linked to the problem of fragmented supervision (see Section 2.1.2) where funds in the EU often have the same investment strategy, portfolio composition and management team, but are domiciled and authorised/supervised separately in different Member States.

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[70] EFAMA, Beyond fund consolidation: a more promising strategy for bigger funds and faster cost declines in Europe, *Market Insights* 20, February 2025. Available here: https://www.efama.org/sites/default/files/files/market-insights-20-beyond-fund-consolidation.pdf

[71] For further details, see Investment Company Institute (ICI), Cross-Border Frictions Within EU Capital Markets Can Drive Up Costs, June 2023.

[72] Study of barriers to, and drivers of, the scaling-up of funds investing in innovative and growth companies (2025). Annex 9 also contains case studies on costs associated with the cross-border distribution of funds.

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Respondents to the consultation reported that, for both UCITS and AIFs, regulatory fees are a barrier to the distribution of investment funds in the single market, with almost half reporting it as a "significant" barrier[73], while also noting that information on such fees is not easily available. One large asset manager noted that the CBDR sought to enhance transparency, particularly around regulatory fees, and to limit burdensome or opaque practices, with one key measure requiring NCAs to publish applicable fees online. However, it noted that in practice, fee transparency remains limited and, in many cases, fees are not clearly presented or easily accessible on NCA websites, with fund managers often only becoming aware of the full cost late in the registration process. This uncertainty can often result in the need to engage local counsel for advice. Case Study 2 in Annex 9 highlights a cost of EUR 65,000 associated with the payment of regulatory fees for just one AIF marketing on a pan-EU basis, which includes the appointment of a local agent in some Member States to arrange the payment.

In addition, individual funds in the EU asset management industry are small. The average UCITS fund size is EUR 420 million, significantly smaller than the average size of US funds, which is approximately EUR 2.3 billion. This is a long-standing issue[74], with the difference between the EU and US industry widening over time (see Figure 5). In addition, only 13% of all UCITS funds (3,500 funds) manage at least EUR 2 billion, while 38% (11,400 funds) manage less than EUR 100 million[75], indicating that many funds in the EU tend to be small in size. This lack of scale results in higher costs, with UCITS fees remaining above US levels. The asset-weighted average product cost of US mutual funds is significantly lower than that of UCITS, 0.65% for active funds and 0.05% for index equity mutual funds, according to EFAMA.

[73] Question 34 of the consultation asked: "are fees/charges, currently levied by some host NCAs, a significant barrier to the distribution of investment funds in the single market?". Of the 28 responses to this question, 13 answered yes, 8 were neutral and 7 answered no. Of those that answered neutral and no, many qualified their reply to say that while not a "significant" barrier, the fees levied by host NCAs vary considerably and can discourage some managers from pursuing cross-border notifications, particularly for smaller markets or limited distribution efforts.

[74] See e.g. Otten, R and Schweitzer, M. (2002), Comparison between the European and the US Mutual Fund Industry. *Managerial Finance*, 28(1), 14-35; EFAMA, Beyond fund consolidation: a more promising strategy for bigger funds and faster cost declines in Europe, *Market Insights* 20, February 2025; or Ferreira, M., Keswani, A., Miguel, A., and Ramos, S. (2013), The determinants of mutual fund performance: A cross-country study. *Review of Finance*, *17*(2), 483-525.

[75] Source: Morningstar; DG FISMA calculations.

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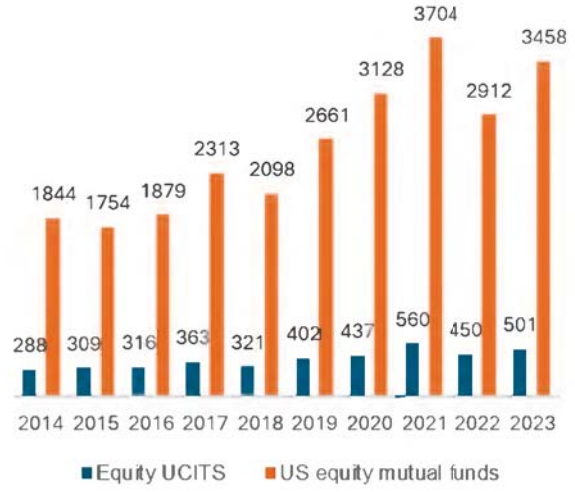
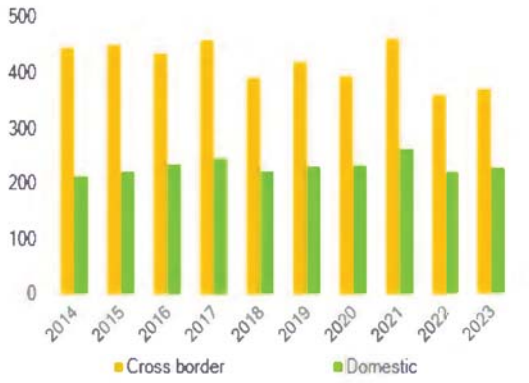
Figure 5: Average size: EU equity UCITS vs US equity mutual funds



Source: EFAMA, Beyond fund consolidation: a more promising strategy for bigger funds and faster cost declines in Europe, *Market Insights* 20, February 2025.

Note: Figures for equity UCITS in EUR millions. Figures for US equity mutual funds in USD millions.

Figure 6: EU UCITS average size: domestic vs cross-border distributed funds



Source: ESMA, *ESMA Market report on costs and performance of EU Retail Investment Products* 2024, ESMA50-524821-3525, 14 January 2025.

Note: Number of domestic and registered and cross-border EU27 UCITS. Registered are funds registered to be sold beyond domicile's borders. Cross-border are defined as funds distributed at least in three countries including their domicile. Figures are in EUR million.

The small average fund size implies that EU funds are not benefiting from economies of scale. In general, economies of scale occur when average product costs decline as output increases. Research[76] suggests that such economies may exist in the fund industry, as corroborated by empirical findings.[77] As a result, fund size influences a fund's cost structure by spreading fixed costs over a broader pool of managed assets.[78] To operate efficiently, funds need to attain sufficient scale as many funds operating costs, including accounting, IT and compliance costs, are largely fixed.

A comparison of the average fund size of domestic and cross-border-marketed funds show that domestic funds tend to be significantly smaller (see Figure 6). In addition, fixed costs of cross-border funds tend to be higher than for single-country funds (see Figure 8). The average ongoing charge for cross-border equity funds in 2021 was 1.36 percent compared with 1.23 percent for single-country equity funds (see Figure 7), and 0.96 percent against 0.77 percent for a fixed income fund, illustrating that cross-border funds face cost disadvantages, among others due to additional marketing and registration costs.

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[76] Sirri, E.R. and Tufano, P. (1993). *Competition and change in the mutual fund industry*, in: Hayes, S. (ed.), Financial Services: Perspectives and Challenges, pp. 181-214. Harvard business school press.

[77] See e.g., Dermine, J., & Röller, L. H. (1992). Economies of scale and scope in French mutual funds. *Journal of Financial Intermediation*, *2*(1), 83-93; Mauerer, R., & Schaefer, A. (2009). *Does size matter? Economies of scale in the German mutual fund industry*, Working Paper 201 for Germany; or ESMA, *ESMA Market report on costs and performance of EU retail investment products 2024*, ESMA50-524821-3525, 14 January 2025.

[78] Indro, D. C., Jiang, C. X., Hu, M. Y., & Lee, W. Y. (1999). Mutual fund performance: does fund size matter?. *Financial Analysts Journal*, *55*(3), 74-87.

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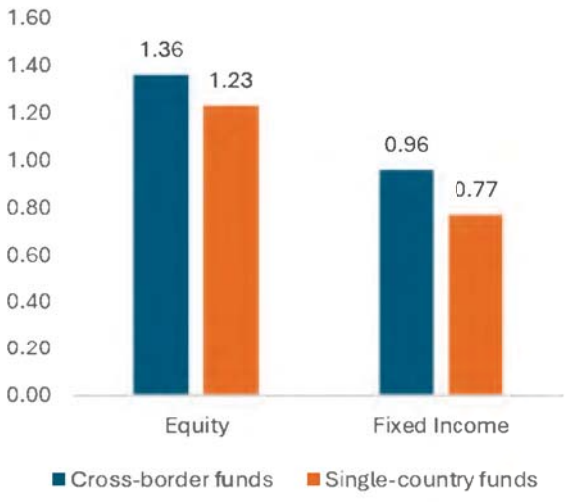
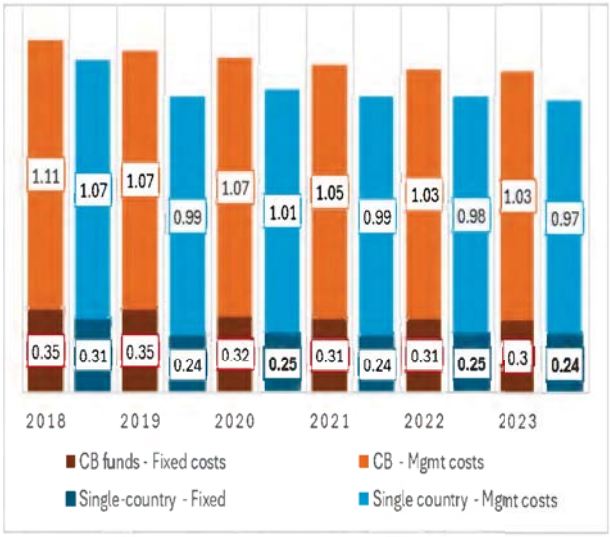
Figure 7: Average ongoing costs: EU cross-border vs single-country funds



Source: EFAMA, Beyond fund consolidation: a more promising strategy for bigger funds and faster cost declines in Europe, *Market Insights* 20, February 2025.

Note: Figures are for 2021 and expressed as percent. Cross-border funds are cross-border distributed equity funds, defined as those funds registered and available for sale in three or more countries. Single-country funds are single-country equity funds and include funds registered and available for sale in one country and round-trip funds.[79]

Figure 8: Fixed costs: domestic vs cross-border distributed funds



Source: ICI, *ICI Perspective* 30(10), December 2024.

Note: Figures are expressed as percent. CB funds are cross-border distributed equity funds, defined as those funds registered and available for sale in three or more countries. Single country refers to single-country equity funds and include funds registered and available for sale in one country and round-trip funds. Fixed costs are estimated as the difference between the simple average ongoing charge and the simple average management cost. Data exclude funds with performance fees and exchange-traded funds.

If funds experience economics of scale, investors benefit from incurring lower expense ratios if cost savings are passed on to them.[80] A recent study[81] by ESMA evidenced that in the EU and US fund markets, larger share classes and parent companies have lower expense ratios, confirming the impact of economies of scale. Economic research thus shows that size and economies of scale indeed drive down expense ratios[82], in line with the more general conclusion that larger funds have lower costs.[83] In line with this, some NCAs reported in the 2021 Common Supervisory Action on costs and fees[84] that smaller entities constituted the largest part of the funds with extraordinarily

[79] Funds domiciled in one country but primarily intended for sale in a different country.

[80] Latzko, D. A. (1999), Economies of scale in mutual fund administration, *Journal of financial research*, 22(3), 331-339.

[81] ESMA50-524821-3575 The scale factor: Impact of size on EU fund cost structures

[82] Khorana, A., Servaes, H., and Tufano, P. (2009), Mutual fund fees around the world, *The review of financial studies*, 22(3), 1279-1310; ESMA, *ESMA Market report on costs and performance of EU Retail Investment Products 2024*, ESMA50-524821-3525, 14 January 2025.

[83] ESMA, *ESMA Market report on costs and performance of EU retail investment products 2024*, ESMA50-524821-3525, 14 January 2025; EFAMA, The cost of UCITS available to retail investors, *Markets Insights* 15, March 2024; EFAMA, Beyond fund consolidation: a more promising strategy for bigger funds and faster cost declines in Europe, *Market Insights* 20, February 2025.

[84] ESMA, *Final report on the 2021 CSA on costs and fees*, ESMA34-45-1673, 31 May 2022. Available at: https://www.esma.europa.eu/sites/default/files/library/esma34-45-1673_final_report_on_the_2021_csa_on_costs_and_fees.pdf

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high costs, attributed to the smaller amount of assets under management and the higher impact of fixed costs.

Overall, research findings support the conclusion in ESMA (2025:11) that "*[...] a single market with less fragmentation and larger funds can –assuming unimpaired competition – bring efficiency gains to the EU fund sector [...]*". This will also ultimately lower investor costs and provide greater value for money if benefits are effectively passed on to retail investors. In addition, one of the more general overall consequences is that slower growth[85] in the asset management sector could mean less capital available for European business, potentially stifling innovation and growth and limiting the sector's contribution to attaining the SIU objectives. Lack of industry-wide growth (industry-level scale up) hampers the benefits to the real economy that the EU asset management sector could bring. The EU asset management sector may thus play a smaller role in channelling savings into productive investments.

2.1.2. Fragmented, less efficient and ineffective supervision

Companies with cross-border activities face multiple national supervisors, and different supervisory practices and outcomes for the same activities, which results in supervisory inefficiencies, adds to the costs of running a business in the EU and erodes stakeholders' trust. As Beck et al (2025) point out "*[...] only if investors can trust governance and enforcement of rules, will they be willing to invest*".[86] Financial market participants should receive equal treatment and decision-making by supervisors should be consistent, regardless of their location within the EU. Divergent supervisory approaches and inconsistent enforcement across the EU raise the costs of doing cross-border business and contribute to market fragmentation along national lines.[87]

In addition, the IMF highlights that in the EU "*[...]the existing supervisory ecosystem is complex and may lead to potential risks being overlooked, in particular, in relation to the emergence of cross-border risks which may not be fully internalized by national authorities*".[88] National supervisors lack oversight of the cross-border operations of companies in the capital markets because they can only see the activity that occurs within their own jurisdiction. This means that national supervisors cannot ensure that there is a uniform application of the rules. Moreover, companies have an incentive to engage in supervisory arbitrage since some supervisors may interpret rules more leniently than others. Overall, this fragmented supervisory landscape results in a system that does not protect investors consistently across jurisdictions despite being subject to a similar rulebook.

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[85] EU asset management growth is subdued compared to other markets. For instance, in the reference period (2014-2024), the US market grew faster, by 120%, to approximately EUR 37.7 trillion compared to 95% for the EU.

86 Beck, T., B. Bruno and E. Carletti, 2024. "*Can the Banking Union foster market integration, and what lessons does this hold for Capital Markets Union?*", Briefing paper for the ECON Committee at the European Parliament.

[87] See OECD, OECD Economic Surveys: European Union and Euro Area 2025 July 2025 Volume 2025/19.

[88] IMF, Euro Area: Publication of Financial Sector Assessment Program Documentation-Technical Note on Capital Markets Union-Implications for Supervision and Institutional Arrangements, IMF Staff Country Reports, Volume 2025: Issue 214, p.18.

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These views are also supported by research from the landmark reports by Enrico Letta[89] and Mario Draghi[90] on the future of EU capital markets and European competitiveness, respectively. Policy papers and academic literature as well argue that institutional reform of capital markets supervision in Europe is necessary to improve financing conditions, maintain supervisory efficiency and avoid regulatory 'racing'.[91] Those policy papers also argue that the current dual national/EU supervisory architecture is ineffective and that only pooling supervision at the EU level offers a realistic route to integrated, consistent oversight for capital markets.[92]

Stakeholders from the relevant sectors consistently highlight that fragmentation of EU financial markets, resulting from inconsistent supervision and varying levels of implementation and interpretation of EU rules, poses significant barriers to market integration. Some of these barriers include duplicative compliance efforts, additional administrative costs, and uncertainty about how new products or business models will be treated in different jurisdictions. These issues are further underscored by the consultation feedback, which has identified a range of specific supervision-related challenges across various sectors.

Stakeholders from the trading venue sector complain about inconsistent supervisory expectations and operational complexity, notably due to the divergent application of MiFID II by national authorities. In total, 21 respondents explicitly refer to MiFID, all of whom highlight such divergences, including 7 large stakeholders from the trading-venue sector.[93] This results in an unlevel playing field. Duplicative or conflicting instructions from NCAs increase compliance costs and create uncertainty for trading venues, in particular for the groups operating trading venues in different Member States. Moreover, the fragmented pre-approval requirements delay product launches and create opportunity costs, ultimately affecting the ability of trading venues to innovate and compete. According to stakeholders, the additional cost burden can amount to more than a million euros for every new product that is launched.

In the area of CCPs, three stakeholders, including one large cross-border CCP and a smaller national CCP, report high and varying national supervisory fees across jurisdictions, which they consider place EU CCPs at a competitive disadvantage.[94] More importantly, the lengthy and multi-

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[89] https://www.consilium.europa.eu/media/ny3j24sm/much-more-than-a-market-report-by-enrico-letta.pdf.

[90] https://commission.europa.eu/topics/eu-competitiveness/draghi-report_en.

[91] See for example Langenbucher, K. (2024). Rückgang börsennotierter Unternehmen: Gründe und rechtliche Gegenmaßnahmen, Zeitschrift für Unternehmens- und Gesellschaftsrecht forthcoming, Friedrich, J. and M. Thiemann (2017). "Capital Markets Union: the need for common laws and common supervision." Vierteljahrshefte zur Wirtschaftsforschung 86(2): 61-75, https://doi.org/10.3790/vjh.86.2.61 . Bebchuk, L. (1992). Federalism and the Corporation: The Desirable Limits on State Competition in Corporate Law. Harvard Law Review 105(7): 1443-1510, https://doi.org/10.2307/1341744 .

[92] https://www.bruegel.org/sites/default/files/2025-06/Bruegel%20Blueprint%2035.pdf

[93] Question 4 of Part 1 Simplification and burden reduction asked: Are there any barriers that could be addressed by turning (certain provisions of) the Alternative Investment Fund Managers Directive (AIFMD), Financial Collateral Directive (FCD), Markets in Financial Instruments Directive (MiFID), Undertakings for Collective Investment in Transferable Securities Directive (UCITSD), Settlement Finality Directive (SFD) into a Regulation? Please choose from 1 (strongly agree) to 5 (strongly disagree) or 'no opinion'. If you agree, please explain which barriers and how a Regulation could remove the barrier.

[94] Question 19 of Section 6.4.1 asked: Please estimate the regulatory compliance costs (including administrative costs – such as staff costs, facilities costs, travel, IT technology costs; professional fees – such as legal, accounting, consulting, etc.; and applicable fees) that arise from engagement with your current supervisor(s). Please separate any

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layered EMIR approval procedures developed by national authorities delay new product launches and reduce responsiveness. Undefined and resource-intensive pre-filing phases, duplicative reporting requirements, and national gold-plating also increase costs and complexity. With regard to the supervision of CSDs, two stakeholders explicitly highlight significant discrepancies in national supervisory fees across jurisdictions, with no clear link to the size or complexity of the CSD.[95] In addition, five stakeholders, including large cross-border CSD groups as well as smaller or new entrants, point to broader supervisory inconsistencies across Member States, which create opportunities for arbitrage and undermine the stability of the post-trade sector. For instance, stakeholders note that group entities may be assessed independently of the wider group, resulting in differing supervisory expectations. In addition, outsourcing requirements are not applied consistently among EU supervisors; for example, some supervisors consider HR outsourcing as outsourcing of a non-core service, while other supervisors consider it as a core service requiring approval.

In the asset management sector, managers and funds operating across several Member States often face duplicated and divergent obligations and requests from multiple NCAs. Each entity within a group is treated as an independent entity, despite their integrated group structures. For example, risk management established in one entity of a group under the supervision of one authority might not be accepted or might be assessed differently by the other authorities overseeing other entities of the group.

Supervisory practices, in particular fund marketing rules and how they are applied vary widely across jurisdictions. For example, the same fund may face different requirements for promotional materials across the single market. EU rules allow for national discretion in adopting such national provisions. In addition, ESMA does not have an operational role in coordinating the smooth implementation of EU rules in this regard. in this regard.

The supervision of CASPs is hindered by variations in supervisory practices and approaches across Member States. It is already evident during the authorisation phase, creating challenges for CASPs operating in the EU. Differences in technical expertise, supervisory capacity, and interpretation among NCAs risk leading to uneven supervisory outcomes once the framework becomes fully applicable, which could in turn affect market confidence and development. This fragmented approach prevents the emergence of a coherent supervisory framework, limits cross-border scalability, and weakens market confidence. Ensuring supervisory consistency and a level playing field from the outset therefore requires a harmonised application of rules and a stronger EU-level set up, as the current decentralised system does not provide the necessary mechanisms to align supervisory practices or resolve divergences effectively.

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details on costs into fees and compliance, one-off cost and on-going costs and per supervisor. Please explain your answer providing, where possible, quantitative evidence and examples.

[95] Question 9 in Section 6.3.1 asked Please estimate the regulatory compliance costs (including administrative costs – such as staff costs, facilities costs, travel, IT technology costs –, professional fees – such as legal, accounting, consulting, etc. –, and applicable fees) that arise from engagement with your current supervisor(s). Please separate any details on costs into fees and compliance, one-off cost and on-going costs and per supervisor. Please explain your answer providing, where possible, quantitative evidence and examples.

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Current EU-level supervisory coordination tools have brought some convergence in supervisory practices, but significant gaps remain, due to limitations in the design and the lack of incentives within ESMA's governance structure for using powers to remediate specific situations. ESMA's consensus-driven model, led by NCAs, creates conflicts of interest and discourages decisive action, as reaching majority agreement among NCAs is necessary for converging supervisory practices of those same authorities. In addition, the procedures involved are often long and complex: for example, a breach of Union law procedure[96] might take 3 or more years until the breach is actually stopped. The bar to use these procedures is also too high. For instance, there are differences across sectorial acts regarding when and how binding mediation tool is triggered, such as majority threshold, the nature of disagreement, and ESMA's ability for to act on own initiative. As a result, supervisory convergence tools such as the breach of Union law procedure and binding mediation have not increased supervisory convergence. For example, binding mediation was used only twice since ESMA was founded. Addressing these gaps by strengthening ESMA's powers and ensuring more effective use of convergence tools is crucial for achieving consistent EU-wide supervision, while still preserving the vital local knowledge and cooperation of NCAs.

2.1.3. Obstacles to innovation and uptake of new technologies

As emphasised in the Draghi and Letta reports among others, embracing innovation is crucial for the competitiveness and attractiveness of EU capital markets, and their ability to deliver the financing that the EU needs. However, innovation in EU capital markets, and in particular the adoption of technologies like DLT and tokenisation, faces significant hurdles.

In the past few years, DLT emerged as one of the most impactful technologies affecting market structure. This technology underpins crypto-asset markets and has attracted increased interest from the traditional financial industry keen on exploiting its advantages. These include: faster settlement, which means trades can be completed more quickly; easier data reconciliation, which helps ensure that all parties have the same information; partial disintermediation, meaning fewer intermediaries are needed in transactions, which reduces costs; asset and transaction programmability, which allows for more automation and customisation; flatter market structure, which leads to more efficient communication and interaction between market participants. DLT-based solutions can bring efficiencies to capital markets and are therefore an important market structure element of the SIU.

Tokenisation of assets, i.e. their digital representation on distributed ledgers, is a closely linked trend. Tokenisation may enhance asset liquidity and accessibility by enabling fractional ownership and easier transferability. It makes traditionally illiquid assets more tradable, including private debt, corporate bonds, less liquid investment and real estate funds, SME debt and equity.[97]

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[98] Article 17 of the ESMA's founding regulation gives ESMA the power to investigate potential breaches of Union law ('BUL') by competent authorities. This serves the goal of ensuring the application of Union law. Where ESMA identifies a BUL, it issues a recommendation on the actions to be taken by the competent authority to rectify the situation and may also issue a binding decision in certain cases. This may lead to further action by the European Commission (formal opinion and/or infringement).

[97] See: "The Impact of Distributed Ledger Technology in Capital Markets" by GFMA: https://www.gfma.org/wp-content/uploads/2025/08/1.-full-report-impact-of-dlt-in-cap-mkts-final-1.pdf

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By lowering barriers to entry, fractionalisation expands the investor base and stimulates activity in previously under-traded assets.[98] DLT has the potential to migrate key components of the financial value chain – such as issuance, recording and transfer of tokenised assets - to common and interoperable platforms (distributed ledgers, blockchains) on which regulated services are provided. Widespread adoption of DLT promises to improve the efficiency of financial markets, by reducing settlement times, establishing new markets, entering into cross-border/international markets, facilitating data reconciliation and increasing programmability of financial market activities.[99,100]

Greater use of DLT could help overcome barriers to market integration by automating and streamlining clearing and settlement, reducing costs. Distributed ledgers can also enhance interoperability between CSDs and other market operators where liquidity concentrates across platforms, as they are multi-purpose platforms for asset issuance, holding, and transfer. The use of DLT based wholesale central bank digital currency (WCBDC) could make settlement on DLT platforms even more secure and coherent with existing settlement rules, which favour central bank money due to its credit risk-free nature, superior liquidity, and scalability.

Although these opportunities may also bring risks that could destabilise the EU's financial system, including increased cyber-security vulnerabilities and operational resilience challenges, most of these risks are already addressed under the Digital Operational Resilience Act (DORA). DORA establishes a harmonised framework requiring all financial entities to effectively withstand, respond to, and recover from ICT-related disruptions and cyberattacks through robust risk management, incident reporting, resilience testing, and oversight of critical third-party service providers.

Given the favourable balance of benefits to risks, it is essential to ensure that regulatory frameworks do not pose obstacles to the adoption of DLT, which can directly support greater integration of EU capital markets.[101]

There are two main obstacles to DLT-related innovation in Europe.

Firstly, the DLTPR, launched in 2022 to promote DLT adoption in the EU financial sector by adapting certain rules on trading and CSD services, has seen limited uptake due to its shortcomings (see Section 2.2.1 'Barriers to cross-border operations and innovation'). Despite growing industry interest and engagement with the technology, there have been only four

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[98] See OECD Business and Finance Policy Papers, No. 75, 2025 Tokenisation of assets and distributed ledger technologies in financial markets.

[99] See OECD on the qualitative description of benefits: https://www.oecd.org/content/dam/oecd/en/publications/reports/2025/01/tokenisation-of-assets-and-distributed-ledger-technologies-in-financial-markets_be149012/40e7f217-en.pdf

[100] The 2023 report from AFME and Boston Consulting Group gives some projections: ~$15-20 billion (USD) in annual global infrastructure operational cost savings, ~$100+ billion (USD) annually in freed financial collateral and balance sheet efficiencies. See page 11 at: https://www.afme.eu/Portals/0/DispatchFeaturedImages/20230512%20GFMAImpactofDLT%20FullReport%20FINAL%20FULL.pdf

[101] For example, a permissionless blockchain such as Ethereum represents an open IT infrastructure for recording, holding and transferring digital assets, including financial instruments issued in accordance with the applicable laws. From a purely technical perspective, Ethereum provides certain functions that are similar to that of a CSD. Ensuring that such platforms can be leveraged safely by market participants requires certain regulatory adaptations.

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participants in over two years, resulting in low levels of DLT experimentation under the DLTPR. This has stifled innovation potential in the EU. The adoption of the DLTPR has already demonstrated the need for adaptations to the trading (MIFID) and post-trading (CSDR) rulebooks to accommodate DLT, but the DLTP restrictive - design has failed to attract broad-based participation.

Secondly, stakeholders argue that, beyond the shortcomings of Europe's bespoke framework for DLT, the standard (non DLTPR) regulatory frameworks, in particular post-trade legislation, have not kept pace with technological advancements, leading to legal uncertainties for those wishing to use DLT outside the DLTPR. These uncertainties increase compliance risks and costs for market participants willing to explore innovative business models.

Taken together, these issues significantly weaken the EU's ability to foster a dynamic and innovative financial sector and create market inefficiencies, as entities are prevented from fully benefiting from the advantages of DLT. They also create higher costs and less opportunities for investors and firms seeking finance, notably because of the legal uncertainty, ultimately undermining the competitiveness of EU capital markets.

A number of important jurisdictions have already made decisive policy steps in recent years to attract DLT-based innovation. Singapore[102], Switzerland[103], Hong Kong[104] and the UAE[105] have all developed frameworks or established targeted initiatives to attract DLT projects and markets. Closer to the EU, the UK has set up FMI sandboxes to support use of new technologies, one of which is the Digital Securities Sandbox ('DSS'), targeting CSD services. Thanks to its flexibility and increased market interest, it has attracted 15 participants since its start at the end of 2024. Finally, the United States is adopting a supportive stance towards DLT, fostering a regulatory environment that encourages its development and use. The US has adopted laws to increase regulatory certainty, such as the Genius Act on stablecoins. Banking and securities regulators are now taking a much more permissive approach to tokenisation and DLT than in the past.

These developments point to an increasingly supportive stance of global policy makers and regulators to DLT and tokenisation. Without further action, this could lead to a loss of competitiveness of EU capital markets. If DLT becomes more widely used in financial market infrastructure, a lack of homegrown DLT solutions[106] may also lead to dependencies on non-EU providers.

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[102] Project Guardian, convening the industry to support the development of DLT-based infrastructure: https://www.mas.gov.sg/schemes-and-initiatives/project-guardian[102]Project Guardian, convening the industry to support the development of DLT-based infrastructure: https://www.mas.gov.sg/schemes-and-initiatives/project-guardian

[103] https://www.sif.admin.ch/en/blockchain-dlt-en

[104] https://gia.info.gov.hk/general/202506/26/P2025062600269_500089_1_1750909574183.pdf

[105] For example, Dubai has created a bespoke regime and regulatory authority for 'virtual assets', which includes tokenised financial instruments. See https://www.vara.ae/en/

[106] Tokenisation platforms, stablecoin issuers, digital wallet providers, application providers.

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2.2. WHAT ARE THE PROBLEM DRIVERS?

2.2.1. Barriers to cross-border operations and innovation

The barriers to cross-border operations and innovation include: (i) divergent rules and burdensome requirements in the trading, post-trading, asset management sectors and in relation to DLT innovation and (ii) limited direct interconnections specifically in post-trading.

Divergent rules and burdensome requirements

In the *trading sector*, markets in financial instruments are governed by MiFID II (a Directive) and MiFIR (a Regulation). Rules governing trading venues are not fully harmonised, and subject to a certain degree of national discretion. This is notably true of the rules regarding the authorisation and operation of RMs as well as certain rules regarding MTFs and OTFs. By way of example, national specificities and divergences in terms of procedures to approve amendments to exchange rulebooks have been identified between Member States. Similarly, national approaches diverge in relation to prudential requirements.[107] This leads to high compliance costs and fails to adequately incentivise or facilitate cross-border operation of trading infrastructures in the EU. 36 respondents to the targeted consultation, including three NCAs, 11 stock exchanges and 10 investment firms consider further harmonisation rather needed or highly needed. The absence of full harmonisation has also allowed several Member States to impose additional requirements linked to the entities that can operate a RM on their territory, and to introduce national laws that require RMs to be operated by an entity with a seat in and authorised by those Member States (for more details and specific examples, see Section 2.2. of Annex 7 'Trading').

Another example is the passporting rights for trading venues. Unlike the clear provisions for investment firms operating an MTF or OTF, the framework applicable to RMs lacks explicit provisions about the rights of RMs to provide cross-border services in the EU based on their initial license. Specifically, Articles 34 and 35 of MiFID II outline the freedom for investment firms to provide services or establish branch, respectively, but similar clarity is absent for RMs. Therefore, the current framework creates uncertainty as regards the extent to which services relating to RMs can be carried out on a cross-border basis under a single licence through the establishment of a branch, in particular by being silent on any other forms of arrangements, such as the possibility to have a local presence without setting up a subsidiary authorised in another Member State. In addition, beyond the passporting rights linked to each trading venue, the requirement for authorisation at the level of each regulated market does not allow for the operation of several regulated markets on the basis of one licence. This prevents the emergence of efficient structures capable of operating markets in several Member States on the basis of a single licence

[107] Practices widely differ in that regard. Some NCAs do not require any form of ex ante approval, while others require pre-approval of rules changes, and others even a pre-notification of proposed changes which then go through pre-approval. This adds to the actual divergences in appreciation of changes by different NCAs for exact same cases (the same change, notably in groups of exchanges, is often appreciated diversely by the various NCAs to which it needs to be submitted).

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and, on this basis, under a single core supervisory relationship (for more details, see Section 2.2. of Annex 7 'Trading').

Finally for the trading sector, the current MiFID II rules governing trading venues and their operators do not recognise the operational specificities of group structures.[108] Intra-group allocation of resources is treated in the same way as outsourcing outside of the group. This in turn reduces the potential to exploit economies of scale and hinders market-led consolidation (Section 2.2. of Annex 7 'Trading').

In the *post-trading sector,* despite settlement being governed by a Regulation (the CSDR), regulatory barriers to cross-border settlement persist. For instance, national legal regimes may impose additional restrictions on the freedom of issuance beyond the CSDR provisions. Moreover, the passporting[109] framework, intended to facilitate cross-border operations, remains costly and burdensome for CSDs wishing to operate in other Member States as national authorities sometimes impose specific requirements that restrict the ability of CSDs to offer services across borders (for more details see Section 3.2.1 of Annex 8 "Post-trade"). In addition, the CSDR does not adequately account for market infrastructure groups[110] from an operational, regulatory, and supervisory perspective. This makes it difficult for these corporate entities to reap the benefits of consolidation and achieve economies of scale (Section 3.2.2 of Annex 8 "Post-trade").

This was confirmed by the majority of respondents to the targeted consultation *on post-trading*, in particular CSDs and issuers. They identified a number of barriers to market integration and the cross-border provision of services, including with respect to freedom of issuance, the lack of harmonized market practices, idiosyncratic national legal regimes, the complexity of establishing and maintaining links between settlement infrastructures, and the inability for corporate groups to reap the benefits of economies of scale as a result of consolidation.

Settlement finality and financial collateral arrangements are governed by two Directives, the SFD (a Directive) and the FCD (a Directive), respectively. National specificities and differences, e.g. regarding the scope of securities and participants that benefit from protection under the SFD, have led to legal uncertainty for cross-border securities transactions. The need for a more consistent and homogeneous approach was expressly mentioned by respondents to the consultation on the review of the SFD and the FCD, in particular CCPs, fintechs, and traditional financial institutions.

In the *asset management sector*, the rules related to the management and marketing of UCITS funds and AIFs are not fully harmonised partly because they are mainly regulated by Directives. This provides Member States with national discretion in many areas. The Commission has identified at least 20 instances of national discretion in UCITSD and AIFMD (see Appendix A to Annex 9 "Asset Management"), allowing Member States, for example, to impose additional

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[108] 'Group structure' means entities that do not operate on the basis of a single licence and via passporting, but rather operate via a number of subsidiaries in various Member States.

[109] The EU passport principle is essential for EU capital market integration as it allows financial services entities authorised in one Member State to offer their services and undertake activities in another Member State without any additional authorisation.

[110] Corporate entities that comprise multiple market infrastructures.

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disclosure requirements in fund documentation, permit or prohibit ancillary services, or apply different investment rules.[111]

In addition, the CBDR allows Member States to diverge in areas such as regulatory fees and charges and the optionality for Member States to impose additional requirements for ex-ante checks of marketing communications. National requirements and practices to appoint local physical agents persist in many Member States, despite the intentions of the UCITSD and AIFMD, resulting in significant additional cost for passporting funds in the single market.[112]

The majority of asset managers and professional associations[113] responding to the consultation mentioned divergent UCITS authorisation practices across Member States and NCAs, noting that inconsistencies in procedures, information requirements and timelines create complexity and inefficiencies. The majority also indicated that the current marketing passport provisions are not uniformly applied across Member States, and are not sufficiently simple or proportionate, thereby creating inefficiencies in the provision of the relevant services. One of the largest asset managers in the Nordic region specifically mentioned challenges in processing passporting notifications, necessitating a one-month timeframe before it can effectively begin marketing investment funds in host Member States due to frequent delays in the notification process.

In addition, the AIFMD and UCITSD frameworks allow for limited cross-border access of depositary services for funds in the EU, which leads to market fragmentation and particularly impacts smaller Member States. AIFMs and UCITS are required to appoint a single depositary that must be established or have its registered office in the country where the fund is domiciled. UCITS are not allowed to appoint a depositary in a Member State other than their home Member State. This may result in discouraging fund promoters from establishing UCITS in Member States where the depositary market is underdeveloped.

For AIFs, the co-legislators have recently amended the AIFMD to introduce a derogation allowing certain AIFMs in certain Member States to appoint a depositary in a Member State other than the Member State of the AIF.[114] However, this option is subject to strict conditions: it depends on the discretion of the AIF's home Member State to permit the appointment of a depositary established in another Member State, and it is only available where the domestic market falls below a EUR 50 billion threshold of assets safekept by depositaries on behalf of AIFs. These stringent conditions significantly limit the possibility of appointing a depositary in another Member States than the AIF's home Member State.

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[111] The UCITS Directive sets investment limits to protect investors by promoting diversification, but stakeholders (mainly industry associations and some asset managers) argue some rules hinder market development. For example, the 10% cap on debt securities from a single issuer (Article 56(2)(b)) affects investments in securitisations, which are now highly regulated and diversified. Many asset managers view the rule as outdated and overly restrictive, while others stress UCITS' retail nature and caution against greater exposure (for more details, see Annex 9).

[112] Information provided by a mid-sized asset manager and a prominent industry association shows an average annual cost of EUR 42,500 for appointing a local physical agent in one Member State, with the highest reported cost for one Member State being EUR 80,000. One large asset manager reported such requirements in Austria, Germany, Italy, Spain, Poland and Portugal and desk-based research shows that at least 11 Member States require the appointment a local agent in respect of UCITS and AIFs for varying reasons.

[113] The consultation asked stakeholders if divergent practices arise in the authorisation framework for UCITS across Member States. Of the 29 replies, 17 answered yes and 12 were neutral. No stakeholder replied no.

[114] Article 21(5a) of AIFMD, introduced by Directive (EU) 2024/927.

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Furthermore, the UCITS and AIFMD frameworks do not recognise the group dimension in asset management, as authorisations apply to individual companies rather than groups, with organisational requirements having to be met at the level of each individual management company. In addition, intra-group delegations – where an asset management company delegates some functions or tasks within the group – are treated the same as third-party delegations, where an asset management company delegates those functions or tasks to third parties. This requires full due diligence and monitoring, which is seen by many stakeholders as disproportionate and a major barrier to consolidating functions within groups. Moreover, although the AIFMD and UCITSD frameworks have established harmonised rules for the authorisation of fund management companies and for the information to be submitted to national competent authorities, divergent national practices in the authorisation process continue to persist. A large majority of asset managers and professional associations that responded to the consultation reported facing such divergences, which undermine the management passport and complicate cross-border operations. Of the stakeholders that replied to the consultation question on consistency[115], 37 respondents (comprised mainly of fund associations and asset managers) responded negatively, i.e. suggesting that the current authorisation processes / supervision for management companies under AIFMD/UCITSD are not applied in a consistent way across Member States.

One large asset manager, authorised in four Member States and operating branches in seven Member States, reported that it sees merit in recognising the notion of asset management group in the specific case of intra-group delegation arrangements to avoid duplication of reporting, including to the same NCA. The asset manager noted that reporting only once, instead of twice, on the same matters would substantially reduce the regulatory burden.

In the *innovation area,* the DLTPR imposes heavy compliance rules on small businesses and start-ups that may not be well-adapted to the gradual scaling of operations and the specificities of DLT. In addition, the DLTPR lays down stringent limitations on the scope and scale of the activity that can be conducted by the participants in the DLTPR. It does so, for example, by introducing aggregate limits to the activity of an infrastructure operating under the DLTPR and restricting the type and issuance size of assets that can be intermediated under the DLTPR. Furthermore, market participants do not have clarity about the long-term prospects for the DLTPR, given its experimental nature and certain time-limitations set out in the regulation.

In addition, innovation in the post-trade sector is challenged by existing legislation that has become burdensome as post-trade legislation has not kept pace with technological advancements. For instance, certain definition and concepts do not accommodate DLT-based records and transactions. This results in legal uncertainties, mainly around key concepts, definition and requirements in the CSDR, SFD, and FCD (for more details on these specific barriers, see Section 3.2.1 of Annex 10 'Innovation').

Limited direct interconnections

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[115] Question 16 asked: Are the current authorisation processes / supervision for management companies under AIFMD/UCITSD applied in a consistent way across Member States? No: 37, Yes: 8.

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In the *post-trading sector*, more than 150 links between EU CSDs have been established.[116] There were on average 4.3 links for CSDs other than ICSDs in 2022. At the same time, out of 32 CSDs operating in the EU, only 23 are connected to T2S and transactions settled through it represent less than 30% of the value of securities transactions settled in all CSDs.[117] Consequently, the current level of cross-CSD settlement via T2S remains low. Costs of joining T2S range between EUR 23 million and EUR 113 million, more than half of which can be attributed to IT development. In addition, maintenance costs can be up to EUR 1 million per year.[118] This lack of interconnectedness of EU markets and sub-optimal use of T2S continues to fragment the market and entails missed opportunities, also for investors (for more details, see Section 3.2.4 of Annex 8 'Post-trade').

Several stakeholders, in particular CSDs, point to a range of issues that prevent seamless cross-border settlement, including the burden of establishing links and the refusal by CSDs to establish links, which in turn leads to an insufficient number of links. These links, which form the bedrock of the interconnectedness in the settlement landscape (along with T2S), have a cost associated with their establishment. Divergences in the interpretation of CSDR by authorities and in national legal frameworks (also related to corporate, tax, and securities laws) require CSDs to conduct legal assessments to ensure that cross-border settlement complies with the laws of the relevant Member States. As discussed in Section 3.2.4 of Annex 8, this legal work represents a substantial portion of the total costs of establishing links (which are estimated to be somewhere in the range of EUR 30 000 to EUR 60 000[119]). The legal work can be up to EUR 30 000[120] per assessment for a given Member State's legal framework. These divergences in legal regimes therefore have a direct implication on the interconnectedness of the settlement landscape and weaken the economic incentive for the establishment of links, with the consequence that a higher prospective volume of settlement activity would be required in order to justify the expense. There must be an economic incentive for the establishment of a given link (i.e. its cost must be justified with an expectation that sufficient settlement volumes will be processed through it). However, once a link is established, it offers broader benefits as it enables the participants in one CSD to seamlessly invest in securities that are held in custody in the connected CSD.

As regards limited interconnection, it is important to underline that trading and post-trading connection arrangements are closely intertwined. For market participants to be able to trade on a given trading venue, notably an incumbent national exchange, they must be able to settle such trades. This requires having arrangements in place to ensure a form of connection to the issuer CSD of the securities listed on the incumbent exchange. Having in place such arrangements is generally a key element of the membership requirements for exchanges, as it underpins the orderly and efficient execution of trades. Therefore, interconnection in the trading sphere and in the post-trading space are highly dependent on each other, and more seamless trading across borders requires interconnections and the removal of barriers in post-trading.

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[116] See the 2024 ESMA report on the provision of cross-border services by CSDs.
[117] Estimates based on the data from ECB Securities Settlement Statistics, see: Securities trading, clearing and settlement.
[118] Confidential data provided to DG FISMA services.
[119] For two CSDs with similar IT systems, harmonised messaging standards and minimal divergences in legal frameworks that wish to establish a link for a narrow set of instruments and straightforward services (e.g. for settling government bonds with standard interest payments).
[120] Confidential information provided to DG FISMA services.

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2.2.2. Non-aligned supervisory practices and weak tools and powers at EU level

Supervision across the EU remains fragmented. This fragmentation stems primarily from two factors: first, non-aligned supervisory practices and interpretations of EU rules among national authorities; and second, the limited tools and powers available at EU level to ensure supervisory convergence and promote a coherent, cross-border approach. Together, these factors hinder market integration and scale, leading to supervision that is less efficient and less effective overall.

Non-aligned supervisory practices and interpretations across Member States

Supervision of financial entities is largely conducted at the national level, resulting in a fragmented supervisory landscape. Member states often transpose, interpret and apply EU law differently, leading to inconsistent regulatory outcomes and an uneven playing field. Even when the legal framework is harmonised at EU level by Regulations, instead of Directives, the application of these harmonised rules by national authorities is not uniform and leads to divergent supervisory practices, approaches and requirements. While enforcement actions, such as infringements, can address specific instances of non-compliance, they are not sufficient to address the underlying issues of non-aligned supervisory practices, as they are often reactive, time-consuming, and may not prevent similar divergences from arising in the future.

In the trading sector, divergence persists in interpreting the MiFID II/MiFIR rules. For example, some Member States only require a notification of exchange rulebooks. In contrast, other Member States require regulatory pre-approval of exchange rulebooks, as well as of their subsequent amendments, which can delay product launches, thereby putting trading venues operating in these Member States at a significant competitive disadvantage. 35 respondents (including 3 NCAs, 6 stock exchanges as well as associations of asset managers, banks and retail investors) to the targeted consultation therefore call for further harmonisation in this regard. Cross-border trading groups are burdened with duplicative oversight, often having to maintain redundant local compliance and risk teams due to inconsistent outsourcing rules. This results in operational inefficiencies and missed opportunities, also in terms of economies of scale, due to regulatory delays.

In the post-trading sector, and specifically in the settlement space, there are inconsistencies in how national authorities interpret requirements under the CSDR. For example, CSD respondents to the targeted consultation highlighted that there are significant differences in how authorities identify outsourcing arrangements of core services and the requirements that they apply to these arrangements. In some jurisdictions staff sharing among entities within a given corporate group is considered outsourcing, whereas this is not the case in other jurisdictions. Authorities also differ on how they assess changes in a CSD's operations or provision of services; and on how they handle passporting requests and cross-border provision of services. CSDs also highlighted that there are significant variations in the scope, frequency and formatting of regulatory reporting across jurisdictions. Such divergences particularly affect corporate groups operating multiple CSDs across borders, such as Euroclear, Euronext or Deutsche Börse, complicating efforts to achieve consolidation and efficiency gains.

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For CCPs, EMIR 3 established an enhanced role for ESMA in CCP colleges, which are formal supervisory coordination bodies composed of various authorities, including competent authorities, ESMA, and the ECB. Yet, actual supervisory outcomes remain fragmented. Member States differ substantially in supervisory rigour and methods, such as for the approval of new services or risk model validations. One CCP reportedly faces 22 separate authorities within its college, which reduces efficiency and effectiveness and significantly increases supervisory complexity. Diverging supervisory practices, especially in response to systemic events (e.g. the energy market stress in 2022), underscore the inefficiencies of a system dependent on coordination among NCAs without a single, binding supervisory outcome.

In the asset management sector, 36 stakeholders, responding to the consultation report that there are barriers linked to different national requirements on marketing documents, while six stakeholders see no such issues.[121] Therefore, for the same fund, asset managers have to adapt the documents based on national requirements and NCA requests, which may often diverge. For instance, certain jurisdictions require a country supplement to the fund prospectus or country-specific disclosures within the prospectus, and a specific format for investor notices. In addition, there are significant variations in risk management, depositary, and reporting costs that create unnecessary administrative barriers and increase costs for asset managers. According to asset management associations, the high upfront costs for launching UCITS and AIF funds, and significant variations in registration costs across EU Member States, also create barriers to entry and distort competition. Launching a UCITS fund typically requires between EUR 300 000 and EUR 500 000 in upfront costs, which among other costs include legal structuring, documentation, registration, and compliance with local marketing rules. The administrative costs of registering a UCITS in one additional EU Member State can range from EUR 20 000 to EUR 60 000, depending on translation, legal, and agent fees. For one AIF with an EU investment strategy, these costs are approximately EUR 65 000, which includes regulatory fees and local agent fees (more detail in Case Study 2 in Annex 9 'Asset Management').

In the crypto-asset sector, supervisory fragmentation is particularly pronounced for CASPs. Some NCAs began accepting and processing applications for authorising CASPs before the MiCA regulation entered into force, creating a "first mover" advantage and encouraging regulatory arbitrage. Other NCAs have applied more literal or cautious interpretations and only started receiving applications after the entry into application of the Regulation. Additionally, Member States have adopted differing transitional periods for compliance within the limits allowed by MICA, ranging from 6 to 18 months. NCAs had divergent views on whether certain proposed models by entities seeking authorisation were compliant with MiCA. Overall, given the novelty of the sector, supervisory capacity is currently starting to build up in a fragmented way. This patchwork approach encourages firms - especially those belonging to third-country groups - to exploit these fragmented national practices and engage in forum shopping to expedite their authorisation.

Limited tools and powers at EU level to enforce convergence and adopt a comprehensive single market/cross-border supervisory approach

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[121] Question 30 of Section 5.3 asked: Are there barriers linked to different national requirements on marketing documents? No: 6. Yes: 36.

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A second core issue is the limited mandate and tools available at the EU level to enforce consistent application of EU rules and adopt a comprehensive single market/cross-border supervisory approach. Although ESMA can issue guidance and non-binding opinions, and conduct peer reviews, it lacks binding convergence tools or direct supervisory responsibilities in most sectors. As a result, divergent supervisory outcomes persist, especially where national interests or capacity gaps hinder harmonised implementation of EU rules.

In the trading sector, ESMA has no supervisory powers for trading venues under MiFID II. While ESMA can act under MiFIR in relation to specific infrastructures like approved publication arrangements (APAs[122]) and consolidated tape providers (CTPs[123]), key areas such as transparency and transaction reporting remain under national supervision. Even new tools introduced by the Listing Act[124], such as ESMA's role in coordination platform[125], require Member State initiative and are only activated in exceptional cases. In practice, this means ESMA cannot ensure consistent oversight or a level playing field across trading venues.

In the post-trading sector, for CCPs, ESMA has a limited binding role. With the exception of two third-country CCPs who have been identified as being of substantial systemic importance and for which ESMA therefore has direct supervisory powers, ESMA's has a binding role in only to areas. First, in validating changes to CCPs' risk models. And second, in co-chairing the supervisory colleges established under EMIR, which provide opinions and facilitate the exercise of specific regulatory tasks, such as authorisations of services, reviews and evaluations of compliance with regulatory requirements, outsourcing, and reviewing models, among others. In addition, the CCP Supervisory Committee, which aims to achieve convergence and coherence in the supervision of CCPs across the EU, is a permanent internal committee established within ESMA and ESMA chairs it. However, ESMA has no authority to oversee general compliance or to intervene in supervisory decisions. At the same time, the systemic importance and interconnectedness of EU CCPs call for a more centralised approach. The failure of a CCP can negatively affect entities across many jurisdictions, as neither the clearing members of the CCP nor their clients are limited to a single jurisdiction. This is also the case for the products cleared by many CCPs, which are not generally dependent on a given jurisdiction (e.g. interest rate derivatives). This means that if a CCP fails, various entities across multiple jurisdictions can suffer substantial losses. Even in the absence of failure, divergences in risk management practices by CCPs, including the implementation of anti-procyclicality measures in risk models, can result in significant issues. This could be seen during the recent energy crisis, when differences in how national authorities and CCPs managed risks and margin requirements caused serious cash flow problems for energy

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[122] Approved publication arrangements are persons authorised to provide the service of publishing trade reports on behalf of investment firms, they contribute to increase transparency in the market.

[123] A consolidated tape providers is a person authorised in accordance with MiFIR to provide the service of collecting data from trading venues and APAs, and of consolidating those data into a continuous electronic live data stream. The consolidated tape provides in a single location a consolidated view of the prices and volumes available in the different trading venues.

[124] The Listing Act is a package of initiatives aimed at improving access to public markets for companies—especially SMEs—by making it easier and less costly to list on stock exchanges within the European Union. It entails changes to MAR, MiFIR, MiFID II and Prospectus Regulation (see Regulation (EU) 2024/2809, Directive (EU) 2024/2810 and Directive (EU) 2024/2811).

[125] Platform established to enhance cooperation among regulators to ensure consistent implementation and supervision of EU capital markets rules. In the context of the Listing Act, ESMA has been given the power to establish collaboration platform at the request of one or more NCAs in the field of securities markets when there are concerns about market integrity or the proper functioning of markets.

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companies and revealed uneven supervision across the EU. This situation illustrated how localised supervision can pose systemic threats across borders.

For CSDs, under the CSDR, supervisory colleges now exist for CSDs whose activities are considered of substantial importance in at least two Member States. However, their function remains limited to information sharing and issuing non-binding opinions. ESMA has no powers to intervene or authorise cross-border services directly. However, authorities under the CSDR can refer certain cross-border matters to ESMA for binding dispute settlement under Article 19 of the ESMA Regulation, notably on the establishment of CSD links, and where CSDs operating in host Member States act in breach of CSDR provisions.

In the asset management sector, ESMA's current role is to promote supervisory convergence among NCAs through its general convergence tools. However, ESMA does not have access to real-time or case-specific information held by NCAs. Nor does ESMA play an operational coordination role in individual cases, whether concerning the marketing of investment funds or the supervision of large asset managers.

ESMA also lacks a specific mandate to act operationally in coordinating NCAs' supervisory approaches. This means it cannot systematically ensure that NCAs adopt consistent practices in day-to-day supervision, which is essential for the smooth functioning of the EU passport.

The lack of visibility on the fund and asset manager operations makes it difficult for ESMA to ensure convergence of supervisory outcomes or detect and respond to market-wide risks. Cross-border marketing and intra-group delegation remain subject to inconsistent scrutiny and duplicative oversight.

In addition, ESMA's binding mediation powers are limited to some cases under the UCITS Directive and AIFMD, and do not cover the CBDR. ESMA also lacks the power to open mediation cases on its own initiative and is under no obligation to act even where barriers to cross-border activities are clear.

In the *crypto-asset sector*, for *CASPs*, ESMA is tasked with maintaining registers[126] and issuing temporary bans on products that pose serious threats, but these powers are ex-post, reactive and limited in scope. ESMA is not involved in the authorisation, ongoing supervision, or cross-border passporting of CASPs. ESMA's supervisory briefings and convergence efforts so far have revealed, rather than resolved, divergent national practices and have even led to tensions between home and host Member States.

Together, non-aligned supervisory practices and the limited supervisory convergence tools available at EU level significantly undermine the efficiency, coherence, and resilience of the EU's capital markets framework. Diverging national interpretations increase compliance burdens, create regulatory arbitrage, and obstruct the integration of EU capital markets. ESMA's current use of its toolkit—which largely relies on soft law and non-binding measures — falls short of ensuring true supervisory convergence. These issues are particularly pronounced in sectors with significant

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[126] ESMA must maintain an EU-wide register listing all authorised CASPs in the EU, issuers of asset-referenced tokens and e-money tokens and certain relevant information about them, as well as a register of all white papers issued for non-stablecoin crypto-assets offered in the Union.

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cross-border activity and rapid market changes, including CCPs, CSDs, trading venues, asset managers, and CASPs. Addressing these problem drivers is essential for building a more integrated, efficient, and stable financial system in the EU.

2.3. CONSEQUENCES

Overall, the problem drivers and problems described in Sections 2.1 and 2.2 lead to one overarching consequence – a less efficient EU capital market.

The problem drivers give rise to undue frictional costs for cross-border activities which, in turn, affects market structure. As noted, there are a range of out-of-scope drivers which equally impact market structure and drive fragmentation. Given stakeholder feedback, these barriers, notably taxation and national legal frameworks (securities, ownership/property, insolvency law etc.) act as significant hurdles and add to the direct regulatory barriers addressed by this initiative. Modelling the impacts of in-scope and out-of-scope barriers is challenging from a methodological point of view (see Annex 4), so the consequences described here refer to the combined impacts.

Obstacles to cross-border activities in trading, post-trading and asset management make it more difficult for firms from another Member State to compete on a level playing field with local firms. Market entry costs will be higher and differences in on-going requirements and supervision will negatively impact possible economies of scale (e.g. different processes, marketing requirements etc. may prevent offering services in the same manner or on the same platform). This significantly reduces the economic incentives to expand into another market. Therefore, companies may choose to focus more on their domestic market rather than face the challenges and costs associated with cross-border operations. These costs indirectly protect domestic firms from cross-border competition. As a result, the EU market structure exhibits a significant home bias (especially in asset management and settlement systems), smaller sized providers (focusing on domestic markets) and significant price differences across Member States.

The consequence of this is reduced market efficiency, as less competitive actors / offers can remain in the market. Downstream users face higher costs (including search costs) or are unable to access the most suitable offer (in term of cost, quality, timing, etc.) altogether because they are not made available in their respective home Member State. Where cross-border offers are available, they are likely to cost more than in the home market, as set out in Section 2.1. For instance, stakeholders report in the targeted consultation that, because of the lack on interconnectivity, retail clients are charged higher fees for trading in markets located in a Member State different from the one of the broker. This is also driven by the costs associated with post-trade process and the need to establish longer chains of intermediation. Settlement costs were a major point of contention on the part of respondents, and an overwhelming majority agreed that settlement costs in the EU should be reduced to improve the competitiveness of EU capital markets.

Reduced market efficiency implies that providers of services have higher market power in their domestic markets and can charge more for the provision of their services, thereby extracting higher margins. This also explains why some stakeholders are not in favour of removing these barriers. In economic terms, there is increased deadweight loss which negatively affects downstream users.

In capital markets, there are two key end users: (i) non-financial corporates seeking financing, and (ii) investors seeking investment opportunities. In addition to intermediating between those providing and seeking finance, another crucial function provided by capital markets, and used by

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both corporates and investors, is to allow the hedging of economic and financial risks. The regulatory and supervisory barriers under consideration lead to inefficiencies, higher costs for both user groups and less opportunities to finance/invest.

Currently, the average external financing costs for the non-financial corporate sector vary considerably (by more than 130 basis points between the lowest and the highest[127]) across EU Member States. This difference is driven in part by external factors (e.g. local economic factors), but the significant discrepancy nonetheless strongly indicate that EU firms are not fully benefiting from the scale and synergies of a single market, with fewer financing opportunities for them, and not always at the best conditions. Corporates face higher direct external financing costs, as related processes and intermediary services cost more.

Even stronger pricing effects are driven by the interaction between investors and companies seeking financing. Investors face inefficiencies in terms of higher transaction and intermediation costs, which will lower expected returns. This has direct implications for market valuations and companies' cost of raising equity.[128] As investors require a certain net rate of return on their investments, they would be willing to pay higher prices for shares or bonds, the lower the transaction costs are. Indirectly, this may also affect bank-financing channels as they compete with capital market financing options (i.e. if capital market financing were cheaper, there would be increased price pressure also on bank financing).

For the hedging functions of capital markets, the efficiency effects are similar. Besides higher direct intermediation costs, the party offloading risks will pay more to do so as the party taking on risks requires a higher expected rate of return given the higher transactions costs.

Higher transaction costs also have implications in terms of lower liquidity, as they lower the incentive to trade. Lower liquidity acts as an indirect cost to investors as it increases the price slippage of transactions and execution risks (in turn impacting financing costs of corporates – see above). While market makers that provide most liquidity are less affected by higher cross-border settlement costs (most intra-day trades are not settled and the size and sophistication of market makers minimises additional fees), they are strongly impacted by the level of competition between trading venues, including membership fees.

In this context, the regulatory obstacles for DLT systems represent missed opportunities, as these technologies may significantly lower trading, clearing and settlement costs. These technologies may not be able to overcome cross-border barriers directly, in particular legal barriers at Member State level that remain out-of-scope. However, enabling these technologies could foster more vibrant competition amongst market infrastructure operators with cost and quality benefits for end users. Notably, DLT may enable increased fractionalisation (without the related downsides e.g. loss of voting rights) and trading in smaller lot sizes (e.g. for bonds), which would hold benefits

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[127] Based on DG ECFIN data.

[128] For example, estimates by Domowitz and Steil (2001) suggest that a 10% increase in transaction costs leads to a 1.4–1.7% increase in the post-tax cost of equity. See Domowitz, I. and Steil, B. (2001), 'Innovation in Equity Trading Systems: the Impact on Transactions Costs and Cost of Capital', in R. Nelson, D. Victor and B. Steil (eds), Technological Innovation and Economic Performance, Princeton University Press.

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in terms of liquidity and would lower the costs of diversification and euro-cost averaging investment strategies. The overwhelming majority of respondents to the consultation indicated that addressing the current limits in the DLTPR would facilitate the transition of trading activity from the current OTC framework to the DLT Pilot regime, thereby enhancing EU competitiveness in digital finance with respect to other jurisdictions.[129]

The above-described consequences of the problems and barriers considered in this report entail adverse impacts for the wider EU economy. Increased financing costs will reduce economic growth as it reduces the investment demand of companies. Likewise, lower returns for investors due to higher costs entail that less funds can be reinvested and lower investor demand. While transaction and other intermediation costs (e.g. asset management) may be small in nominal terms, reducing these costs carries strong compound effects over multiple transactions and would have a significant economic impact in the long run. For financial services overall, the IMF estimates that internal barriers to the single market are equivalent to a tariff of over 100 percent.[130] Holste and Bergström's (2025)[131] analysis shows that if Europe had achieved a fully unified capital market over the past decades, EU GDP in 2024 could have been EUR 7.8-8 trillion higher. IMF simulations also suggest that a capital markets union accounts for one third of the total benefits from the single market, i.e. one percentage point higher GDP level.[132]

A true single market, with a larger and more diverse pool of market participants, would also be more resilient, and better able to manage external shocks. At the same time, increased cross-border activity could also raise contagion risks, which reinforces the case for consistent and effective supervision at EU level. Reviewing the main findings from the empirical literature, the ECB (2022)[133] concludes that the shock absorption capacity of the euro area remains significantly weaker than in the United States, with about 70% of country-specific shocks unsmoothed (compared to some 40% in the US). In particular, the shock absorption provided by the capital channel (via income from cross-ownership of productive assets) is very limited in the euro area (as also confirmed by ECB (2023)[134]). Moreover, the ECB (2022)[135] shows that increases in euro area cross-border financial portfolio holdings have relied more on intra-regional holdings than on inter-regional holdings in recent years, both for long-term debt and equity. Correspondingly, euro-area income smoothing has been mainly driven by intra-regional risk sharing.

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[129] Only few respondents opposed to raising the limits on the value of financial instruments traded or recorded. They included one national insurance supervisor, one large international bank and one national asset management association.

[130] Regional Economic Outlook for Europe, October 2024: A Recovery Short of Europe's Full Potential.

[131] "Capital Market Fragmentation and Economic Value Migration How Europe's Financial System Promotes Wealth Transfer to the U.S" by Bjoern Holste, Mattias Bergström, SSRN.
Capital Market Fragmentation and Economic Value Migration How Europe's Financial System Promotes Wealth Transfer to the U.S by Bjoern Holste, Mattias Bergström, May 2025, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5204091

[132] IMF working paper: Lifting Binding Constraints on Growth in Europe: Actionable Priorities to Deepen the Single Market". Available here: https://www.imf.org/en/Publications/WP/Issues/2025/06/13/Lifting-Binding-Constraints-on-Growth-in-Europe-Actionable-Priorities-to-Deepen-the-Single-567610

[133] Public and private risk sharing: friends or foes? The interplay between different forms of risk sharing

[134] Changing patterns of risk-sharing channels in the United States and the euro area

[135] Financial Integration and Structure in the Euro Area, April 2022.

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Also, the relatively high reliance of EU NFCs on bank-based finance and, conversely, low reliance on capital market-based finance[136], makes their financing more volatile and pro-cyclical than is the case for US non-financial corporates.[137] It is well documented that, in both the global financial crisis and the euro area sovereign debt crisis, bank loans to euro-area firms dropped, while their debt security financing expanded, relative to GDP. Firms with access to debt security markets were able to respond to the contraction in bank loan supply by issuing more debt securities.

2.4. HOW LIKELY ARE THE PROBLEMS TO PERSIST?

Without decisive action at the EU level, the problems related to fragmentation and lack of scale are very likely to persist. The problems stem from regulatory and supervisory barriers that cannot be overcome by market forces. While other factors are affecting EU capital market development and integration, the legal barriers concern the key sectors of trading, post-trading and asset management and can only be addressed by policy intervention. Addressing barriers to integration is a long-standing and ongoing effort in EU policy making, but progress has been slow. The urgency to act now as increased and there is political momentum to take a decisive step forward to advance the integration and development of EU capital markets, for the wider benefit of the EU economy, in line with the recommendations in the Draghi, Letta and other reports (see Section 1.1).

Market forces have helped financial markets integrate along important dimensions, and businesses have somewhat expanded their cross-border operations despite these barriers. However, divergences in legal and regulatory frameworks across Member States continue to create legal uncertainty and increase compliance costs for entities operating in the EU Single Market. These divergences also stifle cross-border activities, placing additional burdens on companies and limiting their opportunities to scale up their business. Without EU action, these inefficiencies would prevail and hinder further market-led integration.

Moreover, supervisory fragmentation would continue, due to supervisory barriers set out in Section 2.2.2. Experience[138] shows that soft coordination mechanisms - such as colleges of supervisors or non-binding opinions - have not been sufficient to drive uniform supervisory outcomes, which means that the risk of inconsistent oversight and inefficiencies would persist. Stakeholder feedback confirms that, without EU-level intervention, the status quo would cement existing challenges, deepen fragmentation, and undermine the effectiveness of EU financial supervision in delivering on single market objectives.

As regards innovation, technological advancements and specifically DLT have the potential to significantly impact market structure and deliver further efficiency and integration benefits, but industry take-up would continue to be hindered in the absence of a legal framework that creates

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[136] See Annex 12 for differences in average funding structures between Member States.

[137] Langfield, S. and M. Pagano, January 2016, "Bank bias in Europe: effects on systemic risk and growth", Economic Policy, Volume 31, Issue 85, pp 51–106.

[138] In the 2021 Impact Assessment accompanying the AIFM/UCITS amendments, the Commission noted that existing coordination tools -such as colleges of supervisors, peer reviews, and non-binding guidance -have not demonstrably reduced divergence in national supervisory practices. ESMA itself lacks measurable evidence that its efforts have significantly aligned national supervisors' approaches.

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both the flexibility and legal certainty for the market to responsibly integrate the technology in their service provision

3. WHY SHOULD THE EU ACT?

3.1. LEGAL BASIS

The Treaty on the Functioning of the European Union ('TFEU') grants EU institutions the competence to establish provisions for the internal market under Article 114. This initiative will rely on the same legal bases as the acts that it intends to amend, which may include both Article 53 and Article 114 TFEU, depending on whether it concerns amendments to directives or regulations. For instance, Article 53 facilitates the freedom of establishment for financial firms and is applicable to directives such as MiFID, AIMFD, and UCITSD. Meanwhile, Article 114 serves as the legal foundation for EU Regulations, such as the ESMA Regulation. Any amending regulation and directive will adhere to its corresponding legal basis.

3.2. SUBSIDIARITY: NECESSITY OF EU ACTION

According to the principle of subsidiarity (Article 5(3) of the TFEU), action on EU level should be taken only when the aims envisaged cannot be achieved sufficiently by Member States alone and can therefore, by reason of the scale or effects of the proposed action, be better achieved on the EU level.

The EU acquis relating to financial service providers and financial markets consists of various EU regulations and directives. However, fragmentation persists when it comes to cross-border provision of services or products. Cross-border provision of services is hindered by differing national rules and supervisory practices implementing these EU legal acts, which can undermine the objective of the single rulebook. Furthermore, part of the EU acquis needs updating to better facilitate the provision of financial services using novel technologies.

The disparities in directives, regulations and practices across Member States result in market inefficiencies, notably on a cross-border basis. These inefficiencies lead to higher costs and ultimately less financing opportunities for EU companies, less investment opportunities for investors, and other wider adverse consequences for the EU economy These challenges are inherently transnational and cannot be adequately resolved through isolated and uncoordinated national actions. Member States are unable to bring about sufficient improvement to those problems on their own.

In addition, diverging national rules on how to apply the EU acquis create an uneven playing field. This can occur either where stricter rules are applied, thereby disincentivising domestic market participants to engage in cross-border activities, or where the more lenient application of common rules creates regulatory arbitrage. As these challenges largely stem from the EU acquis (or its implementation), they cannot be effectively addressed by individual actions at Member State level.

Member States' differing legal frameworks, supervisory traditions and market structures imply that reforms undertaken individually would not deliver the necessary convergence of regulatory and supervisory standards and market practices that are needed for a single market in capital.

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National policy measures to develop domestic capital markets risk intensifying fragmentation instead of contributing to further integrating national markets into one large and developed capital market. Therefore, an approach at EU level is necessary to address these barriers, to promote the seamless provision of cross-border financial services and products and facilitate the integration required to advance the Savings and Investments Union.

3.3. SUBSIDIARITY: ADDED VALUE OF EU ACTION

The added value of EU action lies in its ability to remove barriers in the EU rulebook that currently hinder market integration. Action at EU level would also present distinct advantages over actions at national level, which would exacerbate fragmentation, rather than further integrating the national markets into one large and developed capital market. Only concerted efforts at the EU level can achieve further alignment of rules necessary to create a single market for capital.

The cross-border nature of certain activities and the systemic implications of the related supervisory decisions go beyond the capacity of any single Member States to address these aspects effectively. Action at EU level is justified as it aims to reduce legal and operational uncertainties for businesses and investors, encourage cross-border investments, and enhance market efficiency, consistency and coherence across all Member States. It is also justified to ensure consistent supervision, safeguard financial stability, and preserve the integrity of the single market. Moreover, such EU-level initiatives promote a level playing field and increase the attractiveness and competitiveness of the single market for financial services and their economic efficiency, which can only be achieved through a coordinated efforts at EU level. The initiative remains proportionate as it ensures the balance between EU and national competence, with respect to entities and activities with material cross-border relevance and those of primarily domestic importance.

4. OBJECTIVES: WHAT IS TO BE ACHIEVED?

4.1. GENERAL OBJECTIVE

The general objective of this initiative is to integrate and thereby improve the functioning of EU capital markets for the benefit of investors, businesses and the wider EU economy. This contributes to the Savings and Investments Union's core objective to enable access to a wider range of financial opportunities for investors and businesses and mobilise savings for productive investment.

4.2. SPECIFIC OBJECTIVES

The initiative will contribute to the achievement of the general objective by pursuing the following specific objectives:

1. *Enable further market integration and scale effects* – The initiative aims to remove barriers to integration in the core sectors of trading, post-trading and asset management and improve the ability of market actors in those sectors to operate more seamlessly across Member States, thereby enabling market integration and scale. As a result, gaps between

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the costs of domestic and cross-border transactions should narrow and the number of cross-border transactions increase.

2. *Enable integrated supervision* – The initiative seeks to address shortcomings and inefficiencies in the current supervisory framework, by tackling inconsistencies and complexities arising from fragmented national supervisory approaches. It aims to make supervision more effective, more conducive to cross-border activities, and more responsive to emerging risks, while reducing unnecessary burdens on firms. This should also increase investor confidence. There is a strong link to objective (i), as effective supervision is crucial for market integration. Well-integrated financial markets rely on more coordinated supervisory frameworks to operate efficiently, and a more common approach to supervision can promote deeper market integration.

3. *Facilitate innovation* – The initiative aims to remove regulatory obstacles to DLT-based innovation with the aim of creating a framework which enables the take-up of these new technologies in the provision of financial services. For innovation to thrive, both the DLTPR and the standard rulebook should allow the industry to use DLT to bring efficient solutions to the market while ensuring that associated risks are mitigated. Removing these barriers also seeks to increase competition in the area of trading and post-trading services, leading to improved market outcomes.

The specific objectives will be pursued without compromising financial stability, market integrity or investor protection, thereby ensuring that the EU financial market remains safe and globally attractive.

5. WHAT ARE THE AVAILABLE POLICY OPTIONS?

5.1. APPROACH TO DESIGN OF POLICY OPTIONS

As already highlighted, this initiative is very broad and spans the trading, post-trading and asset management sectors that provide the essential infrastructure and services for enabling the intermediation between investors looking for investment opportunities and companies seeking financing. The initiative covers also innovation in capital markets, and supervision of these sectors. Given its complexity, this report presents the options in packages that differ in terms of ambition and political feasibility. The separate annexes offer a more granular and technical analysis of the various sectors as well as a more detailed assessment of alternative options per each sector, intended for stakeholders with technical expertise in their respective sectors.

5.2. WHAT IS THE BASELINE FROM WHICH OPTIONS ARE ASSESSED?

Under the baseline scenario, the existing frameworks, along with their divergent national implementations, divergent supervisory approaches and burdensome requirements, would remain unchanged without legislative reforms. The lack of interconnection between entities in different markets would also persist. All this results in persisting higher costs for cross-border activities and market inefficiencies.

Market forces alone will not overcome the legal and market practice barriers addressed in this initiative and drive further integration and innovation, as explained in more details in Section 2.4. National authorities have limited incentives to voluntarily align supervisory practices or relinquish

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discretion, making regulatory intervention necessary to ensure convergence. Stakeholder feedback cautions that failing to address fragmented supervision could lead to entrenched regulatory arbitrage, legal uncertainty, and reduced competitiveness. Member States would continue exercising discretion in the application of the rules where EU harmonisation is minimal, and limited interconnection between entities in different markets would persist. As a result, financial services providers in the trading, post-trading and asset management sectors will face significant costs when attempting cross-border operations within the EU, due to divergent implementation of the rules, divergent national requirements, divergent supervisory approaches, and low markets interconnections. Uptake of innovation would also be hindered.

Under the status quo, EU capital markets would remain fragmented, and progress towards an efficient EU single market for capital would be limited. Without policy intervention to tackle the barriers to cross-border operation and innovation, problems as described in Section 2 will continue, with all the adverse outcomes. The cross-border provision of financial services would remain costly and inefficient, and cross-border investments would be impeded (see Section 2 for more detail).

This initiative is essential for the success of the SIU strategy, including other actions for retail investors, institutional investors, and access to finance for companies. Implementing the SIU strategy requires a range of policy measures, affecting various dimensions of the EU's financial system. Under the baseline scenario, it will not be possible to achieve the other objectives of the SIU measures for retail investors, for institutional investors, for improving access to diversified source of financing for companies, because more integrated, deeper and efficient capital markets are essential for the success of those measures.

Inefficiencies and higher costs would damage the attractiveness of the EU capital markets and economy and its ability to compete at a global level. Given advances in other jurisdictions, especially as concerns technology, it is likely that competitive disadvantages for EU capital markets would increase over time (see also Section 2.4).

Fragmented supervision would also weaken investor protection, affect resilience and leave the EU more exposed to emerging cross-border and systemic risks.

As already discussed, the existence of numerous out of scope factors that shape market developments, the data limitations and the fact that market players adjust their behaviour to market outcomes, limit the ability to model in a reliable way how the problem would evolve without intervention (see Annex 4). As such, no further modelling of the baseline and how market outcomes would evolve can be provided in a manner that is proportionate and in a timeframe that meets the political calls to act on the issues presented in this report. While rigorous analysis is important, it is crucial not to delay the tangible outcomes of to address the existence and negative impact of barriers that have already been well-documented in the past.

5.3. DESCRIPTION OF THE POLICY OPTIONS

5.3.1. Policy options to address Barriers to cross-border operations and innovation

This section provides an overview of the two main packages of options (in addition to the "do-nothing" option) to address the barriers to cross-border operations and innovation, reflecting different levels of ambition. It describes the most significant measures expected to have the largest

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impact across the areas of intervention (trading, post-trading, asset management, innovation), summarised in tabular form in Tables 3 and 4. The respective sectoral annexes contain a more detailed description and assessment of the options, including also a more granular set of options and the less significant measures.

The Commission has worked in close cooperation with ESMA and the ECB to ensure that the preferred options would be feasible, as well as seeking to identify the required resources needed to implement the measures.

Baseline scenario (Option 1) – Do nothing

This is the baseline scenario (see Section 5.1).

Option 2 – Broad review of the functioning of capital markets

Trading

Under this option, the rules regarding the authorisation and operation of RMs would be transferred from MiFID II (Directive) to MiFIR (Regulation) and further harmonised (thereby reducing scope for national discretions and gold-plating), with a view to creating a truly European single rulebook for trading venues. As regards MTFs and OTFs, considering that those venues can be operated by investment firms (and not only by market operators), only the rules that are specific to the operation of an MTF or OTF would be transferred to MiFIR and further harmonised. This is to ensure a level playing field, including from the supervisory standpoint. Incidentally, this harmonisation of rules would also facilitate the transfer of supervision of operators and markets with an EU dimension to the EU level and allow to enforce a truly single rulebook for those operators (as opposed to enforcing a series of national laws).

In addition, under this option, passporting rights for RMs active cross-border would be enhanced and those of MTFs and OTFs would be clarified along the same lines. A new status for 'Pan-European Market Operators' would also be introduced for cross-border market operators, to allow for the operation of trading venues in multiple Member States on the basis of a single licence.

In parallel, this option would allow trading venues that operate under a unified group structure, with harmonised systems and governance, to fully exploit group synergies. The regulatory framework would be revised by ensuring that intra-group allocation of resources is not treated in the same way as outsourcing outside the group. This is with a view to simplifying the allocation of tasks within the group, thus reducing administrative burden and compliance costs for groups.[139]

This option also entails the implementation of measures aimed at eliminating barriers that hinder brokers from becoming direct members of trading venues. To achieve this, a "streamlined membership process" would be established, enabling brokers that have been granted membership to one venue for one asset class to avoid duplicative checks and procedural burdens associated with multiple membership applications. The granting of membership would thereby waive the requirement for redundant checks by other trading venues trading the same asset class, thus

[139] The actions linked to enhancing passporting rights for market operators and RMs, as well those on the treatment of groups require ensuring an appropriate supervisory set-up that considers the cross-border dimension of those entities and therefore they are linked to the initiatives on EU-level supervision as detailed in Section 5.2.2.

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streamlining the membership process. However, other aspects of membership eligibility checks, such as those pertaining to the ability to settle trades executed on venue, would remain subject to individual venue assessment, given the exchange-specific nature of post-trade arrangements.

Respondents to the consultation indicated that the main drivers for inefficient integration of capital markets and of liquidity pools in the EU are (in order of how many respondents mention them) non-regulatory and linked to market practices, legal/regulatory barriers at domestic level, legal/regulatory barriers at EU level, and supervisory practices. Respondents highlighted also other elements that prevent smooth integration of liquidity pools, including post-trade fragmentation, connectivity and access barriers and investor home bias. Stakeholders saw benefits in increasing the level of harmonisation for certain areas, including the core principles and approval processes of exchange rulebooks, fair access and outsourcing. Respondents also pointed to regulatory duplication and the lack of flexibility in applying rules across borders as limiting their ability to centralise operations or adopt innovative technologies such as cloud computing. Many advocated for greater proportionality and flexibility, with specific calls to distinguish intra-group from third-party outsourcing in relevant EU rules.

Post-trade

Under this option, to facilitate the freedom of issuance, the possibility of Member States to impose additional requirements on issuers would be limited. Legislation would establish the right of an authorised CSD to automatically provide services, or set up a branch, in any Member State in the EU without additional requirements other than a simple notification procedure. At the same time, all EU CSDs that settle in a T2S-supported currency would also be mandated to connect to the T2S platform. Moreover, settlement operations standards would be harmonised further.

In parallel, interconnectedness for settlement would also be improved. The notion of CSD hubs would be introduced. The concept would cover, in particular, CSDs providing services in several Member States and those processing a high value of settlement instructions relative to all settlement in the EU. These would be required to establish links with one another, while the remaining CSDs would be required to establish links with at least one CSD hub (to the extent that such a link is not already in place). All the aforementioned links (i.e. links between CSD hubs and links between those CSDs and the remaining CSDs) would be required to be bi-directional, interoperable and able to settle all financial instruments available for settlement within the given CSD. In addition, the process of establishing links would be simplified and streamlined with ESMA made the authority responsible for authorising interoperable links. The CSDR would also be amended to remove the possibility for the establishment of links to be refused except in the case that such links would threaten the smooth and orderly functioning of financial markets or cause systemic risk.

The SFD would be converted into a Regulation. This change requires setting out in a more precise way matters related to safeguards granted by the SFD in order to achieve a harmonised approach across the EU, in particular with respect to conflict of law, participation of EU entities in third-country systems, scope of participants and eligible securities covered, requirements for designating systems, and ensuring legal certainty to support digital innovation.

This option also entails amendments to post-trade legislation to strengthen its technological neutrality. This would be done by updating relevant definitions, concepts, and requirements (for example, updating 'book-entry form' and 'securities account') to ensure that the CSDR, SFD, and

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FCD can apply equally to CSDs irrespective of the technology used in the provision of services, including DLT. Respondents to the targeted consultation identified barriers to the freedom of issuance in the EU, notably national rules requiring securities – especially government bonds – to be issued through domestic CSDs. At EU level, CSDR passporting requirements were seen as burdensome, creating costly legal assessments and hindering cross-border issuance. In addition, there was wide support for updating CSDR definitions to ensure technological neutrality and inclusion of DLT-based assets.

Respondents suggested enhancing T2S by expanding its scope to more CSDs, currencies, and services (e.g. corporate actions, collateral management), and by requiring all CSDs settling in euro to connect to the platform. They also called for greater standardisation and simplification in establishing CSD links and within the T2S framework.

On the SFD, respondents sought clearer conflict-of-law rules, consistent protection for indirect participants and those in third-country or DLT-based systems, as well as an expanded scope to cover a wider range of participants and assets.

Asset management

Under this option, a new "passporting upon authorisation" regime would be introduced to allow UCITS funds immediate single market access to their chosen Member States upon authorisation. This would be done by replacing current fragmented NCA bilateral notifications with a centralised process coordinated by ESMA (IT system, notifications, and resolving NCA divergences). Operationally, the home NCA would liaise with ESMA and the relevant host NCAs through an ESMA platform, ensuring information on fund authorisations and related documentation is shared in a harmonised and transparent manner. The same simplified procedure would apply to authorised AIFMs seeking to market the AIFs they manage in the single market. From the date of authorisation, UCITS funds and AIFMs would be able to market in all designated Member States. This measure seeks to significantly reduce the required administration and time for UCITS funds and AIFMs to access other Member States' markets. The data platform would also be utilised for other notifications in connection with the cross-border marketing of funds, such as the notification of material changes or the marketing de-notifications, as described in Section 5.1.2 of Annex 9.

In addition, EU marketing rules would be reviewed to create a common framework and reduce national discretions and divergences (e.g. repealing gold-plating rules in the EU framework). This would involve removing national discretions in the CBDR regarding the ex-ante verification of marketing communications, harmonising the content of marketing communications and preventing Member States from imposing additional marketing requirements and national provisions for country-specific disclosures in fund documents. This fragmented framework would be replaced by harmonised EU rules on marketing and disclosures. In addition, existing rules on requirements concerning physical agents in the UCITSD and AIFMD will be strengthened so that host Member States and NCAs no longer require such appointments, through any means (such as by law or market practice). This option, which is further explained in Section 5.1.2 of Annex 9, would necessitate amendments to the UCITSD, AIFMD, and the CBDR.

This option would also improve the operating conditions for asset managers by facilitating the use of resources and delegation of functions across different entities within the same asset management group in the EU. EU groups would be able to utilise and share resources with other EU entities of the same group without being subject to stringent delegation requirements. This option would also entail harmonising authorisation requirements for asset managers by clearly defining the

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information that management companies and AIFMs must submit as part of the authorisation process, and by removing national divergences stemming from Member State discretions that are embedded in the AIFMD and UCITSD frameworks. In particular, this option would entail amending the UCITSD and AIFMD to remove the provisions that allow Member States to interpret, supplement, or derogate from core rules and which impose barriers to the development of the single market. Furthermore, this option would involve greater harmonisation of the conduct and prudential rules for asset managers, so that each management company and AIFM would be subject to the same risk management, organisational, and conduct-of-business obligations regardless of their home jurisdiction.

In parallel, this option considers implementing an EU depositary passport for UCITS and AIFs, which would enable fund managers to appoint a depositary located anywhere within the EU, while allowing depositaries to offer their services on a cross-border basis. Considering that most depositaries are currently credit institutions or investment firms, the EU-level depositary passport would build on the passport that already exists for those institutions under the Capital Requirements Directive ('CRD') and MiFID. Limiting the passport to such entities would also be more optimal from a financial stability and investor protection perspective, as they are already subject to harmonised EU-level authorisation, prudential requirements, and supervision, ensuring consistent safeguards across Member States.

Finally, this option would entail technical adjustments to the current investment limits in the UCITSD to allow UCITS greater flexibility to invest in securitisations and indices without undermining the core principles of risk diversification and investor protection. These technical measures are further detailed in Section 5.4 of Annex 9.

Stakeholders identified several implementation issues with the fund marketing passport across Member States. Issues highlighted include differing and lengthy notification processes, diverging national requirements for marketing and fund documents, complex structures for regulatory fees and charges. These divergences create costs, delays, and legal uncertainty, especially for pan-European distribution. Respondents also noted that the current passporting provisions for management companies are not reflected in a consistent way in domestic legislation by Member States. This option aims to eliminate inefficiencies and duplication due to diverging national and supervisory frameworks.

Innovation (DLTPR)

Under this option, the DLTPR would be amended to relax the existing limits to its scope (in relation to the threshold, eligible assets, and eligible participants).

In order to enable larger tokenisation projects, this option would remove the product-specific thresholds, while significantly increasing the aggregate threshold. The scope of eligible assets, currently limited to certain shares, bonds and UCITS, would be extended to all financial instruments. Finally, as regards eligible participants, small scale so-called 'Tier 2' businesses - that want to enter the market by building small scale trading and settlement solutions and have limited resources - would benefit from regulatory flexibility and proportionate compliance under CSDR, with reduced requirements, thanks to tailored level 2 provisions and potential amendments to certain non-essential level 1 provisions of CSDR, with the aim of simplifying the rulebook. The set of eligible participants would be expanded to include credit institutions and CASPs holding a licence to operate a trading venue.

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In addition, amendments to the DLTPR would be introduced to increase the regime flexibility, in particular to accommodate new business models. For instance, to further support diverse business models and leverage DLT advantages for post-trading operations, eligible participants could be allowed to get licenced for individual CSD services, rather than pursuing a complete CSD licence.

In parallel, under this option, neither the DLTPR nor the authorisations granted under it would have an expiration date, with the specific objective of providing the market with legal certainty for long-term investments in projects under the DLTPR.

The targeted consultation highlights the need for DLTPR to remain an adaptive regulatory framework that evolve with market developments, with thresholds and eligibility criteria to be reviewed periodically by authorities like ESMA, to ensure the DLTPR remains competitive as the DLT landscape matures. Stakeholders sees the following issues as critical for the success of the DLTP: expanding the scope of eligible assets (from tokenized physical assets to all types of stocks and all financial instruments under MiFID II); adapting or removing the limit on the value of financial instruments traded, which severely limit the scalability and economic viability of projects within the regime; and removing the limited duration of DLTPR licenses.

Option 3 – Far-reaching review of the functioning of capital markets

Trading

The measures outlined under this option as regards trading build on Option 2 and complements it with one additional measure: mandatory connection between significant trading venues.

Under this option, a subset of significant trading venues, which would also be subject to ESMA supervision, would be required to establish interconnections with one another. This would be with a view to enabling members of each of those venues to submit orders for execution on other venues within the interconnected network, without necessitating membership or direct connection to those other trading venues.

This option would not transform the forementioned venues into executing brokers, subjecting them to best execution rules. Rather, venues participating in the network would serve as mere technical conduits, facilitating brokers' ability to directly place orders on diverse venues within the network. To this extent, this option differs substantially from the US 'Order Protection Rule' (also known as Reg NMS rule)[140], which mandates exchanges to re-route orders received to the exchange offering the best available price (or National Best Bid and Offer, NBBO), thereby placing the onus on every exchange to identify the most favourable venue of execution. In contrast, under this option, brokers relying on the interconnection offered by venues within the network would retain full responsibility for selecting the venue for order execution, and would consequently remain liable for ensuring the best execution vis-à-vis their clients.

Establishing this interconnection would necessitate that each concerned venue becomes a technical member of the other venues, and that each concerned venue implements a technical solution to submit orders on other venues within the interconnected network (technical connectivity). While the former requirement (membership) does not imply significant complexity nor cost, the latter (technical connectivity) necessitates that venues ensure they are capable of (i) interacting with

[140] Rule 611 of the Regulation National Market System established intermarket protection against trade-throughs for certain shares. Due to this rule, trading venues are prevented from executing orders if a better execution price can be found on another exchange.

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each venue's communication protocol, thereby allowing communication with the target venue (software component), and (ii) physically conveying messages to other venues within the network (hardware component).

This option would not prescribe a specific technical setup for venues in scope, as the choice of solution would depend on factors such as projected volumes of cross-border orders to be placed through the interconnection mechanism and the specific venues involved.

Asked whether intermediaries should be obliged to connect to all venues in the EU, respondents to the targeted consultation were overall reluctant. The reasons for this reluctance appear to be mostly related to cost that would be disproportionately high, especially for smaller and mid-sized firms, which would ultimately be passed on to investors. According to stakeholders, limits to additional connections are mainly driven by cost considerations and lack of demand. Post-trade fragmentation and lack of full CCP interoperability are also cited as playing a role.

Post-trade

The measures outlined under this option as regards post-trading build on Option 2 and complements it with two main alternative and more far-reaching measures.

First, under this option, a CSD would be able to provide services in relation to securities issued according to the law of all Member States, regardless of whether there is any intention to serve markets in a particular Member State and without an ex-ante notification.

Second, under this option, T2S would be transformed into a CSD ('T2S CSD') and all CSDs in the EU would be required to connect to it via bi-directional links. To facilitate this arrangement, T2S as a CSD would be required to serve all EU currencies for settlement in central bank money and would be required to allow settlement in commercial bank money.

Asset management

The measures outlined under this option builds on Option 2 and complement it with alternative measures on asset management groups. As opposed to each entity in the group being authorised individually, which would still be the case under option 2, under this option, a group-level authorisation mechanism for asset management groups under the AIFMD and UCITS would be introduced, whereby, in cases where asset managers operate as part of a group, a single authorisation would be granted to the parent undertaking of the group.

Respondents to the consultation express scepticism about this measure. Most do not see the need for group level authorisation and supervision, as asset managers operate under highly diverse business models, and there is no uniform structure across the industry, and few respondents sees efficiency gains and cost reductions that a group perspective would bring.

Innovation (DLTPR)

This option goes beyond the DLTPR measures foreseen in Option 2, by removing all limits as regards the scope and scale of trading and settlement activities covered by this regime. In particular, this option would completely abolish activity and product limitations under the DLTPR, de facto converting the framework from a sandbox regime into a full-fledged regular regime.

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Under this option, the DLTPR would be also open to a very broad range of financial service providers, who could obtain a licence through a risk-based process to offer DLT-based trading and CSD services.

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Table 3 - Summary table on the description of options 2 and 3 on barriers to cross-border operations and innovation

Broad review and far-reaching review of the functioning of capital markets	Driver/Barrier addressed
Trading – Broad review under option 2	
1. Further harmonise trading venues rules and enhance passporting opportunities for RMs and their operators are enhanced. Introduce a 'Pan-European Market Operator' status allowing single-licence operation of trading venues in multiple Member States.	Divergent rules, gold plating, barriers to cross-border operations
2. Facilitated allocation of resources within Group comprising multiple trading venues across several Member States allowing effective leveraging of economies of scale.	Burdensome requirements, limitations to economies of scale within group
3. Brokers' direct access to trading venues would be simplified.	Limited interconnectedness, especially cross-border
Trading – Far-reaching review under option 3	
4. Measures 1-3, complemented with mandatory connection for re-routing orders between significant trading venues.	Same as above
Post- Trading – Broad review under option 2	
5. Limit the possibility of Member States to impose additional requirements on issuers to improve freedom of issuance.	Divergent rules, gold plating
6. Strengthen technological neutrality of post-trade legislation (updating relevant definitions, concepts, and requirements).	Burdensome requirements
7. Right of an authorised CSD to automatically provide services, or set up a branch, in any Member State in the EU without additional requirements other than notification.	Burdensome requirements, gold plating
8. Mandate EU CSDs to establish a connection to the T2S platform in the case that they settle in a T2S-supported currency.	Limited interconnectedness
9. Mandate CSDs serving as hubs to connect to each other while requiring the other CSDs to connect to at least one CSD hub. Such links should be bi-directional, interoperable, and able to settle all financial instruments available for settlement with the given CSD. The process to establish links is to be simplified and streamlined. ESMA is mandated to codify standards for harmonising settlement operations.	Limited interconnectedness
Post- Trading – Far-reaching review under option 3	
10. Measures 5 and 6, with alternative measures for 7, 8, 9:	Same as above
11. As alternative to measure 7: Right of an authorised CSD to automatically provide services, or set up a branch, in any Member State in the EU regardless of whether there is any intention to serve markets in a particular Member State and without notification.	

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12. Measure 8, complemented with T2S legally becoming a CSD ('T2S CSD'), allowing it to offer all CSD core services.	
13. As alternative to measure 9: all CSDs in the EU would be required to connect to 'T2S CSD' via bi-directional links. To facilitate this arrangement, T2S as a CSD would be required to serve all EU currencies.	
Asset management – Broad review under option 2	
14. A new "passporting upon authorisation" regime would grant UCITS funds and AIFs (through their AIFMs) single market access to their chosen Member States upon authorisation. The data platform will streamline cooperation between home and host NCAs.	Burdensome requirements, gold plating
15. The marketing rules under the CBDR would be reviewed to create a common EU framework and reduce national divergences on marketing communication.	Divergent rules, gold plating
16. Improve the operating conditions for asset management groups by facilitating the use of intra-group resources and delegation of functions across different entities within the same group in the EU.	Burdensome requirements
17. EU depositary passport.	Burdensome requirements
Asset management – Far-reaching review under option 3	
18. Measures 14, 15 and 16, with alternative measure for 17	Same as above
19. As alternative to measure 17: Group-level authorisation	
Innovation (DLTPR) – Broad review under option 2	
20. Removal of time limits.	Barriers to take up of innovation
21. Scope of eligible instruments increased to include all financial instruments.	Barriers to take up of innovation
22. Simplification of the Pilot for small businesses.	Barriers to take up of innovation
23. Removal of product specific thresholds and significant increase of the aggregated threshold (currently EUR 6 billion).	Barriers to take up of innovation
24. Eligible participants to include CASPs.	Barriers to take up of innovation
25. License for individual CSD services.	Barriers to take up of innovation
Innovation (DLTPR) – Far-reaching review under option 3	
26. Measures 20, 21, and 22 with alternative measures 23, 24, and 25	Same as above
27. As alternative to measure 23: removal of all threshold.	
28. As alternative to measure 24: In addition to CASPs and credit institutions, inclusion of asset managers, payments institutions, central counterparties (CCPs) and authorised crowdfunding service providers.	
29. As alternative to measure 25: Possibility of a license through a risk-based process to offer DLT-based trading and CSD services.	

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5.3.2. Policy options to address Non-aligned supervisory practices and weak tools and powers at EU level

This section provides an overview of the options considered to address the non-aligned supervisory practices across Member States[141] and weak tools and powers at EU level to enforce convergence. It describes the most significant measures expected to have the largest impact, across the areas of intervention (trading, post-trading, asset management and crypto assets), with a tabular overview provided in Table 4. More details, also on a sectoral basis, can be found in Section 4 of Annex 11 'Supervision'.

Baseline scenario (Option 1) – Do nothing

This is the baseline scenario (see Section 5.1).

Option 2 – Improved supervisory convergence and an enhanced role for ESMA in supervision

Under this option, non-aligned supervisory practices would be addressed by enhancing ESMA's supervisory role and improving supervisory convergence. This would be done by (1) transferring supervisory powers over certain trading venues, CCPs and CSDs and all CASPs to ESMA, (2) by giving ESMA a more operational role in the supervision of large asset managers without exercising direct supervision, (3) by strengthening ESMA's governance structures to ensure more efficient and transparent supervision, and (4) enhancing the use of existing supervisory convergence tools (e.g. breach of Union law procedure, no-action letters, peer reviews, emergency powers, delegation of tasks and responsibilities) as well as introducing new ones, such as collaboration platforms.

The proposal for direct supervision of large trading venues, CCPs, and CSDs is justified by the need to address fragmented supervisory practices that have been detected and which present barriers to integration within the Single Market. It also simplifies the supervisory arrangements, notably for groups operating on a cross-border basis who currently face multiple regulators. In addition, the proposal aims to enhance the capabilities to identify and manage significant systemic risks that the failure or malfunction of those entities could pose to the stability of the EU's capital market. The failure or malfunction of one of these critical market infrastructure entities can have a ripple effect, disrupting trading, clearing, settlement, and liquidity across all EU markets simultaneously. This interconnectedness and potential for contagion necessitates a single, unified supervisory approach to ensure the safety and soundness of EU capital market and support its development.

To determine which entities would fall under direct supervision, a set of clear criteria would be established, taking into account size, systemic importance, and cross-border activity or pan-European group dimension. This would enable regulators to identify and monitor those entities that pose the greatest risk to the stability of the market. Additionally, to prevent regulatory arbitrage and ensure a level playing field, CSDs that are part of a group with at least one member subject to ESMA supervision would also be subject to ESMA supervision. Similarly, all trading venues operated within a group subject to ESMA supervision would be subject to ESMA supervision. By centralising supervision only for those trading venues, CCPs and CSDs that are considered systemic or have a significant cross border presence, this option addresses the subsidiarity concerns expressed by several stakeholders in the public consultation. It would also

[141] While enforcement at the national level is crucial, this initiative focuses on EU-level supervision, and does not delve into the governance of NCAs at the national level.

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preserve local supervisory expertise and proximity to national competent authorities for smaller entities, which many respondents considered important for effective oversight.

Direct supervision for CASPs is proposed because this is a new market segment where supervisory competence is being created, therefore there is an opportunity to develop efficient and effective supervision from the start. Moreover, this is inherently a cross-border market where integrated oversight is key to ensure adequate market monitoring. In addition to direct supervision, ESMA will be entrusted to conduct market surveillance for CASPs, for which an IT tool would be developed.

To ensure that ESMA receives all the necessary information to effectively carry out its new supervisory powers, it is necessary to redirect the reporting obligation from the NCAs to ESMA. These are not new reporting requirements, as the rules already provided for such reporting to NCAs. For example, in post-trading, CSDs regularly report the number and details of settlement fails to their respective competent authorities. For CSDs directly supervised by ESMA, this reporting will have to be redirected to ESMA, while for other CSDs, the reporting will remain toward the national authorities. The redirection of reporting flows will require investment into ITC systems by ESMA.

This option also entails amendments to ESMA's governance to cater for the new supervisory powers. Supervisory decisions would be taken by a newly created Executive Board composed of independent members, with a non-objection procedure by the Board of Supervisors. In building up supervisory capacity ESMA would rely on cooperation with NCAs and for day-to-day supervision may rely on the cooperation with the NCAs.

Option 2 proposes a stronger role for ESMA in promoting convergence and coordination in the supervision of large asset managers' groups and investment funds operating in the single market. Asset management groups do not operate market infrastructure characterised by significant network effects, and their activities are particularly heterogenous in terms of scale and scope, both in terms of geographic and product coverage. Therefore, enhanced coordination will allow removing cross-border barriers to asset managers' operation in the single market, without resorting to direct supervision. New tools and mechanisms at ESMA's disposal to address barriers to cross-border activities would include the mandates to organise, together with NCAs, joint assessment at group level of asset managers and the creation of collaboration platforms, whilst strengthening ESMA's binding mediation role, which it could also exercise on its own initiative. In addition to having this power at its disposal, ESMA would also be required to initiate mediation in clearly defined cases, ensuring its effective use. In addition, asset managers do not pose a direct systemic risk to financial stability. Instead, systemic risks to financial stability associated with asset management are primarily indirect, arising from potential fire sales, liquidity mismatches, and excessive leverage. While these risks are still significant and warrant regulatory attention, they can be sufficiently mitigated through enhanced convergence and coordination of national supervisory practices, rather than through direct supervision by ESMA.

In addition, this option proposes to improve supervisory convergence by ensuring that decisions within ESMA reflect an EU-wide perspective rather than purely national interests. For this reason, decisions in the area of supervisory convergence, i.e. opinions, recommendations, breach of Union law, peer reviews, binding mediation etc., would be transferred to the new Executive Board. At the same time, existing tools would be made more effective and easier to use, notably through improvements to the breach of Union law procedure (e.g. stronger enforcement powers, mandatory justification of inaction, and realistic deadlines) and an expanded binding mediation mechanism allowing financial actors and stakeholders to trigger it in cases of divergent supervisory practices. The toolbox would also be broadened to include proven mechanisms like collaboration platforms,

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reinforcing coordination and information exchange between home and host authorities in significant cross-border cases. Notably, this option addresses the concerns expressed particularly by public authorities in the public consultation, who have highlighted persistent supervisory divergences and limitations in the practical effectiveness of some of ESMA's supervisory convergence tools (see Problem Definition). At the same time, ESMA requires a sustainable and transparent funding framework to match its expanding mandate. The reformed funding system would ensure that new direct supervisory mandates are fully fee-funded. At the same time the legal architecture for fees is clarified and streamlined to enhance ESMA's risk-based approach to supervision and reinforce ESMA's transparency and accountability.

Option 3 – ESMA single supervisor for all entities

Under this option, direct supervisory powers over all entities, including trading venues, CCPs, CSDs, asset managers and CASPs, would be transferred to ESMA. With regard to governance, in addition to option 2, the Executive Board would take the final supervisory decisions with no Board of Supervisors involvement and the day-to day supervision would be carried out by ESMA without NCAs' involvement. Option 3 in essence is building on option 2 in terms of ESMA governance but applied to all the players of the different sectors instead of a certain selected group of them.

While this option was not explicitly tested in the public consultation, the feedback received indicates that stakeholders generally do not see a clear added value in having all sectors centrally supervised at EU level. Respondents emphasised the importance of maintaining local supervisory expertise and proximity to market participants, as well as close cooperation with national competent authorities. Concerns relating to subsidiarity were also raised, suggesting that a fully centralised supervisory model is likely not supported at this stage.

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Table 4 - Summary table on the description of options 2 and 3 on non-aligned supervisory practices across Member States and weak tools and powers at EU level

Option 2 – Improved supervisory convergence and an enhanced role for ESMA in supervision	**Driver/Barrier addressed**
1. Improve supervisory convergence across the sectors by improving the incentives to use the tools through a more effective decision-making system, by enhancing existing tools as well as introducing new ones.	Limited tools to enforce convergence
2. Transfer supervisory powers over certain trading venues, CCPs, CSDs and all CASPs to ESMA. ESMA to play a stronger role in the convergence and coordination of the supervision of large asset managers' groups and investment funds operating across the single market. ESMA able to launch binding mediations at its own initiative.	Adopt a comprehensive supervisory approach at EU level
3. Amend ESMA's governance to ensure more agile and responsive decision-making and appropriate involvement of national expertise.	Adopt a comprehensive supervisory approach at EU level
Option 3 - ESMA single supervisor for all entities	
4. Measure 1 with alternative measures for 2 and 3.	Same as above
5. Alternative to measure 2: Transfer direct supervisory powers over all trading venues, CCPs, CSDs, asset managers and CASPs to ESMA.	
6. Alternative to measure 3: The Executive Board would take the final supervisory decisions with no Board of Supervisors involvement.	

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5.4. OPTIONS DISCARDED AT AN EARLY STAGE

The option to convert all directives in the trading, post-trading and asset management sectors into regulations was discarded. Maintaining directives in certain areas ensures a balance between unified policy objectives and localised implementation, in line with the subsidiarity principle. In addition, converting all provisions within directives could raise questions concerning their legal basis. The legal basis of some directives covered in this initiative was used to define conduct rules for financial sector professionals, such as investment firms and banks. Turning these directives into regulation would require changing the foundational approach to justify the use of a different legal basis used for regulations. While not impossible, this process would be difficult and complex, and not feasible within the timeframe decided at political level.

For post-trade, the option to mandate all EU CSDs to establish bi-directional links with one another was discarded as too costly and inefficient.

The option to only improve supervisory convergence in the ESMA regulation and maintain supervision at national level for all entities was discarded. Persisting with the current fragmented, nationally-focused supervisory framework would continue to affect adversely all financial sectors covered in the initiative. Relying exclusively on improving supervisory convergence to address the challenges in EU capital markets would not resolve the underlying issues of market fragmentation and inefficiencies. Supervision would continue to rest primarily with NCAs, leading to divergent interpretations, inconsistent enforcement, uneven playing field and regulatory arbitrage. This fragmentation would sustain inefficiencies, increase compliance burdens – particularly for cross-border entities – and limit effective oversight, investor protection, and financial stability. Stakeholders caution that inaction would exacerbate operational complexities, legal uncertainty, and an uneven playing field, ultimately hindering market integration and cross-border business expansion, with the adverse consequences described in Section 2. In addition, the option of other entities besides ESMA (e.g. the ECB) taking an increased role in supervision was discarded. For post-trade, for example, ESMA has developed expertise in this space over the years leading to a logical continuation in increasing the supervisory powers granted to it, beginning with EMIR 2.2 in 2017 which made ESMA the supervisory authority of systemically important third-country CCPs.

6. WHAT ARE THE IMPACTS OF THE POLICY OPTIONS AND HOW DO THEY COMPARE?

This section provides an assessment of how each package of main policy options addresses the identified problems and the problem drivers, along the criteria of effectiveness, efficiency and coherence with EU policies, in particular the SIU strategy, in reaching the specific objectives, compared to the baseline scenario. This assessment is mainly done horizontally across the areas of intervention (trading, post-trading, asset management, innovation). More detailed description of the different options can be found in the respective sectoral Annexes.

This assessment is informed by the evidence collected since the publication of the SIU strategy, comprising calls for evidence, targeted consultation, bilateral engagements with stakeholders, and a "study on trading and post-trading" as well as a review of relevant literature. While the evidence gathered is robust, it reflects the current state of information and has some inherent limitations. Notably, a full quantification of impacts is often not possible given an inability of stakeholders to provide cost figures or estimation of benefits. It is also important to note that many of the figures referred in this impact assessment are based on estimates collected from select stakeholders and are therefore complex to extrapolate or aggregate (see also Annex 4).

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This assessment focuses on the significant economic impact. The package of the main policy options is not expected to have any direct significant social, environment or fundamental right impacts. A dedicative analysis on competitiveness and SMEs can be found in Annex 5 and Annex 6, respectively.

6.1. POLICY OPTIONS TO ADDRESS BARRIERS TO CROSS-BORDER ACTIVITIES AND INNOVATION

6.1.1. Broad review of the functioning of capital markets

Effectiveness in meeting the specific objectives

Trading

The measures under this option would be effective in enabling further market integration and scale effects.

Requirements applicable to RMs, as well as to MTFs and OTFs would be moved from a Directive (MiFID II) to a Regulation (MiFIR), removing differences in transposition in national laws and the possibility for additional gold-plating by Member States. This, in turn, would simplify the overall regulatory landscape, in particular for cross-border entities or groups, avoid an uneven playing field among Member States, enhance legal certainty and enable market infrastructures in the EU to scale up their activities. The majority of respondents to the relevant question in the targeted consultation, representing mostly business associations, public authorities as well as trading venues, deemed an increase in the level of harmonisation of EU rules applying to trading venues and their operators necessary to foster cross-border operations.

A 2020 study conducted for the Commission[142] estimated that compliance with MiFID/MiFIR accounted for a significant portion of operating costs in the financial markets industry, with average one-off compliance costs representing 1.44% of such operating costs, and ongoing compliance costs accounting for 2.2%. Notably, the study assessed that MiFID/MiFIR imposed the highest ongoing compliance costs and the second-highest one-off compliance costs among all financial services-related legislation. Although it is challenging to quantify the exact savings that could be achieved by simplifying the MiFID/MiFIR regulatory framework, these figures suggest that any simplification efforts (elimination of national specificities, gold-plating, uniform application, etc.) would likely have a substantial impact on compliance cost savings for firms.

The fully harmonised rulebook would be accompanied by enhanced passporting opportunities for RMs, notably through a clarification of the scope of activities that can be carried out in a Member State without establishing a fully-fledged licensed entity, for those entities that would like to operate on the basis of the freedom of establishment or the freedom to provide services. In particular, a new status for 'Pan-European Market Operators' (PEMO) would be introduced for cross-border market operators to allow for the operation of trading venues in multiple Member States on the basis of a single licence. This single PEMO licence, to be granted by ESMA, would allow to maintain the existence of 'national' markets, thereby preserving proximity with local ecosystems, without the need for their operators to be subject to individual licenses to operate those markets. This would remove significant obstacles in cross-border operations that today result in complex operational and supervisory arrangements for cross-border infrastructure operators.

[142] Study on the costs of compliance for the financial sector - CEPS

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Ultimately, this facilitation of cross-border operations through a single license would also create incentives for legal consolidation, as the operations of trading infrastructure in several Member States would be significantly streamlined.

The option would also simplify MiFID/R requirements and facilitate allocation of resources for those entities that do not wish to rely on enhanced passporting opportunities or on the PEMO status, and continue to operate as a group of trading infrastructures. According to responses of trading venues to the targeted consultation, the recognition of the operational specificities of a group of trading venues active in more than one Member State would create significant synergies within a group. By treating jointly (i.e. as a single entity) all entities comprised within a group for the purpose of resources allocation, rather than treating those entities as isolated units, groups can streamline operations, consolidate and cut resources, and eliminate redundancies. This recognition allows for shared services, centralised procurement, coordinated decision-making, and better leverage of economies of scale.

In addition, this option would streamline trading venue on-boarding of members (i.e. the application process followed by a person to become a member of such venue) through enhanced mutual recognition of memberships (for more details, see Section 3.2. of Annex 7 'Trading'.)

It is expected that all the abovementioned measures would foster greater market integration and increase cross-border trading activity, as well as incentivise legal consolidation through the facilitation of the operation of cross-border groups of trading infrastructures. Beyond the facilitation of operations of trading venues on a cross-border basis, lower operational costs for venues and brokers could indirectly benefit end-clients, as these savings might be passed down in the form of reduced brokerage fees (depending on the degree of competition in the market). This is particularly significant if brokers can more easily connect to a wider range of trading venues outside their local markets, either through streamlined membership processes, or because trading infrastructures offer more efficient connection opportunities through enhanced passporting or intra-group synergies. This would mean that brokers could access markets they might not have engaged with under more cumbersome onboarding processes and ongoing monitoring of compliance with membership requirements. With easier access to a broader range of venues, brokers could enhance their service offerings, providing clients with diverse investment opportunities and competitive pricing, which could ultimately result in making investments more accessible and attracting a larger client base.

Lastly, this option would help improve supervision by reducing fragmentation, in particular thanks to the harmonisation of requirements under MiFID/R. For instance, the harmonisation of rules applicable to the approval of changes to trading venues rulebooks would simplify the way new product launches are approached by supervisors.

Post-trade

The measures under this option would be effective in enabling further market integration and scale effects. They would do so notably by: reducing the burden for CSDs to provide services across borders and ensuring freedom of issuance, which was identified by 36 of 49 respondents (in particular CSDs and issuers) to the relevant questions in the targeted consultation as a substantial barrier to cross-border settlement activity; mandating all EU CSDs that settle in a T2S-supported currency to connect to the T2S platform, a proposal supported by 25 of 36 respondents to the targeted consultation; and improving inter-CSD connectivity via an increased number of links between CSDs and the implementation of a hub and spoke model for EU CSDs by requiring CSDs identified as hubs to be interconnected and requiring others to connect to (at least) one CSD hub.

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This option would also accomplish the objectives of the proposal by reducing the burden for CSDs when providing services across borders, thus reducing the costs of cross-border settlement. Legal clarity would also reduce costs for issuers, ensuring freedom to issue their securities in whichever EU CSD they want by restricting national law from imposing additional requirements that go beyond EU law. This approach would reduce costs for investors as well.

In addition, promoting the use of T2S and connecting the fragmented landscape with an increased number of links between CSDs would create a settlement network with several key, interconnected nodes at its centre, allowing participants in any EU CSD to settle securities transactions in any other CSD, thus increasing competition between settlement infrastructures. At the same time, this option would reduce the regulatory burden of establishing links by simplifying the application process and replacing the current regime with a more streamlined one, a proposal supported by 16 out of 22 respondents to the targeted consultation (in particular CSDs). This option would also harmonise standards in settlement operations, facilitating further integration and supported by 37 out of 41 respondents to the targeted consultation (in particular CSDs and CSD participants).

Reducing the burden for CSDs to provide cross-border services, imposing a hub and spoke model for the settlement landscape and promoting the use of T2S will have the combined effect of decreasing existing frictions in cross-border settlement operations and make for a more interconnected settlement network in the EU. This will have implications for the transparency of settlement as there will be a decreased need for settlement internalisers to fill in the gaps inherent in the current fragmented settlement landscape. A decreased need for the services of settlement internalisers would increase settlement done directly in CSDs, which would allow these infrastructures to reap further benefits from economies of scale leading ultimately to lower costs for CSD participants and end investors.

Furthermore, this option would help improve supervision by reducing fragmentation, in particular thanks to the harmonisation of requirements for settlement in the CSDR and improvements for groups. For example, ESMA would be made the authority responsible for authorising interoperable links for all CSDs, and would only be able to refuse such a request in the case that this would threaten the smooth and orderly functioning of financial markets or cause systemic risk. This specific objective would nevertheless only be partially met, as divergences between national competent authorities would persist.

Finally, the comprehensive review of the current framework would also facilitate innovation by removing relevant regulatory obstacles. This would be accomplished by ensuring that the regulatory frameworks for settlement and settlement finality are technologically neutral and fit for purpose to facilitate the implementation of novel technologies. For example, key definitions and concepts – such as 'book-entry form' and 'securities accounts' – would be updated to ensure they accommodate settlement regardless of the underpinning technology. (For more details, see Section 5.1.2.6 in Annex 8 'Post-trade'.)

Asset management

The measures under this option would effectively enable further market integration and achieve scale effects. The proposed measures are expected to be effective in tackling the divergent rules and burdensome requirements in asset management discussed in Section 2.2.1.

Further market integration is achieved in various ways, notably by streamlining and harmonising the current authorisation and marketing notification procedures.

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The new passporting upon authorisation regime and proposed review of the marketing rules under the CBDR stimulate the distribution of funds in multiple Member States, increasing market access. The harmonisation of the authorisation submissions for UCITS funds fosters greater supervisory convergence. In addition, the accompanying centralised notification process mitigates national discretion and gold-plating, and the increased standardisation of processes for marketing and business operations further reduces burdensome requirements and costs. The measures also contribute to legal certainty and more efficient fund management via shortened procedures.

Further market integration is also supported by the measures on depositary services and delegation. The measures on depositary services create a more integrated market for these services, increasing the choice of depositaries for funds and competition in the market. The depositary passport also helps to develop smaller markets in which depositary services may currently be lacking and limiting the growth of the investment market, notably by fostering higher quality and lower costs, thanks to increased competition. By building on existing EU authorisation and passporting regimes for credit institutions and investment firms, a depositary passport could be introduced without undermining financial stability or investor protection. The measures on delegation facilitate better use of resources within EU groups and more efficient EU-wide supervision of groups operating in the single market (see below).

The proposed measures also mitigate *burdensome requirements*, notably by harmonising practices, reducing national discretion and gold-plating, and revising the rules on intra-group delegation.

For example, the proposed measures would reduce the current costs associated with a pan-European strategy for an AIFM managing eight AIFs, which can be as high as EUR 500,000.[143] This is because the proposed measures would reinforce the current prohibition for the appointment of local physical agents, which can cost up to EUR 25,000 for one AIF with a pan-EU strategy, as well as reducing the overall burden of complying with 27 different national frameworks. In addition, removing the pre-marketing ban will result in significant cost savings of approximately EUR 210,000 in fees payable for registration outside of the fundraising period for an AIF with a 10-year lifespan marketing in 10 EU jurisdictions, as reported by one large AIFM. For investors, this would result in reduced costs and have the potential of improving investment opportunities.

For UCITS, the costs associated with a pan-European strategy can be even higher. Moreover, the harmonised procedures and predictable timelines for UCITS authorisations, marketing notifications, disclosures in marketing communications and fund documents, limiting translation requirements to the key information documents, and strengthening rules on local physical agents, would reduce administrative uncertainty and lower legal and compliance costs. (Estimated cost savings are referenced below with more detail provided in Case Study 3 in Annex 9 on "Asset management").

On top of the measures discussed above, burdens are further reduced by allowing EU asset management groups to operate more efficiently. The proposed measures would remove the need to establish and maintain distinct resources dedicated solely to the oversight and monitoring of delegated activities carried out by entities belonging to the same group. In addition, the measures facilitate the efficient centralisation of resources, such as IT systems, compliance teams, risk

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[143] For one AIF with a pan-European strategy, the annual cost is reported as EUR 65,000, broken down as follows: (i) total NCA fees of EUR 38,000 (which vary from EUR 800 to 1,400); use of "local agents" fees of EUR 25,000; and (iii) internal costs of organising ongoing arrangement of EUR 2,000). The overall cost of EUR 500,000 excludes the legal costs associated with the payment of fees, those costs being much harder to estimate as they will depend on economies of scale, etc. Further details are contained in Case Study 2 in Annex 9.

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management functions, or administrative staff, alleviating the operational and financial burden that asset management groups currently face.

Overall, the proposed measures would be effective in removing all the national discretions identified in the UCITSD and AIFMD (see Section 2.2.1 and Annex 9, Appendix A).

The decision to market funds in multiple countries depends on strategic considerations such as a fund group risk appetite, the overall attractiveness of the target fund markets (including in terms of expected demand and competition) and associated burdens and uncertainty of cross-border distribution. Due to the strategic considerations involved, aggregate impact cannot be quantified. However, based on the literature reviewed in Section 2.1.1 and anecdotal evidence from stakeholder outreach, the measures can be expected to have a positive effect. For instance, one of the largest asset managers based in the Nordic region reported that it would expand its European strategy to 17 additional Member States if the various measures to remove barriers were introduced. In addition, the proposed measures could help to reduce the cost difference between cross-border funds and single country funds, which is on average estimated to amount to EUR 400,000 additional fixed costs per cross-border fund per year (see Annex 9, Section 4.1). The same manager reported estimated annual cost savings of EUR 673,900 if the measures under this option were introduced, with considerable savings to be made where the physical local agent rules were reinforced (the current costs faced by that manager for local agents in three countries is EUR 144,000). Finally, by fostering the efficient operation of funds in the single market, the proposed measures are expected to contribute to economies of scale, which in turn would reduce the ongoing costs faced by investors. As illustration, in case the measures resulted in a 10% increase in the share class assets, aggregate ongoing costs would decrease by EUR 521.95 million[144], following ESMA (2025). However, without further information on funds' cost functions the expected increase in assets cannot be estimated.

Innovation (DLTPR)

The measures under this option would be effective in facilitating innovation by removing regulatory obstacles. The broad review of the DLTPR would aim at capitalising on the growing increase in market interest, globally and in the EU, in leveraging DLT for financial services. It would do so through three sets of measures.

Firstly, they would expand the scale and scope of the DLTPR to support its commercial viability, while keeping the DLTPR subject to certain limitations especially in terms scale. This would ensure that successful participants in the DLTPR have the possibility to scale their solutions as their operations mature. Making thresholds more permissive and the regime more permanent has been recommended by ESMA to help projects reach economic viability and deepen market liquidity This would also attract a broader range of participants, especially large financial institutions that find the current thresholds too limiting to establish large-scale trading and

[144] Based on Table 1, the average fund size would increase from EUR 365 million to 401.5 million. In calculating the aggregate cost savings due to a 10% increase in average fund size, each fund saves EUR 8,030 from lower ongoing costs, as per ESMA (2025) study's indication of a 0.002 percentage point reduction. With 65,000 funds in the industry (see Table 1), this results in total savings of EUR 521.95 million. This calculation stems from multiplying the individual savings with the total number of funds, demonstrating significant scale efficiencies across the asset management sector.

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settlement platforms. These measures would address the current shortcomings of the DLTPR, thereby ensuring that it remains fit for the purpose of supporting market structure modernisation in the EU. Increasing the scale and the scope of the DLTPR would remove some of the current regulatory obstacles stifling innovation.

Secondly, measures under this option would increase the regulatory flexibility and compliance proportionality of the DLTPR. By establishing a special segment within the DLTPR aimed at small-scale businesses ('tier 2' segment) that would benefit from a simplified rulebook, this option would directly deliver on the objective of ensuring proportionality and flexibility of the DLTPR for small innovative businesses. Evidence from supervisory sandboxes as shown by the OECD[145] indicate that proportionate, principles-based approaches and lighter rulebooks for small firms reduce entry barriers while preserving consumer and market safeguards when combined with active supervision. By establishing a more general framework that disapplies parts of level 2 requirements and potentially non-essential level 1 requirements, competent authorities applying this rulebook would rely on the principles-based obligations of CSDR to approve and supervise firms wanting to provide CSD services. By doing so, they may be able to better take into account the specific business model of a DLTPR applicant and its risk profile. This would make it easier for smaller businesses to deploy DLT-based trading and CSD services. It would also allow the competent authorities implementing the DLTPR to consider applications based on the risk and operational features of a particular project or business model, rather than adhering to a one-size-fits-all approach. Well-designed proportionate regimes can accelerate learning for both regulators and firms while preserving financial stability as shown by OECD. In addition, clarifying ambiguities regarding the long-term viability of the Pilot regime, along with a service-specific approach to regulating CSD services and application-driven derogations from the standard rulebooks, would provide additional flexibility for experimenting with new business models and intermediary roles on DLT – not just for small entities but also large ones. Such flexibility aligns with recommendations from the Bank for International Settlements, which emphasised proportional innovation pathways as key enablers for distributed ledger adoption in regulated markets.[146]

Thirdly, as neither the DLTPR nor the authorisations granted under this option would have an expiration date, it would reinforce investors' confidence and provide the market with legal certainty for long-term investments in projects under the DLTPR, therefore removing a regulatory uncertainty of the DLTPR.

Efficiency

Trading

The adaptation to a new, further harmonised rulebook will entail some costs for entities managing trading infrastructure because of the modification of national rules (i.e., the deletion of national specificities). However, these costs are expected to be mostly one-off and by no means comparable to the benefits that are expected to be drawn by those same entities from the simplification of the regulatory landscape. Therefore, while it was impossible to quantify the level of one-off adaptation

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[145] OECD The role of sandboxes in promoting flexibility and innovation in the digital age https://www.oecd.org/content/dam/oecd/en/publications/reports/2020/06/the-role-of-sandboxes-in-promoting-flexibility-and-innovation-in-the-digital-age_ddcd3d40/cdf5ed45-en.pdf?utm_source=chatgpt.com

[146] BIS Wholesale central bank money in the context of technological innovation, https://www.bis.org/publ/othp99.htm

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costs nor a precise level of generated benefits, it is expected that overall infrastructure entities are likely to obtain a net benefit over a mid to longer term horizon.

Measures such as enhanced passporting opportunities for RMs, the creation of a PEMO status to allow the operation of multiple trading venues in multiple Member States on the basis of a single licence, and harmonisation and simplification of requirements on trading venues would bring about significant cost savings for entities with cross-border activities. Submission of data and views of multiple operators of trading venues support this. Exchange groups report the largest potential saving from the removal of the requirement to maintain multiple legal entities to operate cross-border as a group. Removing discretion to impose additional requirements at national level and removing the need to obtain approval for updates of exchange rulebooks from several competent authorities bring about additional cost savings. In total, the groups that contributed input reported expect savings between EUR 29 and 74 million per year. If all groups of trading venues that operate across Member States would similarly benefit from the proposed measures in proportion to the volume traded, one can extrapolate that expected savings would range between EUR 47 and 120 million per year across all trading venues belonging to a group. These are predominately administrative costs that currently arise from duplicative compliance functions and processes across groups and their trading venues operated in different Member States. In some cases, diverging supervisory practices add further costs as procedures must be tailored to the respective approach taken by NCAs. Parts of the cost savings will be passed on to brokers and downstream investors. Downstream investors in particular are estimated to save EUR 11.25 to 30 million given the current market structure and expected pass-through rate (see Annex 7 for details). In addition, the creation of a PEMO status would further facilitate the streamlining of operational and supervisory arrangements of groups of trading venues, while maintaining the existence of local 'national' markets. Lastly, it is expected that the PEMO structure, by enabling a leaner operational structure of trading venues, would act as a first step towards the effective pooling of liquidity across trading venues operated by PEMOs (while maintaining national 'entry points'). Those effects are even likelier to materialise as actions at the level of post-trade, such as the facilitation of cross-border CSD operations, will enhance synergies at the trading level. Therefore, brokers (and, eventually, end-clients) will, in the longer term, benefit from a more efficient trading environment derived from the more efficient organisational and supervisory structures enabled by the PEMO status.

Likewise, enhanced intra-group efficiencies, particularly through recognising the operational specificities of groups, would save these entities thousands of work hours annually in managing different regulatory requirements. Additional savings from operational efficiencies – such optimal allocation of resources and avoiding duplicative functions – could be substantial. For instance, one exchange has noted significant potential savings as a result of:

- rationalising compliance function teams, especially if combined with compliance function related to post-trading activities, where applicable; and
- rationalising resources dedicated to market operations, including market surveillance (for example to detect possible market abuse cases), regulatory reporting and membership, and reducing costs for such operations by up to 30%, which can result in savings amounting to figures in the low millions), plus additional savings from the avoidance of duplicative teams in certain Member States only. It would also facilitate more efficient use of capital and human resources across the group, reducing duplication of efforts and enabling consistent policy implementation.

Streamlining of trading venue membership processes would give rise to only small costs for venue operators, while brokers would be able to make significant savings both in terms of initial membership on-boarding processes as well as ongoing monitoring of compliance with

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membership rules. A majority of trading venues polled[147] on this specific topic concur that the overall benefits of these measures would significantly exceed the costs. It is estimated that large broker active in the entire EU could save EUR 100-500 000 per year by not having to maintain separate memberships, should this measure lead to a total alleviation of membership fees.

Post-trade

This option would ease the regulatory burden, reduce costs and thus improve the efficiency of providing services across borders. It would do so by: ensuring freedom of issuance; facilitating passporting and the cross-border provision of services; simplifying the application process for establishing links between CSDs; and promoting inter-CSD connectivity. CSDs would benefit from a decrease in compliance costs, the benefits of which should trickle down to their participants and through to end investors. Legal clarity would also reduce costs for issuers, ensuring freedom to issue their securities in whichever EU CSD they prefer, which would also have implications for increased competition, leading ultimately to a further decrease in settlement costs for market participants along the settlement chain.

In the case that a CSD needed to establish a connection to T2S, the CSDs would have to incur an initial one-off investment in the technical and legal arrangements necessary to facilitate connectivity and the outsourcing of settlement to the T2S platform. As the nine CSDs in the EU that are not yet connected to T2S are relatively small, and using an estimate on the low end of the range for costs of connecting to T2S (see Section 2.2.1.), a total one-off cost could amount to over EUR 200 million. In addition, annual maintenance costs could amount to up to EUR 9 million for the concerned CSDs. However, as more settlement is concentrated in the T2S platform, the cost of settlement services should drop as the CSD would no longer need to maintain its own proprietary settlement infrastructure, and as the cost of settling in T2S decreases with the growing amount of settled transactions. Cost savings would be compounded by harmonisation of standards, which would streamline processes and decrease compliance costs. As a result, transaction costs could decrease by about 30% compared to settling in a CSD not connected to the platform. This would translate to a savings of at least 0.15 euro per transaction and a saving of at least EUR 86 million in settlement fees paid by market participants if T2S was fully utilised by EU CSDs. Once the Eurosystem amortises the cost of the T2S platform (envisaged in 2029), it is expected that T2S fees will further decrease.

Investments would also be needed for CSDs required to establish and maintain inter-CSD links. Cost of establishing the necessary technical and legal arrangements for an inbound link can vary widely. A simple link established between two T2S-connected CSDs could entail an initial cost of EUR 30 000 to EUR 60 000. Such costs should however be offset by the fact that a peripheral CSD would only be required to establish a single link to one CSD hub while most CSDs in the EU currently maintain up to four links. Moreover, the increased interconnectivity should reduce the fragmentation in the settlement landscape, promote competition, and ultimately improve access to investment opportunities, leading to a deeper, more liquid capital market with lower costs borne by market participants. Investment costs should be fully amortised within up to 5 years, allowing for a further decline in settlement costs (For more details, see Section 6.1.2.4 of Annex 8 'Post-trade'). As a result, up to EUR 0.5 billion annually in efficiency gains could be potentially achieved if the cost of the two CSDs in the USA are taken as a benchmark (although it is important to keep

[147] Results from a targeted outreach to a representative set of relevant and significant stakeholders for that matter.

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in mind that the settlement landscape is more complex in the EU, e.g. due to the greater number of settlement infrastructures in the EU)[148].

Asset management

Measures under this option concerning investment funds, asset managers, and depositaries are designed to directly target existing barriers to cross-border activities within the EU. By reducing legal and operational frictions that currently fragment the market, these measures would strengthen the integration of the fund sector and reduce costs caused by regulatory burden.

In parallel, the review of marketing rules would tackle costly national divergences. Moreover, while the changes to existing marketing processes may entail short-term costs, these are expected to be outweighed by the long-term benefits. EU-wide harmonisation of marketing communications and disclosure requirements eliminates the burden of country-specific rules, while ending NCAs optionality for ex-ante checks of marketing communications and new share class notifications would remove current delays that slow down fund distribution in the single market.

On intra-group delegation, one large asset manager, which is authorised in four Member States and has branches in seven Member States, reported that recognising the notion of asset management group in the specific case of intragroup delegation arrangements will result in avoiding duplication of reporting and would substantially alleviate the regulatory burden and associated costs.

These measures would be further supported and reinforced by stronger supervisory coordination. Creating common rules and procedures would make ESMA-led cooperation with NCAs more effective, particularly for the largest cross-border groups. Enhanced supervisory convergence would ensure consistent application of rules across Member States, preventing protectionist practices and reducing compliance uncertainty. In this way, the efficiency gains from simplified cross-border activity and lower costs would be safeguarded by a more coherent supervisory framework, where harmonised rules and stronger coordination are mutually reinforcing.

Innovation (DLTPR)

Improving regulatory flexibility and making compliance more proportionate within the DLTPR, along with expanding the scale and scope of activities carried out and assets issued under this framework, would create the conditions for a higher uptake of the regime. Greater flexibility in the DLTPR may increase supervisory costs of EU and national competent authorities, as more entities are expected to apply. However, these incremental supervisory costs would likely be minor and manageable within existing resource frameworks., This is because most oversight is handled through pre-existing supervisory structures, thus offering a favourable cost-benefit ratio for broader market participation. Additionally, digitalisation generally reduces per- transaction oversight costs over time, meaning that potential short- term increases in supervisory efforts should not be seen as a barrier to innovation or as a justification to delay the deployment of DLT- based infrastructures in regulated markets.

[148] Any such comparisons and extrapolations are prone to uncertainty. The estimates need to be interpreted accordingly and are provided to illustrate the order of magnitude.

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The Tier 2 framework for small businesses would allow for more NCA flexibility in applying the rulebook, hence would necessitate close ESMA involvement to ensure supervisory convergence across the EU.

Service-specific licencing of CSD services could result in these services being provided by a group of non-CSD entities. This may require NCAs to allocate more resources to ensure effective supervision of new business models which operate as networks of intermediaries across multiple jurisdictions. Consequently, ESMA's closer involvement might be necessary to supervise these networks of CSD service providers, where post-trading value chains may end up being more distributed and complex, while potentially more efficient. At the same time, easier auditability of blockchains – as the technology provides transparent, immutable, and cryptographically verifiable records – may facilitate supervision compared to non-cryptographically secured ledgers. Service-specific licencing may increase operational risks in CSD services where networks of providers, rather than a centralised provider (traditional CSD), need to coordinate on DLT to ensure issuance, account and transfer services. The increased operational risks could be somewhat offset by the heightened resilience of a distributed post-trading ecosystem.

Expanding the scale and scope of the DLTPR, while keeping the activities subject to aggregate thresholds that can be revised in view of market developments and based on concrete DLTPR experience, would balance the need to allow businesses to grow under the DLTPR while keeping systemic risks from large scale deployment of next generation digital platforms under close control.

Coherence

This option would be coherent with the broader goals of the SIU strategy. It would also be coherent with the Commission's priority to boost Europe's competitiveness, the strategy outlined in the Competitiveness Compass, the Single Market Strategy, the EU Start Up and Scale Up strategy, as well as the Communication on a Simpler and Faster Europe.

By removing barriers to further deepening and integrating capital markets, the measures under this option complement other EU initiatives, such as the 28th regime. By streamlining cross-border offering of trading, post trading services and asset management services, thereby simplifying access to public markets, this option enhances the ability of companies operating under a 28th regime to leverage the benefits of a more integrated EU capital markets even more effectively.

Measures under this option would boost the attractiveness of EU capital markets, contributing to financing EU priorities. It would do so notably by increasing the harmonisation of the rulebook and reducing the burden for trading venues, CSDs and asset managers to operate and provide services across borders, thereby reducing the costs for all market participants and, in the innovation area, by ensuring that the DLTPR framework, designed to support DLT-based innovation in financial services, remains fit for purpose.

Measures under this option would also contribute to the Commission's simplification agenda and the Single Market Strategy. It would do so notably by harmonising and streamlining certain parts of the rulebook in the trading, post-trading and asset management sectors. Measures in the trading venues sector, such as enhancing passporting opportunities, recognising the group concept and streamlining the membership process would play a key role. Similarly, in the post-trading sector, ensuring freedom of issuance, facilitating cross-border provision of services, promoting the use of T2S and simplifying the process for establishing links between CSDs, harmonising settlement standards, would, among other benefits, contribute to simplifying regulatory requirements.

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Finally, this option would be in line with the Commission's Digital Finance Strategy[149], which explicitly supports the deployment of new technologies in financial services, by ambitiously adapting the existing rulebook to accommodate new technologies, like DLT. It would allow service specialisation in line with the technology's specificities, derogations from the established rulebook upon duly motivated requests by applicants. Furthermore, by increasing the activity thresholds of the DLTPR and the scope of eligible products, this option would support the scaling of DLT-based projects while still keeping the DLTPR in Pilot form. This is important to signal to the market that DLT-specific rules will evolve with the maturity and scale of DLT-based financial market infrastructures, incorporating policy learnings as they arise. This approach ensures coherence with the Digital Finance Strategy's aim to accompany fast innovation cycles with regular adjustments to the applicable legislation.

6.1.2. Far-reaching review of the functioning of capital markets

Effectiveness in meeting the specific objectives

Trading

The measures under this option would be effective in enabling further market integration and scale effects through increased cross-border activity. In particular, this option would be effective in addressing the current challenges faced by brokers in directly accessing liquidity and financial instruments, which is currently costly and complex. By eliminating the need for brokers to become members of multiple trading venues, or get indirect access to trading venues via intermediaries, this option would be more effective in addressing broker's current needs than Option 2.

However, for this solution to function as envisaged, seamless interoperability in post-trading – meaning direct connectivity between all CSDs and all CCPs – would be essential, particularly given the currently very fragmented settlement infrastructure. Without comprehensive infrastructure connectivity in post-trading, the effectiveness of this measure would be limited. While connectivity and access would improve at the trading-level, cross-border trades would remain costly and less attractive, in particular for investors which trade smaller lot sizes (such as retail investors and small asset managers), because of the lack of economies of scale associated with the settlement of low volumes. Benefits for large institutional investors would also be limited compared to the costs, as they already have options to access fragmented liquidity pools.

Post-trade

By removing barriers to freedom of issuance, and by facilitating passporting and the cross-border provision of services, this option would increase cross-border activity, as it would reduce barriers to entry and allow CSDs to operate more easily across borders. By so doing, it would help meet the specific objective of enabling further market integration and scale effects. However, removing all additional passporting requirements and notifications could lead to a lack of transparency and accountability, as the home authority would not be notified of the intention to provide cross-border notary and central maintenance services by the CSD. Host Member States would also not be notified and hence have limited oversight and control over the CSD's activities. Hence, while integrating the market, this option would also present potential risks to financial stability as well as pose a challenge to ensuring compliance with national and EU law. While turning T2S into a CSD and requiring all CSDs to link to it would enable further market integration and scale effects,

[149] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020DC0591

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concentrating most of the issuance and settlement activity in T2S CSD could also reduce competition and would risk reducing innovation in the sector.

Broadly speaking, removing many of the burdens for CSDs to provide cross-border services and mandating a fully interconnected settlement landscape with all CSDs connected to one another will have the combined effect of decreasing existing frictions in cross-border settlement operations and make for a more interconnected settlement network in the EU.

This far-reaching review would help improve supervision by reducing fragmentation, in particular thanks to the harmonisation of requirements for settlement and improvements for groups, exactly the same way as for Option 2.

Asset management

The measures under this option would be effective in enabling further market integration and scale effects through increased cross-border activity. This option would involve authorising and regulating asset managers based on their group structure rather than at the individual entity level. Other measures proposed under option 2 would be kept, notably: harmonising and streamlining marketing requirements for UCITS funds and AIFs across the EU, such as the current fragmented national requirements for disclosures in fund documentation and ex-ante verification of marketing communications; and eliminating divergences in national laws and local regulatory practices to ensure consistency and reduce administrative burdens for cross-border marketing.

However, this approach would imply a fundamental overhaul of the current authorisation regime for asset managers under the sectoral frameworks and would entail certain risks. First, the AIFMD and UCITSD license would most likely be granted to the parent entity of the group, which could be different from the entities that carry out regulated activities across the EU. This would require that NCAs in the Member States of AIFMs and management companies within the group relinquish supervisory responsibilities over subsidiaries operating within their jurisdictions, raising concerns about the loss of local oversight. Second, there is a risk that the home supervisor may lack sufficient insight into the specific activities, market conditions, or risks associated with subsidiaries operating in other Member States, potentially undermining effective supervision and investor protection.

Innovation (DLTPR)

By increasing proportionality and flexibility of the DLTPR, based on a similar set of measures as under the broad review, this option would be equally effective in removing regulatory barriers to facilitate innovation for projects that apply for the DLTPR.

Going beyond option 2, this option would remove aggregate and product-specific limits applicable to assets eligible to be intermediated by DLTPR participants. This would maximise the potential scale and scope of DLTPR projects, de facto abolishing the sandbox nature of the DLTPR framework, thereby making it more effective in allowing DLT market infrastructures to scale without constraints and with a high degree of legal certainty. All this would support the commercial viability of large and diverse projects, encourage participation from major players such as banks and CSDs, and foster innovation and long-term investment. Under this option, a larger set of eligible participants to the DLTPR could attract wider variety of projects from broader parts of the financial industry under the DLTPR.

However, converting the DLTPR into an unlimited framework, especially when policy learnings from concrete projects are still limited, could result in rules that are poorly suited to this fast-

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evolving area of finance, undermining the effectiveness of this option in supporting innovation by removing regulatory barriers.

Efficiency

Trading

The option would mandate interconnection of larger trading venues. The cost-related data collected from stakeholders lacks consistency, making it challenging to provide a reliable estimate of the costs. Estimates of the average costs for setting up the network provided by stakeholders vary from EUR 300 000 to EUR 100 million. Additionally, the precise amount would depend on the actual setup, the number of venues that participate in the system, the type of connectivity (bilateral links versus hub system), the quality of the links used, the type of software which would be implemented and the trading sessions costs, among others.

Some trading venues polled[150] on this specific topic provided additional cost breakdown, as presented below. Given a wide divergence in the overall cost figures provided by stakeholders, the true costs are difficult to estimate and would depend on the detailed specifications of the interconnectivity set-up between trading venues. Direct bilateral connections would cost in the range of EUR 2 000-10 000 per month, while in-house software development and maintenance was estimated to cost between EUR 1.5 and EUR 3 million per year. Buying software from third-party vendors was estimated to be cheaper but may also create performance issues and operators would still need to supervise and maintain the platform. The connectivity fees would vary greatly depending on number of order books access, speed, through-put requirements and type of connections. Research shows that the cost of a trading session can vary between EUR 210 and EUR 780 per month. Respective costs for the same type of interconnection would be similar per exchange, i.e. there would be no effects related to the size of the exchange (for more details, see Section 3.2. of Annex 7 'Trading').

In terms of benefits generated by the interconnection, trading venues in scope would be expected to benefit in the form of increased cross-border order-flow, potentially generating higher revenue through execution fees. However, and despite the uncertainty linked to the estimation of the costs for trading venues, it is clear that for trading venues these costs will be significantly higher than the potential benefits.

Brokers would not bear any direct costs with respect to the initial set-up and ongoing maintenance of the interconnected network. They would benefit from significantly facilitated access to markets on a cross-border basis, with reduced membership-related costs and burden, thereby offering their clients easier and broader access to markets across borders. Nevertheless, these benefits are likely to materialise only after implementation costs are incurred, and they are contingent upon the solution being widely adopted by brokers.

At the same time, brokers may bear indirect costs. Whether and to what extent such an increase in execution fees would materialise is complex to determine and quantify, given the uncertainty around the costs borne by venues to set up and maintain the network, and the uptake of the interconnection system among brokers (the broader the use, the lower the costs per individual transaction). At present, brokers are paying either the fees for connecting directly to a trading venue, or the intermediation fees charged by larger brokers. If an interconnectivity mechanism were established, brokers would be able to place orders on multiple venues, while being connected

[150] Results from a targeted outreach to a representative set of relevant and significant stakeholders for that matter.

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to and being a member of only one venue, thereby reducing their reliance on intermediation. Due to the absence of intermediation fees data, which are very client-specific, it is not possible to provide precise savings figures for these fees. Yet, the Commission is aware that those intermediation fees can be high, in particular for shares of smaller companies.

Given the above, the Commission can conclude that the benefits for the brokers are likely to outweigh the costs they would incur, and that this set-up would lead to a more efficient trading environment for them compared to Option 2.

Overall, given the uncertainty around costs and benefits of the interconnection for trading venues, at this stage it is impossible to estimate with certainty the net outcome of this option when considering its impact on all stakeholders (trading venues, brokers, end-investors). One of the main advantages of 2 option compared to option 3 is that the costs to-be-incurred are known with reasonable accuracy in advance, allowing the Commission to determine with better precision that the cost-benefit ratio underscores the efficiency of Option 2. By contrast, the costs for the implementation of Option 3 cannot be accurately calculated, even provisionally, at the present moment, and the benefits of option 3 are contingent on many other factors (notably on changes in the operation of post-trade infrastructure) whose realisation is at this stage not fully certain (see section below for the cost-benefit analysis for Option 3). Those costs are likely to be significant for trading venues in particular, compared to the more market-driven solutions that would emerge from Option 2. Thus, as regards the efficiency criterion, based on the cost-benefit analysis of both Options, the Commission deems Option 2 to be the more efficient one, hence the preferred one.

Post-trade

This option would entail very high costs as CSDs would need to assess the compliance with all Member States' laws, irrespective of whether they want to provide their services in all Member States. This could cost approximately EUR 30 000 per assessment of a given Member State's legal framework.[151] The transformation of T2S into a CSD would likely require a significant initial investment to expand its functionalities, which would have to be reflected in the price of its services. CSDs would need to adapt to a new platform and those not yet connected to it would need to establish new links (with costs as quantified under option 2). There would also be some costs for market participants as they would need to adjust to the CSDs' adaptations. At the same time, using the T2S CSD as a settlement hub would likely reduce the cost of cross-border settlement, by making existing bilateral links obsolete and eliminating the cost of maintaining them. If all settlement activity (settlement, issuance, account maintenance) were to be concentrated in the T2S CSD, it could bring down post-trading transaction costs. These cost savings, however, would come at the expense of significant upfront costs and administrative burden on the part of market participants. Considering the costs associated with pursuing this option on the one hand and the prospective cost -savings and benefits on the other, in particular in comparison with option 2, this option would not be the preferred way forward.

Asset management

This option would likely increase costs in the short term due to the need for asset managers to reorganize their business and organisation, including *vis-à-vis* the investment funds they manage (e.g. by replacing the current authorised fund manager with the parent company of the group). It would require EU financial conglomerates or standalone asset management groups to designate an

[151] Confidential information provided to DG FISMA services.

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EU parent entity. The competent authorities of the parent entity would also need to effectively supervise and control all subsidiaries and branches for the purposes of this framework, which could be a complex and challenging process. Asset managers operate with very diverse business models, and there is no uniform structure across the industry. Additionally, asset managers are not prudentially regulated on a consolidated basis and do not typically centralise risk management across their EU operations.

Innovation (DLTPR)

By removing thresholds on the DLTPR activity and broadly widening the eligible participants in the DLTPR, this option raises costs for regulators, in addition to introducing higher financial and operational risks and increased supervisory complexity. Removing the DLTPR thresholds entirely at this early stage of market development, when business models and supervisory responses are still evolving, could lead to increased risk that could jeopardize responsible innovation and hurt trust in DLT infrastructure. Therefore, while representing the most ambitious intervention for the DLTPR, this option scores lower in efficiency compared to the other option as the costs incurred in terms of risks and supervisory complexity outweigh the potential benefits, which can be also achieved through alternative means (e.g. revisable thresholds based on the assessment of risks and market conditions).

Coherence

This far-reaching review, as a package, would not be fully aligned with the objective of the SIU strategy to build a single market for financial services, promoting market integration and efficiency, and supporting innovation.

For instance, while being coherent by bringing some benefits to investors in the trading sector or groups in the asset management sector, in the post-trading sector this option would present potential risks to financial stability as well as to ensuring compliance with national and EU law due to the lack of transparency on the intention of a CSD to provide cross-border notary and central maintenance services cross-border, as explained in the effectiveness section above. It could also create unintended consequences such as reduced competition.

Converting the DLTPR into a framework with unlimited thresholds and wide market accessibility would not align well with the priorities of the Digital Finance Strategy and the SIU strategy, which both refer to the need for the regulatory framework to facilitate digital innovation in the interest of consumers and market efficiency. Furthermore, allowing a broad set of regulated participants in the DLTPR would support the comingling of DLTPR-regulated activities (trading, CSD services) with other financial services, increasing risks of contagion in the financial markets. This option would turn the DLTPR into an unlimited framework at a time when learnings from concrete DLT-based projects are still limited, increasing the risk of irresponsible innovation affecting market confidence in the technology and their users. Finally, this option would be less coherent with the early stage of development of DLT-based markets, viewed through one other key objective of the DLTPR – to maximise flexibility and proportionality of the Pilot rules for participants. The latter, which is meant to increase experimentation with DLT, is difficult to reconcile with an unbounded framework, more appropriate for more mature and stable markets.

6.1.3. How do the options on addressing barriers to cross-border activities and innovation compare

The table below provides a high-level summary of how the described packages of options compare (for the sake of readability, the labels of the options have been shortened). A more detailed

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overview of the impacts of the different options per area of intervention (trading, post-trading, asset management, innovation) can be found in the respective sectoral Annexes.

Taking into account the assessment and explanations provided above, and in view of the importance of integrated and efficient financial markets for the implementation of the SIU strategy, option 2 is considered the preferred option to address the problems identified in chapter 2.

In terms of effectiveness, option 2 would simplify the overall regulatory landscape, thereby facilitate cross-border provision of services and the possibility for infrastructures and investments funds to scale up their activities. It will remove differences in national implementation of EU rules, enhance the passporting regime in the trading, post-trading and asset management sectors, reduce the burden related to provision of cross-border services, and improve the interconnections of entities across markets. The proposed measures on depositaries would help boost the provision of such services across the EU, without restrictions. By removing these barriers to cross-border activities and making the possibility to access other EU markets in a less burdensome and faster way, option 2 will also increase competition among entities. Finally, this option will update definitions and concepts in existing rules to cover new technologies in these sectors. The DLT is an important part of the package because DLT can offer transformative benefits for the trading and post-trading value chain and can therefore enhance the efficiency of these infrastructures in the EU. Option 2 would address those limitation in the DLT framework to ensure that the DLT-related innovation in the EU is not lagging behind other jurisdictions.

In terms of efficiency, option 2 would deliver intended benefits while containing related costs. The compliance with the amendments and with a more harmonised rulebook would imply costs to adjust to the new requirements, but these costs are largely one-off in nature and expected to be small. The improved interconnections between entities would also imply initial one-off adjustment and investment cost. The consequent relief in the burden currently generated by the regulatory fragmentation for the provision of cross-border services and the improved interconnectivity would improve the efficiency of providing services cross-border and allow entities to scale up their activities. The recognition of group entities would allow a more efficient allocation of resources and cost savings for group entities active cross-border in the trading, post-trading and asset management sector. Legal clarity when providing services cross-border would also reduce costs. These benefits would reduce the costs for cross-border investors, also because competition would be promoted. The increased flexibility of the DLTPR would balance the need to allow the uptake of DLT-based technologies while keeping systemic risks from large scale deployment of next generation digital platforms under close control. As concerns cyber security, DLTs by virtue are not necessarily more prone to attacks than existing trade and post-trade infrastructure which is also heavily digitalised and automated. Some public DLTs have shown significant resistance to cyber-attacks while others were left exposed due to bad coding or structural setup. In terms of regulation, the DORA framework should help provide additional security and raise preparedness for cyber incidents across all sectors concerned by the initiative.

In terms of coherence, option 2 measures have been designed having in mind internal coherence among the various elements as a package to increase the integration of EU capital market and address inefficiencies in supervision in the single market. The measures under option 2 are also coherent with the Commission's priorities, as discussed in Section 6.1.1, under "Coherence".

The more extensive and far-reaching reform envisaged under Option 3, while potentially bringing greater benefits in terms of integration, would present some potential risks to financial stability and unintended consequences in terms of its impact on competition, innovation and trust in capital markets. Moreover, the costs of mandating interconnection between trading venues and mandating further upgrades in the post-trade infrastructures are potentially very high, according to feedback

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received from stakeholders. The changes proposed for the asset management sector would require fundamental changes in the operations of the sector which do not seem well justified.

	Effectiveness	**Efficiency (Cost effectiveness)**	**Coherence**	**Overall score**
Baseline scenario (Option 1)	0	0	0	0
Option 2: Broad review of the functioning of capital markets	++	++	++	++
Option 3: Far-reaching review of the functioning of capital markets	+/-	+/-	+	+/-

Legend: ++ = positive + = slightly positive +/- = mixed effect 0 = no effect - = slightly negative -- = negative

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Impact on stakeholder groups

	Trading venues	CSDs	Asset managers	Investors	Non financial corporates
Baseline (Option 1)	No change	No change	No change	No change	No change
Option 2	++ Remove differences in national transpositions ++ Reduce compliance costs ++Higher legal certainty ++Foster cross-border operations/activities thanks to enhancement of passporting regime and single licence for pan-European market operators ++ Facilitate allocation of resources within groups ++Economies of scale and efficiency gains/lower operational costs + Facilitated access to multiple venues + Incentives to develop solutions to pool liquidity	++ Reduce differences in national approaches ++ Reduce compliance costs ++Less fragmentation ++Higher legal certainty ++Foster cross-border operations/activities thanks to enhancement of passporting regime ++ Facilitate allocation of resources for group entities ++Economies of scale and efficiency gains/lower operational costs ++Support market structure modernisation/innovation (via DLTPR review)	++ Remove differences between national transpositions ++ Reduce compliance costs and regulatory burden ++Less fragmentation in the single market ++ Higher legal certainty ++Increase cross-border distribution of investments funds ++Economies of scale and efficiency gains/lower operational costs ++Improve operating conditions for cross-border groups	++Diverse investment opportunities and competitive pricing ++ Savings and economies of scale partially passed on to users of infrastructure, leading to lower costs for investing in capital markets	++ better access to funding via larger investor base
Option 3	+/- Same as Option 2 but implementing costs linked to interconnection mandate	+/- Same benefits as under option 2 at the risk of higher financial stability risks	+/- Disproportionate for the sector, with risk of undermining effective	+/_Same as option 2 in terms of access to more diverse investment	+/- Same as option 2 in terms of simplicity of accessing public markets,

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	would be significantly higher +/- Potential for innovation and scale under DLTPR would be maximised for market infrastructures, but at the risk of lower effectiveness of the regulatory framework	+/- Reduce competition and innovation in the post-trading sector +/- Potential for innovation and scale under DLTPR would be maximised for market infrastructures, but at the risk of lower effectiveness of the regulatory framework	supervision and investor protection	opportunities, but higher costs could be transferred to investors	but higher costs could be transferred to investors

Legend: +++ = Very positive ++ = Positive + = Slightly positive +/- = Mixed effect
0 = no effect - = Slightly negative -- = Negative --- = very negative

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6.2. NON-ALIGNED SUPERVISORY PRACTICES ACROSS MEMBER STATES AND WEAK TOOLS AND POWERS AT EU LEVEL

6.2.1. Improved supervisory convergence and an enhanced role for ESMA in supervision

Effectiveness in meeting the specific objectives

This option directly targets the shortcomings stemming from divergent supervisory practices and weak tools and powers at EU level by enabling a more coherent, proportionate, and strategic allocation of supervisory tasks.

This option significantly enhances the effectiveness of EU financial supervision by centralising it for EU CCPs, CSDs and trading venues whose size, cross-border activities/dimension or systemic importance warrant a more integrated approach. In general, ESMA's oversight would allow for more consistent and coordinated enforcement, particularly in areas where the failure or mismanagement of a single entity can produce ripple effects throughout the EU. Giving ESMA direct supervision over these entities would ensure that conduct risks are assessed with a uniform, EU-wide perspective. Such an approach would give ESMA full visibility over both the trading and post-trade operations of supervised entities across the Member States, which would enable it to better detect systemic risks, monitor market developments, and ensure consistent application of the single rulebook. ESMA's direct engagement would also simplify supervisory interactions, provide firms with a single point of contact, and create a level playing field among them. By retaining the supervision of smaller, locally focused entities at national level, this option strikes the right balance between the need for local expertise and the advantages of centralised oversight. It avoids a one-size-fits-all approach within sectors and ensures that supervision remains proportionate to the risks posed by each entity.

More specifically, each sector would benefit from ESMA's role in reducing fragmentation, enforcing uniform standards, and addressing cross-border risks through EU level supervision and enhanced tools.

For significant EU CCPs, supervision by ESMA would result in harmonised supervisory processes for authorising new services, risk model changes, and prudential assessments. EU supervision would ensure a uniform EU-wide perspective on prudential and conduct risks, enabling timely detection of systemic risks.

For significant EU CSDs, EU supervision would result in harmonised supervisory processes, particularly in areas like intra-group outsourcing and service extensions. ESMA's oversight would ensure consistent application of rules across Member States, monitoring cross-border risks from increased transaction volumes. This centralised approach would promote a level playing field for CSDs, enhance transparency in securities services, and mitigate systemic risks associated with cross-border operations.

In the trading sector, the centralisation of supervisory powers as envisaged in Option 2 would foster fair competition among trading venues and facilitate cross-border operations by reducing costs and enabling the synergies which a friction-less single market for capital should offer. Because of the significant part of the sector falling in scope as well as the enhanced supervisory convergence tools for ESMA foreseen under this option, it is also expected to support an improvement in the alignment of supervisory approaches towards those trading venues which, because of their smaller size and national dimension, would remain under national supervision.

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For the asset management sector, this option proposes to enhance ESMA's coordination role to increase supervisory convergence. This goal will be achieved by giving ESMA a mandate to (1) bring together all the necessary information that each NCA holds on group entities so that supervisors can have a full overview of the market and monitor all relevant risks, (2) carry out, together with NCAs, periodical group-wide reviews of the supervisory approach for asset management companies, (3) coordinate the supervision of cross-border provision of investment funds by receiving marketing notifications and, through its role and powers in collaboration platforms, ensuring that asset managers receive a single, consistent conclusion and set of requirements on their marketing documents.

This approach will make oversight more effective for the asset management sector, since it would give everyone a clearer picture of how those asset manager groups are organised and operate in Member States. It would also prevent duplicative information requests when different functions are allocated to different entities in different Member States. By ensuring that rules are applied in a consistent way, ESMA would help create a level playing field and make cross-border operations easier for firms. In addition, under the current AIFMD/UCITSD frameworks, Member States must still establish their own rules of conduct, organisational requirements, prudential rules, product rules, and other related matters. This limits ESMA's capacity to promote convergence, since national authorities cannot move beyond the boundaries of their national rules. Under the proposed changes, part of the Member States' prerogatives would be replaced by EU rules, and discretionary options currently granted to Member States would be removed.

In the case of CASPs, giving ESMA direct supervision will build a strong common supervisory framework from the start in a sector that is operating electronically and cross-border and where national authorities have less on-the ground knowledge. Direct supervision in this case would also be more effective because the implementation and interpretation of MiCA would fall in the hands on a single supervisor which would have the capacity to develop strong expertise on new technologies and ensure that the same requirements are applied across the board.

Stakeholders perceive limitations in convergence tools as well as the incentives to use them, as reflected in the consultation responses: only 21 respondents consider ESMA's current supervisory convergence tools to be used effectively, while 44 do not, and only 19 respondents feel that ESMA's governance and decision-making processes provide sufficient incentives for their use, compared with 26 who do not.[152] Several stakeholders, in particular those from the concerned sectors, support enhancing ESMA's central supervisory role in targeted areas, and emphasise the need to ensure that ESMA focuses on areas where EU-level oversight adds the most value. Reforms to the supervisory convergence tools would significantly improve the effectiveness of ESMA's ability to tackle divergent national practices. Enhancements to existing tools – such as binding mediation, breach of Union law procedures, and peer reviews – would equip ESMA with the mechanisms to enforce uniformity where it is most needed. Furthermore, new tools that have proven their effectiveness in sector legislation, such as collaboration platforms, would be added to ESMA's supervisory toolbox. The result would be a more stable and integrated supervisory framework, better equipped to address emerging financial risks and reinforce investor trust in the EU financial system.

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[152] This is based on several questions in Section 7.2 and 7.3. Question 7 asked: Please rate the effectiveness of supervisory convergence tools from 1 to 5. Question 8 asked: Do you think that the current supervisory convergence tools are used effectively and to the extent that is possible? Question 9 asked: Do you think that the current governance and decision-making processes within ESAs provide sufficient incentives for the use of supervisory convergence tools?

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Efficiency

This option would bring substantial efficiency gains by centralising supervisory responsibilities in a targeted and proportionate manner. In doing so, it would reduce redundancies and remove the inefficiencies associated with fragmented supervision, particularly for entities operating across multiple jurisdictions. While this option would entail one-off and recurring costs for supervisors and businesses, the benefits of this option are considered to outweigh the costs in the long-term. Notably, while transferring supervision of certain entities to ESMA would create costs for businesses, these costs are expected to be outweighed by the cost savings for NCAs.

From a resource perspective, the expectation is that consolidation of supervisory functions for significant entities at the EU level will reduce the need for each Member State to independently maintain full supervisory capacity in all areas. This would result in economies of scale and a more focused allocation of supervisory expertise. For firms, especially those with a pan-European presence, the centralisation of supervision would reduce the administrative burden and compliance costs caused by navigating multiple national supervisory approaches. A single supervisory authority with clearly defined competencies would reduce duplicative and sometimes inconsistent supervisory requirements and would enhance the predictability of supervisory outcomes. For instance, one major exchange group has estimated that full centralisation of its supervision could yield direct ongoing cost reductions of EUR 6-9 million annually. A key area of improvement in this context is data and supervisory reporting where single reporting to ESMA in the area of trading and post-trading would improve consistency and avoid possible data reconciliation issues. However, not all data collection would be centralised under this option, meaning that some synergy gains are foregone. In general, the centralisation of data collection would create one-off costs but would result in significant on-going cost savings. In addition to the reduction of direct cost, further benefits would lie in shortened approval timelines in trading and post trading, resulting in a better environment for innovation and shorter time-to-market for new products.

The governance reforms proposed under this option would further improve efficiency by introducing a streamlined decision-making process through a dedicated Executive Board composed of full-time, independent members. This body would replace the slower, consensus-based model of the current Board of Supervisors, enabling quicker and more decisive supervisory actions.

By adopting a clear, fee-based approach for direct supervision – grounded in the user-pays principle – ESMA's financial autonomy and responsiveness would be reinforced. At the same time, tasks with broader public value, such as regulatory development and supervisory convergence, where ESMA would not have direct supervisory powers, would continue to be supported by the EU budget and NCAs contributions, reflecting their collective benefit to the single market. Clarifying and consolidating ESMA's mandates to levy fees on supervised entities would ensure transparency, proportionality, and administrative simplicity. Taken together, these elements would allow the supervisory system to keep pace effectively with market developments and ensure that resources are aligned with risk and complexity.

The total cost of implementing the proposed option is comprised of various components. Cost figures are based on estimates from ESMA and the Commission in terms of FTEs needed and expected average costs per FTE.[153] In the trading sector, the cost of direct supervision is estimated to range from EUR 17 to 19.5 million, EUR 5.5 to 9.5 million in the post-trading sector for CCPs, and EUR 5.5 to 7.5 million for CSDs. Additionally, supervising the CASPs would require EUR 12 to 30 million annually, while the enhanced role for ESMA in the asset management sector

[153] Average cost per FTE used to derive total costs was EUR 186 000 per FTE.

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would need EUR 2 to 4 million for the coordination of supervision, with an additional EUR 2 to 3 million required for the oversight of cross-border fund distribution.

These figures include temporary setup costs, estimated at EUR 1 to 2 million per sector. They would be incurred to prepare ESMA for its new responsibilities. Strengthening supervisory convergence across the relevant sectors would require an additional EUR 1 to 2 million per sector in terms of FTEs. At the same time, some cost reductions can be expected at NCAs once ESMA takes over certain supervisory tasks and NCAs reduce or reallocate supervisory capacity.

To support ESMA's expanded supervisory responsibilities and ensure consistent supervisory outcomes across the Union, further development of centralised IT systems is required.

First, a supervisory data platform covering CCPs, CSDs and trading venues would consolidate data collection, document exchange and supervisory workflows for the direct oversight of these entities, enabling secure and timely access for national competent authorities and supervised entities. The estimated cost is EUR 8 million for development and EUR 3.7 million annually for maintenance.

Second, a central register for CASPs market surveillance under MiCA would function as a pan-EU hub for the collection, aggregation and analysis of transaction and order data reported by CASPs. Building on ESMA's MIDAS system, it would enhance market integrity by detecting potential market abuse and facilitate cooperation between ESMA and national competent authorities. The estimated cost amounts to EUR 4.2 million for development and EUR 2.5 million per year for maintenance.

Third, a data platform for cross-border notifications of funds would streamline home–host supervisory cooperation for the cross-border marketing of AIFs and UCITS. This one-stop-shop system would provide a secure interface for submitting, accessing and exchanging reliable, up-to-date documentation, including automated translation services. The expected cost is EUR 1 million for development and EUR 0.2 million annually for maintenance.

Finally, a centralised data and analytics capability would reinforce ESMA's Union-level data infrastructure and support the efficient exchange of information as part of a common Union financial data strategy. It would provide shared analytical tools, timely supervisory insights and secure, standardised data access for competent authorities. The estimated cost is EUR 15 million for development and EUR 4 million annually for maintenance.

Taken together, these investments would support the efficient exercise of ESMA's direct supervisory tasks, reduce duplication of systems and processes across Member States, and strengthen coordination between authorities and supervised entities.

Coherence

This option would be coherent with the objectives of the SIU strategy by reducing supervisory fragmentation, which is essential for building investor trust, reducing costs and burdens for companies, and enabling efficient cross-border business. It would reflect a careful and calibrated application of the principles of subsidiarity and proportionality, by ensuring that supervisory responsibilities are allocated based on where they can be exercised most effectively. ESMA's role would be strengthened in areas with a clear need for central oversight, such as large or systemically important entities with a significant cross-border dimension, while NCAs would retain their roles in supervising smaller, nationally focused institutions. This approach would preserve national knowledge and proximity while addressing the limitations of the current framework in dealing with EU-wide challenges.

The proposed governance reforms would also improve coherence by aligning decision-making processes with ESMA's evolving role. Introducing an Executive Board would enhance the

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independence of the decision-making process and ensure that decisions are guided by technical expertise and the EU interest. By keeping the Board of Supervisors involved through a non-objection and consultation procedures, the model would also preserve a degree of national input and legitimacy, reinforcing the balance between centralisation and inclusiveness.

Furthermore, the measures to strengthen ESMA's supervisory convergence tools would promote coherence across the broader supervisory ecosystem. They would ensure that where national supervision remains in place, it is supported by consistent guidance, improved coordination, and common enforcement standards. In doing so, this option would reinforce the EU's broader policy goals of the SIU and fostering a genuine single market for financial services.

This option would also be coherent with the Commission's priority to boost Europe's competitiveness, the strategy outlined in the Competitiveness Compass, the Single Market Strategy, the EU Start Up and Scale Up strategy, as well as the Communication on a Simpler and Faster Europe.

Overall, this policy option would be coherent not only with EU institutional and legal frameworks, but also with the strategic direction of European financial integration.

Annex 11 on 'Supervision' provides for additional detail and analysis of the changes in the concerned sectors.

6.2.2. ESMA as a supervisor for all EU trading venues, CSDs, CCPs, asset managers and crypto asset service providers

Effectiveness in meeting the specific objectives

Fully centralising supervision of all CCPs, CSDs, trading venues, asset managers and CASPs at ESMA would directly target the issue of fragmented supervisory practices. This option would address fragmentation by eliminating inconsistent national practices and providing a holistic perspective of the EU supervisor over the market, directly meeting the core of the objective. This approach would eliminate forum shopping and regulatory arbitrage, ensure consistent practices, and reduce costs by consolidating supervision under one authority. However, for mid-size, small or local entities, whose business models and risks are inherently linked to national markets, deep on-the-ground knowledge of local specificities would be lacking, which could lead to an underestimation of risks or insufficient support towards market development in smaller markets. Moreover, supervising thousands of firms would demand an unprecedented scale of direct EU-level supervision, for which ESMA currently lacks the operational capacity. This could result in weakened oversight during the transition. These constraints are less evident in a new area of financial activity as are the CASPs, because of their cross-border nature and the fact that any transitional period would impact less entities, as MiCA entered into force recently and therefore only a few entities are already licensed.

Efficiency

The centralisation of supervision at ESMA offers theoretical cost savings and economies of scale. Reducing duplication among 27 Member States, centralising coordination tasks and ensuring one uniform supervisory approach can lower costs over time. NCAs would benefit in terms of reduced need for staffing and resources, in particular IT, data collection and monitoring systems. Pooling resources within ESMA would create significant synergies and ensure the application of fully consistent reporting practices and standards. Firms operating across borders could face less regulatory fragmentation. However, these potential efficiencies are offset by significant practical, structural, and financial inefficiencies in the short and medium term. Indeed, under option 3, the immediate financial and logistical cost of scaling ESMA's supervisory capacity would be

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substantial. ESMA would for instance oversee about 1 700 UCITS management companies and 4 500 AIFMs, requiring significant resource expansion and a multi-year transition.

Sector	FTEs[154,155]	Budget implication
Trading Venues	340- 580	EUR 63 – 108 mil.
CCPs	50– 55	EUR 9 – 10 mil.
CSDs	40- 50	EUR 7 – 9 mil.
Asset Managers	200- 360	EUR 37 – 67 mil.

Note: Further details on the scope of entities and operational considerations underpinning these estimates are provided in the Supervision Annex 11 (Section 4.5).

Although most of the additional entities that would fall under ESMA's supervision under this option would be small, ESMA would need to recruit an unprecedented number of experts (numbering in the hundreds), establish decentralised infrastructure across Member States, and replicate the breadth of NCA capabilities. The recruitment of a significant number of qualified experts could have bottleneck effects. Moreover, the replacement of national structures is expected to raise strong political opposition at national level. The funding of the transition phase would need to come from the EU budget as long as companies do not yet pay fees. A "one-size-fits-all" funding mechanism could unfairly penalise small or low-risk entities. Without tailored fee structures, the model could discourage market entry and competition, particularly for local players. During the build-up phase and until full centralisation is achieved, both NCAs and ESMA may duplicate efforts, leading to inefficiencies rather than savings. Although centralisation promises theoretical efficiencies, the transition costs, disproportionate burdens on small actors, and rigidity would make this option inefficient in practice, at least in the short to medium term.

Full centralisation is less adapted to cases where the risks relate mostly to the domestic market and markets are primarily local. Consultation responses, in particular smaller and more domestically focused infrastructures, revealed widespread resistance to blanket centralisation of supervision. Concerns focus on loss of national influence, poor fit for small entities, and increased distance between supervisor and market. Pursuit of this option may be less warranted on the grounds of proportionality, and it may distort regulatory outcomes that we seek to achieve with the revision of the supervisory framework for capital markets.

While aligned with long-term integration ambitions, it could be perceived that it goes too far, too fast, in a regulatory context that is not yet harmonised or politically unified, at least in some of the sectors considered unless warranted by other considerations (such as the relative novelty of the sector).

Coherence

This option would align with the long-term goals of EU market integration and supervisory consistency that underpin the SIU strategy. However, it would also face a major hurdle of existing legal fragmentation and resulting operational frictions. Furthermore, option 3 appears to be less

[154] A cost per FTE of EUR 186,000 is assumed.

[155] Given that the entities captured in addition to the ones covered in option 2 would be considerably smaller and less complex, it is no appropriate to convert them on an entity-proportional basis. Instead, it is assumed that the number of FTEs needed for these smaller entities is only 5-10% (trading venues, asset manager) and 20-40% (CCPs, CSDs) compared to option 2.

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coherent than option 2 with the rest of the package, as it does not align with the choices made on the review of the functioning of capital markets. Specifically, the decision to opt for a broad review of the framework, but not a far-reaching one that requires full harmonisation in all areas, suggests that a more proportionate approach for supervision is needed.

6.2.3. How do the options on non-aligned supervisory practices across Member States and weak tools and powers at EU level compare

The tables below provide a high-level summary of how the described package of options compare (for the sake of readability, the labels of the options have been shortened). A more detailed overview of the impacts of the different options on supervision can be found in the respective sectoral annex.

Taking into account the assessment and explanations provided above, the preferred option is Option 2: a combination of enhancing supervisory convergence via an improved set of tools and direct supervision of certain financial entities by ESMA. This option strikes the best balance between effectiveness, efficiency, and coherence, offering tangible improvements in supervisory quality and consistency while maintaining proportionality and political feasibility. It strengthens the EU's supervisory framework without overstepping the bounds of national autonomy or institutional capacity. By contrast, Option 3, while potentially more effective in achieving full supervisory integration, does so at the expense of efficiency and raises subsidiarity concerns, as it would remove the role of national authorities even in areas where local supervision would be preferred. It would also require substantial financial and institutional investment and deep structural changes that are not immediately feasible. As such, it could be seen as a longer-term vision for future integration rather than a realistic short- to medium-term reform path. Option 2 therefore represents a pragmatic and cost-effective step forward, and one that meaningfully improves coherence and trust across the supervisory landscape while reinforcing ESMA's role as a hub for convergence and expertise. In the current context, it provides the optimal path to strengthen supervisory consistency, reduce fragmentation, and build the foundations for potential deeper integration in the future.

	Effectiveness	**Efficiency**	**Coherence**	**Overall score**
Baseline scenario (Option 1)	0	0	0	0
Option 2: Improved supervisory convergence and an enhanced role for ESMA in supervision	+	+	+	+
Option 3: ESMA single supervisor for all EU trading venues, post trading, asset managers, and CASPs	++	-	+/-	+/-

Legend: ++ = positive + = slightly positive +/- = mixed effect 0 = no effect - = slightly negative and -- = negative.

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Impact on stakeholder groups

	Supervisory authorities	CCPs, CSDs, Trading venues	CASPs	Asset management
Baseline (Option 1)	No change	No change	No change	No change
Option 2	+++ Better overview of the financial system and monitoring of risks +++Consistent supervisory practices +++Economies of scale and efficiency gains thanks to proportional approach ++Local expertise for smaller CCPs, and CSDs is preserved ++Local expertise for asset management and all profiles of trading venues is preserved	+Lower supervisory costs for cross border entities ++Single point of contact for supervisory issues for systemic cross border entities +++Consistent supervisory guidance ++Smaller CCPs and CSDs can benefit from local guidance +/- For trading venues, all entities continue to benefit from local market surveillance by NCAs responding to local specificities. +++ Level playing field in terms of regulatory treatment facilitating fair competition among entities from different MS	+Lower supervisory costs for cross border entities ++Single point of contact for supervisory issues +++Consistent supervisory guidance +++Fair competition among entities from different MS	+Lower compliance costs for cross border entities +++Consistent supervisory guidance +++Fair competition among entities from different MS ++Asset managers can benefit from local guidance
Option 3	+++ Better overview of the financial system and monitoring of risks +++Consistent supervisory practices ---Loss of local expertise for smaller CCPs, CSDs and trading venues ---Loss of local expertise for asset managers -Economies of scale and efficiency gains outweighed by significant costs to centralise supervision for all entities and replicate NCA capabilities	++Single point of contact for supervisory issues +++Consistent supervisory guidance +++Fair competition among entities from different MS ---Smaller CCPs, CSDs and trading venues cannot benefit from local guidance -Economies of scale and efficiency gains outweighed by significant costs to centralise supervision for all entities and replicate NCA capabilities	+Lower supervisory costs for cross border entities ++Single point of contact for supervisory issues +++Consistent supervisory guidance +++Fair competition among entities from different MS	++Single point of contact for supervisory issues +++Consistent supervisory guidance +++Fair competition among entities from different MS ---Local guidance is lost -Economies of scale and efficiency gains outweighed by significant costs to centralise supervision for all entities and replicate NCA capabilities

Legend: +++ = Very positive ++ = Positive + = Slightly positive +/- = Mixed effect
0 = no effect - = Slightly negative -- = Negative --- = very negative

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7. PREFERRED OPTION

7.1. IMPACTS AND ASSESSMENT OF THE PREFERRED OPTION

Option 2 is the preferred option for both the measures addressing the barriers to cross-border activities and innovation, as well as fragmentation in supervision. This option recognises the intrinsic links between sectoral improvements, supervision, and innovation, and seeks to create a more integrated and dynamic EU capital market. It removes barriers to cross-border operations and innovation by further harmonising requirements for trading venues, as well as facilitating settlement processes, notably but not only through increased interconnectivity, refining asset management requirements and improving the DLTPR, as well as strengthening the technological neutrality of sectoral legislation. Revisiting these regimes would also allow simplifying provisions whenever possible. Harmonising and streamlining requirements for passporting and intra-group activities would promote cross-border activities and increase operational efficiencies. By improving, harmonising, and streamlining requirements across these sectors, the option would directly benefit trading venues, CSDs, CCPs, asset managers and DLTPs operating in the EU which should profit from lower compliance costs related to cross-border provision of their financial services, cost reductions arising from rationalisation of intra-group operations and cost reductions related to streamlining of requirements and increased clarity and legal certainty.

Supervision plays a crucial role in driving integration, scale, and reducing fragmentation. In particular, effective supervision is critical to ensuring that EU capital markets can operate as one interlinked market. This is why Option 2 proposes strengthening the European supervisory framework, particularly by enhancing the role of ESMA. Financial market participants under strengthened EU supervision (i.e. cross-border significant trading venues, CSDs, CCPs, asset management firms and CASPs) would directly benefit from: 1) reduced compliance cost and administrative burden for entities currently supervised by multiple NCAs; 2) savings stemming from less duplications, differences in instructions and procedural delays; 3) reduction of supervisory fees for entities currently supervised by several NCAs and 4) savings due to synergies and increased intra-group outsourcing/delegation.

Moreover, by increasing market integration and scale, the option would indirectly benefit the entire EU capital market ecosystem and its participants. Both institutional and retail investors are likely to experience lower trading costs and enjoy a wider range of financial products and services. Enhanced and more agile supervision of capital markets will bolster investor trust and confidence in market governance and oversight. This should spur cross-border investments within the Single Market, offering companies broader access to funding and reducing their financing costs. By promoting risk sharing, financial market integration and consistent supervision should also strengthen financial stability across the EU.

The overall impact of the expected changes under option 2 should be further enhanced by progress on all pillars of the SIU strategy, as well as parallel efforts in the competitiveness agenda. In particular, the recently adopted Financial Literacy Strategy[156] seeks to improve citizens' financial

[156] EU to boost financial literacy and investment opportunities for citizens - European Commission

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literacy and empower them to take conscious personal finance decisions, including savings and investment decisions, that contribute to their (financial) well-being. In addition, the Commission's Savings and Investment Account Recommendation provide concrete suggestions to support retail participation in capital markets and make it easier for them to diversify their savings across financial instruments.[157] In November, the Commission also adopted a comprehensive package on pensions, including both non-legislative and legislative measures, with a view to enhancing pension income, attract institutional investors into EU capital markets and increase their contribution as provider of long-term financing to the EU economy. Finally, the recent Commission proposals to facilitate securitisation activity in the EU[158] should help channel more investments into the real economy – supporting economic growth, innovation and job creation across the EU.

By removing barriers and facilitating further integration, this initiative is expected to bring significant macroeconomic benefits. Estimates are derived based on several assumptions, notably on how research findings from existing studies translate into the expected impact of this initiative (see Annex 4 for more information). Using this approach and assuming that this initiative is effective, economic growth is estimated to increase by as much as EUR 1.36- 3.62 trillion (cumulatively) over the next 30 years based on the economic analysis in a study[159] analysing the negative growth effects of market fragmentation.

This estimate is notably broad given the long period and significant uncertainties surrounding market development and impacts. Given these significant limitations, it would also make no sense to attempt to provide a more detailed breakdown of economic impacts by individual measures. The estimate serves primarily to demonstrate the potential scale of growth impacts. Even more conservative estimates would still show that the positive impacts outweigh the costs of implementing the measures described in Option 2, in particular the costs for certain CSDs to establish links to CSD hubs and T2S (quantified in Section 6.1.1) and the costs of enhanced EU supervision (quantified in Section 6.2.1).

As regards administrative burden, the measures include diverting reporting to ESMA to fulfil its functions as a competent authority. These are not new reporting requirements, as the rules already provided for such reporting to national competent authorities. Nevertheless, there may be one-off adjustments to reporting templates and formats needed implying some administrative costs. These will depend on the level of detail and formats of the current national reporting and how it differs from the future new more harmonised reports to ESMA. Following a further cost-benefit assessment, ESMA, which is in general obliged to keep reporting and related burden to the minimum, would develop the relevant level 2 requirements. The redirection of reporting flows will require investment estimated at EUR 15 million into ITC systems by ESMA and approximately EUR 4 million in annual maintenance (see Annex 11).

In addition, one-off adjustment costs for directly affected financial intermediaries to comply with streamlined and simplified rules are expected to be relatively small. One-off indirect costs could arise for users of affected services (e.g. contractual changes) are also expected to be relatively

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[157] Ibid.

[158] Commission proposes measures to revive the EU securitisation framework - Finance

[159] 'Capital Market Fragmentation and Economic Value Migration How Europe's Financial System Promotes Wealth Transfer to the U.S'; Holste, Bjoern and Bergström, Mattias - April 03, 2025 - Link

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small. Overall, while there will likely be one-off adjustment costs, new administrative burdens are expected to be small and are therefore not further quantified.

The package is not expected to have any direct significant social, environment or fundamental right impacts.

7.2. REFIT

The initiative contains a range of simplification efforts which consist of removing barriers to cross-border provisions of financial services in trading, post-trading and asset management. They aim to simplify procedures as well clarify and harmonise requirements and the approach taken by supervisors. These measures represent the substantial and integral part of the overall package and largely account for the overall benefits quantified (see Annex 3).

7.3. APPLICATION OF THE 'ONE IN, ONE OUT' APPROACH

New administrative burden created by the initiative is largely of a one-off nature, specifically to adapt to legal changes and redirect reporting flows to ESMA. While not quantified for the reasons set out above and in Annex 4, the related costs are expected to be relatively small as the initiative is not above adding new requirements but removing national gold-plating and other barriers. It is not expected that there will be substantial on-going administrative costs. In some cases, the more harmonised procedures or the approach taken by ESMA may incur minor on-going administrative costs. Likewise, there may be some entities for which on-going costs are expected to decrease (e.g. removal of gold-plating provisions). The exact effect is difficult to pin-point and will depend on different aspects such as the entity, respective compliance, currently responsible NCA.

Some administrative burden reductions are quantified in Annex 3, notably (i) EUR 435,500 - 585,500 per exchange group per year (rationalisation of intra-group operations), (ii) EUR 0.5 to 5 million per cross-border operating exchange groups per year (supervisory convergence, reduced fragmentation of requirements) and (iii) a significant part of EUR 20,000 – 60,000 (current administrative costs) per fund registered in another Member State. Administrative costs should also be reduced for intragroup operations and through streamlined member onboarding / due diligence checks (trading venues & brokers), increased legal clarity / certainty (CSDs), standardised authorisation procedures, notifications and requirements concerning marketing (asset management) and by reduced divergence in requirements and approach taken across multiple NCAs.

8. HOW WILL ACTUAL IMPACTS BE MONITORED AND EVALUATED?

The initiative is expected to follow normal implementation procedures. Ex-post evaluation of all new legislative measures is a priority for the Commission. The Commission services will review the outputs, results and impacts of this initiative once the legal instrument becomes effective. An evaluation is envisaged 5 years after the implementation of the measure and in accordance with the Commission's better regulation guidelines.

For further monitoring and preparing an evaluation of the impact of the legislative initiative, the following non-exhaustive list of sources could provide for a basis for information gathering:

i. Websites of competent authorities
ii. ESMA databases on financial instruments (MiFID/MiFIR)
iii. ESMA databases on clearing (EMIR)

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iv. ESMA database for notifications (notifications, updates, de-notification regarding cross-border distribution of funds) (AIFMD/UCITS)
v. Third-party databases (including Clarus CCP View, Bloomberg, Refinitiv, Morningstar)
vi. Regular market reports from industry associations
vii. FISMA indicators to measure overall capital market developments[160]
viii. Stakeholder engagements

The Commission presents below a series of metrics to be monitored following the adoption of the changes included in the initiative. The metrics listed focus on the indicators per sector, but broader indicators to measure wider market impacts will also be monitored, even if those can be less directly attributed to this initiative – e.g. measures assessing access to capital and corporate financing structures or the level of retail investor participation in capital market. The sectoral metrics listed below present a mix of direct indicators of the level of (cross-border activity) and also the key indicators that relate to market outcomes in terms of costs and prices. Based on the known data limitations, we expect that some data will be more difficult to obtain than other – but the below sets out an ambitious approach to be able to put a monitoring in place, also with the help of ESMA and other stakeholders and using a mix of different types of indicators. Given the methodological challenges, including the fact that market outcomes are affected by many different factors that are difficult to control, no quantitative targets are set for the specific objectives and related indicators; the table only reports the expected direction of evolution as a result of the policy intervention.

Trading

Objective	**Proposed indicator (expected direction in brackets)**	**Source of information**
Enable further market integration and scale effects by increasing cross-border activity	Number of PEMO licenses (increase) Average number of broker-venue connections (increase) Number of brokers offering cross-border trading (increase) Average gap in fees charged between domestic and cross-border trading within the EU (decline) Volume of cross-border transactions in the EU (increase) Average transaction costs (per asset class; domestic/cross-border) (decline) Number of open access arrangements / applications under open access provisions (increase)	ESMA, industry, commercial databases, CMU indicators

Post-Trade

Objective	**Proposed indicator (expected direction in brackets)**	**Source of information**
Enable further market integration and scale effects by increasing cross-border activity	Total cross-border settlement activity (volume/value by instrument) (increase) Total cross-border issuance (value/volume) (increase) Settlement fees for domestic and cross-border transactions (decline) Number of CSDs that are part of a group that engage in intra-group outsourcing of core CSD activities (increase) Number of CSDs experimenting with new technologies (increase) Volume and value of settlement conducted by settlement internalisers (increase)	ESMA, industry, commercial databases, CMU indicators

[160] List of indicators to monitor progress towards the CMU objectives - European Commission

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	Number of CSDs that designate credit institutions to provide banking-type ancillary services (increase) Volume and value of settlement activity taking place in T2S (increase) Total number of CSD links (increase) Total number of third-country systems designated under the SFD (increase) Total number of systems designated under the SFD (increase) Settlement activity (in volume and value terms) executed using novel technologies (increase) Total amount of cash leg settlement executed with digital money (increase) Total number of DLT-based SFD designated systems (increase)	

Asset management

Objective	**Proposed indicator (expected direction in brackets)**	**Source of information**
Enable further market integration and scale effects by increasing cross-border activity	Number of cross-border funds (marketed cross-border) (increase) Average size of funds (increase) Average management cost of funds (per sector / specialisation) (decline) Creation/cessation of funds (indication of market entry barriers) (increase) Number of asset managers (increase) Size of asset managers (increase) Number of asset management groups and number of Member States where they operate (increase) Number of Member States where funds will be established due to the depositary passport (increase)	ESMA, commercial database, industry

Innovation (DLTPR)

Objective	**Proposed indicator (expected direction in brackets)**	**Source of information**
Facilitate innovation by removing regulatory obstacles	Number of DLT-based authorisations (increase) Number of Member States with legal frameworks to allow DLT-based transfer of ownership (increase)	ESMA

Supervision

Objective	**Proposed indicator (expected direction in brackets)**	**Source of information**
Improve supervision by reducing fragmentation	Number of collaboration platforms with ESMA participation (increase) Number of joint on-site inspections and dedicated investigations (increase) Number of peer reviews conducted (increase) Number of obstacles to convergence identified and removed (increase) Number of investigations of breach of EU law successfully closed (increase) Number of warnings on manifest breach of the EU law (increase)	ESMA

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ANNEX 1: PROCEDURAL INFORMATION

1. LEAD DG, DECIDE PLANNING/CWP REFERENCES

- Lead Directorate-General: Directorate-General for Financial Stability, Financial Services and Capital Markets Union.
- Decide Planning Reference: Plan 2025/1066 and Plan 2025/1074.
- CWP references: The initiative is part of the SIU strategy, included in the Commission Work Programme 2025.

2. ORGANISATION AND TIMING

Organisation and timing of Inter Service Steering Group's meetings: the Inter Service Steering Group included representatives of the Directorates General (Budget (BUDG), Climate Action (CLIMA), Communications Networks, Content and Technology (CNECT), Competition (COMP), Education, Youth, Sport and Culture (EAC), Economic and Financial Affairs (ECFIN), Employment, Social Affairs and Inclusion (EMPL), Energy (ENER), Environment (ENV), European Statistics (Eurostat), Internal Market, Industry, Entrepreneurship and SMEs (GROW), International Partnerships (INTPA), Joint Research Centre (JRC), Justice and Consumers (JUST), Regional and Urban Policy (REGIO), Research and Innovation (RTD), Taxation and Customs Union (TAXUD), Trade (TRADE), the Legal Service (LS) and the Secretariat General (SG)).

- 1st meeting on 26 June 2025;
- 2nd meeting on 9 September 2025;
- Written consultation from 3 September to 10 September 2025.

3. CONSULTATION OF THE REGULATORY SCRUTINY BOARD

The Impact Assessment report was examined by the Regulatory Scrutiny Board (RSB) on 8 October 2025. Following the first negative opinion, the IA Report was resubmitted to the RSB on 29 October 2025. In its second opinion of 14 November the Board acknowledged the improved quality of the report, reflecting the significant efforts made to address all previous comments, including those on economic analysis and macroeconomic estimates. However, the Board still had remaining concerns regarding the latter two areas, as expressed in its 2nd opinion, but nonetheless issued a positive opinion. In view of the improved quality and the remaining concerns, the Board granted a 'positive opinion with reservations'.

Following the second opinion, the Impact Assessment was revised to (i) better clarify and frame the estimated macroeconomic impacts, (ii) provide more details on impacts on and views held by individual stakeholder groups, and (iii) be clearer on the types of costs and savings that are expected to arise. The RSBs suggestion to include additional modelling, extrapolate effects and provide more detailed breakdowns, notably as regards costs and savings, could not be followed due to lack of data and time.

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The principal areas in which this Impact Assessment was reinforced following both the RSB's negative opinion and the reservations expressed in its second opinion are summarised in the table below.[161]

Areas to improve according to RSB opinion	Overview of changes
(1) The report should provide a more detailed rationale for the chosen scope of the initiative, including better explaining the focus on only two of the main pillars of the SIU Strategy. This includes briefly outlining ongoing initiatives to show how this initiative forms a part of a larger context.	The revised text includes more explanations on the scope of the initiative and its link to other SIU initiatives (Section 1, but also references in subsequent sections).
(2) The report should provide robust evidence to demonstrate the magnitude of the problem addressed. For example, the number and size of market participants is not a sufficiently informative indicator of to what extent the market is efficient. The report should substantiate if and how barriers between submarkets make the markets inefficient or increase costs (such as transaction costs and fees) for operators. It should also substantiate what the effects are on limiting the volume of trades or investments, including for different categories of stakeholders.	The revised text includes further quantitative and qualitative evidence to substantiate the specific problems (Section 2). As further explained in Annex 4, there are limitations in the available data, including on costs and fees, and quantitative modelling is inherently difficult, but the text also refers to the rich body of secondary evidence available to substantiate the problems. The text was also improved to explain better the impacts on the individual categories of stakeholders.
The report should clarify the causality between the problems, problem drivers and consequences.	The revised text improves the explanations on the causal links between drivers, problems and consequences, also adding references to the literature (Section 2).
On supervision, the report should provide broader evidence to better illustrate the problem, problem drivers and related costs.	The revised text includes additional explanations, including examples and references, to illustrate the problems. Quantification of these problems is difficult, so the additions are qualitative in nature (Section 2).
(3) For Digital Ledger Technologies (DLT), the report should explain to what extent the intervention is expected to drive innovation, taking into account the need for related investments. The report should also better explain the expected outcomes in terms of the relations between DLT-enabled solutions and "traditional" solutions.	The revised text clarifies the value-added of DLT and discusses barriers to uptake and link between DLT/traditional systems in qualitative terms, referring also to the literature (Section 2). It also provides additional details in terms of stability risks, including the susceptibility of DLTs to cyber risks.
(4) In describing the context, the report should provide an economic analysis of the EU market for savings and investments covering background factors such as profit	Conducting a comprehensive assessment of the EU market for savings and investments is beyond

[161] The main revisions were made following the first opinion, with further targeted improvements made after the second opinion, in particular to provide more information on stakeholder feedback, clarify the purpose and limitations of the macroeconomic estimates, explain certain cost estimates and other aspects of the analysis, and additional editing.

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margins, different fiscal or regulatory frameworks, returns on investment and perceived risks, compared with other relevant markets.	the scope of the report and seems disproportionate to inform about the needs for and merits of the initiative. The revised text includes a more detailed description of the market context (Section 1), plus further country-specific descriptions in a new Annex 12. Additional references to studies and other background information have also been added.
(5) The report should more thoroughly analyse the variations in financial markets performance across different Member States and sectors, to better identify what works and what does not, and how this can inform the design of options.	The revised text includes further background information and market description per Member State (Annex 12). In the spirit of a proportionate assessment, and given the timeframe and urgency to act, it was beyond the scope of this assessment to deliver a country-by-country assessment of best practices and the impacts.
(6) The report should present objectives and an intervention logic that clearly define success. The main report should summarise the main regulatory barriers, and their associated costs, that are to be removed or harmonised through this initiative. The report should formulate a broader range of options and be clear on how the options correspond to and address the identified barriers. The options should be formulated so as to be specific. The objectives should be measurable as far as possible, and the report should clearly demonstrate how they are expected to be attained. The report should better capture to what extent the options are expected to contribute to the completion of an integrated financial services market, and also if and how the options are expected to promote economies of scale and how the economies of scale will reduce costs and drive market efficiency.	The revised text expands on the intervention logic and explains better how the objectives link to specific market outcomes. Quantification of all the dimensions is not feasible, as explained in Annex 4. Broadening the range of options in the main part of the IA was not considered proportionate, given the more granular assessment of options already contained in the sectoral annexes (options in the main part as the annexes have the granular options already (and adding more would make the report even longer). The main part of the report should be read alongside the annexes.
(7) The report should present a quantitative assessment of the current state of play, incorporating how other related initiatives and key economic variables evolve under the baseline scenario.	The revised text has been enriched with better explanations on the current problems and the interplay between the in-scope and out-of-scope factors. Quantitatively modelling a dynamic baseline is difficult, given the data limitations and the modelling challenges of controlling for the many factors that influence market outcomes.
(8) The impact chapter of the draft report should put an emphasis on evidence-based quantification of the costs and benefits associated with the proposed measures. It should demonstrate to what extent the removal of the identified barriers will result in increased efficiency and more or larger transactions on the market.	Further (quantitative and qualitative) evidence has been added to assess the barriers and the benefits and costs of removing those barriers. For example, for post-trading, estimates are presented to quantify the reduction in settlement fees and costs

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	of establishing T2S connections, based on certain simplifying assumptions. Full quantification of all dimensions is beyond the scope of the study.
(9) Based on the analysis of to what extent untapped economies of scale may be available, the report needs to develop a more fully fledged analysis, supported by evidence, to demonstrate how, and to what extent, the options under consideration will deliver benefits compared to the baseline scenario due to this factor.	The revised text contains more evidence and explanations to substantiate economies of scale in the market, presenting quantitative evidence where possible. The data limitations and methodological challenges of conducting a fully-fledge analysis are transparently presented in the main part and Annex 4.
(10) The report should include a dedicated analysis of the initiative's impacts on costs for various types of stakeholders, impacts on real economy including on savings, credits and investments, competitiveness of the EU capital markets and the EU economy. This includes a more disaggregated and balanced presentation of views across different stakeholder groups.	The revised text includes more analysis, including quantification of main costs. Stakeholder views and impacts have also been added.
For the main regulatory requirements to be harmonised the report should indicate to what extent stricter, or less strict, regulatory requirements will result for various regulated actors and attempt to identify the changes in compliance costs following from this.	Further explanations have been added in the main text. The detailed explanations of the specific rule and how they would address barriers and remove national gold-plating are set out in the sectoral annexes.
The analysis of the One in One Out principle should be updated to contain information regarding compliance costs, as well as administrative costs.	Annex 3 separates the adjustment costs from the administrative costs. Further explanations have also been added in the discussion of the preferred option (Section 7).
(11) The costs and savings, including for trading and use of TS2, should be quantified to the extent possible and the report and methodological annexes should provide more detail on the methodology of the calculations.	Estimations based on simplifying assumptions have been added to the text.
On macroeconomic impacts the report should be transparent about the methodology, in particular related to the contribution of the intervention to the economic growth. Any comparisons, such as to the US market, need to be substantiated and take into account that the full harmonisation is not the preferred option. The robustness of this estimate, the range, the contribution of other factors and the assumptions used should be clarified. If monetisation is not feasible the report should provide a reason why.	The text, and Annex 4 in particular, includes a more detailed discussion of the macroeconomic impacts. The estimates presented give an order of magnitude only, given the modelling challenges and inability to control for many other factors that shape macroeconomic outcomes.
(12) The report should also assess potential risk to the stability of the EU financial system, including as to the significant liberalisation of DLT-based solutions.	Explanations have been added to explain the stability risks, including why the DLTPR related measures do not increase such risk. References are also provided to explain why more

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	integrated and developed EU capital markets promote stability and resilience, through more risk-sharing.
(13) The report should be a concise self-standing document in line with better regulation requirements, legible and accessible to the non-specialist reader. The report should strike a better balance between narrative and analysis with emphasis on empirical evidence. The length of the report should be significantly reduced.	Given all the additional requirements, it has not been possible to cut the length of the report. However, the descriptions have been streamlined and certain duplications removed.

4. EVIDENCE, SOURCES AND QUALITY

Evidence used in the impact assessment came from a variety of sources, including (list is not exhaustive and further references are included in text):

- Replies by stakeholders to a targeted consultation which ran from 15 April to 10 June 2025;

- Targeted bilateral outreach to key stakeholders;

-September 2024 roundtables on the on consolidation in the investment funds sector and trading and post-trading infrastructure; Joint ECB-Commission conference on financial integration in 2024, with focus on SIU, market infrastructure and supervision; and many other workshops, conferences and events, including those organised by stakeholders;

- Report on the Future of the Single Market, E. Letta[162];

- Mario Draghi, 'The Future of European Competitiveness,' 2025[163]

- Reports from the European Securities and Markets Authority including:

  - ESMA Working paper on Fragmentation in European Equity markets[164]

  - ESMA Report Provision of cross-border services by CSDs and handling of applications under Article 23 of CSDR from 2020 to 2022[165]

  - ESMA MiFID Dashboard 2024

  - ESMA EU Securities Markets Report 2023

- Briefing paper for the ECON Committee at the European Parliament

Statistics and reports (selection of main input):

- A new Vision for Europe's capital markets, Final Report of the High-Level Forum on the Capital Markets Union, June 2020

- Study on consolidation and reducing fragmentation in trading and post-trading infrastructures in Europe: https://op.europa.eu/en/publication/doi/10.2874/2649452

- Study of barriers to, and drivers of, the scaling-up of funds investing in innovative and growth companies - Publications Office of the EU

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[162] https://single-market-economy.ec.europa.eu/news/enrico-lettas-report-future-single-market-2024-04-10_en;
[163] https://commission.europa.eu/topics/eu-competitiveness/draghi-report_en
[164] ESMA50-524821-3352 Working Paper: Fragmentation in European Equity Markets since 2019
[165] ESMA74-2119945925-1568 Report on Provision of cross-border services by CSDs and handling of applications under Article 23 of CSDR from 2020 to 2022

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- Study on the costs of compliance for the financial sector, CEPS on behalf of the European Commission, 2019

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- European Central Bank (ECB),Public and private risk sharing: friends or foes? The interplay between different forms of risk sharing, ECB Occasional paper, June 2022

- US Government Accountability Office (GAO) report on Reg. NMS, July 2005

- International Monetary Fund (IMF), Euro Area: Publication of Financial Sector Assessment Program Documentation-Technical Note on Capital Markets Union-Implications for Supervision and Institutional Arrangements, IMF Staff Country Reports, Volume 2025: Issue 214

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- Holste B., Bergström M., "Capital Market Fragmentation and Economic Value Migration: How Europe's Financial System Promotes Wealth Transfer to the U.S", May 2025, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5204091

- "Monitoring progress towards a Capital Markets Union: a toolkit of indicators", Commission Staff Working Document, September 2025

- OECD, OECD Economic Surveys: European Union and Euro Area 2025 July 2025 Volume 2025/19

- EC-commissioned study on enhancing financial services with permissionless blockchains https://op.europa.eu/en/publication-detail/-/publication/cab54e8e-ad3b-11ef-acb1-01aa75ed71a1/language-en

- BlackRock launches first tokenized fund (BUIDL) on Ethereum https://securitize.io/learn/press/blackrock-launches-first-tokenized-fund-buidl-on-the-ethereum-network

- BIS Bulletin No. 107 – "DeFi and tokenisation: new challenges and opportunities" https://www.bis.org/publ/bisbull107.pdf

- J.P. Morgan executes first live DLT-enabled collateral mobilisation on Eurex Clearing https://www.thetradenews.com/jp-morgan-executes-first-live-dlt-enabled-collateral-mobilisation-transaction-on-eurex-clearing/

- ECB: Eurosystem experiments with DLT for wholesale settlement https://www.ecb.europa.eu/press/intro/news/html/ecb.mipnews241204.en.html

- Bank of England Digital Securities Sandbox dashboard https://www.bankofengland.co.uk/financial-stability/digital-securities-sandbox/digital-securities-sandbox-dashboard

- BIS Annual Economic Report 2025 – Chapter 3 on tokenisation https://www.bis.org/publ/arpdf/ar2025e3.pdf

- ESMA Letter to EU institutions on DLT Pilot Regime (2024) https://www.esma.europa.eu/sites/default/files/2024-04/ESMA75-117376770-460_DLT_Pilot_Regime_-_Letter_to_EU_Institutions.pdf

- ESMA Report on the functioning and review of the DLT Pilot Regime (Art. 14) – June 2025 https://www.esma.europa.eu/sites/default/files/2025-06/ESMA75-117376770-460_Report_on_the_functioning_and_review_of_the_DLTR_-_Art.14.pdf

- AMF & CONSOB position paper: Towards a more competitive European Pilot Regime (April 2025) https://www.amf-france.org/sites/institutionnel/files/private/2025-04/amf_consob_position-paper-towards-a-more-competitive-european-pilot-regime.pdf

-Euroclear: Digital Financial Market Infrastructure for primary issuance https://www.euroclear.com/services/en/primary-issuance/digital-financial-market-infrastructure.html

-Bindseil & Malekan (2025): Public crypto networks as financial market infrastructures https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5138052

-Enhancing energy derivatives trading: Assessing the need to update the European DLT Pilot Regime Regulation; https://ssrn.com/abstract=5189300

-ESMA Reply by Chair Verena Ross on DLT Pilot Regime Implementation (May 2024) https://www.esma.europa.eu/sites/default/files/2024-05/3056562_030524_Reply_Verena_Ross_on_DLT_Pilot_Regime_Implementation.pdf

ANNEX 2: STAKEHOLDERS CONSULTATIONS

The following consultation activities have helped to shape the content of this initiative:

- European Commission 'Call for evidence on the Savings and Investments Union: Fostering integration and scale and more efficient supervision in EU capital markets', from 8 May until 5 June 2025.
- European Commission targeted consultation on 'Integration of EU capital markets' between 15 April and 10 June 2025.
- Workshop to collect information from stakeholders on the recent EU initiatives on markets in crypto assets and DLT-based infrastructures for both crypto assets and traditional financial instruments: https://finance.ec.europa.eu/events/workshop-asset-tokenisation-2024-06-11_en
- Informal workshops with relevant stakeholders in the trading sector (trading venues, banks, high frequency traders) between May and July 2025, to collect information and evidence on the barriers to cross-border operations and investment flows within the Union and on how to improve market efficiency to deepen liquidity, followed by bilateral meetings.
- Multiple meetings with CCPs, CSDs, ministries, banks, and other relevant stakeholders in the post-trading area (about 20 counterparts). Several provided some quantitative information (fees, costs of CSD links, costs of connecting to T2S, legal fees).
- Engagement with relevant stakeholders and associations of the asset management sector to collect additional information on the topics related to the asset management sector, in particular on costs associated with the cross-border distribution of funds and intra group delegation.
- Bilateral calls with ESMA and contacts with NCAs to collect quantitative information on the impact of the measures on supervision.
- Additional targeted outreach to stakeholders after the consultation, in September and October, to have more information and quantitative evidence on the consequences of regulatory and supervisory barriers, taking into account different locations and sizes.

1. CALL FOR EVIDENCE

The Call for Evidence received 53 responses from a broad range of stakeholders. Participation was dominated by business associations, accounting for 62.3% of submissions, reflecting the voice of the investment, banking and asset management industries. Companies and businesses, primarily from the financial sector, represented 20.8%. Individual EU citizens contributed 9.4% of responses, while other categories, including chambers of commerce, professional associations and advisory firms, accounted for 5.7%. Finally, non-governmental organisations (NGOs) represented 1.9% of total submissions.

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The purpose of the call for evidence was to (i) gather stakeholder views on barriers that prevent the EU's trading and post-trading infrastructures from reaping the benefits of a truly frictionless single market, (ii) examine whether the current regulatory and supervisory setting is fit for the capital markets and in particular for market operators with strong cross-border activities or operating in new or emerging sectors; and (iii) review the European Supervisory Authorities' toolbox to assess areas where their effectiveness and efficiency can be strengthened and improved.

Across all stakeholder groups, there was broad alignment on the need to deepen capital markets integration and enhance supervisory convergence, accompanied by a shared call for simplification, proportionality and legal certainty. Stakeholders widely recognised that a more integrated and efficient financial ecosystem would enhance Europe's competitiveness, improve access to finance, and expand investment opportunities. Nonetheless, they underlined that reforms must remain balanced, transparent and inclusive, demonstrating tangible benefits for citizens and the real economy. The extent of support for centralising supervision at EU level varied significantly among stakeholders. Business associations and companies tended to prefer incremental progress within the current institutional structure, while NGOs and some citizens favoured stronger EU-level oversight to ensure coherence and accountability.

2. STAKEHOLDER TARGETED CONSULTATION (SYNOPSIS REPORT)

2.1. INTRODUCTION

This Annex outlines the feedback received from stakeholders to the targeted consultation that was launched on 15 April 2025 and remained open until 10 June 2025. The online questionnaire was structured in two parts. Part 1 covered the following topics: simplification and burden reduction of the EU regulatory framework in the trading, post-trading and asset management sectors; and barriers to cross-border operations in the trading space and to liquidity deepening in EU capital markets; and barriers to cross-border provisions of post-trade services.

Part 2 included questions on: horizontal barriers in trading and post-trading sectors (related, for instance, to innovation, group synergies, issuance of financial instruments); barriers to cross-border provision of asset management services and investment funds; and barriers specifically linked to supervision. In parallel, bilateral meetings were held with selected stakeholders to gather complementary input and explore specific concerns in greater depth.

Each sub-section below summarises the key messages received for each topic, supported by quantitative and qualitative data where provided. The percentages expressed exclude those who did not answer the questions and those who chose the option "don't know/ no opinion".

2.2. OVERVIEW OF RESPONDENTS

In total, 297 stakeholders[166] replied to the consultation through the Commission website. However, the number of responses per question varied considerably.

[166] Additional responses received by email were treated as confidential and not mentioned in this Annex.

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In Part 1 of the consultation, the majority of contributions came from business associations, and companies or business entities. These two groups submitted 92 and 79 responses respectively. Public authorities represented a significant share of participants as well, contributing 25 responses. Additional input was received from seven non-governmental organisations, five trade unions, four EU citizens, and one consumer organisation. Fifteen responses were categorised under the "other" stakeholder type.

In Part 2 of the consultation, business associations, and companies or business entities again accounted for the largest number of submissions, with 90 and 69 responses respectively. There were 31 submissions from public authorities, followed by seven responses from non-governmental organisations, four from EU citizens, three from trade unions, two from consumer organisations, and thirteen categorised as "other".

The consultation thus attracted a diverse range of respondents, including market participants, representative associations, public authorities, and civil society organisations.

Table 1: Part 1's Respondent stakeholder types

Stakeholder types	**Count**
Business association	92
Company/business	79
Consumer organisation	1
EU citizen	4
Non-governmental organisation (NGO)	7
Other	15
Public authority	25
Trade union	5
Total	**228**

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Graph 1: Part 1's shares of categories

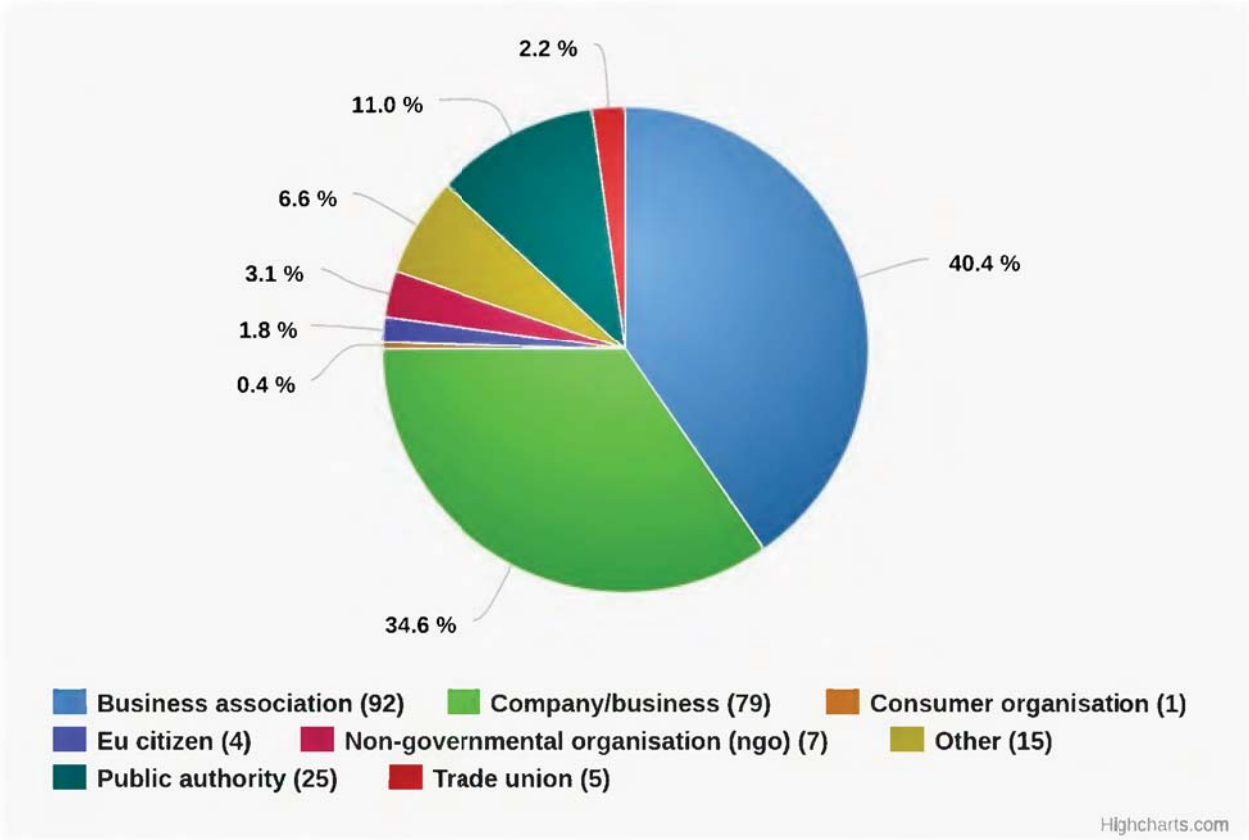

Table 2: Part 1's Respondent by Country and Type

Country	Business assoc.	Company/business	Public authority	Other	NGO	Trade union	EU citizen	Consumer org.	Total
Germany	15	18	2		1		1		37
Belgium	21	4	1	1		1		1	29
France	8	14		2	2		2		28
United Kingdom	10	9		2					21
Netherlands	5	6	1	1		2			15
Italy	6	4	1	1			1		13
United States	6	5							11
Sweden	3	1	2	1		1			8
Luxembourg	5	2	1						8
Poland	2	2	1		2				7
Spain	1	1	1	2		1			6
Ireland	2	1	2						5
Finland	2		2						5
Malta		1	1	2	1				5
Austria	2	1	1	1					5
Slovenia		1	2	1					4
Croatia		3	1						4
Denmark	1	1	1						3
Czechia		1	2						3
Switzerland	2	1							3
Latvia			2						2
Norway	1			1					2
Estonia		1							1
Portugal			1						1
Slovakia		1							1
Lithuania		1							1
Total	92	79	25	15	7	5	4	1	228

Table 3: Part 2's Respondent stakeholder types

Stakeholder types	Count
Business association	90
Company/business	69
Public authority	31
Other	13
Non-governmental organization (NGO)	7
EU citizen	4
Trade union	3
Consumer organisation	2
Total	**219**

Graph 2: Part 2's shares of categories

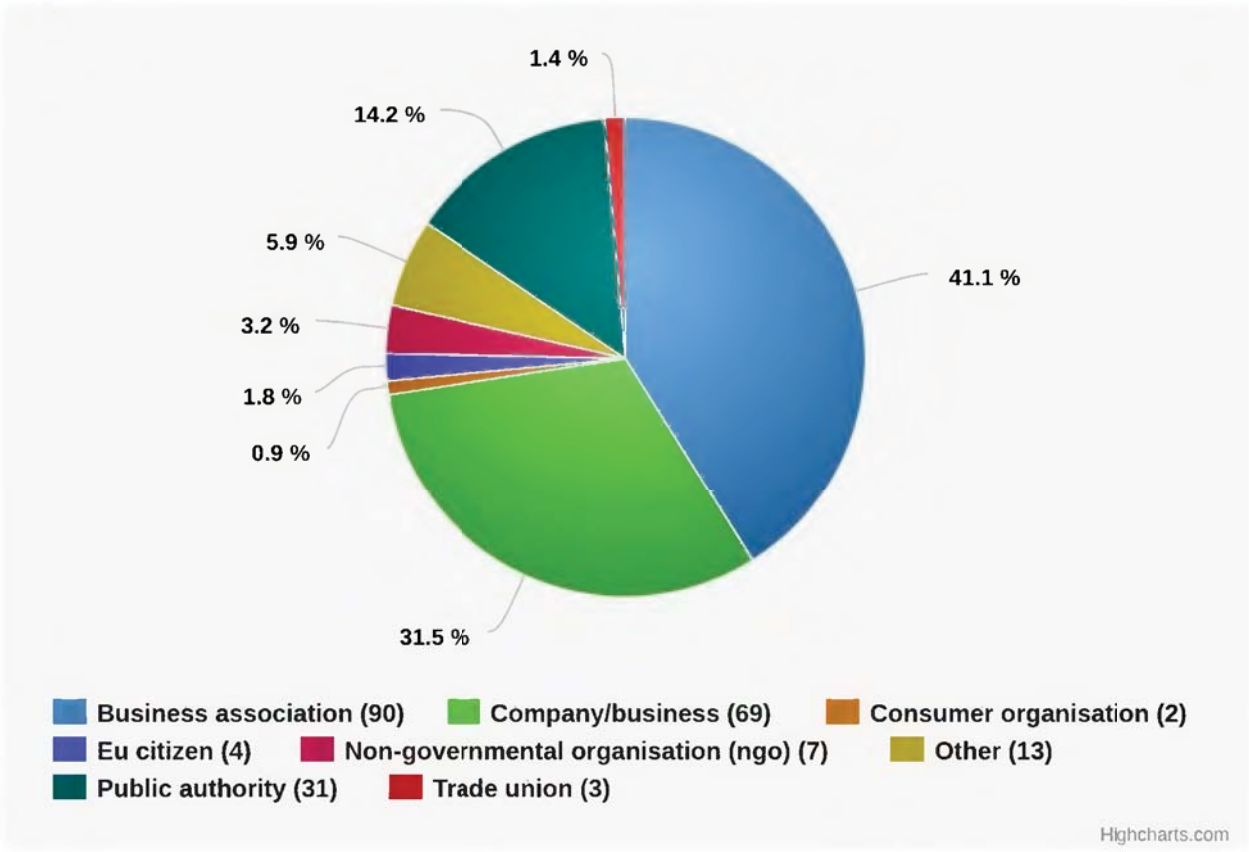

Table 4: Part 2's Respondents by Country and Type

Country	Business assoc.	Company/business	Public authority	Other	NGO	EU citizen	Trade union	Consumer org.	Total
Germany	14	15	4	1	1	1			36
Belgium	19	5	2	1		1	1	1	30
France	11	11	1	2	1	1			27
United Kingdom	7	7		1					15
Netherlands	6	5	1				1		13
United States	5	6						1	12
Italy	7	2	1	1					[illegible]
Poland	2	3	1		2				8
Luxembourg	5	2	1						8
Ireland	2	2	2	1					7
Sweden	3		3	1					7
Spain	1	1	1	2			1		6
Malta	1	1	1	2	1				6
Croatia	1	3	1						5
Finland	1		2		1				4
Switzerland	2	1			1				4
Slovenia		1	3						4
Austria	1	1	1						3
Czechia		1	2						3
Latvia	1		2						3
Norway				1					1
Portugal			1						1
Cyprus			1						1
Denmark	1								1
Romania						1			1
Israel		1							1
Lithuania		1							1
Total	90	69	31	13	7	4	3	2	219

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Table 5: Unique Respondents by Country and Type

Country	Business assoc.	Company/business	Public authority	Other	NGO	EU citizen	Trade union	Consumer org.	Total
Germany	18	21	4	1	2	2			48
Belgium	24	7	2	2		1	1	2	39
France	10	15	1	[illegible]	2	3			34
United Kingdom	12	11		2					25
Netherlands	7	7	1				2		18
Italy	7	4	1	1		1			14
United States	8	6							14
Poland	4	3	1		4				12
Sweden	4	1	3				1		10
Spain	2	1	1	4			1		9
Luxembourg	5	2	2						9
Malta	1	2	1	4	1				9
Slovenia		2	4						7
Ireland	2	2	2	1					7
Austria	3	1	1						6
Croatia	1	4	1						6
Finland	2		2		1				5
Czechia		1	3						4
Switzerland	2	1			1				[illegible]
Norway	1			2					3
Denmark	1	1	1						3
Latvia	1		2						3
Portugal			2						2
Romania						1			1
Estonia		1							1
Israel		1							1
Slovakia		1							1
Cyprus			1						1
Lithuania		1							1
Total	115	96	36	24	11	8	5	2	297

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3. SUMMARY OF KEY MESSAGES

This section provides a summary of the full targeted consultation; however, not all feedback is directly relevant to the policy options for this initiative.

3.1. SIMPLIFICATION AND BURDEN REDUCTION

Overall, stakeholders call for a more proportionate, simplified, and harmonised regulatory framework that reduces burdens, particularly on smaller institutions, and supports innovation, while maintaining investor protection and market stability.

Proportionality in the EU Regulatory Framework: 84.6% of the 149 respondents to this question expressed the need for greater proportionality in the EU's regulatory framework for trade, post-trade, asset management, and investment funds, advocating for more tailored rules aligned with risk profiles, sectoral specificities, and business activities. Support was particularly high among business associations (55.7% strongly agree, 28.6% agree) and companies (49.0% strongly agree, 33.3% agree), as well as NGOs (75.0% strongly agree, 25.0% agree) and individual citizens (75.0% strongly agree, with 25.0% expressing no opinion). Simplified and risk-based regulation was seen as essential to lower compliance costs and support innovation. Nonetheless, there was a strong consensus that proportionality must not undermine investor protection, market stability, or financial integrity. Calls for simplification were widespread, especially regarding reporting obligations under MiFIR, EMIR and SFTR, which are often duplicative and administratively burdensome. A body representing pension providers and some market infrastructure operators also highlighted that existing reporting and transparency frameworks apply disproportionately across market segments, urging horizontal simplification rather than expanded proportionality tools. Certain business and industry associations warned that differentiated rulesets for smaller actors could risk further fragmentation and weaken efforts to deepen EU-wide harmonisation, while some NCAs called for clearer and more explicit proportionality clauses (similar to those under DORA) to support consistent supervisory application. Dissent was marginal, limited to a small minority of company respondents (5.9% neutral, 3.9% disagree, 2.0% strongly disagree, 5.9% no opinion) and a single consumer organisation that opposed proportionality and cautioned that proportionality should not be used as a rationale for deregulation. A stock-exchange group likewise argued that proportionality should not lead to divergent requirements for trading venues offering the same services, emphasising instead the need for a consistent, principle-based framework across MiFIR, EMIR and CSDR to preserve fair competition and avoid further fragmentation of liquidity. An investment firm also argued that repeated adjustments in the name of proportionality could add complexity rather than reduce it.

Adjusting AIFMD Sub-thresholds for Market Evolution and Inflation: 55.5% of the 54 respondents support revising the AIFMD sub-thresholds to account for cumulative inflation and changes in market structure since the thresholds were setover a decade ago are no longer aligned with today's asset valuations, leading to disproportionate burdens for smaller fund managers. Respondents (60.5% of the 71 respondents to this point) also supported introducing greater proportionality in the AIFMD for smaller fund managers (simplified reporting, streamlined authorisation processes, and tailored liquidity risk management). Harmonising the treatment of sub-threshold AIFMs across Member States was also deemed essential to prevent fragmentation and regulatory arbitrage. Support, however, varied significantly across

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stakeholder groups: NGOs were the most favourable (50.0% strongly agree, 25.0% agree), followed by individual citizens (66.7% strongly agree, 33.3% neutral). By contrast, business associations showed limited support (14.0% strongly agree, 8.0% agree), with a majority (58.0%) indicating no opinion and 12.0% disagreeing. Companies were even more hesitant, with 74.4% giving no opinion and only 7.7% strongly agreeing; 12.8% disagreed and 2.6% strongly disagreed. Consumer organisations, in turn, unanimously expressed no opinion. Several stakeholder groups, including business and industry associations, as well as credit and banking institutions also expressed reservations about adjusting the current the thresholds and stressed the importance of regulatory stability given that both AIFMD and UCITS were only recently reviewed. They cautioned that inflation-linked adjustments could introduce complexity, reduce legal certainty, and disrupt well-established regulatory boundaries. Some investment firms and asset managers similarly opposed revising the thresholds at this stage, warning that changes could create unintended consequences for the regulatory perimeter, investor protection and supervisory consistency, and suggested that any future-proofing mechanisms should only be considered in a later, holistic AIFMD review. Certain NCAs also advised caution, noting that increasing thresholds could allow more AIFMs to fall outside the authorisation regime in Member States where oversight for sub-threshold AIFMs is comparatively light, while others indicated that an inflation adjustment could be considered only if accompanied by reinforced enforcement powers. Additional concerns were raised by business associations and investment firms regarding the need for a level playing field, emphasising that managers offering similar services should not operate under materially different oversight regimes. Several of these stakeholders argued that proportionality would be better achieved through targeted simplification within the existing thresholds rather than structural changes to the regime.

Converting Directives (e.g. AIFMD, UCITSD, MiFID) into Regulations: Views were divided. The majority supported the idea, with 27.6% strongly agreeing and 23.6% agreeing, to foster legal clarity, reduce fragmentation, and enhance supervisory convergence, especially in cross-border contexts. However, many others feared it could increase compliance burdens and erode national flexibility. The added rigidity was seen as particularly problematic for smaller or regionally specific markets. Support was particularly strong among consumer organisations (100.0% strongly agree) and EU citizens (50.0% strongly agree). Business associations were more divided (23.6% strongly agree, 16.4% agree, with 38.2% opposed). Companies also showed mixed views (14.6% strongly agree, 19.5% agree, 22.0% neutral, 24.4% oppose, 19.5% no opinion). NGOs were split equally between support, opposition, and no opinion (25.0% each). "Other" stakeholders also presented a balanced distribution (9.1% strongly agree, 27.3% agree, 18.2% neutral, 27.3% oppose, 18.2% no opinion). Opposing views argued that the current directives generally function well and emphasised that recent reviews of AIFMD and UCITSD should be allowed to take effect before considering structural changes. They cautioned that converting directives into regulations could reduce proportionality, increase transition costs and fail to address the main sources of fragmentation, which they linked to gold-plating and divergent supervisory practices rather than the legislative form. Some NCAs and market participants also warned that regulations may not accommodate national market specificities and noted that directly applicable frameworks such as SFDR have not prevented divergent interpretations. A stock exchange group took a different view and supported converting the Financial Collateral Directive and the Settlement Finality Directive into regulations to improve cross-border legal certainty. Overall, many sceptical stakeholders preferred targeted amendments and stronger supervisory convergence instead of a wholesale shift from directives to regulations.

Simplifying Interplay Between EU Regulatory Frameworks: there was near-unanimous support for simplifying the interactions between EU financial regulations and for greater alignment of definitions, thresholds, and reporting requirements across frameworks. Among 120 respondents, 85% agreed or strongly agreed that complexity and duplication (for instance on reporting) across frameworks—particularly MiFID, AIFMD, and UCITSD—create legal uncertainty and administrative inefficiencies. Support was particularly high among business associations (36.5% strongly agree, 34.6% agree), companies (30.2% strongly agree, 34.9% agree), NGOs (20.0% strongly agree, 60.0% agree), consumer organisations (100.0% agree), and "other" stakeholders (55.6% strongly agree, 11.1% agree). EU citizens also supported simplification (25.0% strongly agree, 25.0% agree, with 50.0% no opinion). Dissent was minimal, limited to small minorities of business associations (5.8% neutral, 7.6% oppose), companies (9.3% neutral, 4.6% oppose), and "other" stakeholders (11.1% neutral, 22.2% no opinion). However, several stakeholders expressed reservations about deeper consolidation of frameworks rather than targeted simplification. Some investment firms and asset managers argued that merging elements of the asset management framework with MiFID would not benefit EU managers and could inadvertently favour UK market structures. An NCA also noted that MiFID and the asset management framework have distinct roles in the regulatory chain and should remain separate, although targeted improvements to remove overlaps were considered appropriate. Some business associations warned that broad alignment efforts could expose very small asset managers to new requirements, and risk creating additional burdens rather than simplification.

Streamlining PRIIPs KID: of the 117 respondents, 57.3% strongly agreed and 21.4% agreed that the PRIIPs Key Information Document (KID) is overly technical, difficult for retail investors to understand, and burdensome for producers to comply with. Some suggested adapting the KID to modern communication tools through layered digital formats. Support was particularly high among business associations (44.6% strongly agree, 17.9% agree), companies (42.9% strongly agree, 9.5% agree), NGOs (40.0% strongly agree, 40.0% agree), EU citizens (50.0% strongly agree, 25.0% agree), and consumer organisations (100.0% strongly agree). "Other" stakeholders were somewhat more divided (27.3% strongly agree, 9.1% agree, 27.3% neutral, 9.1% oppose, 27.3% no opinion). Neutrality and opposition were marginal, with small minorities of business associations, companies, and "other" stakeholders expressing such views. Among those cautious or opposed, several business associations, credit and banking institutions and investment firms argued that the KID has already undergone substantial revisions and now provides an acceptable balance between accuracy, comparability and retail comprehensibility. They stressed that further changes could create unnecessary cost and disruption and highlighted that complaint levels from retail investors are currently very low. Some investment firms also warned that reopening the framework could disadvantage EU providers relative to UK competitors and noted that investors are now accustomed to the existing format. Credit institutions and business associations further cautioned that oversimplification may undermine the quality of information and suggested that any future changes should be based on robust consumer testing and clear evidence of added value.

Other Recommendations for Streamlining and Simplification: an overwhelming 90.8% of stakeholders used the opportunity to offer further recommendations for simplification. The most common proposals included harmonising reporting regimes, simplifying supervisory practices, and creating an EU-wide central register for funds and fund managers. Proportional regulation tailored to smaller or less complex market participants was again a recurring theme. Respondents also stressed the need for more coherent sequencing of Level 1, 2, and 3 legislations to ensure operational readiness and legal certainty.

Some respondents advocated for enhancing ESMA's powers, arguing that centralisation could improve supervisory convergence and cross-border consistency. Others suggested pausing or reassessing new regulatory initiatives to allow for comprehensive evaluation of the current framework and reduce compliance fatigue among market participants.

EU level supervision and simplification: Opinions on the added value of EU-level supervision for simplification were mixed. While some respondents supported strengthening the role of ESMA to improve consistency, legal certainty and reduce duplication, others stressed that further centralisation risks undermining national expertise and increasing regulatory overlap. Of the 147 responses, support was limited, with only 10.2% strongly agreeing and 17.7% agreeing. A nearly equal share disagreed or were neutral. Support was strongest among NGOs (20.0% strongly agree, 60.0% agree) and the single consumer organisation (100.0% strongly agree). "Other" stakeholders also displayed support (18.2% strongly agree, 18.2% agree) but with a notable share opposed (36.4%). Business associations (5.8% strongly agree, 14.5% agree) and companies (10.2% strongly agree, 18.4% agree) were mostly sceptical, with 40–45% opposed and around 30% neutral. EU citizens were divided (25.0% strongly agree, 25.0% oppose, 50.0% no opinion).

Stakeholders cautioned that such reforms must respect subsidiarity and be accompanied by appropriate resourcing and clear mandates. A balanced approach, combining better coordination, mutual recognition, and strategic reinforcement of EU-level supervision where justified, was widely favoured. Some business and industry associations, several asset managers, stock exchanges and some NCAs emphasised that further centralisation would not lead to simplification. These respondents argued that EU-level supervision risked adding layers of oversight, duplicating existing national processes, increasing costs, and weakening proximity to local markets. Many therefore called instead for stronger supervisory convergence, clearer EU rules, and the reduction of national gold-plating. One technology provider respondent explicitly rejected centralised supervision as lacking legal basis and undermining EU competitiveness, while some insurance and market infrastructure stakeholders warned that past experiences (e.g. the SSM) show that centralisation can increase administrative burden rather than reduce it.

3.2. TRADING

This section sought stakeholders feedback on barriers to cross-border operation in the trading space and on liquidity deepening in EU capital markets.

Integration and deepening of liquidity pools in EU capital markets: 95 out of 142 respondents answered the questions on the current level of integration of liquidity pools across the EU, with the majority reporting it is efficient and only 18,95 % considering it absent or inefficient. The latter category of respondents includes 5 investment firms, 2 credit institutions, 1 NCA and an organisation representing retail investors.

The main drivers for inefficient integration of liquidity pools in the EU are non-regulatory and linked to market practices, legal/regulatory barriers at domestic level (44 respondents including 13 investment firms, 13 stock exchanges, 7 credit institutions and 2 NCAs), legal/regulatory barriers at EU level (35 respondents including 11 investment firms, 11 stock exchanges, 4 credit institutions and 1 NCA)), and supervisory practices (29 respondents including 9 investment firms, 7 stock exchanges, 4 credit institutions and 1 NCA). 38 respondents highlighted also other elements that prevent smooth integration of liquidity pools, including market fragmentation, post-trade fragmentation, connectivity and access barriers and investor

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home bias. Respondents would see benefits in increasing the level of harmonisation for certain areas, including the core principles and approval processes of exchange rulebooks, fair access and outsourcing.

Connection to trading venues: Among the 79 respondents to this point, 32 out of the 56 who expressed an opinion (including 11 investment firms, 8 credit institutions and 8 stock exchanges), consider that the current level of direct connection to trading venues by investment firms is adequate. Among the 13 who consider it absent or inefficient are 4 stock exchanges, 2 technology companies, 1 credit institution, 1 association representing retail investors and 1 NCA. Limits to additional connections are mainly driven by cost considerations and lack of demand. Post-trade fragmentation and lack of full CCP interoperability are also cited as playing a role.

Indirect connection (through other intermediaries) is widely adopted and considered an efficient way of accessing trading venues, even if some respondents pointed out the risk of creating a two-tier market, with less benefits for smaller investment firms and their clients. Retail clients, who usually have a strong home bias, might not get access to investment opportunities cross-border due to absence of connection, but also due to limited visibility over those investment options. It is broadly reported (36 'yes', among which 10 investment firms and 4 credit institutions, and 13 'no', among which 6 investment firms and 1 investment management firm) that (retail) clients are charged higher fees for trading in markets located in a Member State different from the one of the broker, but this is mainly driven by the costs associated with post-trade and the need to establish longer chain of intermediation. Interoperability of CCPs and market practices of CSDs were pointed out as the main barriers to cross-border trading, together with data licensing agreement, legal and tax complexity. Technology —such as API aggregation, cloud-based infrastructure, and standardised identifiers— is seen as a potential solution for integrating liquidity pools, even if it faces barriers including cost of implementation and cost of market data, lack of standardization, regulatory uncertainty and complexity, interoperability with legacy systems and resistance from incumbents.

The lack of seamless connectivity was seen as a key factor hindering deeper liquidity pools and market integration. It also negatively impacts retail investors, who face limited product choice, suboptimal execution, and higher costs. Some proposed mandating routing of retail orders to competitive venues to ensure better execution outcomes and market transparency.

ETFs market in the EU: A majority of the 81 respondents that expressed an opinion thought that the existence of multiple listings for ETFs had a negative impact on the attractiveness of EU markets (34 respondents finding this very negative, rather negative or slightly negative as compared to 22 who found it rather positive or very positive). As to the four most prominent drivers for the existence of multiple ETF listings, respondents pointed to market practices related to trading venues (39 respondents), other barriers (including legal barriers at EU and national level) (38 respondents), market practices pertaining to investment firms (34 respondents) and market practices pertaining to CSDs (33 respondents). Fewer respondents pointed to the (lack of) CCP interoperability (20 respondents) or supervisory practices (18 respondents).

Interconnection solutions in trading: Asked whether intermediaries should be obliged to connect to all venues in the EU, respondents were overall reluctant (87 respondents, of which 21 in favour and 51 against). The reasons for this reluctance appear to be mostly related to cost, with the majority of respondents highlighting that mandating all intermediaries to connect to

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all EU trading venues and offer access to all shares and ETFs would impose disproportionately high costs, especially for smaller and mid-sized firms, which would ultimately be passed on to investors. Many respondents (47 'yes' and 18 'no') however indicate that smart order routing or similar technologies hold promise in improving access to liquidity. There was also scepticism about requiring interconnections between RMs and MTFs (with 43 respondents against and 25 in favour – out of a total of 89 who expressed an opinion). Between the two options (requiring brokers to connect to all venues and requiring venues to interconnect), respondents showed a slight preference for interconnecting venues, specifically with regard to quality and speed of execution, and ultimately with regard to the efficiency of the EU trading landscape.

Open access: A clear majority of respondents have highlighted inefficiencies in the way open access functions today, failing to deliver on a fully integrated and interoperable trading and post-trading infrastructure landscape. While certain respondents advocated for full interoperability between CCPs, some respondents also referred to restrictive practices that protect trading and clearing silos, even when the CCPs clearing trades of a given venues are already interoperable.

Some respondents (39) reported familiarity with the US Reg NMS and its Order Protection Rule, yet cautioned against its literal transposition to EU markets. 42 respondents (53,8 % of those expressing an opinion) thought geographical dispersion would pose issues to the effective implementation of that rule.

Best execution & Consolidated Tape: 37 respondents (accounting for 45% of those who expressed an opinion on this point) believe the EU's best execution rules are generally effective, despite some persistent issues. Only 11 % believe that the best execution rules are ineffective or rather ineffective. Most participants reported that the fragmented nature of EU markets, the complexity of assessing best execution, and the availability and cost of comprehensive market data pose significant challenges in consistently achieving best execution. Almost half of the respondents deem that the EU best execution framework is better suited than the US best execution framework to obtain the best possible result for the clients, mostly as it places the responsibility directly on the intermediary, who must consider a range of factors based on the specific profile and needs of the client.

On the consolidated tape (CTP), 37% of the respondents (including representatives of buy side, sell side, and proprietary traders) deem that lifting the anonymity of the European Best Bid Offer (EBBO) would improve the ability of investment firms to assess the quality of execution and improve efficiency of price formation. 25% of respondents (mainly representatives of trading venues) disagree with this view, noting that the CTP will always lag behind private data feeds, introducing structural latency that sophisticated market participants can exploit (to the detriment of less sophisticated investors).

Transparency: Asked about the reasons for a decrease of lit order book equity trading, respondents mainly cited regulation (i.e. the equity waiver regime under MiFIR – 40 respondents), liquidity fragmentation (with more order flow migrating to execution venues such as systematic internalisers and dark pools – 39 respondents), as well as technological developments such as high-frequency trading (37 respondents).

Asked about the reasons for the rising importance of closing auctions, respondents mentioned mainly the rise of index investing / passive management (55 respondents) and the use of quantitative investment strategies benchmarked to the closing price (38 respondents).

Bilateral and multilateral trading: Respondents' views on the benefits of competition between bilateral and multilateral venues are equally split, with 26 respondents considering the net result positive, 21 being of the opposite view, 20 having no view. Of the 21 that considered the net result of competition negative – mainly trading venues – 18 were proponents of requiring that retail orders be executed on multilateral and lit venues.

Single market maker venues: 27 out of the 64 respondents are aware of practices that restrict the presence of multiple market makers on certain venues, and views were almost evenly split between those who considered the existence of single market maker venues justified and those who do not.

Ghost liquidity: out of the 63 respondents to this point, 19 believe ghost liquidity is detrimental to adequate levels and 'quality' of liquidity and price formation on trading venues, versus 10 that don't and 34 being neutral. Some participants report that it can distort the perception of available liquidity, enable potential price manipulation, and undermine efficient price formation. However, multiple respondents maintain that the phenomenon is not problematic and is a natural outcome of modern electronic trading and legitimate risk management practices.

3.3. POST-TRADE

The section of the targeted consultation covered a wide range of topics in the post-trading space, including, among others, cross-border settlement, CSD services, links between EU CSDs, issues related to Target2-Securities (T2S), legal certainty, the Settlement Finality Directive (SFD), new technologies and market practices, the Financial Collateral Directive (FCD), internalised settlement, information sharing, and authorisation. 161 stakeholders responded to this section, including industry associations, banks, market infrastructures, and regulatory bodies. It must be noted that not all participants responded to all questions.

Cross-Border Settlement and Other CSD Services: Respondents identified barriers to the cross-border provision of services, particularly with regards to procedures and requirements mandated by national and by EU-level regulations. Specifically, 37 out of the 47 who responded mentioned that national differences in legal, regulatory, or operational requirements prevent the provision of post-trade services cross-border, in particular with regards to corporate law, insolvency law, securities law, and taxation. Many respondents noted that the lack of a common understanding of what constitutes corporate law is a significant barrier, and the ESMA list of corporate or similar laws of Member States (Article 49(1) of CSDR) is not helpful as it is too complicated. Several respondents suggested that the development of a harmonised framework for corporate law would help to reduce barriers to the cross-border provision of services.

Respondents also mentioned a series of outstanding barriers to the freedom of issuance in the EU. In fact, 36 of 49 respondents indicated they believed there to be barriers to the freedom of issuance in the EU. In particular, many respondents noted that several Member States require securities constituted under their national laws (and in particular bonds issued by national governments) to be issued through domestic CSDs. At the EU-level, respondents indicated that CSDR passporting requirements create a barrier to cross-border issuance and requires costly legal assessments.

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Stakeholders called on public authorities to support harmonisation efforts, both via industry and regulatory efforts to overcome these barriers. Several respondents suggested the introduction of a 28th regime or EU-wide legal framework, as well as the harmonisation of key concepts for securities issuance and dematerialisation. Some respondents suggested developing a pan-European system for withholding tax, building on the FASTER Directive. On an operational level respondents suggested mandating EU-wide harmonisation of corporate action workflows, timelines, and messaging standards. The majority of respondents (38 out of 43) indicated that there are barriers to cross-border asset servicing and processing of corporate actions.

Regarding links between EU CSDs, 26 out of 30 respondents indicated there are barriers related to the establishment of links and 18 out of 25 respondents indicated there are barriers with respect to the maintenance of links (while very few respondents indicated an issue with the improper use of links or the inappropriate classification thereof). Respondents emphasised the need for simplification and standardisation in the process of setting up links between EU CSDs. The complexity and cost of establishing and maintaining links, as well as the lack of harmonisation in operational and regulatory aspects, were cited as major barriers. Some respondents suggested that ESMA could play a role in providing clearer guidance on definitions, risk implications, and the appropriate use of different kinds of links. A few respondents noted that the current framework for links is too rigid and inflexible, and that a more modular approach would be beneficial.

Some respondents, particularly investor associations, advocated for the promotion of interoperable links to achieve competitiveness in settlement markets and avoid oligopoly, although more than half of respondents (17 out of 29) indicated they do not believe that all links should be interoperable.

22 out of 23 respondents indicated that they do not believe that regulation should mandate a minimum number of links between EU CSDs, several solutions were proposed to promote their establishment. These include the creation of standardised due diligence questionnaires and risk assessment frameworks to simplify the process of setting up links, and the promotion of transparent and comparable pricing disclosures to enable informed choices about link usage. In addition, 16 out of 22 respondents indicated that for the establishment of links between CSDs and other infrastructures to be of any benefit, they must be accompanied by convergence in settlement location and there should be standards and protocols developed to ensure streamlined set-up and maintenance.

In terms of settlement services and issues related to T2S, 29 out of 35 respondents suggested that T2S could be further enhanced by expanding its scope and functionality to include more CSDs, currencies, and services beyond settlement (e.g. common corporate action processing and collateral management). Respondents also highlighted the importance of driving full adoption of T2S harmonisation standards by all CSDs and participants, as well as harmonising operational procedures and timelines across T2S and non-T2S markets. In addition, 25 out of 36 respondents believe that all CSDs settling their cash leg in euro should be required to connect to T2S. Several respondents however noted that the current T2S framework is too complex and that a more streamlined approach would be beneficial.

Settlement costs were a major point of contention on the part of respondents, 48 out 51 agreed that settlement costs in the EU should be reduced to improve the competitiveness of EU capital markets (including the cost of settling within T2S). Suggestions included increasing competition and transparency among CSDs, leveraging T2S and harmonisation to improve

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efficiency, and addressing specific cost drivers such as communication of costs and partial settlement fees (41 out of 46 were in favour of greater price transparency).

30 out of the 43 respondents believe that divergent national legal systems and practices create a barrier to legal certainty in the post-trading area. These include different national laws on securities ownership (slightly more than half of respondents mentioned this to be an issue), registration procedures and title transfer, settlement rules, insolvency, corporate and tax rules; national differences in the implementation and interpretation of SFD and FCD, particularly settlement finality and collateral management; legal uncertainty regarding DLT-based systems; and lack of interoperability and data synchronisation between distributed ledgers and traditional post-trade systems.

The adoption of different national solutions for DLT-based systems adds to the uncertainty and fragmentation. Some stakeholders support creating a unified legal framework for all types of settlement assets used in DLT environments, regardless of their nature, to promote cross-border market integration. 20 out of 27 respondents indicated that traditional and DLT-based assets should be subject to the same rules. The existing conflict of law rules do not adequately cover all proprietary aspects of securities holdings in cross-border contexts, and national conflict of laws rules vary. Respondents advocated for harmonised conflict-of-law rules that accommodate DLT-based instruments to reduce friction and enhance legal certainty.

Regarding the SFD, some respondents considered that the Directive works well and only needs some clarifications regarding its application to DLT-based systems (29 out of 34 respondents believe that SFD protection is important for DLT-based systems). Others support turning SFD into a Regulation to tackle inconsistent implementation of the SFD across the EU. Respondents also highlighted the need for clearer guidance on the conflict of law rules, uncertainty regarding the protection of indirect participants and the extension of protection to participants in third-country systems and to DLT-based systems. Several respondents noted that the current SFD framework is too narrow and that a more comprehensive approach would be beneficial (e.g. broadening the scope of eligible participants, extending SFD protection to activities in relation to any assets, not just cash and securities). In addition, some respondents indicated that settlement finality moments within the SFD should be harmonised, and clearer definitions of "collateral security" and "financial collateral" in the FCD should be provided. The misalignment of these definitions was mentioned by more than half of respondents as creating complexities for efficient collateral management.

New Technology and Market Practices: The majority of respondents found the current framework under the CSDR broadly adequate for managing DLT-related risks, but some adjustments may be needed to fully address DLT-specific challenges and ensure technological neutrality of CSDR definitions to include DLT-based securities.

44 out of 45 respondents believe that DLT can streamline post-trade processes, enhance data sharing, and reduce the reporting burden. However, regulatory adaptation is needed to accept DLT-native reporting formats, and changes in regulatory frameworks, securities legislation, accounting standards, and taxation processes may be required.

27 out of 37 respondents supported a modular approach to the CSDR – in particular custodians, brokers, and investors, arguing that it could foster technological neutrality, encourage innovation, and facilitate the integration of new technologies like DLT. This approach would allow service-specific authorisation for DLT-based functions like notary, maintenance, and

settlement, reducing compliance burdens and promoting competition by allowing new market entrants to offer specialised services without demanding full CSD compliance.

Barriers under the FCD: 20 out of 21 respondents consider that there are barriers related to the scope of the FCD, in particular with respect to the parties eligible as collateral taker and collateral provider, definition of financial collateral, and the definition of cash. 24 out of 28 respondents consider that collateral other than cash, financial instruments, and credit claims should be eligible under the FCD, including gold and DLT-based financial collateral arrangements, in particular in light of DLT-based financial collateral arrangements.

20 out of 22 respondents indicated that legal uncertainty related to the recognition of tokenised financial instruments as collateral under the FCD exists, citing difficulties in applying key FCD concepts like "possession" and "control" to tokenised assets and hence providing equivalent rights and protections as financial collateral under the FCD. It was also mentioned that the legal status and proprietary nature of tokenised assets can vary across EU Member States, leading to differing levels of clarity and certainty regarding their use as collateral.

16 out of 22 stakeholders mentioned the need to change the current approach that only protects financial collateral arrangements where at least one of the parties is a public authority, central bank or financial institution, and propose to include new counterparties such as crypto-asset service providers, corporates, DLT-based entities and natural persons. However, there were also respondents that expressed caution about broadening the FCD's personal scope, suggesting that the current restrictions may still be appropriate to ensure discipline and safeguard against potential risks.

12 out of 14 respondents said they have encountered problems with the recognition/application of close-out netting provisions under the FCD, citing the different interpretations of insolvency across Member State, and the different coverage of transaction types under the FCD in different Member States.

Market Practices and Compliance Costs: Respondents highlighted that internalised settlement represents a genuine alternative to CSD settlement, but there is no consensus on whether this activity provides an uneven playing field with regards to CSDR-regulated securities settlement or represents additional risks to the stability of the capital market. A few respondents suggested that the development of a harmonised framework for internalised settlement would help to reduce uncertainty and promote efficiency. 26 out of 33 respondents believe that the current reporting obligation for internalised settlement allows for an accurate identification of the risks stemming from this activity.

Most respondents supported the idea of ESMA developing reporting templates or centralising reporting requirements to reduce the reporting burden and improve information sharing. Barriers to information sharing also stem from different interpretations of or gold-plating by some authorities when transposing EU rules. Several respondents noted that the current framework for information sharing is too complex and that a more streamlined approach would be beneficial.

In terms of authorisation, 8 out of 21 considered the authorisation procedure for CSDs under the CSDR to be too long and burdensome. Key concerns included the extensive documentation required, complex coordination among multiple authorities, and the absence of standardised timelines. Respondents proposed a range of improvements, including introducing harmonised templates, clear checklists, a centralised digital platform for submissions, introducing a two-

stage process (initial principle approval followed by operational readiness), allowing lighter requirements for smaller or less systemic CSDs, as well as strengthening ESMA's role to reduce duplication and improving communication between authorities. A few respondents suggested that the development of a harmonised framework for authorisation would help to reduce uncertainty and promote efficiency. Several respondents noted that the current authorisation framework is too rigid and inflexible, and that a more modular approach would be beneficial. Many of these concerns were also mirrored in the case of extensions of CSD authorisations and processes related to outsourcing activities. Two-thirds of respondents indicated these procedures to be too long and burdensome.

Approximately half of respondents also highlighted that the procedure for authorising CSDs to provide banking ancillary services is excessively long and burdensome, posing a significant barrier to market participation and innovation.

Several respondents (approximately one-third) supported the concept of tiered, i.e. per service, authorisation for CSDs to enable proportionate regulation, allowing CSDs offering only one or two core services to comply with tailored requirements. Respondents argued that this would lower entry barriers for smaller or specialised providers, fostering innovation and competition, improving operational efficiency by aligning regulatory obligations with actual risk exposure and allowing flexible expansion by enabling CSDs to add services incrementally without full re-authorisation.

Interaction with Other EU Legislation: A common thread among the responses is that issues between the CSDR and other EU legislation can create uncertainty, duplication of efforts, and increased compliance costs for market participants.

Many industry associations and market infrastructures highlighted the need for greater coordination and harmonisation between CSDR and the MiFID II, EMIR, and the SFD. For instance, they pointed to the potential conflict between the provisions of the SFD and CSDR regarding settlement finality and dispute resolution in cases of failed settlements. They also noted that the regulation of trade reporting, transparency, and best execution under MiFID II may sometimes conflict with settlement obligations under CSDR, particularly where settlement cycles and reporting deadlines do not align.

Some entities emphasised the importance of clarifying the interaction between CSDR and DORA and the Cyber Resilience Act, to avoid duplication of provisions, particularly in areas such as ICT risk management, operational resilience, and cybersecurity.

Other Issues on Post-Trading: The majority of respondents underscored the need for greater interoperability and harmonisation among post-trade infrastructures, including CSDs and CCPs. Many industry associations and market infrastructures emphasised the importance of interoperability in reducing costs and increasing efficiency in post-trade services. For instance, there was a proposal for the establishment of a European "Interoperability Framework" for CSDs and CCPs, which would enable greater connectivity among national CSDs and facilitate the consolidation of liquidity.

Several banks, especially those with a significant presence in the EU, argued that the current EU framework for CCPs is in need of reform. suggested that the equivalence regime for third-country CCPs could be optimised through more regular reviews, greater transparency, and clearer communication on pending decisions, and a more risk-based approach to determining the capital treatment of exposures to third-country CCPs.

In contrast, some respondents highlighted the importance of maintaining local capital market ecosystems, citing the need to support small and medium-sized companies that are not typically of interest to foreign institutional investors. These entities, including some market infrastructures and regulatory bodies, emphasised the role of local CSDs in delivering comprehensive services to domestic companies and supporting the development of local capital markets. They argued that the EU should prioritise the development of a harmonised approach to the provision of issuance and asset servicing by third-country CSDs, which would enable greater consistency and clarity for market participants.

A significant number of respondents, including 70% of the industry associations and 60% of the market infrastructures that responded to the targeted consultation, identified regulatory barriers as a major obstacle to post-trade integration. Specifically, they pointed to the lack of harmonisation in areas such as corporate action processing standards, withholding tax reclaim processes, and insolvency laws. Many entities, particularly those based in the EU's larger member states, argued that the EU should prioritise the development of a harmonised framework for corporate action processing, which would enable greater consistency and clarity for market participants. They also proposed the introduction of a relief-at-source system, or a pan-EU withholding tax reclaim portal.

Operational barriers, such as differences in settlement cycles and messaging protocols, were also identified as a significant challenge by many respondents, including 80% of banks and 75% of market infrastructures. These entities, often with a pan-EU presence, emphasised the need for greater standardisation and harmonisation in post-trade processes to reduce costs and increase efficiency.

3.4. HORIZONTAL BARRIERS TO TRADING AND POST-TRADING INFRASTRUCTURES

This section of the consultation covers horizontal barriers and horizontal aspects (innovation) to trading and post-trading.

EPTF Barriers to Post-Trade Integration: The targeted consultation gathered extensive stakeholder input on the barriers identified by the European Post Trade Forum (EPTF) in 2017, reaffirming many of the structural inefficiencies in the EU's post-trade landscape. While views varied in intensity, several recurrent themes emerged, including the need for harmonisation, simplification, digitalisation, and legal certainty. Responses also indicate differentiated urgency across barriers, often reflecting the degree of market integration, operational complexity, and relevance for cross-border activity.

High-urgency barriers: Stakeholders strongly endorsed action on several long-standing issues, beginning with fragmented corporate actions and general meeting processes, with 43.5% of 46 respondents rating it of high urgency and among the most pressing issues. Likewise, respondents underscored the inefficient cross-border withholding tax collection procedure, with 55.3% of 47 respondents deeming it highly urgent, as reclaim procedures remain slow, costly, and inaccessible—especially for retail investors. While the FASTER Directive is welcomed, many deem it insufficient and push for a relief-at-source mechanism or even abolition of withholding taxes on EU-sourced investment income.

Legal fragmentation in asset ownership, registration, and segregation: Legal uncertainty remains a persistent obstacle to market integration and cross-border investments. Stakeholders called for harmonisation of rules related to asset segregation, shareholder registration and

identification (rated as highly urgent by 43.5% of 46 respondents), ownership of book-entry securities (uncertainties surrounding nominee structures, platform custody, and cross-border transfers), and investor protection (investor protection and asset recovery mechanisms remain inconsistent across Member States). Regarding inconsistent asset segregation rules, 41.9% of 43 respondents saw high urgency in addressing divergent national approaches that increase costs and risks. The lack of clarity on enforceability in cross-border settings was highlighted, with respondents advocating for a harmonised legal baseline. Some raised concerns over operational risks tied to neo-brokerage and pooled sub-nominee arrangements, calling for DORA enforcement and regulatory clarity.

Lack of convergence and harmonisation in information messaging standards remain an issue despite standardisation efforts have advanced. Stakeholders highlighted inconsistent uptake across domains and markets in messaging and reference data, especially in non-T2S jurisdictions.

Issues regarding reference data and standardised identifiers were seen as less urgent (high urgency only for 14.6% of respondents) but drew support for broader use of global identifiers. Stakeholders reported progress in LEI adoption but flagged licensing costs and gaps in standardisation. Some also raised interoperability concerns for crowdfunding platforms and DLT-based markets, pointing to the need for common identifiers (LEI, ISIN, and CFI).

Harmonisation of ETF post-trade processes was deemed less urgent (19.1% of 47 respondents sees it as highly urgent), although stakeholders noted that the lack of a harmonised processing model impedes cross-border investment. Some called for alignment with UCITS and MiFID, but most viewed this as a niche issue affecting specific market participants. Post-trade reporting and supervisory complexity

Stakeholders broadly agreed on the need to simplify the EU's complex post-trade reporting structure. The targeted consultation revealed dissatisfaction with fragmented requirements across EMIR, MiFIR, SFTR, and CSDR (with 29.8% of the 47 respondents ranking it as highly urgent and 21.3% of medium urgency). Respondents endorsed a harmonised or single-sided framework and recommended eliminating redundant fields, enhancing machine-readability, and consolidating supervisory oversight. The importance of adopting universal identifiers to support automation and interoperability was stressed.

Legal uncertainty in risk and default procedures: No significant concerns regarding legal soundness of CCP default management and intermediary risk mitigation were raised (only 10% of respondents saw it as highly urgent). However, respondents did call for continued oversight and safeguards like asset portability and client transparency. On the shortcoming related to different understanding, within the EU, under the Settlement Finality Directive (SFD) of the actual moment of finality of transfers, and to protect Delivery versus Payment, stakeholders consider it technically important but not operationally pressing (only 12.2% of 41 respondents deemed it highly urgent). While existing SFD rules work well for most systems, some edge cases (e.g., insolvency law conflicts, blockchain systems) need clarification.

Collateral mobility and cross-currency settlement barriers: The lack of collateral mobility (the ability to move collateral efficiently between counterparties, markets and accounts) was rated by the majority of respondents (37.52% of 41 respondents) as highly urgent. While recent initiatives (e.g., T2S, ECMS) have improved collateral flows, legal and operational fragmentation persist. Respondents urged harmonisation of settlement processes and tri-party interoperability. Likewise, restrictions imposed by the CSDR on settlement agents could

constitute an obstacle to the provision of cross-border delivery versus payment services in non-domestic currencies by CSDs (high urgency for 15.4% of the respondents). The lack of such capabilities in most EU CSDs limits collateral management and international issuance. Calls were made for scalable, harmonised solutions.

National restrictions and fragmented infrastructures: Some stakeholders called for vigilance against emerging restrictions. The issue of fragmented CCPs/CSDs was once again raised, with comparisons drawn to the more unified US post-trade environment (e.g., DTCC and OCC). Respondents argued for radical simplification of infrastructure to reduce costs and systemic risk.

Cross-border operational synergies between entities: This section revealed a broad range of stakeholder perspectives on the adequacy and effectiveness of the EU regulatory and supervisory framework governing outsourcing and intra-group synergies, in trading and post-trading infrastructures, in particular Central Securities Depositories (CSDs). A recurring theme across the responses is the need for greater proportionality, harmonisation, and clarity in the treatment of intra-group outsourcing and cross-border activities, along with a more targeted approach to CSD consolidation that recognises market realities.

Stakeholders underscored the lack of consistent application of outsourcing rules across EU Member States, resulting in regulatory fragmentation and unequal compliance burdens. Many respondents identified challenges in outsourcing to third-country service providers, including legal, operational, and data access risks. These challenges were perceived as exacerbated by the absence of clear equivalence criteria and oversight mechanisms. Intra-group outsourcing was also flagged as an area in need of differentiation, as current frameworks often fail to distinguish between intra-group and third-party arrangements, leading to unnecessarily burdensome requirements. Furthermore, stakeholders criticised the complexity and overlap of various regulations and guidelines—such as those under CSDR, DORA, and from ESMA/EBA—which collectively increase the operational and compliance costs of outsourcing. Another concern related to the absence of a formal definition of "Group Entity," which complicates the supervisory treatment of intra-group arrangements and results in inefficiencies.

Turning to intra-group synergies in trading and post-trading infrastructures, stakeholders emphasised the burdensome nature of applying third-party outsourcing rules to intra-group arrangements, especially in areas such as CSDR and banking legislation. In particular, respondents pointed to regulatory duplication and the lack of flexibility in applying rules across borders as limiting their ability to centralise operations or adopt innovative technologies such as cloud computing. Many advocated for greater proportionality and flexibility, with specific calls to distinguish intra-group from third-party outsourcing in relevant EU rules.

Barriers to the consolidation of CSD functions at the group level were explored. Among the 14 respondents, 57.1% cited legal barriers in national law was indicated as a major obstacle, together with EU legal acts, the CSDR itself, and other structural constraints. Supervisory and technical barriers (28.6%) of respondents) as well as market practices (14.3%) were also mentioned by respondents. The main challenges identified relate to the fragmented implementation of key EU legislation (including CSDR, DORA, EMIR, and MiFID II) across Member States, which generates uncertainty and limits cross-border operational efficiency. Many respondents endorsed the need for further harmonisation, especially in allowing CSDs to provide ancillary services like FX and non-euro settlement without requiring full banking licenses. Furthermore, stakeholders noted that passporting remains impractical due to divergent

national interpretations, while the Settlement Discipline Regime was viewed as a source of operational uncertainty. Although some respondents supported the use of structural and technological reforms (e.g. blockchain) to drive efficiency, others argued against administrative consolidation calling for a market driven process that respect the diversity of existing CSD models.

Reporting under CSDR is seen as an obstacle to consolidation only by 6.5% of the 31 respondents. Several respondents indicated that they do not favour consolidation at all, arguing that the cost of using national CSDs is lower for clients than relying on international CSDs. Others advocated for enhancing interoperability between national CSDs rather than consolidating them. A majority noted that, provided the consolidating entity is a CSD with appropriate authorisations, legal or regulatory barriers to consolidation were not apparent in practice.

Similarly, when asked about organisational requirements, such as outsourcing obligations under the CSDR, only 12.1% of the 33 respondents perceive these to be barriers to consolidation due to the diverging national interpretations of these requirements, which complicate group-wide operations. Again, respondents reiterated that national CSDs often deliver more cost-efficient services and that interoperability, rather than full consolidation, would better serve client needs.

On the supervisory and oversight framework for CSDs, the 30 respondents were similarly divided. A few respondents acknowledged that the establishment of supervisory colleges under CSDR had improved coordination, while many praised the CSDR Refit's introduction of a single supervisory decision-maker as a positive development—especially in relation to passporting. This single point of supervisory decision-making was widely considered a best practice and should be more broadly applied. Some participants suggested that a future review of CSDR could provide an opportunity to formalise supervisory cooperation among Member States and with equivalent third countries. Stakeholders generally advised caution against full consolidation and encouraged further enhancements to interoperability frameworks instead.

In conclusion, the consultation responses point to a consistent demand for proportionality, simplification, and improved cross-border coherence in the EU's regulatory approach to outsourcing and consolidation within trading and post-trading infrastructures. While there is no consensus on the desirability of consolidating CSDs per se, most stakeholders agree that improvements in supervisory convergence, regulatory clarity, and the treatment of intra-group arrangements are essential to enable operational efficiencies and market integration, without imposing unnecessary burdens or undermining national market structures.

Complexity of issuance process: The issuance process for securities and other financial instruments in the EU is complex and fragmented, with various barriers and obstacles that hinder its efficiency and effectiveness. The main barriers identified by respondents include regulatory fragmentation, lack of standardization, and manual processes, which create inefficiencies and increase operational risk. The lack of harmonization in areas such as investor identification and classification, data exchange, and underwriting services also contributes to the complexity of the issuance process.

Respondents highlighted the need for increased standardisation, harmonisation, and digitalisation of processes, as well as the adoption of common data standards and regulatory requirements across Member States. The use of technologies like AI and digitalisation could help automate and improve the issuance process, reducing costs and increasing efficiency.

However, the lack of a harmonized EU framework for digital securities and the limited use of standardised digital identities for issuers and investors are significant barriers to the development of digital issuance models.

The market for underwriting services is characterized by high fees, limited transparency, and limited competition, making it difficult for smaller or first-time issuers to access capital markets.

To improve the issuance process, respondents recommended a range of measures: harmonisation of regulatory requirements and data standards across Member States; greater use of digital technologies; improving transparency in fee structures and underwriting services; the development of a harmonised EU framework for digital securities and the adoption of standardised digital identities for issuers and investors; the creation of a pan-European platform for debt instruments; and standardisation of data exchange formats and protocols. Enhancing the efficiency of the settlement process and reducing the complexity of issuance procedures, particularly for first-time and smaller issuers, were also frequently mentioned.

Overall, the responses suggest that the EU issuance process is in need of significant reform to improve its efficiency, transparency, and competitiveness. The development of a harmonised EU framework for digital securities, the use of standardised digital identities, and the improvement of transparency in fee structures and underwriting services are seen as key steps towards achieving this goal. The creation of a pan-European platform for debt instruments and the standardisation of data exchange formats and protocols could help to reduce the complexity and costs associated with the issuance process.

Innovation – the use of DLT Pilot Regime (DLTPR) and asset tokenisation:

Technology-Neutral Prudential Rules for Tokenized Assets: participants emphasized the need for prudential regulations to remain technology-neutral, advocating for a risk-based framework focusing on asset characteristics, control environments, and operational resilience, avoiding differentiating between permissioned and permissionless distributed ledgers, which could create regulatory barriers and stifle innovation. Otherwise, they fear that Europe will be at an even greater disadvantage compared to other jurisdictions, such as the US.

Reforming the DLT Pilot Regime (DLTPR): according to the majority of respondents, the key priority for enhancing the attractiveness and viability of the DLTPR is expanding the scope of eligible assets (from tokenized physical assets to all types of stocks and all financial instruments under MiFID II) and adapting or removing the limit on the value of financial instruments traded, which severely limit the scalability and economic viability of projects within the regime. Removing or increasing these limits would facilitate the transition of trading activity from the current OTC framework to the DLT Pilot regime, thereby enhancing its competitiveness with other jurisdictions. Removing the limited duration of DLTPR licenses is also seen as critical for long-term business planning and investment, as it would reduce regulatory uncertainty and align the EU with international practices.

Respondents prioritize clearer regulatory pathways for transitioning from the DLTPR to the CSDR-framework to ensure market confidence and reduce regulatory uncertainty.

The vast majority of the respondents support a more principle-based regulatory approach and a service-specific regulation of settlement services, i.e. regulation at the level of individual core services under the CSDR (notary, account maintenance, and settlement services), which would create a more flexibility and compliance proportionality for its participants.

Barriers to Asset Tokenisation in Europe: despite the potential of DLT, participants highlight significant barriers to scaling asset tokenisation in the EU. The most pressing challenge is the divergence in Member States' securities and corporate laws, which complicates cross-border issuance, ownership, and transfer of tokenized assets. Existing EU trading and post-trading laws, such as MiFID II and CSDR, are also deemed ill-suited for DLT-based models, requiring harmonization to accommodate digital finance.

Interoperability and Standardization, enabling a Connected DLT Ecosystem: interoperability between DLT platforms and traditional financial systems remains a focal point. Most respondents oppose public policy mandates to enforce interoperability, advocating instead for market-driven solutions and private-sector leadership. However, there is strong support for public policy to encourage interoperability through industry standards, regulatory sandboxes, and public-private partnerships, while avoiding overly prescriptive regulations. Technical and business standards are identified as the most urgent need, including a harmonized legal framework for digitally native securities and shared data taxonomies, which are critical to reduce fragmentation. Standardizing connections between DLT platforms (e.g., blockchain bridges) is also prioritized to facilitate seamless transfers.

Cross-Cutting Themes: Regulatory Clarity, Innovation, and EU Competitiveness:

Across all discussions, participants stress the importance of regulatory clarity and long-term stability to build trust in DLT-based systems and recommend a "balanced, risk-on" approach, with regulators focusing on core objectives such as security and transparency rather than restrictive measures. The EU's competitiveness in digital finance is a recurring concern, with stakeholders urging alignment with practices of leading jurisdictions to avoid falling behind in innovation.

The consultation also highlights the need for DLTPR to remain an adaptive regulatory framework that evolve with market developments, with thresholds and eligibility criteria to be reviewed periodically by authorities like ESMA to ensure the DLTPR remains competitive as the DLT landscape matures.

3.5. ASSET MANAGEMENT AND INVESTMENT FUNDS

This section of the targeted consultation covers issues related to the cross-border distribution of investment funds and cross-border operations of asset managers.

Authorisation procedures: Overall, the consultation shows that most respondents (67% overall and 85% of asset managers and business associations) find the current authorisation and supervisory approval processes under AIFMD and UCITSD sufficiently clear and comprehensive. However, there is a strong view that these processes are not applied consistently across Member States with respondents noting, among other issues, divergencies in the interpretations of the concepts of substance or effective governance in the granting of AIFM or UCITS management companies' licenses or in the requirements concerning the set-up of a framework to manage potential conflicts of interest and related-party transactions.

Respondents broadly (79%) support greater harmonisation and streamlining of authorisation procedures to simplify the regulatory framework and reduce national divergences. They also stress that ESMA should better check/enforce EU regulation and to avoid Member States' gold-plating EU requirements. Also, stakeholders noted that NCAs should better share information

to avoid multiple requests of the same data. In a few cases, respondents—such as the French authorities—support moving toward EU-level supervision.

Concerning the treatment of service providers and depositaries during the authorisation process, 79% of respondents considered that the current authorisation process at the NCA level of the fund service providers appointed to a fund (incl. depositaries), is sufficient and proportionate overall. When asked whether an authorisation process should be introduced at the entity level for depositaries, few respondents provided feedback and most answered negatively (71%). However, some respondents support the introduction of an authorisation process for depositaries at entity level to allow them to offer their services across EU Member States, pointing out that the lack of an EU-level depositary license and passport mechanism contributes to structural inefficiencies within the European asset management landscape and that the introduction of an harmonised EU-wide authorisation is crucial to foster greater competition and quality of services while reducing market fragmentation. According to some respondents, this authorisation should include an EU-wide public register, managed by ESMA. Other respondents pointed out that allowing for a passporting of depositaries' services across the EU might encourage depositaries' consolidation.

EU passport for marketing of investment funds: Stakeholders (such as industry associations and asset managers) identify major implementation issues of the marketing passport across Member States (82% of respondents), such as inconsistent national requirements, burdensome one-month prior notification for new share classes, duplicative processes, and high costs due to local regulatory fees, translations, and disclosure rules. The 36-month blackout period post-denotification under AIFMD is also seen as disproportionate. They call for greater harmonisation, a single EU-wide notification portal, simplified document updates ("file and inform"), and clearer ESMA-led guidance to ensure more consistent and efficient cross-border fund marketing.
In addition, the cross-border passport is not applied in a consistent manner (83% of respondents). Significant issues remain, primarily arising from NCAs that do not fully apply the requirements set out in the EU frameworks.

The key issue is differing national requirements on marketing documents (86% of respondents). These divergences create costs, delays, and legal uncertainty, especially for pan-European distribution. Amongst the solutions proposed, respondents mentioned EU-level harmonisation of content and format rules, single ESMA marketing documentation portal, clearer guidance distinguishing marketing communications vs investor disclosures, as well as greater supervisory convergence through ESMA coordination.

EU passporting for Management Companies: When asked to indicate whether the current passporting provisions are sufficiently clear, comprehensive and proportionate to enable the smooth operation of fund management companies in the single market, 74% of respondents answered positively. However, 58% of respondents noted that the current passporting provisions for management companies are not reflected in a consistent way in domestic legislation by Member States. Such differences include: (i) requirements for fund documentation to be translated into the local language/languages; and (ii) appointment of local entities to carry out certain management functions (e.g., transfer agency); notification procedures in the EU framework not applied consistently (73% of respondents). Therefore, stakeholders (investment associations) note that barriers and divergences primarily concern procedural and technical aspects of the notification process.

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Group operations - Eliminating inefficiencies and duplication: Responses to this section of the consultation were very limited. As per the key obstacles to consolidating functions across entities within the same asset management group, respondents identified both legal barriers in EU law (UCITSD does not recognise the notion of group structure, requirements) and national laws (local presence, which become disproportionate for relatively simple group) as well as supervisory (inconsistent supervisory interpretations, expectations, and processes across Member States with limited reliance on group level assessment of internal policies and other functions within the group) and market practices to be relevant hurdles.

On the issue of whether there is scope to streamline authorisation and supervision of asset managers operating in groups, the vast majority of respondents did not give an opinion. Very few replied (40 out of 210 respondents), and among them there is scepticism on the topic. Only 8 respondents saw efficiency gains and cost reductions that a group perspective would bring (in the compliance, risk management, and portfolio management functions).

Respondents opposing group authorisation highlighted its downsides and risks, as the license will most likely not be granted to the entity where the regulated activities take place and/or it will further centralise activities, which creates substance related challenges.

Overall, most respondents do not see the need for group level authorisation and supervision, as asset managers operate under highly diverse business models, and there is no uniform structure across the industry. Additionally, asset managers are not prudentially regulated on a consolidated basis and do not typically centralise risk management across their European operations in the same way as banks.

Even where firms wish to achieve group level efficiencies, the primary barriers to intra-group efficiency, such as national tax laws, employment regulations, and inconsistent interpretations of what constitutes a "letter box entity," would not be resolved by a supervisory shift.

Concerning possible solutions, those proposed by respondents focused on supervisory convergence and coordination among NCAs to reduce inconsistencies/barriers and enable more efficient cross-border operations, including: enhanced peer reviews and supervisory briefings coordinated by ESMA; mutual reliance or recognition of assessments where appropriate; practical guidance on delegation oversight and intra-group cooperation standards, as well as transparent communication from NCAs on their expectations and administrative practices. Respondents are of the view that these improvements can be achieved within the current legal framework.

Barriers for investments in EU funds: On barriers to investing in EU funds, 91% of respondents replied that they have encountered issues or barriers to accessing investments in EU funds, either directly or on a cross-border basis, noting that such issues mainly stem from restrictions or differential treatment based on the national framework where a fund is domiciled, combined with diverging supervisory administrative practices, corporate law and tax law systems, rather than from the EU framework. One prominent industry association noted that these barriers have impacted structuring aspects of fund offerings and have prevented investors from investing in a wider range of fund products.

3.6. SUPERVISION

This section summarises the feedback received on the supervision of financial entities in the trading, post-trading, and asset management sectors, as well of crypto-asset service providers (CASPs).

Effectiveness of the current framework: on effectiveness, both public and private sector respondents identify similar structural challenges. Public authorities most commonly cite legal fragmentation, inconsistent application of rules across MS, and excessive reliance on Level 2 and 3 measures. Many warn that the ESAs underutilize existing tools (e.g., Q&As, binding mediation), and suffer from limited capacity and internal experience, which hampers supervisory convergence.

The private sector, while agreeing on legal fragmentation and inconsistent supervision, focuses more on governance, transparency, and stakeholder engagement. Many criticize the lack of a competitiveness mandate, pointing to high compliance costs and regulatory uncertainty that deter innovation and market participation. NGOs further highlight the lack of centralised supervision and persistent national bias in ESA governance as major obstacles to effective, integrated EU supervision.

ESMA's current governance model faces criticism for slow decisions, limited engagement, and small market underrepresentation, prompting calls for streamlined, more transparent, and AMLA-inspired reforms.

Supervisory arrangements for different sectors: public authorities generally favour national supervision and subsidiarity, with openness to limited EU oversight for systemic or cross-border entities, while industry supports targeted centralization to enhance efficiency, particularly for major market infrastructures, alongside strong local input. Most stakeholders prefer strengthening ESMA's coordination role through gradual, risk-based reforms over full-scale centralisation.

There is broad consensus against establishing ESMA regional hubs/centres of expertise due to concerns about inefficiency and duplication, though some remain open to the idea, if carefully designed to preserve local expertise within a coherent EU framework.

Supervision of EU CSDs: most respondents believe that the current CSDR supervisory framework functions well – especially post-CSDR Refit – and that many of the outstanding issues stem from fragmentation of national laws. With respect to efficiency and legal certainty, a majority of respondents (17 out of 24) affirmed the robustness and clarity of the current framework, particularly during crises. However, 12 out of 29 stakeholdersperceive convergence in supervisory practices across Member States as divergent (11 convergent and 6 neutral).[167] Mentioned issues included: inconsistencies in passporting procedures, divergent interpretations of CSDR provisions (e.g., outsourcing, internalised settlement, and governance), divergent approaches to service extensions, multiple reporting formats (e.g. under DORA), and gold-plating of EU rules.

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[167] Question 8 in Section 6.3.1 asked: How would you rate the convergence of supervisory practices across Member States in the area of the supervision of CSDs? Please provide examples of divergent outcomes of supervisory practices for CSDs in different Member States.

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Several respondents, including in particular CSDs and CSD associations, supported stronger supervisory convergence, although a majority of respondents disagreed that centralised supervision for CSDs would reduce regulatory costs, enhance resilience, and simplify or accelerate authorisations, since processes are already clearly defined in the CSDR. In particular, many respondents argued that centralised supervision would introduce new layers of bureaucracy, increase fixed costs and require adaptation to new reporting and oversight mechanisms. Several respondents stated that there is no clear evidence of deficiencies in current supervisory quality that would justify centralization. Key concerns cited include the loss of local expertise, proximity and responsiveness, the risk of one-size-fits-all approaches undermining proportionality and competition, and possible overlapping supervision and regulatory arbitrage. In fact, 23 out of 25 respondents, including those in favour of centralized EU supervision, considered that this could also produce negative side-effects if, for example, not designed properly or in the case that knowledge of the local market is lost.

With respect to employing joint supervisory teams (JSTs), views were again mostly negative, with many respondents warning that JSTs would introduce additional supervisory layers, increase reporting obligations, and dilute accountability. Some respondents, although supportive of EU integrated supervision, expressed preference for a centralised main supervisor.

Supervision of EU CCPs: several respondents, particularly CCPs, industry associations and some regulatory bodies, supported the idea of single supervision of EU CCPs, citing benefits such as convergence of practices, faster and simpler processes, and a level playing field between EU CCPs and those domiciled in third countries.

Respondents argued that ESMA should have a more prominent role in ensuring the consistency and effectiveness of CCP supervision across the EU. They suggested that ESMA could be responsible for authorising CCPs, approving significant changes to their operations, and overseeing their compliance with EU regulations.

However, 22 out of 25 respondents considered that more centralised EU supervision of CCPs could also produce negative side effects, including increased bureaucracy and higher costs. Many respondents opposed centralised supervision (notably the regulatory bodies), with some expressing concerns about the potential loss of local expertise and the risk of over-regulation. They argued that NCAs have a deeper understanding of the local market and are better equipped to supervise CCPs that are systemically important at the national level.

Some respondents also argued that the current EMIR 3 framework already provides for a robust supervision of CCPs (including provisions for the coordination and cooperation between ESMA and the NCAs), and that further centralisation is not necessary. The supervisory colleges are seen as a useful tool in supervision, facilitating cooperation and coordination. A small number of respondents suggested a tiered or differentiated approach to supervision, where "significant" CCPs would be supervised more centrally by ESMA, while smaller, more nationally focused CCPs would remain under the purview of NCAs and less stringent requirements would apply to them.

Regarding the possibility of employing JSTs, some respondents argued that they could help to leverage the expertise and resources of NCAs and ESMA and could facilitate the sharing of best practices and knowledge among supervisors. However, other respondents expressed concerns about the potential effectiveness and efficiency of JSTs (leading to duplication of efforts and resources, as well as conflicts of interests).

Supervision of significant EU trading venues: on average, 44 stakeholders responded to the questions in this section of the consultation on trading venues (with the number of participants peaking at 57). 15 of them were public authorities and 22 from the private sector, including trading venues and associations representing their interests. As regards the level of convergence of Member States' supervisory practices, 17 out of a total of 46 respondents consider them as 'rather' or 'very' convergent, while 13 consider them as 'rather' or 'very' divergent – 16 being neutral – even though a number of respondents point out that their feedback is limited to the perspective from one Member State. Out of 10 public authorities that replied, two supervisory authorities indicate significant differences in supervisory practices, for example as regards the authorization of trading venues, governance arrangements, operational resilience and outsourcing requirements as well as how national supervisory authorities interpret and enforce transparency requirements or algorithmic trading controls.

41 to 50 respondents expressed an opinion on the various pros and cons of the current supervisory framework. The majority of respondents highlights that the current supervisory framework enables an efficient supervision thanks to the proximity of NCAs to trading venues (81%), it allows an efficient use of national and EU supervisory resources (68%), and it is optimal in terms of regulatory costs for trading venues (62%). As regards the cons, only 30 to 33% believe that it creates an uneven playing field for EU trading venues or legal uncertainty because of different implementation or interpretation of EU legislation. It is however noteworthy that the views of groups of trading venues operating across borders are much more critical. For example, in their view, the current supervisory framework does not allow for an effective supervision of groups operating across EU borders, prevents economies of scale for such groups, and makes it more complex or costly to develop activities across borders.

The majority of respondents therefore express scepticism about the possible benefits of more integrated supervision of trading venues in the EU, citing concerns about increased complexity and compliance costs, notably by introducing bureaucratic layers, requiring dual reporting, and creating administrative burdens. A majority of respondents also does not believe that a more integrated supervision of trading venues in the EU could simplify and/or accelerate procedures for obtaining supervisory approvals (27 respondents against 10, 15 being neutral or with 'no opinion'), nor simplify and/or accelerate the procedure for obtaining the agreement for amendments to the exchange rulebooks (31 respondents against 6, with 16 neutral/no opinion). The majority of respondents emphasizes the importance of local NCAs, which are deemed to possess the necessary insights to address market-specific risks effectively. A slight majority still believes that a more integrated EU supervision could decrease uncertainties arising from different implementation or interpretation or EU legislation (20 against 18 respondents) and could increase the effectiveness of the supervision of groups, allowing for a comprehensive understanding of their activities (18 against 15). Pan-European trading venues in particular show an overall positive sentiment on the potential of more integrated supervision. A number of stakeholders indicate a preference for enhancing the current system through improved coordination and supervisory convergence efforts, for example, 14 respondents express support

for enhanced supervisory college models, while ten respondents are in favour of moving to fully centralised supervisory arrangements.[168]

When asked about the possible models of more integrated EU-level supervision, the majority of respondents are against an EU-level supervisor that would be responsible for the supervision of all trading venues (35 against, 10 in favour, 9 neutral/no opinion) or certain trading venues according to certain criteria (such as, for instance, trading volume of assets) (27 against, 15 in favour, 15 neutral/no opinion). Most respondents do not support a model with Joint supervisory colleges with enhanced powers either (26 against, 14 in favour, 15 neutral/no opinion). Many cite concerns over loss of local market knowledge, increased complexity and costs, and reduced flexibility to adapt to national specificities. While some respondents still acknowledged the potential benefits of EU-level supervision for large, cross-border venues, others felt it was not necessary or efficient, especially for smaller and Central/Eastern European countries. The responses from pan-European trading venues tend to be more positive (or at least split) towards a model based on an EU-level supervisor responsible for the supervision of all trading venues or on certain trading venues based on certain criteria, rather than a model based on joint supervisory colleges. A few respondents suggested a gradual, step-by-step approach to any potential expansion of EU-level supervision, allowing for a balanced transition and ensuring market readiness and institutional capacity.

As regards the question on whether entities within the same group should be subject to EU-level supervision, views are nearly equally split between (i) the ones who believe that if a trading venue belonging to a group is in scope of EU-level supervision, all trading venues located in the EU and belonging to that group should be in scope, irrespective of whether the quantitative criteria for being in scope are met for each of the entities (7 respondents), and (ii) the ones of the view that only trading venues of a group that individually reach the criteria should be in scope (6 respondents). The vast majority had no opinion (16) or other views (14).

When asked which MiFID II powers could be transferred to EU-level supervision, the majority of respondents were against such transfer, except for a few powers for which the views were more split or neutral: group level supervision, fair access to trading venues and CCPs as well as commodities derivatives. As regards MiFIR powers, most respondents are against transferring them from national to EU level supervision. Yet there is more openness to EU-level supervision over the rules on non-discriminatory access to trading venues and CCPs, and to some extent over market data.

Supervision of funds and asset managers: overall, few respondents replied to this part of the consultation. When asked to rate the convergence of supervisory practices across Member

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[168] This is based on Question 32e, 33a and 33b in Section 6.5.2. Question 32e asked: Please indicate to which extent you support the following possible models of more integrated EU supervision. Joint supervisory colleges with enhanced powers. Strongly support: 1, rather support: 13, neutral: 5, rather not support: 7, strongly not support: 19. For the EU-level supervisor, responsible for the supervision of all EU trading venues, strongly support: 9, rather support: 1, neutral: 1, rather not support: 4, strongly not support: 31.1. Question 33a asked: In the case of a single EU-level supervisor (a, b, c and d in question 32), to which extent would you support the two possible models described below? a) ESMA is the direct supervisor, with decisions taken by the ESMA Board of Supervisors and certain tasks delegated to NCAs. Strongly support: 2, rather support: 4, neutral: 5, rather not support: 6, strongly not support: 20. Question 33b asked: b) Within ESMA, a Supervisory Committee composed of representatives of ESMA, relevant NCAs and possibly independent experts is in charge of the on-going supervision. The ESMA Board of Supervisors could retain decision making powers on a limited number of important MiFID/R issues. Very satisfied: 7, satisfied: 5, neutral: 4, unsatisfied: 7, very unsatisfied: 14.

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States in the area of the supervision of funds and asset managers, 49% of respondents (mainly industry stakeholders) deemed it to be 'very or rather converging' while only 22% of respondents highlighted convergence issues mainly related to national authorities applying rules inconsistently, particularly in areas related to licensing and substance requirements for asset managers. These stakeholders noted that these divergences can reflect protectionist tendencies that discourage cross-border activities, increase compliance burdens, and restrict choice for businesses and investors. Therefore, some respondents advocated for harmonising substance requirements for the proficiency and skillset of required local FTEs, local governance requirements, and streamlining regulatory reporting.

Concerning the identification of costs related to the current supervisory framework and benefits of more integrated EU supervision, results show that the classification of fees may vary considerably across different countries and NCAs.

Some respondents expressed a favourable view of the potential benefits of integrated EU supervision, highlighting that it would decrease uncertainties that currently arise from different implementation or divergent interpretations of EU Regulations amongst Member States and ESMA.

When asked to indicate to which extent they support given models of more integrated EU supervision, respondents being favourable preferred a supervisory coordination college comprised of all relevant NCAs and ESMA, while supervisory responsibilities would remain unchanged, followed by only a few supporters of a single EU supervisor, responsible for the supervision of asset managers with significant cross-border activities, while NCAs would remain responsible for the supervision of asset managers with limited or no cross-border activity, UCITS funds and AIFs. Very little appetite was shown for setting up a supervisory college, taking joint decisions on the supervision of asset managers with significant cross-border activities, while NCAs would remain responsible for the supervision of asset managers/investment funds with limited or no cross-border activity.

The few (again public authorities) that support the creation of joint supervisory teams, composed of experts of NCAs and representatives of ESMA, under ESMA's lead, to achieve more harmonised and efficient supervision of AIFs, UCITS and their fund managers, highlighted that experience of Joint Supervisory Teams (JSTs) within the Single Supervisory Mechanism of the Banking Union has been overall positive.

When asked how they would expect their compliance cost to change under the supervisory model they chose in the previous questions, in the vast majority of cases, respondents did not respond or indicate a change as they prefer the supervisory status quo to be maintained.

Supervision of EU crypto-asset service providers (CASPs): there is no clear majority support amongst the respondents for any of the proposed models for an increasingly integrated EU-supervision, which ranges from single EU-supervision to only centralizing supervision for specific areas or subsets of CASPs.

Some respondents, including NCAs and businesses, see a more centralized EU-level supervision as highly beneficial for establishing a level playing field. Approximately half of the respondents suggested that convergence can already be achieved through strengthened coordination among NCAs and ESMA's role. Others stress that the nascent nature of the emerging market presents an opportunity to implement centralized supervision more effectively. Some advocate for centralized supervision due to the global and cross-border

nature of CASPs and see value in having a single point of contact for regulators and entities from third countries. Other respondents strongly oppose this approach, citing existing effective national supervision and the principle of subsidiarity, which supports national-level oversight. Additionally, respondents hold mixed opinions on the efficiency of joint supervisory teams, composed of NCA experts and ESMA representatives under ESMA's leadership, for harmonizing and improving the authorization, supervision, and monitoring of CASPs. Challenges identified include organizing teams across jurisdictions, balancing roles between entities and potential duplication, thus adding complexity. Potential benefits include improved information sharing and complementary expertise, such as use of local knowledge.

A majority of respondents believe that significant CASPs are more exposed to systemic, operational, cybersecurity, cross-border and other risks compared to less significant CASPs. Nevertheless, some respondents highlighted that while significant CASPs may be exposed to greater risk, they often have more advanced infrastructure, compliance resources, and risk management frameworks, enabling them to handle risks more effectively than smaller entities.

A majority of respondents are of the opinion that these risks can be addressed by supervision of CASPs at EU level, while some respondents, including several NCAs, acknowledged that centralized supervision could address certain risks, such as cross-border operations, regulatory arbitrage and forum-shopping more effectively than national frameworks. A few respondents expressed concerns about the feasibility and accountability of an EU-level supervisor, noting that national authorities have more proximity, local knowledge, and often already supervise under other frameworks such as the EU AML Directive or PSD, making it more effective to supervise CASPs on a national level. Many respondents take note that centralized supervision could create bottlenecks in the authorization process, extend its duration, deprioritize smaller CASPs and reduce responsiveness. Some respondents suggested that a balanced approach, leveraging both national and EU-level supervision, may be the most effective way to address the risks posed by significant CASPs.

In terms of which criteria/thresholds to use to identify significant CASPS, most respondents consider the current threshold of 15 million active users per calendar year for assessing the significance of a CASP as appropriate. However, the majority of respondents suggest considering additional criteria, beyond size, highlighting that CASPs are a heterogeneous group, each with different activities and varying levels of risk exposure. Among the additional criteria suggested there are: cross-border activity, complexity of organizational structure, client types and risk profile.

3.7. HORIZONTAL QUESTIONS ON THE SUPERVISORY FRAMEWORK

This section summarises the feedback received on ESMA's supervisory framework.

New direct supervisory mandates and governance models: most public authorities and much of the industry oppose broad, full-scale EU-level ESMA supervision while favouring a balanced approach that strengthens national oversight while enhancing EU-level coordination.

There is growing support among some industry players and other stakeholders (NGOs, citizens) for targeted ESMA supervision in specific cross-border or systemic areas.

Public authorities largely value ESMA's current governance for preserving national expertise and subsidiarity, while many in the industry view a streamlined Executive Board as a constructive step toward more agile and efficient decision-making, especially if it maintains

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sectoral expertise and complements inclusive models with continued NCA involvement and broader stakeholder representation.

Supervisory convergence: respondents consider guidelines, stress tests, recommendations, opinions, and peer reviews to be effective supervisory convergence tools. For example, 40 respondents consider guidelines to be effective, while only 15 consider them non-effective. Similarly, 27 respondents consider stress tests to be effective, with only 5 considering them non-effective.

No action letters, breach of Union law and inquiries are considered as less effective tools. For instance, 23 respondents consider breach of Union law to be non-effective, while only 12 consider this tool effective. Similarly, 31 respondents consider no action letters to be non-effective, while 26 consider this tool effective.

Some tools, such as binding mediation, collaboration platforms, colleges of supervisors, coordination groups, supervisory handbooks, and Union strategic supervisory priorities, have more mixed opinions. For example, 11 respondents consider binding mediation to be effective, while 11 consider it non-effective. Similarly, 17 respondents consider colleges of supervisors to be effective, while 10 consider them non-effective.

44 versus 21 respondents believe that current supervisory convergence tools are not being used effectively and suggest leveraging on existing tools, such as breach of Union law and peer reviews, more proactively to address supervisory divergences. Respondents also highlighted issues with guidelines and Q&As, and called for greater transparency, coordination, and streamlining of these tools to enhance their effectiveness.

26 versus 19 respondents believe that ESMA's current governance and decision-making processes do not provide sufficient incentives for supervisory convergence tasks due to a consensus-driven model led by NCAs that creates conflicts of interest and discourages assertive action. They suggest enhancing ESMA's governance structure, improving transparency and accountability, and potentially establishing a Supervisory Convergence Sub-Committee to drive convergence.

Respondents have split views about whether resource constraints ever hindered or prevented the use of supervisory convergence tools. Some suggested a more proportionate approach to convergence activities, particularly for smaller authorities and entities.

The delegation of tasks and responsibilities between NCAs and ESMA is a complex issue, with many respondents citing uncertainty and hesitation due to a lack of clear frameworks and guidelines. To increase the usability of this tool, respondents suggested changes such as clarifying the scope and legal effect of delegation, establishing clear criteria and oversight mechanisms, and harmonizing IT workflows and procedures. Additionally, concerns were raised about the potential costs of delegation, particularly for smaller NCAs.

While a narrow majority of respondents overall (24 out of 42) did not perceive significant limitations in the current supervisory convergence tools for addressing home/host issues, the views of different stakeholder groups varied. Notably, public authorities were almost evenly split. In contrast, a majority of private stakeholders (16 out of 27) indicate that they do perceive limitations in the current tools.

21 versus 18 respondents think that ESMA should be empowered to issue an opinion in cases where national supervision is deemed ineffective in the context of supervision of products or of conduct of business rules. Respondents have split views about whether ESMA should be empowered to issue binding advice in cases where national supervision is deemed ineffective.

Several respondents suggested introducing additional supervisory convergence tools to address supervisory divergences and promote consistent supervision across the EU. These tools include Common Supervisory Actions, structured industry dialogue platforms, early coordination mechanisms for new rules or regime changes, supervisory interpretation trackers (divergence mapping), annual assessment of national gold-plating practices, centralised registers and data sharing, and the possibility for financial actors to refer a matter to ESMA for binding mediation.

Data and technology hub: stakeholders from both public and private sectors support an enhanced role for ESMA as a data and technology hub, especially in centralising and harmonising supervisory reporting. In total, around 34 respondents comment on this topic in the public consultation, with roughly 25 supporting a more centralised EU reporting architecture. This includes 10 national authorities and 12 market participants, as well as eight industry associations—together pointing to efficiency gains from a single reporting entry point and more consistent EU-wide data structures.[169] Public authorities emphasise preserving national autonomy, data ownership, and governance, as well as clear rules for data access and use, while the private sector prioritises efficiency, reduced compliance costs, and predictability. Both sectors also advocate for the development of SupTech tools to improve risk-based, data-driven supervision—targeting areas like crypto-assets, ESG, market abuse, and social media monitoring. Several respondents also point to concrete applications where SupTech would bring immediate benefits, such as automated validation of fund reports, liquidity and stress-testing tools for investment funds, and greenwashing detection in sustainability disclosures.[170]While public stakeholders often highlight AI-powered analytics and document processing, private respondents focus more on automation and regulatory streamlining.

Funding: 27 out of 55 respondents consider financing of ESMA not appropriate. A majority of public authorities consider the 60/40 funding split between NCAs and the EU budget to be unsustainable and unfair, especially given the rising number of mandates assigned to ESMA without parallel budget increases. Public authorities together with the private sector strongly oppose full industry funding, arguing it would jeopardize ESA independence and burden market participants—particularly in smaller Member States. They oppose the introduction of targeted indirect industry funding for ESMA's convergence-related tasks, such as voluntary colleges or supervisory opinions. The private sector echoes concern about ESMA's expanding workload and inadequate funding, but their emphasis lies on the financial burden placed on supervised entities. Many argue that current fees are excessive and discourage cross-border activity. In the case of EIOPA, the current EU budget and NCA funding split is seen as fair, with some suggesting a slight alteration to a 55%-45% split. For the EBA only a few replies were received, therefore no reasonable conclusions can be made.

Costs of supervision:

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[169] This is based on 20 and Question 21 in Section 7.6. Question 20 asked: Which area(s) would benefit most from an ESA(s)' enhanced role as a data and technology hub? Question 21 asked: In which sectors/areas would the development of supervisory technology tools (suptech, i.e. use of technology by supervisors to deliver innovative and efficient supervisory solutions that will support a more effective, flexible and responsive supervisory system) be most beneficial to enhance efficiency and consistency of supervision? Please give examples.

[170] Question 21 in Section 7.6 asked: In which sectors/areas would the development of supervisory technology tools (suptech, i.e. use of technology by supervisors to deliver innovative and efficient supervisory solutions that will support a more effective, flexible and responsive supervisory system) be most beneficial to enhance efficiency and consistency of supervision? Please give examples.

General Observations Across Sectors: across all sectors, initial one-off costs are expected to be high, especially for IT system adaptation, legal restructuring, and staff training to align with new EU-level procedures and reporting formats. Among the 21 respondents who provide cost-related input, 14 expect ongoing costs to rise due to overlapping responsibilities between ESMA and NCAs, particularly if national layers of supervision are not fully removed.[171] Four respondents foresee broadly neutral impacts, typically only under limited adjustments to the current system, while one respondent anticipates a cost reduction in a narrow CCP-specific scenario. Two respondents are unable to estimate the impact. Six of the respondents expecting increasing costs also stress that cost neutrality or savings would only be achievable if national supervision were fully replaced—an outcome they generally consider unlikely.

Sector specific costs of supervision

Central Counterparties (CCPs): public Authorities in general appeared sceptical of cost benefits. Several noted that centralisation risks duplicative costs (national + EU-level) and a loss of national proximity, which could reduce effectiveness and increase operational burdens.

Private Sector CCPs generally oppose dual oversight. They highlighted higher compliance costs due to divergent supervisory interpretations and legal uncertainty in transition phases. Big CCPs noted that they often already deal with multiple jurisdictions. Still, shifting to ESMA would not eliminate NCA engagement, and firms fear double-reporting burdens. Small CCPs voiced the concern that the compliance and legal costs of centralisation might be unsustainable. There were warnings that the existence of local markets in two EU countries (Croatia, Czech Republic) might be endangered due to cost escalations.

Central Securities Depositories (CSDs):banking CSDs saw significant risks of supervisory duplication if banking and settlement oversight was handled by different EU bodies. Euroclear and others noted the cost of multiple supervisory interfaces and feared splintered communication and inefficiencies. Some public sector institutions expressed the opinion that even without formal authority, NCAs would still need to support ESMA, leading to resource duplication rather than relief.

Trading venues: private venues highlighted that costs stem from continuous and divergent engagement with multiple NCAs. They believed that centralisation could reduce duplicated compliance efforts, regulatory delays, and uncertainty, potentially unlocking considerable cost savings but only if truly streamlined. Others however feared a "two-tier" system, where ESMA oversight is added rather than replacing NCAs, resulting in higher net costs. The Saxony State Ministry for Economic Affairs, Labour and Energy stated explicitly that centralisation would "massively increase costs."

Small Venues reported severe concerns, which were shared by national supervisors. Hanfa (Croatian Financial Services Supervisory Agency), for instance, fears supervisory fees for small APAs would become unaffordable, if they fell under ESMA supervision and that they would have to cease providing the service.

Asset Managers (AMs): industry Associations flagged major initial investments, such as IT upgrades, legal reform, and reorganisation of supervisory engagement protocols. In their view, training staff to handle EU-level procedures would also constitute an ongoing burden. Mentioned ongoing costs included increased legal/advisory spend due to unclear or overlapping roles and supervisory fees to ESMA, potentially added on top of national levies.

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[171] This is based on all cost related questions in Section 6 and 7.

Several Private AMs emphasised the loss of efficiency from engaging with more distant regulators. They saw no evidence of cost savings but greater procedural complexity and bureaucratic overhead.

Some trading venues and asset managers saw potential savings arising from a reduction in duplicative NCA communication (including reporting obligations) and faster product approvals, but only if centralisation was clean and harmonised.

Crypto-Asset Service Providers (CASPs): regarding CAPS, diverging views on costs and suitability of centralisation were expressed. A majority of respondents (e.g. MFSA, BP23 CA Ltd, BVC WG, Austrian Ministry of Finance) appear opposed to centralisation. Added reporting layers, transition costs, and legal uncertainty were cited. The value of national proximity, given the nascency of CASP regulation was stressed. A minority of respondents (e.g. Bitkom, Association of German Banks, Finansinspektionen, French Ministry of Economy) advocated for a phased or hybrid EU supervision, arguing that the nascent state of the CASP sector presented a rare opportunity for early harmonisation. They believed EU-level coordination could streamline compliance for significant, cross-border platforms and viewed long-term savings as possible, though conditional and speculative. CASPs fear being subjected to dual reporting obligations if EU-level supervision doesn't replace NCA engagement. Smaller CASPs were concerned about disproportionately high compliance costs and potentially having to exit the market. One national authority (CONSOB) estimated €250k in lost supervisory fees from transferring CASP oversight to ESMA.

Specific Issues for Small Entities Across Sectors: several respondents — including small market infrastructures, public authorities, and market participants — identify small CASPs, CSDs and trading venues as particularly vulnerable to rising compliance and supervisory costs. Six respondents raise concerns about the disproportionate impact on smaller entities across these sectors, and three of them explicitly warn that uniform thresholds for EU supervision (e.g. based solely on cross-border activity) could unintentionally capture small firms, pushing them out of the market.[172]. The Croatian Financial Services Supervisory Agency (Hanfa) warned that centralisation could raise the cost of supervision, in particular for smaller CSDs (as well as smaller trading venues and CCPs), making it economically unviable to operate in small Member States.

Public Authorities' Perspective: most NCAs and Ministries (e.g. MFSA, FSMA) did not expect cost savings. Instead, they anticipated higher setup costs for ESMA, continuous NCA engagement as local implementation and national law remain relevant, as well as loss of staff and expertise, with no reduction in national resource requirements. The Austrian Ministry of Finance estimated cost neutrality in the best case, and cost increases in all others.

Final Assessment on costs of supervision: across all sectors, full or partial centralisation of supervision is expected to raise costs in the short to medium term. Any savings are conditional on the elimination of national duplications, streamlined supervisory models (not two-tiered), and harmonised procedures.

For small firms and local markets, the risk of a disproportionate cost burden was seen as particularly acute and possibly resulting in market exits or reduced innovation.

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[172] This is based on all cost related questions in Sections 6 and 7.

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ANNEX 3: WHO IS AFFECTED AND HOW?

1. PRACTICAL IMPLICATIONS OF THE INITIATIVE

This initiative affects in particular the following groups of stakeholders: trading venues, investment firms (notably brokers), CSDs, CCPs, asset managers, DLT-based structures, CAPSs, investors, NCAs, ESMA and the ECB.

In terms of benefits, trading venues and investment firms would benefit from rationalisation of intra-group operations, cross-border operations and savings linked to local governance costs. Operational efficiency gains for exchange operators should be partially passed on to downstream intermediaries and retail and institutional investors. CSDs would benefit from facilitation of cross-border provision of services, increased legal clarity and certainty. Moreover, costs per settlement transaction could be reduced by a greater use of T2S. CSDs, investment firms, CASPS, credit institutions using DLT-based structures would also benefit from harmonised definitions and concepts. Asset managers would benefit from reduced compliance burden and legal costs as well as increased legal clarity when engaging in cross-border activities.

Financial market participants under strengthened EU supervision (i.e. cross-border significant trading venues, CSDs, CCPs, asset management firms and CASPs) would benefit from: 1) reduced compliance cost and administrative burden for entities currently supervised by multiple NCAs; 2) savings stemming from less duplications, differences in instructions and procedural delays; 3) reduction of supervisory fees for entities currently supervised by several NCAs and 4) savings due to synergies and increased intra-group outsourcing/delegation.

The initiative is expected to lead to deeper and more integrated financial markets and increased trust in financial markets, benefitting end-users and the wider economy. Institutional and retail investors are expected to face lower trading costs and a larger choice of financial products and services. More agile and comprehensive supervision of capital markets will increase investors' trust and overall confidence in the governance and supervision of capital markets. This should increase cross-border investments in the Single Market, yielding benefits for companies via a broader access to funding and expected lower financing costs. By promoting cross-border risk sharing, financial market integration and consistent supervision should also strengthen financial stability across the EU.

On the cost side, trading venues, brokers, CSDs, asset managers and DLT-based structures would face implementation costs to align their operations with legal changes. For instance, CSDs would have to invest in establishing new links with other CSDs and with T2S, if not yet in place. The ECB would likely have to invest into T2S to accommodate a higher number of linked CSDs as well as higher volumes, in addition to any other changes to the functionality of the platform. ESMA would have to hire additional staff to perform new tasks (mainly financed through fees) while NCAs would gain room for staff reductions due to centralisation of certain tasks.

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2. SUMMARY OF COSTS AND BENEFITS

The tables below summarise the expected benefits and costs of the preferred initiative for the affected stakeholders. It should be noted that no significant costs are expected to arise for citizens, hence the overview of costs focuses on stakeholder categories expected to bear some additional costs. Potential costs stemming from related Level 2 acts are not quantified here because they depend on the precise technical specifications to be determined and impact-assessed in preparation of their adoption. For additional details and explanations see Annex 7-11 as well as Annex 4 detailing the methodological approach.

I. Overview of Benefits (total for all provisions) – Preferred Option		
Description	***Amount***	***Comments***
	Direct benefits	
Compliance cost reductions when engaging in cross-border activities	Trading: EUR 47 - 120 million per year for all current trading venues that belong to a group (total across all measures impacting trading venues) Asset management: Significant part of EUR 20,000 – 60,000 per registration of UCITS fund in another Member State (estimate of current administrative costs) and ongoing (additional staffing, external legal advic e etc.) EUR 400,000 per cross-border fund per year	Trading: Estimated total savings for all trading venues operating under a group structure (see Annex 7) Asset management: Reduced administrative burden and legal costs stemming from standardised authorisation procedures, timelines and cross-border access via notification; Harmonised requirements concerning marketing rules and elimination of unnecessary EU requirements
Administrative cost reductions arising only from rationalisation of intra-group operations	Trading: EUR 435,500 - 585,500 per group per year	Benefits arising from rationalisation of intra-group operations, cross-border operations and savings linked to local governance costs
Compliance cost reductions related to streamlining of requirements and increased clarity and legal certainty	Brokers: EUR 100 000 - 500 000 per broker (streamlined venue membership and indirect impact on fees) Others not quantified (see qualitative comments)	Trading venues: Less staffing needs linked to streamlined member onboarding and monitoring process; due diligence only performed once and by one trading venue Brokers: Benefits stemming from more streamlined membership on-boarding and ongoing compliance/monitoring procedures by trading venues CSDs: Increased legal clarity and less fragmentation leading to reduced compliance burden DLTs: Benefits resulting from harmonising definitions and concepts
Reduced compliance cost and administrative burden for entities currently supervised by multiple NCAs	Trading: EUR 0.5 to 5 million per year (for cross-border operating exchange groups)	Estimate provided for trading venues Other financial market participants will also benefit because as they will face le ss duplications, differences in instructions and procedural delays Reduction of supervisory fees for entities currently supervised by several NCAs

		Savings due to synergies and increased intra-group outsourcing/delegation
Indirect benefits		
Operational efficiency gains for exchange operators will be partially passed on to downstream intermediaries and end clients	Estimated EUR 11.25 to 30 million directly benefit end investors	Brokers, end-clients should benefit in terms of reduced transaction costs
Operational efficiency gains for CSDs will be partially passed on to downstream intermediaries	Estimated potential for 30% cost reduction (15 cent per settlement transaction settled in T2S versus a given CSD)	A greater use of T2S would potentially reduce costs per settlement transaction
Operational efficiency gains in asset management will be partially passed on to downstream intermediaries	Not quantified, but illustrations provided in Annex 9	End clients of asset managers should benefit in terms of reduced management fees
Better, more agile and comprehensive supervision of capital markets increases investor trust	Qualitative / Not quantifiable	Confidence in the governance and supervision of capital markets could increase cross-border investments in the single market.
Reduction of financial stability risks	Qualitative / Not quantifiable	More centralised supervision should be more effective in capturing especially cross-border risks. There will be benefits due to reduction of financial stability risks, and expected spill-over effects of supervisory failures.
NCAs will need less resources in areas where ESMA takes on supervisory responsibilities	Not quantified; will vary significantly across NCAs	Staff reduction due to centralisation of certain tasks
Macroeconomic benefits	Increased EU GDP: EUR1.36tn – 3.62tn cumulative over 30 years	The study upon which this figure is based compares the development of EU & US capital markets over 30 years (1995–2024). It uses a World bank estimated correlation between market capitalisation and GDP to model additional GDP growth that could have been achieved by having more integrated capital markets in the EU. The figure presented here assumes that the initiative can achieve part (10-25%) of this integration process modelled. See also Annex 4 for further details and additional studies indicating a similar magnitude of impact on GDP stemming from reduced fragmentation

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II. Overview of costs – Preferred option					
		Businesses		**Administrations**	
		One-off	**Recurrent**	**One-off**	**Recurrent**
Broad review of the functioning of capital markets (Measures to address barriers to cross-border activities and innovation)	Direct adjustment costs	EUR 0.015 – 2 million (adjustment costs for trading venues -adapting exchange rulebooks)			
	Direct adjustment costs	Implementation costs for trading venues [b], CSDs[c] and asset managers to digest legal changes (e.g. harmonisation of MiFID/MiFIR)			
	Direct investment and maintenance costs	About EUR 200 million in total for all CSDs that still need to connect to T2S	Up to EUR 9 million in total annual maintenance cost for all CSDs with new T2S links		
	Direct investment and maintenance costs	Supervisory data platform coverage of CCPs, CSDs, TV EUR 7.2 million for development	Annual maintenance EUR 2.96 million	Supervisory platform for CCPs, CSDs, TV EUR0.8 million for development	Annual maintenance EUR 0.74 million
	Direct investment and maintenance costs	Central register for CASPs market surveillance EUR 4.2 million for development	EUR2.5 million for annual maintenance		
	Direct investment and maintenance costs			Centralised data and analytics EUR 15 million for development	Annual maintenance EUR 4 million
	Direct investment and maintenance costs [e]		Annual maintenance EUR 0.2 million	Data platform for cross-border notifications of funds €1 million for development	
	Direct adjustment costs			Cost for Member States to align national laws with the targeted changes [d]	

II. Overview of costs – Preferred option					
	Direct adjustment costs			Some implementation costs will arise for ESMA in order to adapt to the legal changes	
	Indirect costs	One-off costs could arise for users of services (e.g. contractual changes) - not quantified but costs are expected to be relatively small			
Greater supervisory convergence and an enhanced role for ESMA's role in supervision (f)(g) [173]	Direct adjustment costs	One-off adjustment costs related to re-directing existing reporting to ESMA - not quantified but costs are expected to be relatively small			
	Direct regulatory fees and charges		When direct supervision starts: ESMA 90–105 extra FTEs (direct supervision of trading venues) EUR 17 – 19.5 million	To prepare for direct supervision: ESMA 5-10 FTEs for the preparatory work for direct supervision EUR 1-2 million	
	Direct regulatory fees and charges		When direct supervision starts: ESMA 30–50 extra FTEs (supervision of CCPs) EUR 5.5 – 9.5 million	To prepare for direct supervision: ESMA 5-10 FTEs for the preparatory work for direct supervision EUR 1-2 million	
	Direct regulatory fees and charges		When direct supervision starts: ESMA 30–40 extra FTEs (supervision of CSDs)	To prepare for direct supervision: ESMA 5-10 FTEs for the preparatory work for direct supervision EUR 1-2 million	

[173] All costs are calculated without overhead. Overhead costs of 20% can be assumed.

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II. Overview of costs – Preferred option					
			EUR 5.5 – 7.5 million		
	Direct regulatory fees and charges		ESMA 10–20 extra FTEs (coordination of supervision of cross-border asset management groups) EUR 2 – 4 million	To prepare for new tasks: ESMA 5 FTEs for the preparatory work for new tasks EUR 1 million	
	Direct regulatory fees and charges			To prepare for new tasks: ESMA 5 FTEs for the preparatory work for new tasks EUR 1 million	When new tasks start: ESMA 10–15 FTEs (oversight of cross-border fund distribution) EUR 2 – 3 million
	Direct regulatory fees and charges		When direct supervision starts: ESMA 65–160 extra FTEs (direct supervision CASPs) EUR 12 – 30 million	To prepare for direct supervision: ESMA 5-10 FTEs for the preparatory work for direct supervision EUR 1-2 million	
	Direct regulatory fees and charges				ESMA 7 FTEs (DLT Pilot) EUR 1 million
	Direct regulatory fees and charges				ESMA 5-10 extra FTEs (strengthen supervisory convergence across sectors) EUR 1 - 2 million This will not create additional expenses because it will be accomplished by reassigning existing FTEs to new tasks.
	Direct regulatory fees and charges		ESMA Executive Board and related		

II. Overview of costs – Preferred option					
			overhead (no estimate available)		

(a) Upper-bound estimate reflects costs of complete revision of rulebooks, including costs related to project management, legal drafting, IT adjustments, and staff re-training.
(b) Harmonisation of MiFID/MiFIR rules and legal recognition of intra-group operations
(c) Scope of participants & eligible securities, and designation practices for EU systems. Amount will depend on respective MS laws and extent of changes needed.
(d) Conflict of law rule, participation of EU entities in third-country systems, scope of participants & eligible securities, designation practices for EU systems, settlement finality moments
(e) These costs could also be covered by fees to be paid by the regulated entities to ESMA. The centralised notification system would be expected to be accompanied by a reduction (and possible removal) of fees currently charged at national level for passporting of funds (in addition to the cost reductions stemming from the removal of barriers), ultimately delivering net efficiencies.
(f) Ongoing cost for direct supervision (in the asset management sector: improved supervisory convergence) would be covered by supervisory fees levied on entities directly supervised (in the asset management sector: entities subject to improved supervisory convergence) by ESMA
(g) The precise cost figures for ESMA are based on estimates of FTEs needed and using an average costs per FTE of EUR 186 000.[174]

Depending on the details of targeted legal changes (e.g. MiFID/R harmonisation, SFD) and respective legal approach in Member States there can be small administrative costs that arise. The main costs items are the costs of adjusting to the system and are thus not captured as an administrative cost in the one-in-one-out table below. Overall, the proposed changes will reduce administrative costs, especially in relation to cross-border activities (e.g. streamlined notifications for passporting, harmonised marketing requirements, avoiding duplicative reporting). There are no administrative costs that will be carried by citizens.

III. Application of the 'one in, one out' approach – Preferred option(s)			
	One-off (annualised total net present value over the relevant period)	**Recurrent** (nominal values per year)	**Total**
Businesses			
New administrative burdens (INs)	Administrative costs to adapt to legal changes and redirect reporting flows to ESMA - not	N/A	-

[174] The rate of 186k per FTE is based on the 2025 standard rates of the Commission for staff expenses adjusted for inflation of 2% as at 2028, and builds on the current mix at ESMA between temporary agents, contractual agents, and seconded national experts. The rates cover salaries, employer social contribution, office accommodation, IT basic support, etc.

III. Application of the 'one in, one out' approach – Preferred option(s)			
	One-off (annualised total net present value over the relevant period)	**Recurrent** (nominal values per year)	**Total**
	quantified but expected to be small		
Removed administrative burdens (OUTs)	N/A	EUR 47 – 120 million per year for all current trading venues that belong to a group[175] (this includes intra-group rationalisation EUR 435,500 - 585,500 per group per year and supervision EUR 0.5 to 5 million per year per cross-border group) Significant part of EUR 20,000 – 60,000 per registration of UCITS fund in another Member State[176] and of EUR 400,000 (on-going costs) per cross-border fund per year	-
Net administrative burdens*		-	-
Adjustment costs**	-	N/A	
Citizens			
New administrative burdens (INs)	None	None	None
Removed administrative burdens (OUTs)	None	None	None
Net administrative burdens*	N/A	N/A	N/A
Adjustment costs**	N/A	N/A	
Total administrative burdens***	-	-	-

(*) Net administrative burdens = INs – OUTs;
(**) Adjustment costs falling under the scope of the OIOO approach are the same as reported in Table 2 above. Non-annualised values;

[175] These are mostly administrative costs that relate to duplicative functions across Member States where trading venues are operated and diverging practices across NCAs.
[176] Most costs related to cross-border registrations classify as administrative costs. Savings are recurrent but depend on the number of funds registered.

(***) Total administrative burdens = Net administrative burdens for businesses + net administrative burdens for citizens.

3. RELEVANT SUSTAINABLE DEVELOPMENT GOALS

IV. Overview of relevant Sustainable Development Goals – Preferred Option(s)		
Relevant SDG	**Expected progress towards the Goal**	**Comments**
SDG no. 8 – Decent work and economic growth	Positive impact on GDP (see Annex 4 for more details)	The initiative should help to promote economic growth in support of SDG 8.
SDG no 9 - resilient infrastructure, inclusive and sustainable industrialization, foster innovation	Positive impact on financing conditions	The initiative should increase efficiencies in the capital market sector. This should improve financing conditions and, in turn, help in promoting investments, supporting SDG 9.

ANNEX 4: ANALYTICAL METHODS

A range of analytical methods were considered for this impact assessment after a careful evaluation of their feasibility and added value. To assess the need for and appropriateness of quantification, we proceeded as follows.

Firstly, we apply the proportionality principle. According to the Better Regulation guidelines and toolbox, the scope and depth of the analysis should be proportionate and consistent with the importance and type of initiative, as well as with the nature and magnitude of the expected impacts. The effort invested in data collection, the depth of analysis, the extent of quantification and thereby choice of analytical method(s) should correspond to the likely magnitude of impacts (Better Regulation Toolbox 2023, Chapter 8). In addition, highly accurate quantification of costs and benefits is less important in cases where less granular estimates show that benefits significantly outweigh costs (or vice versa). In these instances, more accurate estimates will not alter the decision to go ahead with the initiative; such quantification is thus less informative for the overall decision.

Secondly, we rely on the availability of data and evidence to perform a robust quantitative analysis in those areas where it would be proportionate to perform such an analysis. While, on theoretical grounds, a quantitative analysis would be the preferred approach for evaluating the impact of the initiative, as it would provide a more precise and objective measurement of the effects, in practice such quantification is often not feasible or desirable due to a lack of data or limited, incomplete or inconsistent data inputs which would lead to flawed estimates and unreliable results. This impact assessment faces significant *data gaps* —with no or only limited data being available— including for example on the costs and pricing of the services provided. This information was also not available from stakeholders who often are reluctant to reveal their cost structures or estimates of costs.

Thirdly, quantitative analysis needs to allow establishing a causal relationship between policy measures and impacts. The accurate and reliable establishment of such a relationship is hampered by difficulties in isolating the effect of policy measures, due to the complexity and possible instability of causal relationships, limited data and sample size, heterogenous effects, out-of-scope factors that are in flux, and other contextual factors. Quantitative analysis relies on simplifying assumptions that may not capture the intricacies of the causal relationships. In addition, data issues may result in a lack of statistics. While there is a significant body of literature to establish the problems and consequences of fragmentation in capital markets, and to confirm the importance of legal barriers, it was not possible to quantify and isolate the specific impacts that this initiative would bring and to model the relevant causal relationships, from the underlying barriers or specific policy measures through to the expected market outcomes (e.g. in terms of costs, prices and quantities).

In those cases where a quantitative analysis would not be justified or desirable, based on the above grounds (not proportionate or not a viable option due to methodological or other limitations), we perform a qualitative analysis or mixed-methods approach, based on the existing literature and stakeholder feedback to provide a contextual understanding of the initiative's impact.

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1. OVERVIEW OF EMPLOYED ANALYTICAL METHODS

1.1. ENGAGEMENT WITH STAKEHOLDERS: CONSULTATION AND TARGETED INTERVIEWS

To ensure that stakeholders' perspectives inform the impact assessment and decision-making, the Commission organised a stakeholder consultation and conducted targeted interviews with stakeholders (see Annex 2).

The *stakeholder consultation* allowed us to engage with a broad range of stakeholders. An open consultation aims at being inclusive and ensuring the representativeness of different stakeholders. The responses to the consultation provided insight into the average opinion of each stakeholder group concerned and the level of consensus within each stakeholder group.

The *targeted interviews* were both included in the external market studies performed in view of this IA (see below), and separately for gaining a more comprehensive understanding of barriers and to engage on existing data gaps, notably on cost and benefit quantification.

1.2. MARKET STUDIES ON MARKET DEVELOPMENTS AND INTEGRATION IN TRADING, POST-TRADING AND ASSET MANAGEMENT

Two external studies were commissioned by the European Commission in preparation of this initiative to attain information on market developments, fragmentation and barriers to scaling-up. Findings are reported in the *Study of barriers to, and drivers of, the scaling-up of funds investing in innovative and growth companies* (Link) and *Study on consolidation and reducing fragmentation in trading and post-trading infrastructures in Europe* (Link).

The objective of the first study was to identify barriers to the scaling-up and consolidation in fund management, focusing specifically on growth capital funds (i.e. investment funds that invest in companies that are in their growth phase, such as start-ups, scale ups). Various barriers to scaling up of venture and growth capital were identified, including regulatory/legal, tax and market-driven barriers, impacting fund managers and institutional investors in both domestic and cross-border contexts. The scope of this study covers a part of the investment funds sector, in particular venture capital and private equity funds. Several of barriers identified, such as harmonising marketing rules, reducing duplication of requirements for the authorisation of asset managers, making the passporting regime work more effectively, considered applicable to a broader range of investment funds and are addressed in this package, informed partially by this study and partially by further sources of evidence.

The objective of the second study was to identify barriers and potential options for the further consolidation and reduced fragmentation of trading and post-trading infrastructure in the EU to create deeper pools of liquidity, produce synergies and related cost efficiencies, and to help lower the cost of financing. This study highlights that the market infrastructure of the EU capital market is inefficient and costly, and its inherent complexity does not support the SIU goals of increasing investors' and issuers' participation by growing both the demand for investment products and services and the supply of investment solutions. A transition to a simplified infrastructure based on the principles of resilience, competition, and interoperability is therefore necessary and the measures required have, in large part, been identified historically

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in studies beginning with the Giovannini Report in 2001, but progress in implementing them has been slow. The report highlights, at various point, problems or deficiencies in the publicly available data that need to be addressed, confirming also the data limitations that have impeded this impact assessment.

Relevant insights of these studies have been incorporated into the impact assessment.

1.3. DESK RESEARCH

The Commission services conducted a literature review and reviewed existing market data to support this impact assessment, in particular to gather evidence on market developments in relevant sectors, identify barriers to market integration, review scale economies and gain insights into market outcomes. This included a review of the relevant academic literature and market reports and publicly available data, including relevant analyses and statistics reported by ESMA. For further sources, see Annex 1.

1.4. FURTHER INFORMATION ON COSTS AND BENEFITS ESTIMATES

Given data and time constraints, extensive data collection required for more advanced modelling of impacts were not within scope. Furthermore, especially in relation to costs and cost savings, the evidence provided was limited, and it is unclear whether all cost estimates provided are representative of the true costs experienced across affected entities given a low number of industry stakeholders that provided figures.

The estimates of the overall macro-economic benefits (see Annex 3) were derived based on estimations provided in an external paper which provides an estimate of loss of GDP growth over the past 30 years as a result of market fragmentation.[177] Additional two papers were consulted to check whether the results are broadly within the same order of magnitude.[178,179] In all three papers, the fragmentation issues discussed do not directly overlap with the proposed measures in the preferred option assessed in this report. The estimate therefore relies on assumptions concerning the effectiveness of the initiative to address outstanding fragmentation issues. Notably, more sophisticated modelling approaches (not carried out due to a lack of sufficient data) would equally depend on similar estimates given that (i) there are limited past cases which could be used to determine the strength of different, individual barriers (ii) accurately disentangling barriers would require confidential and thus non-available micro-data (e.g. cost-function data of providers), and (iii) there will always be remaining uncertainty as to the practical effect of every regulatory change (including some non-rational / behavioural effects that cannot be accurately modelled). In effect, while modelling approaches may be more effective and should give better estimates in theory (provided sufficient data were available), they would face similar shortcomings here. Therefore, the main disadvantage of the chosen approach is not the

[177] 'Capital Market Fragmentation and Economic Value Migration How Europe's Financial System Promotes Wealth Transfer to the U.S'; Holste, Bjoern and Bergström, Mattias - April 03, 2025 - Link

[178] 'Lifting Binding Constraints on Growth in Europe: Actionable Priorities to Deepen the Single Market', Nathaniel Arnold, Allan Dizioli, Alexandra Fotiou, Jan Frie, Burcu Hacibedel, Tara Iyer, Huidan Lin, Malhar Nabar, Hui Tong, and Frederik Toscani; June 2025; IMF – Link

[179] 'The economic impact of European capital market integration'; F. Venditti, M. Caivano, P. Cova, K. Pallara and M. Pisani, Banca d'Italia Occasional Papers, Edition Number 957 – July 2025 – Link

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precision of the estimate(s) as such but rather the lack of insight as concerns their accuracy, given that errors and confidence intervals are not determined via statistical analysis and thus cannot be further assessed.

The first paper models the impact on GPD if the EU had similar market integration characteristics to the US. The findings indicate that a well-integrated financial system could have retained trillions in European wealth, resulting in an additional EUR 7.5-8 trillion in GDP over the last 30 years. This uses a World Bank estimate that a 10% increase in stock market capitalisation (relative to GDP) correlates with a 0.2–0.3% increase in annual GDP growth over the long run (see World Bank Open Data – Link). For further details concerning the model's assumption, please see Holste & Bergström p. 15 (main ones concern baseline, growth elasticity, capital rendition and structural shocks). This initiative would only achieve a partial level of integration to the one analysed in this paper. Many stakeholders note that differences in taxation and national legal barriers (securities law, ownership/property law, insolvency law etc.) account for a large part of cross-border hurdles. We assume that it could contribute 10-25% towards a level of integration similar to the US. This range was chosen on a qualitative basis informed by stakeholder inputs on the respective strength of in and out-of-scope drivers of fragmentation (i.e. strong out-of-scope barriers). The external market study arrived at a similar conclusion, highlighting that these barriers outside of the scope of the initiative are crucial to overcome in order to develop a true common market. On this basis, the initiative could add GDP growth in the range of EUR 1.36tn – 3.62tn over the next 30 years. A broad range of 10 to 25% was deliberately chosen in order to reflect the considerable uncertainty. Overall, the estimate is mainly provided in order to demonstrate the order of magnitude of positive economic effects in the long run.

The second paper (Arnold et al., 2025) estimates that GDP in the EU relative to the baseline can increase in the range of 0.6 - 3.1% over 10 years by enacting key reforms that would foster integration in capital markets. However, it assesses mainly integration aspects that remain outside the scope of this initiative. As such, and in contrast to the former paper, it makes little sense to estimate a similar contribution percentage and use these figures to detail the benefits of this initiative. It is referenced merely to provide an idea of the scale of the macro-economic effect of a more integrated EU capital market, in line with Better Regulation guidance for cases where a more accurate assessment is not possible.

The third paper (Vendetti et al., 2025) investigates price effects assuming a reduction in firms' cost of capital by 50 basis points. Using a dynamic equilibrium model calibrated to the euro area it estimates that this would lead to an increase in investments of 1% of GDP. Under conditions that additional investment would focus on physical capital this would translate into an increase in output of 1.5% after ten years. The impact on economic activity would be considerably stronger if investments were directed to R&D. It is estimated that GDP could rise by 4% after ten years in this scenario. The analysis also shows that if the gap in the share of venture capital investments between the US and Europe is halved, additional investments of 0.35% of GDP would become available. These quality effects related to attracting investors with higher risk aversion. Assuming a multiplier of about 4.5 after ten years, this would give rise to an additional GDP growth effect of 1.6% over this period. The analysis assumes that, in addition to reduced legal and supervisory fragmentation, there will be a reduction of risk-free rates driven by the creation of a European safe asset. This would be a major change and will not come about from this initiative The measures envisioned by this initiative will therefore have significantly

lower effects on their own. It remains unclear how strong effects would be, and it was decided that, given the difference in baseline (risk-free rate) and high uncertainty, it provides no added value to try and extrapolate effects with high inaccuracy. The figures in the latter two papers however do support that (i) the direct benefits estimated via the first approach are of a realistic order of magnitude, and (ii) that there are multiple significant out-of-scope barriers (i.e. reinforcing the low 10-25% range estimate for the effectiveness of this initiative towards forming a fully integrate market). Even if we assume that the preferred option only addresses a fraction of the fragmentation problem – how much exactly is difficult to ascertain for the reasons set out above - the resulting benefits in terms of GDP impacts would be high (in the billions of euros) – and much higher in the order of magnitude than the direct costs of the measures in question. With some exceptions (in particular the interconnection requirements and EU supervision, the costs of which are quantified the report), this initiative does not impose any new requirements but seeks to remove barriers to cross-border operations. Overall, significant efforts have been undertaking to support the analysis of problems and the assessment of policy options. Each of the sources of evidence and methodological approaches applied provided valuable insights and informed the assessment presented. However, there are clear limitations in what can be quantified, and all presented figures hold significant caveats in terms of accuracy. The combined evidence nonetheless provides corroborating evidence and presents a basis for the impact assessment, despite the inherent limitations of each of the individual approaches applied and the lack of quantification for all different impacts. Multiple previous impact assessments and other studies in the sectors provide further, if sometimes outdated, evidence in terms of market barriers and hurdles to both integration and innovation. The overall analysis in this impact assessment shows that only some of these issues have been successfully addressed and assesses the policy options to tackle the key remaining ones.

ANNEX 5: COMPETITIVENESS CHECK

1. OVERVIEW OF IMPACTS ON COMPETITIVENESS

Dimensions of Competitiveness	Impact of the initiative (++ / + / 0 / - / -- / n.a.)	References to sub-sections of the main report or annexes
Cost and price competitiveness	++	Sections 6, 7; Annex 3 & Sectoral Annexes (7-11)
International competitiveness	+	Sections 6, 7 & Sectoral Annexes (7-11)
Capacity to innovate	+	Sections 6, 7 & Annex 10
SME competitiveness	+	Annex 6

2. SYNTHETIC ASSESSMENT

The initiative intends to remove key obstacles to cross-border activities in the addressed sectors (trading, post-trading, asset management). In addition, increased supervisory convergence and alignment of practices will create a more level playing field for market participants. Furthermore, the changes envisioned to the DLT Pilot regime and related changes in the SFD aim to expand the regime and prevent legal fragmentation across MSs to facilitate innovation and market uptake of DLT solutions.

The initiative is expected to stimulate cross-border activity by lowering costs of cross-border provision of services and market entry. This would enable service providers to grow more easily and to a larger size by servicing clients across the EU. Size effects may also come about via market consolidation, which becomes more attractive given the new treatment of group structures and reduced burden for cross-border service providers. These effects and higher economies of scale would bring about benefits for downstream and end-consumers both in terms costs and quality of the services provided. The costs of adjusting to the new provisions would be smaller in comparison and are expected to be outweighed by these benefits.

In addition, the reduction of the frictional costs in cross-border service provision and the potential for increased economies of scale will positively impact the international attractiveness of services provided in the EU and, in effect, EU capital markets in general. This may attract additional business for EU service providers as well as investments from investors based in third countries. It would help address the current fragmentation and underdevelopment of EU capital markets relative to certain other jurisdictions.

Formalising the DLT regime and expanding the scope of eligible assets and volume thresholds would make the regime more attractive. Market participants would be able to engage in long-term planning and extend operations beyond small testing scales. Harmonisation and target

changes to the SFD would furthermore prevent fragmented legal regimes across Member States and allow for designations (and protection) under the SFD for DLT-based systems. Overall, the changes should promote innovation by increasing the potential returns of investments and by providing increased legal certainty / clarity for DLT innovations.

Although not specifically targeted at SMEs, the initiative could also bring about positive impacts for SMEs. Similar to larger firms, smaller market participants in the financial sector will benefit from reduced costs and administrative burden for cross-border provision of services. Given lower volumes and revenue base, these cost savings can be more impactful for SMEs. While less efficient SMEs could be pushed to leave the market due to increased cross-border competition, SMEs with viable business models will be able to grow more easily. SMEs that are non-financial companies and tapping finance via capital markets may also see small benefits in terms of improved market liquidity and minor improvements to financing conditions given a more efficient EU capital market ecosystem.

3. COMPETITIVE POSITION OF THE MOST AFFECTED SECTORS

With easier access to a broader range of venues, brokers could enhance their service offerings, providing clients with diverse investment opportunities and competitive pricing, which could ultimately result in making investments more accessible and attracting a larger client base. Moreover, inter-CSD link requirements would create a more interconnected settlement landscape, allowing for participants in any CSD to more easily invest in an instrument held at any other EU CSD. This less fragmented settlement network would further foster competition between CSDs, as would a reduction in the burden of issuing across borders and for CSDs to provide services in other Member States.

The proposed measures in the asset management sector are expected to boost competition in the EU market. By introducing a "passporting upon authorisation" regime, this initiative will simplify market access for investment funds, enabling asset managers to enter new markets more easily and quickly, at reduced costs. According to economic research[180], new entrants drive price and quantity competition. Asset managers will also be able to utilise and share resources across entities within their EU group, allowing them to optimise their operations and compete more effectively.

Furthermore, the EU depositary passport will increase competition among depositaries, giving fund managers a broader range of providers to choose from across the EU. Overall, the proposed measures will promote competition, reduce barriers to entry, and increase the efficiency of the EU asset management market. This will bring the EU fund industry closer to a 'contestable market'[181], characterized by low barriers to entry and exit that lead to lower costs and greater efficiency to ultimately benefit the end-user, i.e. EU investors.

Finally, by increasing the activity thresholds of the DLTPR and the scope of eligible products, this option would support the scaling of DLT-based projects.

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[180] Wahal, S., & Wang, A. Y. (2011). Competition among mutual funds. *Journal of Financial Economics*, 99(1), 40-59.

[181] Baumol, W. J., Panzar, J. C., & Willig, R. D. (1982). *Contestable Markets and the Theory of Industry Structure*. San Diego: Harcourt Brace Jovanovich.

ANNEX 6: SME CHECK

1. OVERVIEW OF IMPACTS ON SMES

Relevance for SMEs
Although not directly targeted at SMEs, the initiative is relevant both for SME financial services providers as well as for SME's that are non-financial companies (NFCs) engaging in capital market financing.

(1) IDENTIFICATION OF AFFECTED BUSINESSES AND ASSESSMENT OF RELEVANCE
Are SMEs directly affected? In which sectors?
SMEs active in the financial sector, especially those which engage in capital markets (e.g. brokers, asset managers), will be affected directly.
Estimated number of directly affected SMEs
The initiative will impact foremost small and medium sized brokers, asset managers as well as SMEs which are, or plan to engage, in DLT-based initiatives. The large majority of firms active in the provision of infrastructure (trading & post-trading services) are large, well-established companies. Some small infrastructure providers (e.g. niche players) and potential new entrants may however also meet the SME criteria.
Estimated number of employees in directly affected SMEs
In total, there are around 4,600 asset management companies. Most of these managers are expected to meet the SME criteria. According to EFAMA182, there are 130,000 people employed directly in the EU asset management industry. This includes UCITSs and AIFs managers. There are no figures available to estimate the exact number employed by SME UCITs and AIF managers. There are no figures available to estimate the number of employees in small and medium-sized EU brokers or firms engaged in DLT-based initiatives. There are 1806 EU SME companies listed on EU regulation markets who employ around 110 000 staff183 and that will indirectly be affected by the initiative.
Are SMEs indirectly affected? In which sectors? What is the estimated number of indirectly affected SMEs and employees?
EU NFC SMEs will be indirectly affected via efficiency gains and increased competition in capital market services. Given system-wide efficiency gains, it can be expected that there is some minor positive impact on all EU SMEs that utilise market-based financing options (i.e. almost all). This includes also firms using exclusively bank-based financing as this financing channel stands in competition with capital-market based financing.

[182] See 'Our industry in numbers', EFAMA – Link
[183] Orbis Database.

(2) CONSULTATION OF SME STAKEHOLDERS
How has the input from the SME community been taken into consideration?
The public consultation asked whether respondents were SMEs, which was the case for X out of X replies. more than half would qualify as SMEs. Many of these were however business associations (87 SMEs out of 92 respondents) and trade unions (5 out of 5) and not representing the SME views as such. 35 individual companies who responded where SMEs, mostly from the financial sector.
Are SMEs' views different from those of large businesses?
The consultation replies from SME and other direct engagements with SME have not shown any categorical differences in opinion. SME stakeholders often note that a respectively smaller revenue base increases, in relative terms, the size of barriers to cross-border activities.

(3) ASSESSMENT OF IMPACTS ON SMES
What are the estimated direct costs for SMEs of the preferred policy option?
Qualitative assessment
Most SMEs will not be directly affected by the measures concerning the supervisory setup given that changes only apply to large market participants. In asset management, which likely contains the largest number of SMEs, NCAs will remain the only supervisor and there is no change as such. There may be some adjustment costs (e.g. to digest legal changes) but these remain small. Impacts will be similar to those for large companies. In relative terms, the impact of barriers to cross-border activities is usually higher for SMEs, given a smaller revenue base. SMEs, like other market participants, will likely experience stronger competition in their respective market(s) but the initiative will also facilitate expanding activities throughout the EU. It thereby gives competitive SMEs the ability to grow faster.
Quantitative assessment
Annex 3 summarises the available estimates of costs for businesses for the preferred combination of policy options. As SMEs are not specifically targeted and quantitative evidence is overall limited, no separate estimates for SMEs are provided.
What are the estimated direct benefits/cost savings for SMEs of the preferred policy option?
Qualitative assessment
SMEs will experience cost savings when they engage in (or aspire to engage in) cross-border activities. The harmonisation and streamlining of requirements will benefit them in the same manner as large companies. Arguably, this positive effect is bigger for SMEs as they have a lower revenue base to stem administrative costs arising from national divergent requirements and supervision.
Quantitative assessment
Annex 3 summarises the estimation(s) of the one-off and recurring costs for businesses in the baseline scenario as well as the changes for the preferred combination of policy options.

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What are the indirect impacts of this initiative on SMEs?
SMEs will benefit in terms of a more efficient market, including lower costs and higher quality of intermediary services. This will allow them to tap capital markets more effectively and it is expected that there will be some minor positive impact in terms of financing conditions for all EU SMEs that utilise market-based financing options.

(4) MINIMISING NEGATIVE IMPACTS ON SMES
Are SMEs disproportionately affected compared to large companies? **If yes, are there any specific subgroups of SMEs more exposed than others?**
No
Have mitigating measures been included in the preferred option/proposal?
No

CONTRIBUTION TO THE 35% BURDEN REDUCTION TARGET FOR SMES
Are there any administrative cost savings relevant for the 35% burden reduction target for SMEs?
No

ANNEX 7: SECTORAL ANNEX ON TRADING

1. DESCRIPTION OF THE CURRENT TRADING ENVIRONMENT IN THE EU

1.1. DESCRIPTION AND EVOLUTION OF EUROPEAN MARKETS IN FINANCIAL INSTRUMENTS

The EU trading landscape changed significantly after MiFID 1[184] and MiFID 2[185] came into force in 2007 and 2018, respectively. MiFID 1 abolished the so-called 'concentration rule' which, under the 1993 Investment Services Directive[186], allowed Member States to require that orders in equity instruments be routed to national stock exchanges. As a result, MiFID 1 liberalised equity trading and promoted competition between different execution venues with a view to enhancing price competition, innovation and investors' choice. While the incumbent national exchanges remained dominant in equity trading, alternative trading venues (in particular, Multilateral Trading Facilities, 'MTF') began to develop and put competitive pressure on traditional stock exchanges. MTFs offer secondary trading in financial instruments that are initially admitted to trading on other trading venues, such as regulated markets ('RM'). For single-name financial instruments, this means that there may be multiple liquidity pools. In several cases, those pools of liquidity are located in more than one Member State, thus qualifying those instruments as cross-border instruments.[187]

MiFID 2 further expanded the regulated multilateral space by adding the Organised Trading Facility ('OTF') classification (specific for bonds and derivatives) and by introducing "SME growth markets", a type of MTF designed to ease access of smaller companies to public markets.

Under MiFID 2/MiFIR, most bilateral/over-the-counter (OTC) execution by investment firms is regulated as an investment service. Since MiFID 1, investors also have the possibility

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[184] Directive 2004/39/EC of the European Parliament and of the Council of 21 April 2004 on markets in financial instruments.
[185] Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments.
[186] Council Directive 93/22/EEC of 10 May 1993 on investment services in the securities field.
[187] According to ESMA Securities Markets 2023, "For EEA bonds, 53,000 instruments or 70% of bonds issued in the EEA were cross-border instruments in 2022. This proportion was even larger for EEA equity instruments, for which 10,200 out of the 12,100 EEA equity instruments available for trading were cross-border instruments in 2022".

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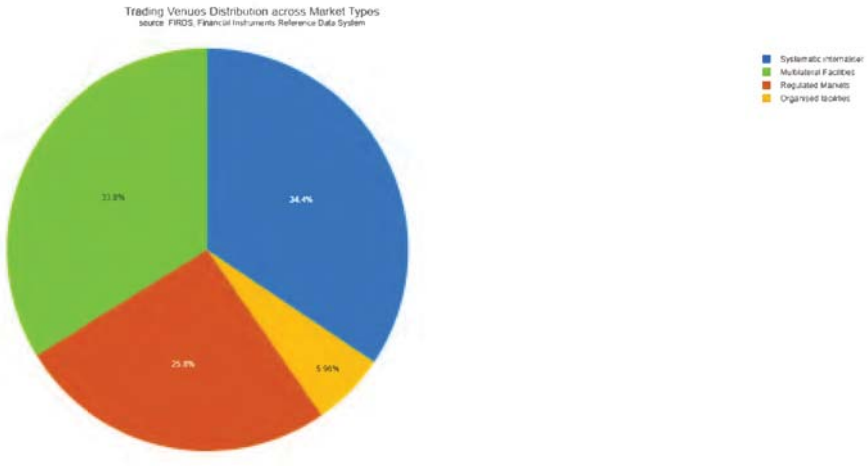
to trade against the balance sheet of investment banks (at market risk) that act as dealers and trade bilaterally (also known as 'systematic internalisers', 'SIs').

These regulatory developments have led to a proliferation of venues where financial instruments can be traded (execution venues). The total number of trading venues ('TVs') in the EEA, at segment MIC level[188], reached 330 at the end of 2024 and 314 - in the EU. Among EEA TVs, there are 130 (119 in the EU) RMs, 170 (165 in the EU) MTFs and 30 OTFs.[189]

In addition to TVs, there are 173 (167 in the EU) SIs[190]



Source: ESMA, MiFID dashboard 2024, MiFID dashboard 2024

Considering the number of trading venues, there is significant geographic concentration of TVs, with three Member States (Germany, the Netherlands and Sweden) being home to 41.2 % of all TVs.

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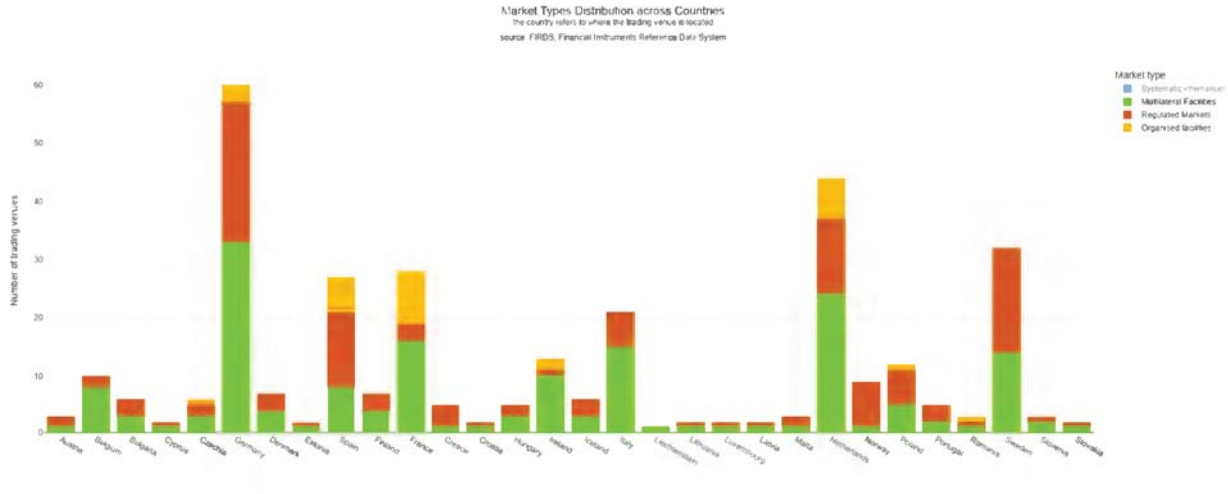
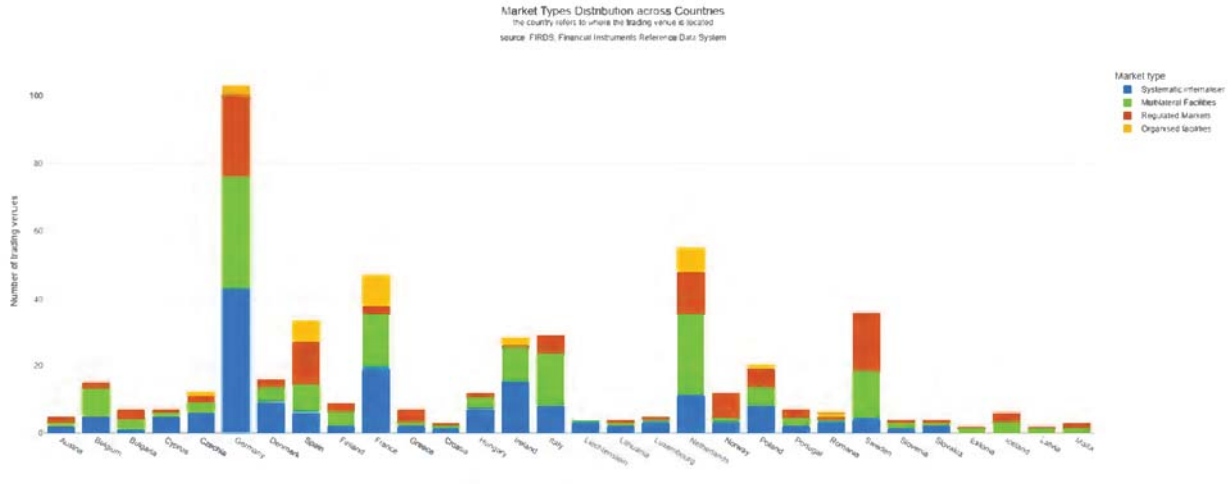
[188] In the context of this analysis, trading venues are identified at segment MIC level. Segment MICs are often used to distinguish different trading systems and/or different financial instruments. This allows for a precise identification of trading facilities by market type, in instances in which the same market operator runs both a RM and an MTF, for example.
[189] As a comparison, there are 36 exchanges and 77 alternative trading systems in the United States as officially registered within the SEC.
[190] Only 11 investment firms registered as SIs under MiFID 1, UK firms included.



Source: ESMA, MiFID dashboard 2024, MiFID dashboard 2024

The level of concentration in terms of number of venues remains similar when including also SIs, with the top three Member States (Germany, the Netherlands and France) being home to the 40.7 % of all SIs.



Source: ESMA, MiFID dashboard 2024, MiFID dashboard 2024

Not all of these execution venues operate independently from each other. There have been several market-led initiatives that pursued horizontal consolidation. To better assess the actual level of fragmentation, it is therefore worth considering the existence and extent of consolidation of ca. fifty groups that, in some cases, comprise several trading venues located in different Member States.

Within those groups, there are several market operators established in different EEA States, all controlled by the same parent company. For example, Euronext operates several trading venues (51 at segment MIC level) in seven countries (Belgium, France, Ireland, Italy, Norway, Portugal and the Netherlands). Nasdaq operates several trading venues (53 at segment MIC level) in eight countries (Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Norway

and Sweden). Despite functioning separately (e.g., separate order books), trading venues that are part of the same group often share a single technology trading platform and, to the extent possible considering the current legislative framework, a single rulebook.[191] This approach seeks to reduce operational costs and, potentially, increase markets' accessibility by users located in different Member States. Outside groups' structures, similar objectives are pursued through the sharing of technology by larger players in favour of smaller ones on a commercial basis.[192]

The set-up of the post-trading sector has also implications on the fragmentation in the trading sphere. In absence of a full interoperability with Central Securities Depositories ('CSDs'), the ability of a broker to trade the same instruments cross-venues is reduced while also being costlier, keeping those pools of liquidity separate and not directly accessible by a vast majority of market participants. To settle transactions, a transfer from the securities account held by the issuer's CSD is needed. To settle a transaction, where an investor has its own securities account in a CSD other than the issuer's CSD (so-called investor's CSD), links should be in place between those two CSD. The absence of those links forces market participants using more expensive settlement options (such as going via a chain of intermediaries/custodians or, alternatively, simultaneously setting up and maintaining accounts in multiple CSDs), which ultimately discourages brokers from cross-venue trading (i.e. trading across multiple venues).

A similar problem exists at the level of clearing, where clearing of trades occurring on a given venue will only be possible on a selected number of Central Counterparties ('CCPs'), which are themselves not necessarily interoperable. In addition, the absence of interoperability prevents a clearing member (and by proxy the broker) to cross margins positions. Therefore, the need to establish proper post-trade arrangements, which are sometimes specific to each trading venue also has a direct impact on the ability to integrate pools of liquidity, on the clearing costs, as well as navigating such pools in an efficient manner.

Pan-European trading venues (i.e. trading venues offering trading in financial instruments that are initially admitted to trading on other trading venues, often in a different Member State) have emerged as a possible model to tackle the issue of access to a pan-European range of instruments, notably in the equity space. From a user's perspective, two limitations to the attractiveness of pan-European venues must however be highlighted:

(i) While pan-European trading venues offer a solution as regards access to securities, they still represent only one of several available pools of liquidity and not necessarily the deepest one. Therefore, those trading venues might not always offer the best execution conditions to investors for a given share, compared to the home domestic market or to any other execution venue.

(ii) This model does not offer a solution to the fragmentation of the post-trade infrastructure. This implies that entities trading on pan-European venues still need

[191] For example, this is the model applied by Euronext and Nasdaq.

[192] For example, Deutsche Börse' T7 platform is used by several exchanges in central and southern Europe.

to be directly or indirectly connected to the issuer's CSD of each equity instrument they trade on those platforms. It also does not solve the situation where multiple CCP membership is necessary due to the absence of interoperability arrangements between CCPs (e.g., in the case where the CCP on a given pan-European platform is not allowed to clear trades on an incumbent venue on an interoperable basis).

Lastly, it is noteworthy that such pan-European platforms usually focus on the most liquid instruments. As a result, shares issued by smaller issuers might not benefit from the emergence of those platforms.

Therefore, the emergence of pan-EU trading platforms can only partially address the issue of fragmentation in the trading area. Having access to a variety of trading venues therefore still remains instrumental to having access to the widest possible range of financial instruments, and in offering optimal execution quality to end-clients.

1.2. CURRENT REGULATORY APPROACH TO CROSS-BORDER OPERATIONS OF TRADING INFRASTRUCTURE

The proliferation of trading venues led to subsequent consolidation among those venues. This has culminated notably in the emergence of two large trading infrastructure groups in the EU. While the creation of groups did not address all regulatory and non-regulatory barriers to cross-border operation, as further explained below, at the very least, it sought to attenuate their impact.

In general, entities or groups operating across borders can rely on two main types of organisational arrangement:

- the subsidiary model (relying on multiple licences), where entities establish separate subsidiaries in each Member State of operation, resulting in a group of independent entities, each subject to local authorisation requirements and supervision;
- the passporting model (relying on a single licence), where entities obtain authorisation in one Member State and leverage the EU's freedom to provide services or freedom of establishment to operate in other Member States, without the need to establish a dedicated, locally authorised entity (one entity with one license offering its services in multiple Member States).

These two approaches differ fundamentally, as they involve distinct corporate structures, licensing requirements, and supervisory arrangements, giving rise to varying regulatory expectations and obligations.

As regards the first type of organisational arrangement (groups), the existing regulatory framework falls short in addressing the unique needs of entities operating across multiple Member States. Notably, the MiFID 2 framework does not fully recognise the operational specificities of groups of financial market infrastructures, their distinct needs, or the potential

economies of scale that could be harnessed. The allocation of resources within a group is still subject to default outsourcing rules (i.e. the rules that are equally applicable to the outsourcing to completely independent legal entities), and each delegation of tasks between group entities is treated as a third-party outsourcing arrangement, despite being part of the same corporate structure under the oversight of a single parent company. This oversight fails to account for the inherent differences between intra-group allocation of resources and outsourcing to third parties outside the group.

There are also important shortcomings with regard to the functioning of the passporting model. The use of the passporting model is currently complicated by the persisting fragmentation of the regulatory framework for trading venues due to national divergences (as well as divergent level of supervisory oversight[193]). The transposition of MiFID 2 requirements into national legislation has resulted in varying interpretations and implementations across Member States, with some introducing additional requirements at the national level to address areas not covered by EU law. This fragmentation is particularly pronounced for RMs, which are subject to comprehensive and dedicated national rulebooks, as well as distinct national approaches to implementing EU legislation, leading to a complex and still non fully harmonised regulatory landscape.

It is also worth noting that, unlike what exists for investment firms operating an MTF/OTF, the framework applicable to RMs does not contain similar explicit provisions relating to the rights of RMs as regards the provision of cross-border services in the Union on the basis of their initial license, that is to say the freedom to provide services (Article 34 for investment firms) or the establishment of a branch (Article 35). This gap or, at the very least, lack of clarity, has a direct impact on the capacity of regulated markets and their operators to seamlessly operate across borders, and is conducive to the preservation of local entities in Member States (persistence of the group model). Those problems are further described in the dedicated section below.

Therefore, the EU regulatory framework currently falls short of fully addressing the operational needs of groups and infrastructure entities operating cross-border. As a result, and as further described below, efforts to consolidate and rationalise the trading venue landscape, or to leverage synergies within groups, carried out by EU operators in the past, have failed to fully deliver the expected outcomes for end-users. Furthermore, this inability to ensure effective consolidation on the operators' side was not mitigated by easier access to liquidity of users who continue to face difficulties in accessing multiple trading venues (and pools and liquidity) in a cost-efficient manner.

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[193] See Annex 11 for more detail on the currently fragmented supervisory setting.

1.3. ACCESSING LIQUIDITY POOLS IN THE UNION: CURRENT MARKET PRACTICES

From a user's perspective, the corollary to the fragmentation of the EU trading landscape is the necessary arrangements that need to be put in place to effectively access, directly or indirectly, all the trading venues needed for their activities. Access to trading venues can be done either directly, through direct membership, or indirectly, via intermediaries. Both paths entail specific procedures, costs and challenges outlined below.

Direct access to trading venues necessitates a multitude of arrangements, making it a complex and costly access route. The process of establishing direct connection entails several critical steps, including:

- undergoing assessments conducted by trading venues on organizational aspects, such as knowledge and experience evaluations, which are verified by each venue upon each membership application;
- establishing physical/hardware connections to the technical systems operated by those venues;
- ensuring compatibility with the software applications utilised by each venue, specifically their communication protocols, and implementing necessary Information Technology (IT) upgrades;
- remitting membership, connection, and other fees associated with access to these venues; and
- implementing requisite post-trade arrangements to facilitate clearing and settlement of transactions executed on these venues.

The cumulative burden and costs associated with compliance with these requirements have given rise to the emergence of third-party service providers that facilitate the technological aspects of direct connections to venues for entities that lack the capacity (or do not have enough resources) to develop proprietary hardware and software connection solutions. While membership remains the responsibility of the member, these service providers offer software or hardware solutions that alleviate the technical complexities associated with direct access to trading venues:

- Application Service Providers (ASPs) provide both hardware and software solutions;
- Independent Software Vendors (ISVs) provide a software solution to 'translate' orders to be compatible with each venue's communication protocol, but do not handle physical connections;
- Extranet Service Providers (ESPs) provide the physical/hardware connection, but do not provide any software solution.

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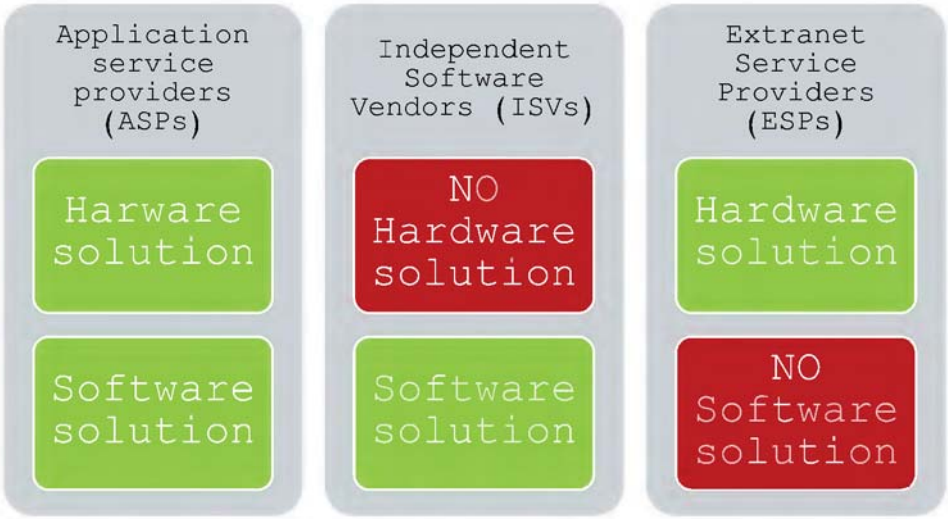

Figure 1: overview of the main types of third-party service providers offering technical solutions for connection to trading venues

An alternative to direct connection is the use of indirect connection. Indirect connections are usually simpler and more cost-efficient in scenarios where trading volumes and downstream client demand do not warrant a direct connection to trading venues. In such instances, brokers opt to leverage the services of intermediaries that possess membership status with the requisite venues. Several modalities of indirect access exist, including:

- Direct Electronic Access;
- Brokerage services via prime brokers.

This indirect connection approach can offer brokers a more economical and streamlined means of accessing trading venues, particularly in situations where the costs and complexities associated with direct membership are prohibitively high.

- *Direct Electronic Access*

To ease cross-border connection to trading venues, while preserving market integrity, MiFID 2 introduced a comprehensive regime governing "Direct Electronic Access" to trading venues. Pursuant to Article 4(1)(41) of MiFID 2, Direct Electronic Access includes both direct market access and sponsored access.

Direct market access (DMA) is an arrangement whereby a member, participant or client of a trading venue (the provider) allows a legal or natural person that is not a member, participant or client of that trading venue to make use of its trading code (access) to directly and electronically transmit orders in financial instruments to that trading venue. As a result, the provider's client can pass orders directly to a trading venue through the infrastructure of the provider or a connection system made available by that provider, with control over the trading decisions and reduced latency of execution.

Sponsored access (SA) is an arrangement whereby a member, participant or client of a trading venue (the provider) allows a client that is not a member, participant or client of that trading venue to transmit orders directly and electronically to a specified trading venue using the provider's trading identification without these orders having to first pass through the

provider's own electronic trading systems (the arrangement does not include the use of the infrastructure or connection system of the provider).

The investment firms that offer Direct Electronic Access (DEA) remain responsible for orders that are placed by their clients that make use of their systems and/or their trading codes. They must draw up criteria regarding the appropriateness of the parties to whom direct access is being provided. The investment firms that offer DEA must also ensure that clients who make use of DEA comply with MiFID 2 rules and the rules of the trading venue. In addition, they must build in risk controls and threshold values and be able to terminate the access of individual clients. Trading venues are also required to build in risk controls and threshold values for direct access to trading. In addition, they must draw up rules that ensure that DEA providers comply with MiFID 2 rules.

- *Prime brokerage services*

Brokers that are not directly connected to the trading venues where a given instrument is traded may also choose to resort to prime brokerage services, which involves the provision of access to multiple trading venues through a single intermediary. Prime brokers are in charge of executing orders by following best execution rules and can do so either by executing trades directly on the relevant venues, or by executing through systematic internalisers (which those entities often run themselves). Prime brokerage is often accompanied by additional services such as clearing and settlement.

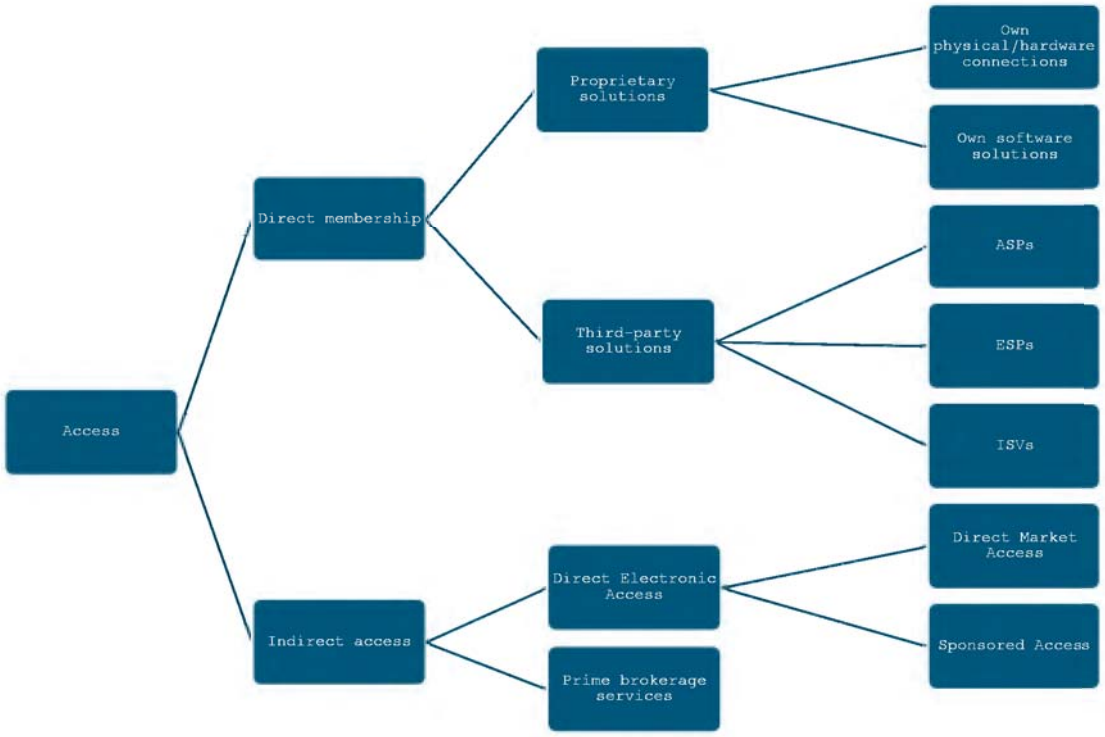

Figure 2: different paths for direct and indirect access to a trading venue

2. ASSESSMENT OF PROBLEMS IN THE TRADING AREA

2.1. IDENTIFIED PROBLEMS IN THE TRADING AREA

The EU trading landscape suffers from a lack of seamless cross-border operation of trading infrastructures, on the one hand, and access by users of those infrastructures, in particular smaller brokers, on the other hand.

On the trading infrastructures side, entities that wish to operate across border still face significant compliance, operational and adaptation costs linked to a complex, non-fully harmonised regulatory landscape, and supplementary, often diverging, national rules and specificities. Groups operating trading infrastructures across multiple Member States face regulatory barriers in allocating resources optimally and are not able to fully leverage the synergies that can be drawn from legal consolidation (i.e. merger and/or acquisition). In addition, not having a well-defined passporting regime creates uncertainty for market operators on whether they can use this additional avenue for cross border provision of services. As a result, the opportunities afforded by the Single Market are not being fully exploited, leading to suboptimal outcomes.

On the infrastructure users' side, a costly and complex access to the fragmented trading landscape exacerbates the problem. Users, and particularly smaller brokers, are not able to navigate the EU trading infrastructure as a single, integrated pool of liquidity, which limits their ability to operate efficiently and effectively across the EU. This is partially driven also by costs of post-trade activities. For example, CCP fee structures are often volume-based, meaning that smaller participants tend to pay more per trade than larger ones (e.g. 0.06 EUR for a low volume client versus 0.0035 EUR for a high-volume client in cash equities[194]). As a result, end-investors, particularly retail investors, face higher trading costs, in particular when they wish to invest across borders, and are deprived from the potential benefits of diversifying their portfolios with a broader range of investment opportunities. Some smaller brokers' costs associated with trading on EU exchanges can be double or even triple the fees charged for similar transactions on US trading venues. There is also a significant discrepancy in the fees brokers charge for executing transactions on their domestic markets, as opposed to ones in other Member States. Multiple brokers across different Member States impose fees that are three times higher for executing trades in other markets in the EU compared to their domestic market.[195] As a result, companies, particularly SMEs, face challenges in attracting cross-border investment from brokers based in other Member States, affecting their ability to raise capital on capital markets and grow.

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[194] Cash Equities Clearing in Europe: Building a More Competitive and Integrated Market, AFME, October 2025 - Link

[195] Information based on internal analysis of the publicly available fee schedules of a representative sample of neo-brokers and banks active in 8 Member States.

2.2. IDENTIFIED PROBLEM DRIVERS IN THE TRADING AREA

The lack of a seamless cross-border operation in the trading space can be attributed to two primary drivers: (i) regulatory hurdles that impede the cross-border activities of financial market infrastructures, and (ii) market practices (or non-regulatory barriers) that prevent infrastructure users to easily and cost-efficiently connect to various trading venues, hindering EU capital markets' ability to function as a truly integrated pool of liquidity.

Sub-driver 1 (regulatory barriers): Absence of a true single rulebook for trading venues and lack of recognition of operational specificities of groups

Efficient cross-border operations of trading venues and, more specifically, of RMs, is hindered by two key types of regulatory barriers. First, the provision of cross-border services for RMs is still subject to a non-fully harmonised specific regime that does not allow for the same level of flexibility for the cross-border provision of services compared to the one that applies to the provision of investment services and activities (including the operation of an MTF or an OTF) by investment firms. Second, the current regulatory framework is not adapted to the operations of market infrastructures that are part of the same group.

Lack of true single rulebook for trading venues, and regulated markets in particular

The current regulatory framework for trading venues is still subject to a certain degree of national discretions and peculiarities. The existence of non-harmonised national rules for RMs and their operators significantly exacerbates the complexity for firms that wish to operate on a cross-border basis. This fragmentation not only hinders the ability of firms to scale their operations efficiently across multiple Member States, but also increases their administrative and operational costs, as they must dedicate considerable resources to understanding, adapting to, and complying with the specific framework of each Member State in which they operate. Furthermore, the lack of harmonisation creates uncertainty and risks for firms, as they may face diverging enforcement practices, inconsistent interpretation of rules, and potential reputational damage stemming from unintentional non-compliance. Ultimately, the patchwork of national rules acts as a significant barrier to the provision of trading-related services across borders within the Union, disincentivises the formation of cross-border financial market infrastructure groups, undermines the competitiveness of firms and limits their ability to fully harness the potential of the Single Market.

This situation appears to be particularly acute when it comes to RMs that are subject to a significant amount of national rules. By way of example, national specificities and divergences in terms of procedures to approve amendments to exchange rulebooks have been

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identified between Member States.[196] Similarly, national approaches diverge in relation to prudential requirements.[197] This leads to high compliance costs and fails to adequately incentivise or facilitate cross-border operation of trading infrastructures in the EU. The absence of full harmonisation has also allowed several Member States to impose additional requirements linked to the entities that can operate a RM on their territory, and to introduce national laws that require RMs to be operated by an entity with a seat in and authorised by those Member States.

Additionally, unlike investment firms operating MTFs or OTFs, which benefit from a fully-fledged passporting mechanism under MiFID (with dedicated articles relating to the provision of services via the freedom to provide services or the freedom of establishment), the current MiFID 2 rulebook only foresees, in terms of cross-border activity, the possibility for regulated markets to set up 'trading arrangements' to accommodate remote access of members (i.e., trading screens).[198] By being silent on any other forms of arrangements, such as the possibility to have a local presence without setting up a subsidiary authorised in another Member State, for instance to facilitate issuer or broker onboarding through a branch, the current framework creates uncertainty as regards the extent to which services relating to RMs can be carried out on a cross-border basis under a single licence through the establishment of a branch. In addition, beyond the passporting rights linked to each trading venue, the mere fact that the current regulatory framework requires an authorisation at the level of each RM does not allow for the cost-efficient operation of several regulated markets on the basis of a single licence. Moreover, the current framework for RMs, while clearly identifying market operators and RMs, does not provide for a clear-cut allocation of tasks between the two entities. As a result, most Member States do not dissociate the RM from its operator which, in turn, does not allow for any sort of flexibility in terms of cross-border operation, whereby some tasks could be performed by a market operator located in a different Member State than the market. This is for instance reflected in certain national frameworks which require that local regulated markets be operated by a market operator located in that same Member State.[199] This prevents the

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[196] Practices widely differ in that regard. Some NCAs do not require any form of ex ante approval, while others require pre-approval of rules changes, and others even a pre-notification of proposed changes which then go through pre-approval. This adds to the actual divergences in appreciation of changes by different NCAs for exact same cases (the same change, notably in groups of exchanges, is often appreciated diversely by the various NCAs to which it needs to be submitted).

[197] For instance, under French law a market operator is subject to minimum capital requirements as well as own resources requirements which are laid down in Arrêté du 2 juillet 2007 relatif au capital minimum, aux fonds propres et au contrôle interne des entreprises de marché - Légifrance. These requirements differ from requirements applicable to market operators under Italian law, as laid down in Article 6 of Consob's Regolamento Mercati.

[198] See Article 53(6) MiFID: 'Member States shall, without further legal or administrative requirements, allow regulated markets from other Member States to provide appropriate arrangements on their territory so as to facilitate access to and trading on those markets by remote members or participants established in their territory'.

[199] For example, under French law (Art. L. 421-2 du Code Monétaire et Financier) 'A regulated market is run by a market undertaking which is a commercial company. Where a market undertaking runs a regulated market governed by the provisions of this code, its registered office and its effective management shall be located in Metropolitan France or its overseas départements or in Saint Barthélemy or Saint Martin.

emergence of truly efficient structures operating markets in several Member States on the basis of a single licence and, therefore, on the basis of a single core supervisory relationship.

Treatment of group structures

The current MiFID 2 rules governing trading venues and their operators do not recognise operational specificities of group structures. This may create a misalignment between the current legal set up, according to which each market operator is a separate and autonomous legal entity, with its own governance structure and rules, and the key characteristics of a group, that acts as a single economic entity.

As a consequence:

- a participant (i.e. broker) must apply to and be approved by each trading venue within the group on which it wishes to trade;[200]
- each market operator within the group is responsible for the national markets that it operates, and faces different national supervisors, with each supervisor having limited visibility over the organisation and operation of the group as a whole;
- the economies of scale that can be realised are limited, for example:
    - any outsourcing arrangement within the group is treated as those entered into with entities outside the group, requiring arm's length outsourcing and service level agreements, even when they are between group entities;
    - staff and more general resources sharing is limited within the group;
    - reporting streams are fragmented in terms of recipients and data coverage.

Ultimately, market-led consolidation is not sufficiently incentivised, as groups are hindered in their capacity to allocate resources freely and efficiently among the entities that are part of the same group and economies of scale are not sufficiently exploited.

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[200] Taking Euronext as an example, out of the 230 trading members authorised to trade on the Cash/or Derivatives markets for the seven countries, only 26 are members of all the markets (Members list | live).

Sub-driver 2 (non-regulatory barriers): Barriers linked to market practices: costly direct access to liquidity and financial instruments

In addition to the barriers stemming from the lack of a unified single rulebook for EU trading infrastructures, barriers linked to market practices further exacerbate the fragmentation of EU trading infrastructures and frustrate seamless cross-border trading activity in the Union.

Firstly, brokers and end-clients within the Union face significant obstacles in accessing all available liquidity pools for a given financial instrument. Notably, EU-based brokers, particularly small and medium-sized entities, often maintain connections to a limited number of trading venues, frequently restricted to the locally relevant venues. According to the replies of the public consultation, this is linked to several factors, some of those pertaining to post-trade arrangements, but the high costs and technical complexity involved in connecting directly to multiple trading venues across the EU, especially for smaller and medium-sized firms, was considered a major obstacle for achieving efficient and widespread direct connectivity. Although, as previously explained, this lack of direct connection does not inherently preclude a broker from offering its clients access to financial instruments across borders, it nonetheless results in increased costs for end-clients. Consequently, placing orders for instruments traded on venues located in other Member States is typically significantly more expensive, especially for retail investors, compared to trading on local venues (or even on US-based venues).

While the explanation for these costs is complex and multifactorial, also being influenced by the expenses associated with cross-border post-trade arrangements, they also reflect the incentives of brokers to limit their direct connections to local infrastructure.

Hurdles in accessing multiple liquidity pools also hinder brokers' ability to directly execute orders for a given instrument on the most efficient execution venue. This implies either higher costs linked to intermediation to tap into the most efficient liquidity pool, or potential suboptimal execution quality - both leading to inferior execution conditions for end-clients, especially those seeking to invest cross-border.

Secondly, the reliance on intermediaries to access certain markets or instruments can compromise the capacity of brokers, and eventually end-clients, to access the broadest possible range of EU financial instruments, as access becomes contingent upon the intermediary's commercial interests. This can be particularly detrimental for small and mid-cap stocks, where demand may be insufficient to warrant provision of access to end-clients, thereby limiting their visibility and liquidity. As a consequence, excessive intermediation can restrict access to shares of smaller and mid-cap companies, resulting in missed opportunities for both issuers and investors in this market segment. Similar conclusions had been reached by the Capital Markets Union High Level Forum in June 2020, where experts identified that, as liquidity for SMEs was often pooled in one location (i.e., one exchange), measures should be taken to guarantee access to such liquidity to the widest possible range of investors.[201] The report (while mostly focusing on smaller cap markets) refers to the need for more interconnection of exchanges, as

[201] Final report of the High-Level Forum on the Capital Markets Union (p. 69).

well as to greater passporting possibilities for exchanges, notably the possibility to operate through branches and on the basis of a single authorisation.

Thirdly, this situation undermines the effectiveness of policy measures aimed at empowering infrastructure users to navigate a fragmented market and identify the most efficient pools of liquidity. The consolidated tape, introduced as part of the last MiFIR reform, is a case in point. While the consolidated equities tape will provide users with information on the best available bid and offer for a given share or ETF in the EU, brokers may still not be able to tap into that liquidity at a reasonable cost. The inability of infrastructure users to tap into a broad range of liquidity pools at a reasonable cost is a significant obstacle to realising the full potential of the consolidated tape.

Lastly, remaining inefficiencies in the functioning and application of open access provisions at the trading venue level pose a significant barrier to efficient and cost-effective access to EU trading venues. Frictions in the functioning of existing open access provisions, such as excessive flexibility for infrastructure operators and national supervisors to reject interoperability arrangements, or restrictive practices limiting the leveraging of interoperability arrangements between CCPs, exacerbate fragmentation, forcing market participants to navigate a complex web of disparate post-trade systems, each with unique requirements and costs. As a result, accessing multiple trading venues, particularly across borders, becomes even more costly and cumbersome, creating a high barrier to entry for new market participants and discouraging direct connections, especially for smaller brokers and investors.

2.3. OBJECTIVES IN THE TRADING AREA

The objective of this initiative is to enable further market integration and scale effects by increasing cross-border activity. Considering the abovementioned problems and problem drivers, this overall objective translates, in the trading area, in terms of:

- facilitated and increased cross border activities of trading venues; and
- improved brokers' direct access to liquidity pools.

3. POLICY OPTIONS AND ASSESSMENT OF THE OPTIONS

3.1. DESCRIPTION OF POLICY OPTIONS

Option 1: lifting regulatory barriers to cross-border operations of trading venues and facilitating direct broker connections to a wider range of trading venues

This option seeks to achieve a more integrated EU trading landscape, (i) where rules that apply to trading venues are further harmonised and passporting opportunities for RMs and their operators are enhanced, (ii) where groups that comprise multiple trading venues across several Member States can effectively leverage economies of scale and (iii) where brokers' direct access to trading venues is simplified.

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Under this option, the rules regarding the authorisation and operation of RMs would be transferred from MiFID 2 (Directive) to MiFIR (Regulation) and further harmonised (reducing scope for national discretions and gold-plating) with a view to creating a truly European single rulebook for trading venues. As regards MTFs and OTFs, considering that those venues can be operated by investment firms (and not only by market operators), only rules that are specific to the operation of an MTF or OTF (and not the entire investment firm authorisation and operation requirements) would be transferred to MiFIR and further harmonised. In parallel, rules for RMs, MTFs, and OTFs would be aligned as much as possible to ensure a level playing field, including from the supervisory standpoint. Incidentally, this harmonisation of rules would also facilitate the transfer of supervision of operators/markets with a cross-border dimension to the European level and allow to enforce a truly single rulebook for those operators (and not just a series of national laws).

The harmonisation of rules would be accompanied by enhanced passporting rights for market operators and regulated markets, to ease the cross-border operation of these trading venues and allow for a rationalisation of licensing requirements across Member States. In particular, a new status for 'Pan-European Market Operators' would be introduced for cross-border market operators to allow for the operation of trading venues in multiple Member States on the basis of a single licence. This single PEMO licence, to be granted by ESMA, would allow to maintain the existence of 'national' markets, thereby preserving proximity with local ecosystems, without the need for those markets to be subject to individual licenses to operate those markets.

In parallel, this option would allow trading venues that operate under a unified group structure, with harmonised systems and governance, to fully exploit group synergies. The regulatory framework would be revised to ensure that intra-group allocation of resources and functions is not treated in the same way as outsourcing outside the group. This is with a view to simplifying the allocation of tasks within the group, thus reducing administrative burden and compliance costs for groups.[202]

This option also entails the implementation of measures aimed at eliminating barriers that hinder brokers from becoming direct members of trading venues. To achieve this, a "streamlined membership process" would be established, enabling entities that have been granted membership on one venue for one asset class to avoid duplicative checks and procedural burdens when they apply for membership on another comparable platform. The granting of membership would thereby waive the requirement for redundant checks by other trading venues trading the same asset class, thus streamlining the membership process. However, other aspects of membership eligibility checks, such as those pertaining to the ability to settle trades executed on trading venues, would remain subject to individual venue assessment, given the venue-specific nature of post-trade arrangements. This would also ensure that venues can continue to compete and innovate on more technical aspects of the trading business.

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[202] The actions linked to enhancing passporting rights for market operators and regulated markets, as well those on the treatment of groups require ensuring an appropriate supervisory set-up that considers the cross-border dimension of those entities and therefore they are linked to the initiatives on EU-level supervision as detailed in the Sectoral Annex 11 on 'Supervision'.

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<u>Option 2</u>: Option 1 supplemented by a requirement on the interconnection of significant exchanges and pan-European MTFs

The measures outlined under Option 2 should be considered as a supplementary extension to those presented under Option 1 (in other words, Option 2 builds on Option 1 but also complements it with an additional measure).

Under this option, a subset of key trading venues, which could be subject to ESMA supervision, would be required to establish interconnections with one another.[203] This is with a view to enabling members of each of those venues to submit orders for execution on other venues within the interconnected network, without necessitating membership or direct connection to those other trading venues.

It is essential to note that this option would not transform the aforementioned venues into executing brokers, subjecting them to best execution rules. Rather, venues participating in the network would serve as mere technical conduits, facilitating brokers' ability to directly place orders on diverse venues within the network. To this extent, this option differs substantially from the US 'Order Protection Rule' (also known as Reg NMS rule)[204], which mandates exchanges to re-route orders received to the exchange offering the best available price (or National Best Bid and Offer, NBBO), thereby placing the onus on every exchange to identify the most favourable venue of execution. In contrast, under this option, brokers relying on the interconnection offered by venues within the network would retain full responsibility for selecting the venue for order execution, and would consequently remain liable for ensuring the best execution vis-à-vis their clients.

Establishing this interconnection would necessitate that each concerned venue becomes a technical member of the other venues, and that each concerned venue implements a technical solution to submit orders on other venues within the interconnected network (technical connectivity). While the former requirement (membership) does not imply significant complexity nor cost, the latter necessitates that venues ensure they are capable of (i) interacting with each venue's communication protocol, thereby allowing communication with the target venue (software component), and (ii) physically conveying messages to other venues within the network (hardware component).

To achieve this, venues within the network may opt to:

- develop proprietary hardware and software connections to other venues;
- utilise third-party providers of physical/hardware connections (Extranet Service Providers, ESPs), while leveraging their own coding capacity to integrate with each venue's communication protocols;
- employ third-party providers of software solutions to 'translate' orders into a format compatible with each venue's communication protocol (ISVs), while relying on their own physical/hardware connections to other venues; or
- resort to third-party providers offering both hardware and software solutions (ASPs).

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[203] See the Sectoral Annex 11 for more detail on EU-level supervision.

[204] Rule 611 of the Regulation National Market System established intermarket protection against trade-throughs for certain shares. Due to this rule, trading venues are prevented from executing orders if a better execution price can be found on another exchange.

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This option would not prescribe a specific technical setup for venues in scope, as the choice of solution will depend on factors such as projected volumes of cross-border orders to be placed through the interconnection mechanism and the specific venues involved.

To ensure the effectiveness of this technical solution relative to intermediation (notably prime brokerage) services, this option should be accompanied by restrictions on venues' ability to charge re-routing fees, which could otherwise render this setup uneconomical. Consequently, venues within the network would be precluded from charging fees for orders placed through their venue on other venues within the network.

Lastly, a fundamental prerequisite for the effectiveness of this option is that users of the interconnected system have access to price information enabling them to identify the most relevant execution venue among those within the network. In this regard, the experience of China's 'China Stock Connect' system, which has established an interconnected network between the Shanghai, Shenzhen, and Hong Kong stock exchanges, is worth noting. China has mandated that level 1 price-depth market data be shared with all market participants free of charge. That solution would however not necessarily need to be implemented in the EU context. Instead, in the EU, the consolidated tape could be leveraged to ensure the usability of the mechanism.

3.2. ASSESSMENT AND COMPARISON OF THE OPTIONS

Option 1 - lifting regulatory barriers to cross-border operations of trading venues and facilitating direct broker connections to a wider range of trading venues

Cost-benefit analysis

- *Costs and benefits for trading venues*

Harmonisation of rules (MiFID to MiFIR), better passporting opportunities and creation of a 'Pan-European Market Operator' status

Under option 1, requirements applicable to regulated markets, as well as to MTFs and OTFs would be moved from Directive (MiFID 2) to Regulation (MiFIR), removing differences in transposition in national laws and the possibility for additional gold-plating by Member States. This, in turn, would simplify the overall regulatory landscape, in particular for cross-border entities or groups, remove national specificities and gold-plating measures, and lead to more uniform supervisory outcomes. In addition, as the absence of harmonisation has left room for varying interpretations of these requirements, further harmonisation would avoid an uneven playing field among Member States and minimise risks of forum shopping. It would also enhance legal certainty and enable market infrastructures in the Union to scale up their activities. 67% of respondents to the relevant question in the public consultation deemed an increase in the level of harmonisation of EU rules applying to trading venues and their operators necessary to foster cross-border operations.

A study published in 2019[205] estimated that compliance with MiFID/MiFIR accounted for a significant portion of operating costs in the financial markets industry, with average one-off compliance costs representing 1.44% of such operating costs, and ongoing compliance costs accounting for 2.2%. Notably, the study assessed that MiFID/MiFIR imposed the highest ongoing compliance costs and the second-highest one-off compliance costs among all financial services-related legislation. Although it is challenging to quantify the exact savings that could be achieved by simplifying the MiFID/MiFIR regulatory framework, these figures suggest that any simplification efforts (elimination of national specificities, gold-plating, uniform application, etc.) would likely have a substantial impact on compliance cost savings for firms. In some specific areas, stakeholders have mentioned extra costs (notably opportunity costs) linked to diverging practices and additional procedures not mentioned in EU legislation amounting to ca. EUR 1 million per group-level changes (e.g. approval of a change of trading platforms). The actual level of cost savings would however also depend on other alleviations introduced, such as on whether an authorisation process would be maintained or instead replaced by a lighter notification process (e.g. for changes in an exchange rulebook).

While the adaptation to a new, fully harmonised rulebook might entail some adaptation cost for entities managing trading infrastructure because of the modification of national rules (i.e., the deletion of national specificities), the costs incurred are likely to be one-off and by no means comparable to the benefits that are expected to be drawn by those same entities from the simplification of the regulatory landscape. Therefore, while it was impossible to quantify the level of one-off adaptation costs nor a precise level of generated benefits, it is expected that overall infrastructure entities are likely to obtain a net benefit over a mid to longer term horizon.

The fully harmonised rulebook will be accompanied by enhanced passporting opportunities for those entities that would seek to operate on the basis of the freedom of establishment or the freedom to provide services, notably through a clarification of the scope of activities that can be carried out by a trading venue in a Member State without establishing a fully-fledged licensed entity. In addition, the creation of a PEMO status would further facilitate the streamlining of operational and supervisory arrangements of groups of trading venues, while maintaining the existence of local 'national' markets. One stakeholder has referred to potential savings linked to the rationalisation of its corporate structure (i.e., the suppression of legal entities within the group) amounting to savings in the order of tens of millions annually. This represents savings linked to legal, regulatory (internal and external advisors' costs), finance, human resources costs that would be reduced should operation through branches be enhanced. That same stakeholder also cited savings linked to local governance costs. Similar cost savings could be expected for other entities structured as groups, although the exact level for each group would depend on each entity's (i.e. of the group and entities within that group) current governance and established processes.[206] Ultimately, this facilitation of cross-border operations

[205] Study on the costs of compliance for the financial sector - CEPS

[206] Those savings depend also on the supervisory structure applicable and therefore are linked to the initiatives on EU-level supervision described in the Sectoral Annex 11. Where EU-level supervision is envisaged, the described cost savings could be extracted to the fullest extent possible.

through a single license will also create incentives for legal consolidation, as the operations of trading infrastructure in several Member States would be significantly streamlined.

To further substantiate the impact of the proposed measures, the Commission received confidential input from a number of groups of trading infrastructures operating in several Member States on the estimated savings the proposed measures would generate. Together, the groups that provided input accounted for around one third of all on-venue trading in shares in 2023.[207] Their submissions showed that there are significant inefficiencies in operating a cross-border group under the current legal framework. Some of these inefficiencies are linked to the EU-level rules themselves, such as the lack of clarity around a passporting regime for regulated markets, whereas others are the result of national implementation of the rules, including gold-plating and the inability to freely allocate resources or functions within a group. Contributing exchange groups report the largest potential saving from the removal of the requirement to maintain multiple legal entities to operate cross-border as a group, in a scenario where those groups would be able to operate as a single legal entity under a single licence, with estimated savings per group ranging from EUR single digit millions to mid double digit millions per year. More limited savings, in the range of EUR 0.5-5 million per group per year, are expected if Member States would no longer have the discretion to impose additional requirements regarding the compliance and risk functions. Market surveillance requirements, too, are reportedly applied in diverging ways, with reported potential cost savings ranging from EUR 0.5 to 5 million per year. Exchange groups also report inefficiencies as well as opportunity costs arising from the need to obtain approval for updates of their exchange rulebooks from several competent authorities, with the opportunity costs as a result of time lost estimated as much greater, by a factor of 5 to 10, than the direct costs incurred. Further anecdotal evidence was reported of diverging requirements from certain NCAs necessitating multi-million-euro modifications to IT infrastructure before the exchange rulebook could be approved. In total, the groups contributing input reported expected savings between EUR 29 and 74 million per year, depending on the scope of expected savings resulting from the reduction in the number of legal entities required and on whether anecdotal evidence is taken into account.

Assuming that all groups of trading venues that operate across Member States would similarly benefit from the proposed measures in proportion to the volume traded, we can extrapolate these estimated savings to all trading infrastructure groups, which in 2023 accounted for around 55% of all on-venue trading in shares. This yields expected savings ranging between EUR 47 and 120 million per year across all trading venues belonging to a group. It is moreover possible that the proposed measures would allow trading venues that currently do not operate as a group to expand or to organise their operations more efficiently; those potential benefits have not been quantified at this stage.

Assuming a pass-through rate of at least 50% from trading venues to brokers and at least of 50% from brokers to clients (that would be a conservative assumption, given a rather significant number of trading venues (see page 2 of this Annex) and brokers competing with each other in

[207] Based on ESMA FITRS data.

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the EU), it can be estimated that a minimum of EUR 11.25 to 30 million of these savings would will directly benefit end investors trading on EU stock exchanges.

Enhanced intra-group efficiencies

Entities that do not wish to rely on enhanced passporting opportunities, and continue to operate as a group of trading infrastructures, would be able to rely on the enhanced intra-group efficiencies included in this option.[208] For some trading venues, the need to navigate the diverging regulatory frameworks applicable to each entity within the group entails time costs that could amount up to approximately 13,000 hours per year on administration[209], reporting, risk and compliance in relation to managing existing outsourcing arrangements.

According to responses of trading venues to the public consultation, the recognition of the operational specificities of groups active in more than one Member State will create significant synergies within a group. By treating jointly (i.e. as a single entity) all RMs comprised within a group rather than isolated units, groups can streamline operations, consolidate and cut resources, and eliminate redundancies. This recognition allows for shared services, centralised procurement, coordinated decision-making, and better leverage of economies of scale. One exchange has for instance referred to significant potential savings in case of:

- rationalisation of compliance function teams (especially if combined with compliance function related to post-trading activities where applicable),
- rationalisation of resources dedicated to market operations, including market surveillance, market abuse, regulatory reporting and membership of 30% (which can amount to figures in the low millions), plus additional savings from the avoidance of duplicative teams in certain Member States only. It would also facilitate more efficient use of capital and human resources across the group, reducing duplication of efforts and enabling consistent policy implementation.

The Commission therefore estimates that in total cost savings linked to enhanced intra-group efficiencies would be in the range of EU 435,500 - 585,500 (13,000 hours annually) in terms of management of regulatory requirements. In addition, there would be additional savings linked to operational efficiencies, such as optimal allocation of resources, avoidance of duplicative functions within the same group, etc., which could be significant. Those savings, however, are complex to quantify accurately, as they highly depend on the business decisions taken by each group and each group's existing corporate structure, as well as on the supervisory arrangements.

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[208] It is however possible that the same entity both remains structured as a group and avails itself of passporting possibilities to access local markets (i.e. in other Member States where the group does not have established presence).

[209] Using Eurostat figures for average hourly income (using ISCO2 'professionals'; 2022 figures - Link) this would translate to costs of EUR 435,500. This represents the lower bound figure. In practice, total costs savings are expected to be higher as the EU average hourly rate (EUR 33.50/hour) is not adjusted for the respective concentration of compliance activity in Member States (e.g. using average hourly costs for only DE, FR, IT, ES and NL would result in savings of EUR 585,500).

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The Commission also assesses that the facilitation of pooling of intra-group resources will also foster the development of innovative solutions, in particular for the purpose of running trading platforms in a cross-border basis and in the management of various national contexts (e.g., diverging securities laws, management of corporate events, etc.). A positive impact – yet impossible to quantify – is therefore expected in the area of innovation/digitalisation.

It is expected that those measures will also incentivise legal consolidation through the facilitation of the operation of cross-border groups of trading infrastructures.

Streamlined membership processes

With respect to the streamlined membership process, trading venues are not expected to incur any costs other than that of the harmonisation of targeted areas of exchange rulebooks. As regards the adaptation of rulebooks, trading venues estimated those to be in the range of EUR 1-2 million (costs of project management, legal drafting, IT adjustments, and staff re-training). Additionally, it was pointed out that venues could also incur opportunity costs as the staff would focus on harmonisation rather than other projects. However, in the Commission's views, provided estimations would exaggerate the actual cost, as they are based on the inaccurate assumption that the entire rulebook would be overhauled, including aspects relating to trading systems for instance (which, as described above, is not targeted by the action at hand). The Commission estimates that the targeted harmonisation of rulebooks on the elements pertaining exclusively to the 'quality' of members would only concern a marginal part of the rulebook and would in many cases require very limited efforts of adaptation on behalf of venues (e.g. direct incorporation of the relevant provisions set out in legislation). Those are estimated to require around 40 working hours by lawyers, which could translate into a cost of ca EUR 15,000. It is worth noting that even those stakeholders who pointed to the potential adaptation costs were overall still positive about the expected net outcome (i.e. that benefits would outweigh costs).

Additionally, as the result of the measure, trading venues would benefit from a streamlined member onboarding and monitoring process, as due diligence would only need to be performed once (and by one venue only), which would save staff cost for all venues over a longer-term horizon. As the measure would also make it easier for venues to rely on each other's ongoing eligibility checks (such as annual/periodic audits), venues would also save staff costs, estimated at a few FTEs, for ongoing compliance and membership management. Despite several requests made to that effect, it was not possible for the Commission to obtain data on the cost of periodic auctions, making it impossible for the Commission to quantify expected cost savings related to the measure.

- *Costs and benefits for brokers*

Further harmonisation of requirements applicable to trading venues would not create any cost for brokers. Conversely, it is anticipated that any costs savings and operational efficiencies made by trading venues, through the leveraging of the above-described opportunities (harmonised regulatory environment, further passporting possibilities, enhanced intra-group synergies) could ultimately benefit brokers. While the extent of the pass-through depends on the degree of competition in the market, it could be estimated that a large broker active in the entire EU could save EUR 100-500k per year by not having to maintain separate

memberships, should this mechanism lead to an alleviation or even suppression of membership fees.

In addition, it is expected that the PEMO structure, by allowing a leaner operational structure of trading venues, would act as a first step towards the effective pooling of liquidity across trading venues operated by PEMOs (while maintaining national 'entry points'). Those effects are even likelier to materialise as actions at the level of post-trade (e.g., facilitation of cross-border CSD operations) would catalyse the synergies drawn at trading level. Brokers (and, eventually, end-clients) would, in the longer term, therefore benefit from a more efficient trading environment derived from the more efficient organisational and supervisory structures enabled by the PEMO status.

When it comes to the streamlined on-boarding processes, brokers that are existing members of venues would not incur any costs by virtue of the introduction of a streamlined membership process that will only apply to new members (who would now find it easier and cheaper to apply for direct membership of several venues due to the streamlined membership onboarding process). All brokers (new and existing ones) would benefit from a more streamlined ongoing compliance/monitoring procedures by venues. The new streamlined membership process would be without prejudice to the fees that brokers are required to pay to each trading venue to become members and to trade.

Overall, brokers would be able to save on compliance costs and on the procedures to handle:

(i) initial membership on-boarding processes (impossible to quantify), and

(ii) ongoing monitoring of compliance with membership rules, which often take the shape of regular/periodic audits (impossible to quantify).

- *Costs and benefits for end-clients*

As also stated on page 20 of this Annex, lower operational costs for trading venues and brokers could ultimately benefit end-clients, as these savings could be passed on in the form of reduced brokerage fees (depending on the degree of competition in the market). This is particularly significant if brokers can more easily connect to a wider range of trading venues outside their local markets (either through streamlined membership processes, or because trading infrastructures offer more efficient connection opportunities through enhanced passporting or intra-group synergies) and thereby access markets they might not have engaged with under more cumbersome onboarding processes and ongoing monitoring of compliance with membership requirements. With easier access to a broader range of venues, brokers can enhance their service offerings, providing clients with diverse investment opportunities and competitive pricing, which could ultimately result in making investments more accessible and attracting a larger client base.

In addition, the quality of trade execution could see improvements through facilitated direct connections to trading venues, as brokers could develop more direct access arrangements to a broader range of trading venues than they would without streamlined membership processes.

As an illustration of the unequal level of access to trading venues across the EU, the Commission has compared the level of trading fees for the domestic market of the broker, the main US markets and other Member State markets (i.e. non-domestic markets of the broker). The table below represents the publicly available trading fee for a hypothetical EUR 10.000 retail order to buy shares.[210] Although not fully representative, the selected sample of Member States and of brokers indicates that it is almost always more expensive to trade on other Member State markets than on the domestic market (4 out of 5 Member States included in the sample). In addition, it is often cheaper (for 4 out of 5 Member States included in the sample) to trade on US markets than on other Member State markets, and that there are even instances (2 out of 5 Member States included in the sample) where it is even cheaper to trade on US markets than on the domestic market.

Table 1: Fee (EUR) for a EUR 10.000 retail order to buy shares for banks (B) and neo-brokers (N) across 5 Member States (data from May 2025)

	Member State 1	Member State 2	Member State 3	Member State 4	Member State 5
Local market (or market belonging to the same exchange group)	B1: EUR 50 B2: EUR 35 N1[211]: EUR 60 N2: EUR 45 Average: EUR 47,5	Bank 1: EUR 100 Bank 2: EUR 10 N1[212]: EUR 15 Average: EUR 41,67	B1: EUR 6 B2: EUR 65 N1: EUR 9 Average: EUR 26,67	B1: EUR 102 B2: EUR 25 N1: EUR 0 N2: EUR 4,99 Average: EUR 33	B1: EUR 2,5 B2: EUR 40 N1: EUR 2,95 N2: EUR 5 Average: EUR 12,61
US market (NYSE / NASDAQ)	B1: EUR 50 B2: EUR 50 N1: EUR 12 N2: EUR 12 Average: EUR 31 % of the price of domestic trading: 65%	B1: EUR 120 B2: EUR 12 N1: EUR 20 (USD 20 / USD 10,000) Average: EUR 43 % of the price of domestic trading: 103%	B1: EUR 20 B2: EUR 36 N1: EUR 15 Average: EUR 23,67 % of the price of domestic trading: 89%	B1: EUR 115 B2: EUR 25 N1: EUR 0 N2: / (no price listed) Average: EUR 46,67 % of the price of domestic trading: 141%	B1: EUR 10,35 (USD 12) B2: EUR 90 N1: EUR 3,95 N2: EUR 7,76 (USD 9) Average: EUR 28,02 % of the price of domestic trading: 222%
Other EU market	B1: EUR 50 B2: EUR 50 N1: EUR 30 N2: EUR 25-35 Average: EUR 53,33 % of the price of domestic trading: 112%	B1: EUR 120 -140 B2: EUR 15 - 30 N1: EUR 15 – 100 Average: EUR 70 % of the price of domestic trading: 168%	B1: EUR 20 B2: EUR 36 N1: USD 15 Average: EUR 23,67 % of the price of domestic trading: 89%	B1: EUR 129 B2: EUR 25 N1: EUR 0 N2: / (no price listed) Average: EUR 51,33 % of the price of domestic trading: 156%	B1: EUR 9 - 45 B2: EUR 90 N1: EUR 2,95-9,95 N2: EUR 25 Average: EUR 37,11 % of the price of domestic trading: 294%

[210] Where banks / brokers offered varying account types / membership levels, the standard / lowest cost option was chosen.
[211] Subsidiary of a bank.
[212] Subsidiary of a bank.

Effectiveness in meeting the specific objectives and overall efficiency

This option envisages a number of measures that entail limited costs for stakeholders while effectively achieving the aim of fostering greater market integration and increasing cross-border trading activity. The Commission nevertheless acknowledges that the measures under Option 1 would not be as effective as the interconnection measures set out under Option 2 (see section below for the cost-benefit analysis for Option 2).

However, as demonstrated above, the benefits of the implementation of Option 1 would outweigh the potential costs incurred. Said benefits for trading venues include

- a decrease in the costs of compliance with MiFIR/ MiFID II and in the costs incurred on administration and reporting,
- an overall more efficient operation of venues by virtue of the legal recognition of the group's concept, enhanced passporting possibilities, and a more streamlined membership process

Respondents to the public consultation concur that the benefits significantly exceed the costs. One of the main advantages of this option is that the costs to-be-incurred may be known or at least estimated in advance, which allows the Commission to determine with better precision that the cost-benefit ratio underscores the efficiency of Option 1. By contrast, the costs for the implementation of Option 2 cannot be accurately calculated, even provisionally, at the present moment, and the benefits of that other option are contingent on many other factors (notably on changes in the operation of post-trade infrastructure) whose realisation is at this stage not fully certain (see section below for the cost-benefit analysis for Option 2). Thus, as regards the efficiency criterion, based on the cost-benefit analysis of both Options, the Commission deems Option 1 to be the more efficient one, hence the preferred one.

Coherence with the SIU objectives

Option 1 is coherent with the Commission's objectives, as defined in the SIU Communication, published on 19 March 2025. A unified rulebook for trading venues would remove barriers to cross-border operations by trading infrastructure and contribute to more consistent supervisory outcomes, which is a major step towards achieving harmonised supervision in the single market, which is one of the SIU's pillars. Additionally, all measures comprising Option 1 are in line with the Commission's simplification agenda, also relevant in the SIU context. Enhanced passporting opportunities would simplify cross-border operations by streamlining licensing requirements. The recognition of the operational specificities of groups would reduce costs and simplify operations for groups comprising several trading venues. Streamlining the membership process would reduce costs for brokers who wish to become members of several trading venues, thus also improving execution outcomes for end-clients. Overall, those measures aim to create a more integrated, and efficient regulatory landscape that facilitates business operations and economic activity across the Union.

Option 1 is also in line with the conclusions in Mario Draghi's Report on the future of European competitiveness.[213] The measures described above, if implemented, would help build a more dynamic and competitive economic environment in the EU.

Option 2: Option 1 supplemented by a requirement on the interconnection of significant exchanges and pan-European MTFs

Option 2 builds on but also expands Option 1, by supplementing it with the measure on the interconnection of trading venues. The below assessment only covers the additional feature of Option 2 (i.e. interconnection). The previous section should be consulted for the cost and benefit analysis of all other measures comprised under Option 2.

Cost-benefit analysis

- *Costs and benefits for trading venues*

Venues that are part of the interconnected network would bear the costs of setting up and maintaining the interconnections. The data collected from stakeholders lacks consistency, making it challenging to provide a reliable estimate of the costs. Estimates of the average costs for setting up the network provided by stakeholders vary from EUR 300,000 to EUR 100 million (which probably partly reflects a divergent understanding by stakeholders of what the measure would represent). Additionally, the precise amount would depend on the actual setup, the number of venues that participate in the system, the type of connectivity (bilateral links versus hub system) and the quality of the links used, the type of software which would be implemented and the trading sessions costs, among others.

Some stakeholders provided additional cost breakdown, as presented below. Given a wide divergence in the overall cost estimates provided by stakeholders, those detailed cost estimates should be considered with caution and may only be used for illustrative purposes. The actual relevance of those costs would also depend on the set-up of the interconnectivity between trading venues.

First, with respect to bilateral links (or the lines) used, one possibility could be the use of land lines, which could cost between EUR 2,000 and EUR 8,000 per month per bilateral link. One exchange explained in the public consultation that connectivity to another trading venue would require more than one leased line: connectivity to the primary data centre of the trading venue with a backup line physically diverse from the main line and connectivity to the secondary data centre also with a second diverse route for resiliency purpose, which amounts to a total of four lines. Another option would be to use more advanced microwave technology, which reduces latency (or speed of data transmission) by roughly half, compared to leased lines. This network technology is, however, more expensive, at an estimated EUR 10,000 per month.

Second, in order to connect to another venue, trading venues in scope would have to deploy and maintain the necessary software, which they could either build or buy. Building the

[213] The Draghi report on EU competitiveness.

software in-house would require hiring additional IT staff (estimated to be between 20 and 40 people) and would come at the cost, according to a stakeholder, of EUR 1.5 to 3 million per year (not including the software maintenance costs). A cheaper option would be to buy the software. However, this option is reported to be less performant, while trading venues would still incur costs related to additional staff to maintain the platform and supervise the flow.

Third, the connectivity fees vary greatly depending on how many order books would be accessed, how many systems need to be connected to the trading venue, if the connection were via cross connect or via a central hub, and the capacity needed in terms of messages per second. Some venues do not publish their fees and that further complicates the assessment, even provisional, of the costs that would be incurred. The cost of a trading session can vary between EUR 210 and EUR 780 per month.

The above enumeration of costs is not exhaustive. Given the uncertainties referred to above, currently the Commission is unable to determine the precise level of costs that venues would incur to set up and maintain the interconnected network. It is however assessed that costs should be rather homogeneous among participating venues using similar trading protocols; they may however differ when borne by users of those connections (e.g. broker) depending on the number of transactions executed using those connections.

Some stakeholders suggested to use the cost of implementation of the 'order protection rule' in the US as the reference point. When proposing the order protection rule, the Securities and Exchange Commission estimated[214] that the cost of the rule was around USD 143.8 million in one-off costs, and USD 21.9 million in yearly ongoing maintenance costs. However, the Commission is of the view that this reference to the US cost would not be appropriate in this case given the following important shortcomings:

(i) the order protection rule implied a significant responsibility shift in terms of best execution to the venues. The interconnection proposed under option 2 does not foresee such a shift, as explained above;

(ii) the rule was introduced almost 20 years ago. Connection technology and overall the degree of digitalisation have significantly improved since the decision to implement the order protection rules in the US in 2006;

(iii) the US exchange market structure is also significantly different from the EU one, although the amount of interconnected exchanges would be relatively similar.

(iv) the US chose a particular system of interconnectivity (all relevant exchanges interconnected with each other). An alternative hub-and-spoke model (whereby a single central technical solution to which all venues in scope connect, and from which orders are then routed) would result in considerably less connections and much lower cost of the measure.

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[214] Securities and Exchange Commission: Regulation NMS | U.S. GAO

In terms of benefits for venues generated by the interconnection, trading venues would be expected to benefit from increased cross-border traffic, potentially generating higher revenue through execution fees. Nevertheless, the Commission notes that these benefits are likely to materialise only after implementation costs are incurred, and are contingent upon the solution being widely adopted by brokers.

Overall, given the uncertainty around costs and benefits of the interconnection for trading venues, it is impossible to estimate with any meaningful degree of precision the net outcome of Option 2.

- *Costs and benefits for brokers*

Brokers would not bear any direct costs with respect to the initial set-up and ongoing maintenance of the interconnected network. However, they may bear indirect costs. Although it is proposed that re-routing costs are prohibited/restricted under this option, trading venues may opt to increase execution fees for all clients, regardless of their use of the interconnectivity features (i.e. to cross-subsidise). Whether and to what extent such an increase in execution fees would materialise is complex to determine and quantify, given the uncertainty around the costs borne by venues to set up and maintain the network, and the uptake of the interconnection system among brokers (the broader the use, the lower the costs per individual transaction). The effects on execution fees also depend on whether trading venues in scope would opt for internalising at least a portion of those costs. Because of competitive pressure from other execution venues, venues may opt against passing those costs entirely on to their clients (brokers).

On the other hand, at present, brokers are paying fees for either connecting directly to a trading venue, or the intermediation fees charged by larger brokers. Hence, they are, at present, incurring costs for establishing either direct or indirect connections to the venues on which they want to trade. If an interconnectivity mechanism were established, brokers would be able to place orders on multiple venues, while being connected to and being a member of only one. This would, in turn, mean that brokers would only pay membership and execution fees to the venue of which they are a member, and would not incur either membership fees and connectivity fees for connection to any other venue that is part of the interconnected network, or pay fees to intermediary offering execution on such venues. As no precise intermediation fees data is available, being generally very client-specific, it is not possible to provide precise figures as regards savings that could be made on intermediation fees. However, the Commission is aware that those intermediation fees can be high, in particular for shares of smaller companies.

Lastly, as explained above, reliance on intermediation implies that brokers (and thereby end-clients) are dependent on the intermediary's commercial interest in offering access to a given instrument. This commercial interest is often lacking when it comes to offering solutions to trade shares of smaller companies. Therefore, interconnection would also offer brokers a more

systematic and broader access to SME shares, as highlighted by the High-Level Forum on the Capital Markets Union back in June 2020.[215]

Given the above, the Commission can conclude that the benefits for the brokers are likely to outweigh the costs they would incur, and that this set-up would lead to a more efficient trading environment for them. The exact estimation of benefits for brokers however depends on the actual set-up/quality of the interconnectivity system, client's demand as well as overall costs charged by trading venues.

- *Costs and benefits for end-clients*

The savings in terms of intermediation and/or direct connection costs for brokers are likely to be translated into lower brokerage fees for end-clients, especially for cross-border trades, as well as into a broadening of the (cross-border) offering of brokers. The positive impact is expected to be significantly greater for retail clients who, as explained above, are more affected by high costs linked to cross-border trading. However, the full scale of those benefits might be partially limited by the potential passing on of potentially increased execution fees incurred by brokers (see above).

Furthermore, as noted earlier, brokers' access to a broader pool of liquidity could lead to improved execution quality for their clients. For end-investors, the interconnection system would imply that their brokers' execution policies can no longer cite direct connection limitations as a reason for sub-optimal execution, a limitation that is sometimes encountered today.

A last potential benefit of the measure is that, by lowering cross-border transaction costs, it could help reduce home bias, particularly for retail investors. Currently, differentiated fee structures based on the country of origin of securities exacerbate home bias. By introducing more neutral, origin-agnostic fee schedules, the measure could further mitigate home bias and encourage retail investors to consider a broader, more diversified range of investment opportunities.

Effectiveness in meeting the specific objectives and overall efficiency

Option 2 would be effective in addressing the costly and complex direct access to liquidity and financial instruments, which brokers are currently facing. At present, they either need to be direct members of the trading venues on which they want to trade, or access indirectly via other brokers who are, in turn, direct members of the venue. By eliminating the need for brokers to become members of multiple venues, or get indirect access via intermediaries, Option 2 is more effective in addressing broker's current needs, than Option 1.

However, Option 2 may be the less efficient of the two options. As explained above, the Commission is currently unable to reach a conclusion on the cost estimation and, as a consequence, cannot provide a straightforward answer as to whether the potential benefits

[215] Ibid.

would outweigh the costs incurred. Moreover, Option 2 is a supplementary extension to the measures presented under Option 1. Thus, the implementation costs for the creation of an interconnectivity mechanism would come in addition to the ones which would be incurred for the harmonisation of rules (although those measures result in the overall net benefit as set out above).

Lastly, the Commission acknowledges that, in order for Option 2 to function as envisaged, a seamless interoperability of post-trading, notably of the settlement infrastructure, would be necessary. Therefore, given that pre-condition, the Commission cannot currently hold that creating interconnectivity between trading venues would constitute an efficient measure at the current juncture.

Consequently, taking into account the cost-benefits analysis from the perspective of all stakeholder categories, the Commission is of the opinion that Option 1 would be more efficient in addressing the identified drivers and tackling the identified problems.

Coherence with the SIU objectives

Requiring significant exchanges and pan-European MTFs to establish interconnectedness with one another could encourage retail investors' participation in capital markets, which is in one of the objectives put forward by the SIU communication. Additionally, interconnectedness could simplify investors access to capital markets and help reduce market fragmentation. The creation of a more integrated network of RMs and MTFs is a stepping stone to the creation of a single market for capital or SIU, a key priority of the EU, which aims to provide businesses with a broader range of funding sources across member states.

Improved interconnectivity can lead to increased competition among trading platforms, leading to better services, lower costs, and innovation—core elements needed to enhance the global competitiveness of European markets, as advocated in the Draghi report.

Table 1 – Cost efficiency analysis of the options by stakeholder type[216]

Cost efficiency by stakeholder type			
	Trading venues	Brokers	End-investors
Option 1	++	+	+
Option 2	--	++	++

Table 2 – Overall effectiveness, efficiency and coherence analysis of the options

	Effectiveness	Efficiency	Coherence
Option 1	+	++	++
Option 2	++	N/A (-)	++

[216] **Legend**: +++ = very positive, ++ = positive, + = slightly positive, 0 = no effect, - = slightly negative, -- = negative, --- = very negative

3.3. FLANKING MEASURES

Open access

MiFID and MiFIR contain a number of rules to ensure that CCPs can clear trades executed on any venue, and vice-versa. However, restrictive practices and heavy processes that hinder their effectiveness remain when it comes to cash equities.

First, the process to grant CCPs access to trading venues (and vice versa) is subject to a number of exceptions that allow NCAs and parties involved to reject said access. Feedback from the consultation has also pointed to hurdles linked to artificially delayed procedures and lack of consistent enforcement of those rules.

Second, even after having granted access to CCPs, some trading venues implement access models that limit market participant's ability to leverage interoperability agreements that already exist between certain CCPs. More specifically, the Commission understands that some venues apply so-called 'preferred clearing', whereby counterparties executing a trade on a venue can choose other CCPs than the default CCP *only* when both counterparties happen to choose the same CCP, which rarely happens in practice and is unpredictable. From a technical standpoint, interoperable CCPs can handle situations in which one trading party chooses one CCP (e.g. Six x-Clear) and the other party another interoperable CCP (e.g., Cboe Clear). However, it appears that 'preferred clearing' arrangements still require that both market participants have chosen the exact same CCP for trades to be cleared in a different CCP than the default one, even though the parties might have chosen different yet interoperable CCPs.

It is therefore proposed that hurdles in that area are removed by:

- streamlining and simplifying access provisions across MiFID and MiFIR and better framing the conditions under which access requests can be rejected or unduly delayed by trading venues/CCPs and by NCAs. Those conditions could be aligned with those included in Article 33 of the CSDR on CSD access, whereby access can only be rejected on the basis of a comprehensive risk assessment, and whereby supervisors only intervene in cases of disagreement. It is also proposed that the EU-level supervisor would be receiving notification for such requests and, similarly, only intervene in cases of disagreement; and

- ensuring that, whenever two or more already interoperable CCPs have access to a given trading venue, that trading venue allows its participants to choose to clear on two different interoperable CCPs. This approach reduces the limitations of the preferred clearing model, leveraging existing technology to clear transactions across different CCPs. This option is likely to enhance competition by allowing customer choice and rewarding CCPs investing in interoperability. It should also unlock significant cost savings for market participants through netting efficiencies and a reduction in necessary CCP membership arrangements.

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Measures to further develop the equity consolidated tape and stimulate competition in the closing auction segment.

It is proposed to enhance the attractiveness of the equity consolidated tape and its ability to support informed investment decisions by:

- lifting the anonymity of the European Best Bid and Offer (EBBO), to allow users of the tape to identify the venue offering the EBBO;
- increasing the depth of the pre-trade information published by the tape, to cover the first five layers of the book;
- including in the equity pre-trade tape information on the (retail order) quotes published by SIs. To achieve that, a necessary pre-requisite to ensure that the quotes published by SIs are meaningful in terms of price formation. Today, SIs can, and often do, negotiate bilaterally price improvements that are targeted to specific clients (leading to extreme client segmentation) and that are not reflected in the quotes that they publish. It is therefore proposed that, for retail orders, SIs are required to immediately update their public quotes to reflect price improvements. Such price improvements will then feed into the tape to adequately reflect the best price offered by SIs, for those trade sizes that are subject to pre-trade transparency;
- requiring the tape to compute and publish the volume-weighted closing price generated by all closing auctions for a given security, thereby offering the market an (voluntary) alternative to the closing price generated by incumbent venues. In addition, it could be clarified that the tape-produced reference price could be considered as fair pricing model for the purpose of portfolio valuation by asset managers, thus potentially increasing the uptake of that price for that purpose and providing competition to the use of the standard closing auction price (and hence driving execution fees in closing auctions down).

ANNEX 8: SECTORAL ANNEX ON POST-TRADE

Glossary

For the purposes of this Annex, the following definitions apply:

Asset referenced token (ART)	A type of crypto-asset (i.e. a digital representation of a value or of a right that is able to be transferred and stored electronically using distributed ledger technology or similar technology) that is not an electronic money token and that purports to maintain a stable value by referencing another value or right or a combination thereof, including one or more official currencies.[217]
Bilateral link	An arrangement that set out under a single agreement the transfer of securities between two Securities Settlement Systems.
Book-entry settlement	Generally speaking, a mechanism that enables market participants to transfer assets (e.g. securities) without the physical movement of paper documents or certificates.
Central bank money	Central bank money is the term commonly used to describe the case where a Securities Settlement System settles its cash leg on cash accounts opened in the books of a central bank.
Central counterparty (CCP)	An entity that interposes itself, in one or more markets, between the counterparties to the contracts traded, becoming the buyer to every seller and the seller to every buyer.[218]
Collateral	An asset or third-party commitment that is used by the collateral provider to secure an obligation to the collateral taker. Collateral arrangements may take different legal forms; collateral may be obtained using the method of title transfer or pledge.
Commercial bank money	Commercial bank money is the term commonly used to describe the case where a Securities Settlement System settles its cash leg on cash accounts that are not opened in the books of a central bank but on the books of a credit institution.
Corporate action	A corporate action is an event initiated by a public company that brings or could bring an actual change to the securities—equity or debt—issued by the company, such as stock splits, mergers, dividend or coupon payments. The role of the CSD is to inform CSD participants holding the respective security in custody about the upcoming corporate action.
Central Securities Depository (CSD)	A legal person that operates a securities settlement system and provides at least a notary service or a central maintenance service.
Central Securities Depositories Regulation (CSDR)	Regulation (EU) No 909/2014 of the European Parliament and of the Council on improving securities settlement in the EU and on central securities depositories

[217] See Article 3(1), points 5 and 6 of Regulation (EU) 2023/1114 on markets in crypto-assets (MiCA).
[218] See Article 2, point 1 of Regulation (EU) 648/2012 on OTC derivatives, central counterparties, and trade repositories.

Committee on Payments and Market Infrastructures (CPMI)	An international standard setter that promotes, monitors and makes recommendations about the safety and efficiency of payment, clearing, settlement and related arrangements, thereby supporting financial stability and the wider economy. The CPMI also serves as a forum for central bank cooperation in related oversight, policy and operational matters, including the provision of central bank services.
Custodian or custodian bank	An entity, often a credit institution, which acts as an "account provider" and provides securities custody services to its customers, i.e. holding and administration of securities owned by a third party.
Customised link	A link where the investor CSD benefits from a special access.
Distributed ledger technology (DLT)	A technology that enables the operation and use of distributed ledgers, such distributed ledger means an information repositories that keep records of transactions and that is shared across and synchronised across a set of DLT network nodes using a consensus mechanism.[219]
Delivery versus payment (DVP)	A securities settlement mechanism which links a transfer of securities with a transfer of cash in a way that the delivery of securities occurs if and only if the corresponding transfer of cash occurs and vice versa.
EBA	European Banking Authority
ECB	European Central Bank
ECSDA	European Central Securities Depositories Association
EEA	European Economic Area
EFAMA	European Fund and Asset Management Association
Electronic money token or 'e-money token'	A type of crypto-asset (i.e. a digital representation of a value or of a right that is able to be transferred and stored electronically using distributed ledger technology or similar technology) that purports to maintain a stable value by referencing the value of one official currency.[220]
ESCB	European System of Central Banks
ESMA	European Securities and Markets Authority
Exchange Traded Fund (ETF)	Exchange Traded Fund. An investment fund of which at least one unit or share class is traded throughout the day on at least one regulated market or Multilateral Trading Facility.
Eurobond	Originally, the term Eurobond was reserved to bonds that were issued in currencies different from the currency of incorporation of the issuer. Currently, Eurobonds are issued in a limited number of jurisdictions (e.g. England and Wales, US), leading to numerous situations where the law of issuance is different from the law of the issuer.
International Organization of Securities	The international body that brings together the world's securities regulators and is recognized as the global standard setter for financial markets regulation. It develops, implements and promotes

[219] Article 2, point 1 of the Regulation (EU) 2022/858 on a pilot regime for market infrastructures based on distributed ledger technology (DLTPR).
[220] Article 3(1), points 5 and 7, of MiCA.

Commissions (IOSCO)	adherence to internationally recognised standards for financial markets regulation.
Investor CSD	A CSD that opens an account – directly or through a third party acting on its behalf - in another CSD (the issuer CSD) so as to enable the cross-CSD settlement of securities transactions.
Issuer CSD	A CSD that opens accounts allowing investors (in a direct holding system) and/or intermediaries (including investor CSDs) to hold the securities it has issued.
Direct link	An account opened by an investor CSD in the books of an issuer CSD in order to facilitate the transfer of securities from participants in the issuer CSD to participants in the investor CSD (see also Investor CSD).
Indirect link	A link between two CSDs through a non-CSD intermediary. (Regulation (EU) No 909/2014 of 23 July 2014, Article 1 (32)).
Interoperable link	A set of arrangements/procedures that allows participants in different systems to conduct and settle payment or securities transactions across systems while continuing to operate only in their own respective system. Interoperability generally works as an improvement of classical links. (Regulation (EU) No 909/2014 of 23 July 2014, Article 1 (33)).
Margin	An asset (or third-party commitment) accepted by a counterparty to ensure performance on potential obligations to it or cover market movements on unsettled transactions.
Operated direct link	A direct link between two CSDs where a third party, typically a custodian bank, operates the account in the issuer CSD on behalf of the investor CSD.
(Direct) Participant	A participant to a securities settlement system as defined in Article 2, point (f), of Directive 98/26/EC. Central counterparties, settlement agents, clearing houses, system operators, clearing members of an EMIR authorised CCP, credit institutions, investment firms or public authorities/guaranteed undertakings, payment institutions and electronic money institutions may be participants.
Relayed link	A contractual and technical arrangement that allows issuer and investor CSDs to hold and transfer securities through an account with a third CSD ("middle CSD"), which acts as an intermediary.
Securities at Top Tier Level	The CSDs are at the top of the securities chain, i.e. all holdings in a given financial instrument, whether by an individual or a financial institution, are ultimately kept in a securities account at the CSD.
Securities settlement system	A system which allows the transfer of securities, either free of payment (FOP) or against payment (delivery versus payment).
Settlement	The completion of a securities transaction where it is concluded with the aim of discharging the obligations of the parties to that transaction through the transfer of cash or securities, or both.
Settlement failure	The inability of a participant to a Securities Settlement System to meet its settlement obligations in the Securities Settlement System. This inability may be temporary or permanent.
Settlement internaliser	An institution, which may be authorised in accordance with Directive 2013/36/EU or Directive 2014/65/EU, which executes

	transfer orders on behalf of clients or on its own account other than through a securities settlement system.
Standard link	A link where the investor CSD is treated as a normal participant to the issuer CSD. (Regulation (EU) No 909/2014 of 23 July 2014, Article 1 (30)). These links are one-way.
TARGET2-Securities (T2S)	The Eurosystem's single technical platform enabling CSDs and national central banks to provide core, borderless and neutral securities settlement services in central bank money in Europe.

1. INTRODUCTION

Barriers to efficient post-trade processes in the EU have persisted for decades, stemming from deep fragmentation of legal frameworks, tax procedures, and market practices across Member States. The first serious attempt to identify and address these barriers came with the Giovannini Reports in 2001 and 2003[221], which pinpointed 15 specific barriers that hamper the creation of a truly integrated market for cross-border clearing and settlement. These included, amongst others, mismatches in national operating hours, differences in corporate action processing, inconsistent settlement finality rules and divergent taxation regimes.

These reports catalysed the development of pan-European solutions aimed at removing those barriers. Most notably, targeted solutions were introduced across several pieces of legislation, including the Central Securities Depositories Regulation (CSDR)[222], the Securities Financing Transactions Regulation (SFTR)[223] and the Shareholders Rights Directive (SRD).[224] In addition, the European Central Bank developed TARGET2-Securities (T2S), aiming to provide a unified settlement platform across the Euro area (and potentially the EU). Yet, despite these efforts, fragmentation and barriers remain. In its 2017 report[225], the European Post Trade Forum (EPTF) reassessed the landscape and found that while some Giovannini barriers had been mitigated, 11 of the original 15 persisted, either in full or in part, such as inefficient withholding tax relief procedures and incomplete legal harmonisation around securities ownership rules.

The 2020 CMU Action Plan[226] announced the Commission's intention to come forward with a legislative proposal to amend the CSDR to improve its efficiency and effectiveness ('CSDR Refit') and contribute to the development of a more efficient post-trading landscape in the EU. In particular, Action 13 (developing cross-border services) stated that "to improve the cross-

[221] https://finance.ec.europa.eu/publications/giovannini-reports_en
[222] Regulation (EU) No 909/2014 of the European Parliament and of the Council of 23 July 2014 on improving securities settlement in the European Union and on central securities depositories and amending Directives 98/26/EC and 2014/65/EU and Regulation (EU) No 236/2012.
[223] Regulation (EU) 2015/2365 of the European Parliament and of the Council of 25 November 2015 on transparency of securities financing transactions and of reuse and amending Regulation (EU) No 648/2012.
[224] Directive 2007/36/EC of the European Parliament and of the Council of 11 July 2007 on the exercise of certain rights of shareholders in listed companies.
[225] https://finance.ec.europa.eu/publications/report-european-post-trade-forum-eptf_en
[226] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, "A Capital Markets Union for people and businesses-new action plan", COM/2020/590 final, 24 September 2020.

border provision of settlement services in the EU without negatively impacting financial stability, Commission would review the rules". The Commission subsequently presented a proposal to amend the CSDR; the amendments entered into force in January 2024.[227] The CMU Action Plan presented further initiatives, e.g. the FASTER initiative to facilitate and harmonise withholding tax procedures, which should also contribute to facilitating cross-border activity.[228]

More recently, the Noyer Report[229] and the Letta Report[230] reiterated that post-trade fragmentation is a major impediment to achieving a Capital Markets Union. The Draghi Report[231] went further, calling for a single rulebook and regulatory framework for EU post-trade (i.e. clearing and settlement) infrastructure, emphasising that without full integration of that infrastructure – alongside Banking Union reforms – the EU capital market will remain at a competitive disadvantage globally. These reports converge in recognising that solving post-trade fragmentation is not just a technical task but an economic priority for the EU.

This annex focuses on barriers to the provision of cross-border settlement services, in particular in those areas that fall within the scope of the CSDR, and the Settlement Finality Directive (SFD).[232] It does not provide analysis or proposals for a way forward in areas outside that scope, notably securities law, taxation, company law, insolvency law, etc. Those areas are being looked at as part of separate initiatives that are subject to different timelines announced in the Communication on the Savings and Investment Union ('SIU Communication').[233]

2. DESCRIPTION OF MARKET AND ENVIRONMENT

2.1. OVERVIEW OF POST-TRADE SERVICES

Safe and efficient post-trade arrangements for securities transactions are a crucial element of safe and efficient capital markets. Though largely invisible to investors, these arrangements ensure that after a trade has been carried out the buyer receives the securities they purchased, and the seller is paid. These arrangements are commonly referred to as post-trade services and typically include:[234]

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[227] Regulation (EU) 2023/2845 of the European Parliament and of the Council of 13 December 2023 amending Regulation (EU) No 909/2014 as regards settlement discipline, cross-border provision of services, supervisory cooperation, provision of banking-type ancillary services and requirements for third-country central securities depositories and amending Regulation (EU) No 236/2012, OJ L, 2023/2845, 27.12.2023.

[228] Council Directive (EU) 2025/50 of 10 December 2024 on faster and safer relief of excess withholding taxes, OJ L, 2025/50, 10.1.2025.

[229] https://www.tresor.economie.gouv.fr/Articles/2024/04/25/developing-european-capital-markets-to-finance-the-future

[230] https://www.consilium.europa.eu/media/ny3j24sm/much-more-than-a-market-report-by-enrico-letta.pdf

[231] https://commission.europa.eu/topics/eu-competitiveness/draghi-report_en

[232] Directive 98/26/EC of the European Parliament and of the Council of 19 May 1998 on settlement finality in payment and securities settlement systems.

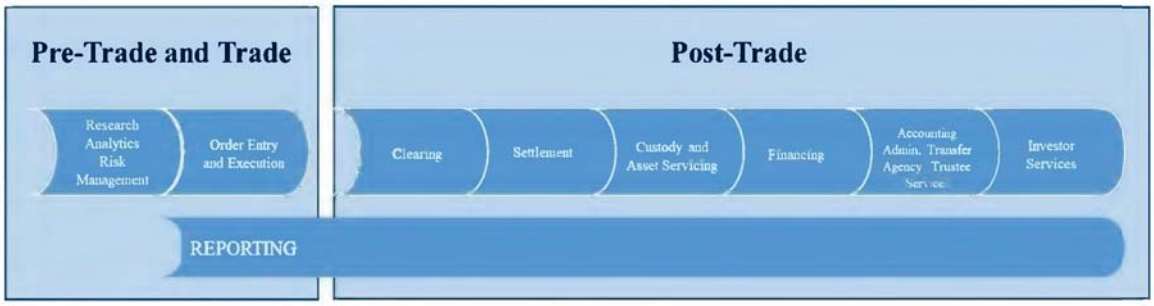
[233] Communication from the Commission to the European Parliament, the European Council, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of Regions, Savings and Investments Union A Strategy to Foster Citizens' Wealth and Economic Competitiveness in the EU, 19 March 2025; https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52025DC0124.

[234] European Post-Trade Forum Report, 15 May 2017, p. 15; https://ec.europa.eu/info/publications/170515-eptf-report_en.

- clearing, which is the process of validating and finalising a transaction before it is settled; central clearing is a specific form of clearing whereby a central counterparty (CCP) guarantees the performance of transactions by becoming a buyer to every seller and a seller to every buyer;
- settlement, which is the process that allows the completion of a transaction, i.e. discharging the obligations of the parties to that transaction, through the transfer of cash or securities;
- asset servicing, which encompasses administrative and operational processes that allow investors to benefit from, or exercise, rights tied to a security held over its lifetime (e.g. receiving dividend or coupon payments, voting, etc.);
- post-trade reporting of individual transactions and/or positions of nominated market participants.

Post-trade services are an integral part of the securities industry value chain (see Figure 1). They are provided by post-trading infrastructures (i.e. CCPs, CSDs and trade repositories[235]) as well as by banks and investment firms (e.g. in their role as custodians or brokers).

Figure 1: Securities industry value chain



Source: European Post-Trade Forum Report, p. 15.

Safe and efficient post-trading infrastructures are essential for ensuring trust in the financial system, allowing investments to flow into the real economy, increasing competition and thereby further fostering a stronger and more resilient financial system.

Timely settlement is important as it allows market participants to make contingent plans, contributing to the depth and liquidity of the financial markets and to their smooth functioning. Settlement is normally carried out in a securities settlement system operated by a CSD. In a CSD, buyers' and sellers' settlement instructions are matched, verifying the ability of the sellers to deliver the securities and the ability of the buyers to pay; after that the transaction is settled discharging the parties from their obligations. However, if both the buyer and the seller in a securities transaction have accounts at the same intermediary (usually a bank or an investment firm), the transaction can also be settled by an internal transfer between those accounts. In such a case, the intermediary is acting as a settlement internaliser[236], which executes transfer orders on behalf of clients or on its own account without going through a securities settlement system.[237]

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[235] Trade repositories are used by market participants for post-trade reporting purposes.
[236] Article 2(11) of the CSDR.
[237] A firm internalises settlement if it receives an instruction from a client and transfers securities from one securities account to another in its books rather than forward it to another intermediary or a CSD.

2.2. LEGAL CONTEXT

The provision of settlement services is governed by several pieces of EU legislation.

2.2.1. Central Securities Depositories Regulation

The CSDR, which entered into force on 17 September 2014, aimed to harmonise the rules applicable to CSDs and the timing and conduct of securities settlement in the EU. In particular, it introduced:

- strict organisational, conduct of business and prudential requirements for CSDs;
- prudential and supervisory requirements for CSDs and other institutions providing banking-type services that support securities settlement;
- a passport system allowing authorised CSDs to provide their services across the EU;
- an obligation to record in book-entry form all transferable securities admitted to trading or traded on the trading venues;
- a settlement discipline regime to deal with settlement failures; and
- a harmonised settlement period for securities transactions executed on trading venues.

Many of the provisions in the CSDR are based on the Principles for Financial Market Infrastructures[238] developed by the Committee on Payments and Market Infrastructures (CPMI)[239] and the International Organization of Securities Commissions (IOSCO).[240]

The CSDR has amended a few times since its entry into force. In 2021, following a review of the functioning of the CSDR, the Commission published a report[241] concluding that although the CSDR, in broad terms, achieved its original objectives, targeted changes could improve the Regulation's efficiency and effectiveness. In line with the conclusions of the report, the Commission proposed certain amendments to the CSDR in the same year. The amending Regulation, known as CSDR Refit[242], was adopted by the European Parliament and the Council on 13 December 2023 and entered into force on 17 January 2024. The CSDR Refit aimed to reduce the financial and regulatory burden on CSDs and improve their ability to operate across borders, by:

- introducing a simpler passporting regime to facilitate cross-border settlement and ease the administrative and financial burden of the process;

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[238] https://www.iosco.org/v2/about/?subSection=cpmi_iosco&subSection1=pfmi

[239] The CPMI is an international standard setter that promotes, monitors and makes recommendations about safety and efficiency of payment, clearing, settlement and related arrangements. For details see https://www.bis.org/cpmi/about/overview.htm.

[240] IOSCO is an international body that brings together the world's securities regulators and that sets standards in the area of financial markets regulation. For more details see: https://www.iosco.org.

[241] "Report from the Commission to the European Parliament and the Council on improving securities settlement in the European Union and on central securities depositories", COM (2021) 348.

[242] Regulation (EU) 2023/2845 of the European Parliament and of the Council of 13 December 2023 amending Regulation (EU) No 909/2014 as regards settlement discipline, cross-border provision of services, supervisory cooperation, provision of banking-type ancillary services and requirements for third-country central securities depositories and amending Regulation (EU) No 236/2012.

- enhancing CSD supervision by setting up mandatory supervisory colleges for CSDs that are of substantial importance to the functioning of the securities markets in at least two Member States in order to facilitate cooperation and information exchange between Member States' authorities;
- improving the settlement efficiency regime by better specifying its scope; and
- easing CSDs' access to banking-type ancillary services, including those provided by other CSDs.

In 2025, the Commission presented a proposal to amend the CSDR to shorten the time in which a securities transaction executed on a trading venue needs to settle (i.e. the settlement cycle) from no later than two business days following the date of the trade ('T+2') to no later than one business day after that date ('T+1') by 11 October 2027.[243] The move to T+1 is expected to reduce counterparty risk for market participants - and hence reduce the amount of collateral those participants need to provide to guarantee transactions - and incentivise greater harmonisation and automation of post-trade processes. This will improve the efficiency and resilience of EU capital markets thereby contributing to the aims of the Savings and Investment Union (SIU). The European Parliament and the Council reached a political agreement on the amendment on 18 June 2025, with Coreper confirming the text on 27 June and the European Parliament approved it on 10 September 2025.

CSDs may also be subject to other EU legislation depending on their status, e.g. CSDs operating with a banking licence are also subject to the relevant banking legislation. Moreover, they may have to comply with certain national laws in the Member State in which they are incorporated, e.g. securities, corporate or civil law. CSDs operate securities settlement systems, which qualify as systems under the SFD and are therefore subject to the applicable national transposing laws.

It can also be noted that the CSDR is complemented by the DLT Pilot Regime Regulation (DLTPRR)[244] that enables CSDs to provide notary, maintenance and settlement services using DLT in an experimental context.[245]

2.2.2. Settlement Finality Directive

The SFD aims to reduce systemic risk arising from the insolvency of participants in payment systems (such as TARGET2[246]) and securities settlement systems (such as those operated by CCPs and CSDs), hereafter referred to as 'systems'. It was adopted in 1998 and has been amended six times since.

The SFD allows payments and securities transactions to be made safely and settled in systemically important systems. In particular, it protects systems by disapplying certain national insolvency rules, if a party to a transaction becomes insolvent. By doing so, the SFD

[243] Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) No 909/2014 as regards a shorter settlement cycle in the Union, COM/2025/38 final, 12.2.2025.
[244] Regulation (EU) 2022/858 of the European Parliament and of the Council of 30 May 2022 on a pilot regime for market infrastructures based on distributed ledger technology, and amending Regulations (EU) No 600/2014 and (EU) No 909/2014 and Directive 2014/65/EU.
[245] See Sections 3.1.3 and 4.2.3 as well as Annex 10 on the DLT Pilot Regime.
[246] TARGET2 is the real-time gross settlement system for payments owned and operated by the Eurosystem.

ensures that payments and security transfer orders become final (i.e. it ensures 'settlement finality') and netting arrangements are enforceable, even if the instructing party becomes insolvent. The SFD also protects collateral given by the insolvent party and clarifies which law applies in certain cross-border situations. The SFD applies to systems designated by a Member State. While the scope of the SFD is limited to systems governed by the law of a Member State, Member States may extend SFD-like protections, as described above, to domestic entities that participate in third-country systems.[247] Moreover, participation in SFD-designated systems is also limited (mainly to banks, investment firms and system operators[248]).

2.2.3. Financial Collateral Directive

The smooth and safe exchange of collateral is essential for the well-functioning and stability of financial markets and the SIU. The FCD was adopted on 6 June 2002 and has been amended three times since. It introduced a harmonised framework for the use of financial collateral to secure transactions and thus contributed to enhancing cross-border use of financial collateral. The comprehensive approach introduced by the FCD was deemed necessary because of divergent national rules applicable to financial collateral which were frequently impractical and often opaque. Also, a clarification was introduced in the SFD[249] which explicitly refers to the FCD when defining 'collateral security' and specifies that, without limitations, financial collateral eligible under the FCD is eligible under the SFD as well.

The FCD does not aim to fully harmonise national laws applicable to financial collateral arrangements. Rather, it aims to remove barriers to the timely cross-border creation and operation of such collateral arrangements. This aim is achieved by providing protection to collateral takers notably by: (i) ensuring that financial collateral arrangements can be mobilised and are usable without delay due to national formalities; (ii) ensuring close-out netting[250] provisions are enforceable in accordance with their terms; and (iii) ring-fencing the operation of financial collateral arrangements should one of the parties become insolvent.

While these protections constitute exceptions to the principles of equal treatment of creditors upon the opening of insolvency proceedings and universality of insolvency proceedings they are needed to help to avoid systemic contagion risks throughout the EU.

2.3. THE ROLE OF CSDS

The three 'core' services under the CSDR are:

- the 'settlement service': the operation of a securities settlement system through which securities are delivered, or are exchanged against cash or other securities, between buyer and sellers (via participants to the securities settlement system);

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[247] For more details see Recital 7 of the SFD as well as Section 3.2.9 of this annex.
[248] For more details see Article 2, point (f), of the SFD and Section 3.2.9 of this annex.
[249] This was introduced in 2009 by Directive 2009/44/EC of the European Parliament and of the Council of 6 May 2009 amending Directive 98/26/EC on settlement finality in payment and securities settlement systems and Directive 2002/47/EC on financial collateral arrangements as regards linked systems and credit claims (Text with EEA relevance, OJ L 146, 10.6.2009, pp. 37–43.
[250] Close-out netting is an arrangement commonly used in financial markets, to set off and replace all agreed but not yet due liabilities and claims vis-à-vis a counterparty by one single claim/liability. It ordinarily covers instances where a counterparty defaults or becomes insolvent.

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- the 'notary service': initial recording of securities in a book-entry system;[251]
- the 'central maintenance service' – maintaining securities accounts at the top tier level.[252]

The CSDR defines[253] a CSD as a legal person that operates a securities settlement system (i.e. provides a settlement service) and provides at least one other core service. Notary services and central maintenance services are only operated by CSDs except for the cases where a Member State specifically allows for other parties to do so. Settlement can also be undertaken by settlement internalisers.[254]

Settlement in CSDs is normally carried out electronically.[255] To facilitate this, CSDs offer holding securities centrally in book-entry (i.e. electronic) form. When securities are exchanged against cash, CSDs offer a procedure known as delivery versus payment (DvP), which ensures that neither party ends up with both the securities and the cash, and the other party with nothing. To allow for cross-border settlement, CSDs will often have links with other CSDs. Cross-border securities settlement is sometimes complex, involving at least two CSDs and multiple intermediaries.[256]

CSDs also play a crucial role in the initial recording of newly issued securities (notary service). The initial recording generally occurs at the same time as the initial issuance of the securities by the issuer. Once created, securities are usually recorded and deposited in a single CSD, called the 'issuer CSD'. The notary service is essential as it ensures that there are not more securities circulating than were actually issued and entered in the issuer CSD's account (i.e. they ensure the integrity of the issue).

Finally, CSDs ensure the maintenance of securities accounts that record how many securities have been issued by whom and each change in who holds those securities. Securities accounts are closely linked to the key mission of CSDs, which is to ensure - through their position at the top of the holding chain[257] - that no more securities are settled than were actually issued.

CSDs play a crucial role for the financing of the economy. Apart from the issuance process, securities posted as collateral by non-financial companies, banks and other financial institutions in financing transactions flows through securities settlement systems operated by CSDs. CSDs also play an essential role for the implementation of monetary policy by central banks as they settle securities provided as collateral in central bank monetary policy operations.

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[251] A mechanism that enables firms to transfer assets (e.g. securities) without physically moving paper documents or certificates. Bank for International Settlement, Committee on Payments and Market Infrastructures – Glossary, https://www.bis.org/cpmi/glossary_030301.pdf .

[252] This allows CSDs to track all holdings, i.e. who owns it, in a given financial instrument, by a CSD participant, are ultimately kept in a securities account at the CSD.

[253] Article 2(1) of CSDR.

[254] See Section 2.4.2.3, provision of cross-border CSD-services.

[255] Physical settlement is also possible and is still used for securities that are held in physical form, although this form of settlement is rare nowadays.

[256] "Post-trade explained – The role of post-trade services in the financial sector", Association for Financial Markets in Europe, February 2015.

[257] All tradeable securities are held on the books of various intermediaries, between the ultimate owner and the CSD, creating a security holding chain.

In addition to their core services, some CSDs provide non-banking ancillary services,[258] such as collateral management services, maintaining shareholder registers or supporting corporate actions,[259] that contribute to enhancing the safety, efficiency and transparency of securities markets. These services do not expose CSDs to credit or liquidity risk. The CSDR also allows CSDs to provide banking-type ancillary services[260] related to core or ancillary services, i.e. providing cash accounts and accepting deposits from participants to a securities settlement system, providing cash credit, guarantees and commitments or payment services. These services expose CSDs to credit or liquidity risk.

Given the importance of CSDs as financial market infrastructures they are required to designate the securities settlement systems they operate under the SFD in order to enhance financial market stability.

2.4. CSDs IN THE EUROPEAN UNION

2.4.1. Market structure

Historically, CSDs were established along national lines to provide a local venue for the issuance and settlement of securities. Today, this fragmentation remains with 25 CSDs currently authorised in the EU under Article 16 of the CSDR.[261] With the addition of the Icelandic and Norwegian CSDs, 27 CSDs operate in the EEA. In contrast, the US market is more concentrated and specialised with 2 CSDs. [262]

Of the 25 EU CSDs, two are international CSDs (ICSDs): Clearstream Banking in Luxembourg and Euroclear Bank in Belgium. ICSDs settle trades in international and domestic securities, usually through direct and indirect links (i.e. through agents established in local markets) with other CSDs. Originally, ICSDs focused on settling securities transactions denominated in currencies from countries other than the country in which the issuer is based[263] and CSDs focused on national markets. Today, the settlement activities of ICSDs and CSDs are more similar and there are no differences in legal status or requirements applying to ICSDs and CSDs.[1] Thus, the term 'ICSD' denotes a business strategy (scope of services) rather than

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[258] For a non-exhaustive of ancillary services provided by CSD's list see Section B of the Annex to the CSDR.

[259] A corporate action is an event initiated by a public company that brings or could bring an actual change to the securities - equity or debt - issued by the company, such as stock splits, mergers and dividend or coupon payments. The role of a CSD is to inform its participants holding the respective share or bond in custody about the upcoming corporate action.

[260] For an exhaustive list see Section C of the Annex to the CSDR.

[261] ESMA CSD Register, https://www.esma.europa.eu/sites/default/files/library/esma70-155-11635_csds_register_-_art_21.pdf , ESMA70-155-11635. Please note that in addition to the 25 authorised CSDs, there are 7 CSDs that are exempted from the authorisation and supervision requirements under the CSDR, in accordance with Article 1(4) thereof: 6 of them are operated by central banks while one is a public body charged with or intervening in the management of the public debt.

[262] In the US corporate bonds and equities are settled through the Depository Trust and Clearing Corporation (DTCC) while government securities and related entities are settled through Fedwire Securities Service, which is operated by the Federal Reserve System.

[263] ICSDs were established to serve the Eurobond market – that is, bonds issued by corporate issuers for international investors, typically in a non-domestic currency.

legal or regulatory difference. From a regulatory standpoint Clearstream Banking Luxembourg is a CSD established in Luxembourg and Euroclear Bank is a CSD established in Belgium.[264]

CSDs operate different business models, depending on the core and ancillary services they provide. To settle trades in international and domestic currencies, five CSDs[265], including the two ICSDs, are authorised to provide ancillary banking services. All EU CSDs authorised under the CSDR settle equities transactions and corporate debt. A significant majority of CSDs settle government debt.[266] EU CSDs have a variety of corporate structures and ownership models. Only the Croatian, Cypriot and Maltese CSDs are majority owned by the national government, while in Hungary the central bank is the majority owner. In the case of other EU CSDs, shareholders include stock exchanges, banks, national governments, central banks and other private institutions.[267]

There are indications[268,269] that EU market infrastructures enjoy stable market conditions, with high margins, high barriers to entry (for regulated activities) and switching costs for users[270] as well as countercyclical features which provide for a robust business model, in particular in the case of ICSDs.[271] With few exceptions, CSDs are profit-making entities.[272]

2.4.2. Growing settlement market

EU CSDs serve a large securities market. As of end-2024, EU securities were traded on 314 trading venues,[273] including 119 regulated markets, 30 organised trading facilities and 170 multilateral trading facilities. At that point in time, 189 974 equity instruments[274] were available for trading in the EU. Close to 130 000 bonds were available for trading in the EU.

EU CSDs serve the growing EU capital market by handling increasing amounts of trading. In 2024, EU CSDs handled approximately 606 million delivery instructions worth over EUR 70 trillion of securities and representing a total turnover of almost EUR 1 690 trillion. In 2020, EUR 56 trillion worth of securities were held in EU securities settlement systems, which handled over 506 million delivery instructions for a total of turnover of over EUR 1 349 trillion. This is a growth of 25% in value of securities held, 20% in number of delivery

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[264] See ECSDA FAQ: Frequently Asked Questions - ECSDA.
[265] KELER Central Depository Ltd, OeKB CSD GmbH, Clearstream Banking AG, Clearstream Banking S.A and Euroclear Bank.
[266] European Central Securities Depositories Association (ECSDA) Members Database 2023. Source: https://ecsda.eu/ecsda-members-database-2023
[267] European Central Securities Depositories Association (ECSDA) Members Database 2023. Source: https://ecsda.eu/ecsda-members-database-2023
[268] "Financial Market Infrastructure Sector View 2025", S&P Global Ratings, 27 January 2025.
[269] "Analysis of CSD fees in major European markets", AFME, October 2025.
[270] For users, the costs of repositioning cash and securities between CSDs point to the benefit of consolidating each security in a single CSD. Source: "Study on consolidation and reducing fragmentation in trading and post-trading infrastructures in Europe", Final Report, Bourse Consult & Civitta, September 2025 (forthcoming).
[271] Global Financial Market Infrastructure Companies Outlook 2025, Outlook Report, Fitch Ratings, 02 December 2024.
[272] "Study on consolidation and reducing fragmentation in trading and post-trading infrastructures in Europe", Bourse Consult & Civitta, 2025: https://op.europa.eu/en/publication/doi/10.2874/2649452 .
[273] A trading venue includes Regulated Markets, Multilateral Trading Facilities and Organised Trading Facilities. MiFID dashboard 2024.
[274] MiFID dashboard 2024.

instructions and 25% in turnover in the period between 2020 and 2024.[275] While the size of EU capital market has grown significantly as illustrated previously, it should be noted that it represents a constantly decreasing share of global capital markets; in 2009, the EU represented 17% of global markets but only 11% in 2022.[276]

Despite the large number of CSDs operating in the EU, in 2024 the four[277] largest CSDs held over 75% of all securities held in EU CSDs.

Consolidation of the sector

Although there are 25[278] CSDs authorised under the CSDR to operate in the EU and most of them remain organised along national lines, there has been some competition, integration and consolidation in the sector, spurred by several factors, namely regulatory changes aimed at facilitating cross-border activity, as well as economies of scale and scope.

Economies of scope may be achieved by consolidating service providers along the value chain of securities transactions, i.e. by combining trading, clearing and settlement into one conglomerate. In the last 25 years, consolidation between CCPs, CSDs and stock exchanges has created EU financial market infrastructure conglomerates. For example, the merger between Cedel International and Deutsche Börse Clearing in 2000 led to the formation of Clearstream. The latter is part of Deutsche Börse Group, which now operates three (I)CSDs (Clearstream Banking SA, Clearstream Banking AG and LuxCSD), several CCPs and several exchanges. Similarly, through acquisitions of the Lisbon Stock Exchange in 2002, of Oslo Børs in 2019, of VP Securities (the Danish CSD) in 2020 and of Borsa Italiana in 2021, Euronext now operates exchanges in seven EEA countries, a CCP (Euronext Clearing) and four CSDs under the Euronext Securities umbrella (in Denmark, Italy, Norway and Portugal).[279] In March 2025, Euronext announced that Euronext Securities Milan would become the CSD for the settlement of Euronext Amsterdam, Brussels and Paris equity trades by the second semester of 2026.[280] In July 2025, Euronext launched the acquisition of the Greek trade and post-trade vertical silo, Athens Exchange Group (including the stock exchange, the CCP and the CSD).[281] Lastly, Nasdaq Baltic operates stock exchanges in Estonia, Latvia and Lithuania while Nasdaq

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[275] For comparison, the value of securities held by the UK CSD (Euroclear UK & International) fell by 8%, from EUR 6 257 billion in 2019 to EUR 5 783 billion in 2023. The value of delivery instructions also fell, by 4%, from EUR 361 323 billion in 2019 to EUR 348 606 billion in 2023. In the US, the value of securities held by the two CSDs (DTC and Fedwire Securities Service) rose by 25%, from EUR 130 083 billion in 2019 to EUR 167 054 billion in 2023, the number of delivery instructions processed increased by 45%, from 578 822 000 in 2019 to 842 345 000 in 2023 (+45%), and the value of instructions processed increased by 88%, from EUR 497 trillion in 2019 to EUR 938 trillion in 2023. Source: Bank for International Settlement, Red Book Statistics, Payment and financial market infrastructures. BIS data converted at fixed exchange rate.

[276] See https://www.sifma.org/resources/research/statistics/research-quarterly-equity-and-related/

[277] Euroclear Bank (28%), Clearstream Banking Frankfurt (18%), Clearstream Banking Luxembourg (15%) and Euroclear France (14%).

[278] Cf. footnote 47. This number does not include CSDs operated by a public body.

[279] Euronext has recently announced that its exchanges in Amsterdam, Brussels and Paris will designate Euronext Securities as the CSD for the settlement of equity trades from September 2026. See "Euronext consolidates settlement on its markets to improve European capital markets' competitiveness", Euronext Press Release, 12 March 2025.

[280] Euronext consolidates settlement on its markets to improve European.

[281] 31072025_Euronext_PR_ATHEX announcement.pdf

CSD, being part of the same corporate group, provides post-trade services for the Baltic region (and Iceland).

Euroclear Group has meanwhile pursued a strategy of horizontal consolidation by combining an ICSD (Euroclear Bank) with 6 domestic CSDs (in Belgium, Finland, France, the Netherlands, Sweden and the UK). Since 2009, Euroclear operates ESES, a common settlement platform and single access point with harmonised rules and practices, for three of its CSDs: Euroclear Belgium, Euroclear France and Euroclear Nederland. Despite this level of integration, the three CSDs remain separate legal entities and maintain three securities settlement systems to account for different laws in the respective Member States.

As a result of this consolidation, several CSDs, particularly in Member States with the largest settlement volumes, are now part of pan-European corporate groups. The three largest groups (Euroclear, Euronext and Deutsche Börse) represent 96% of EU CSD settlement activity and 93% of assets under custody.[282]

Technological innovation

In the post-trade market, distributed ledger technology[283] (DLT) is currently considered the most promising way to simplify processes, reduce costs, and increase efficiency and security of transactions.[284] It therefore has the potential to alter the post-trade landscape, potentially leading to lower costs and faster settlement, and transform how securities are held and recorded.[285]

In a report published in 2024, the Association for Financial Markets in Europe (AFME) focuses on the size and growth of the global DLT wholesale market[286] noting that in 2024, EUR 3 billion of DLT fixed income instruments[287] were issued globally, a 260% increase from the year before.

Most of the realised projects so far experimenting with DLT point to the potential for financial infrastructures to move towards real-time settlement, flatter structures, continuous operations and global reach.[288] This is reflected in the growing application of DLT in post-trade processes, i.e. issuance and settlement of shares and bonds, data recording or the use of tokens to represent shares.[289] A report[290] published in 2023 noted that DLT could unlock transformative cost-saving

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[282] "Unlocking scale and competitiveness in Europe's markets", Euroclear, September 2024.

[283] The DLTPRR defines 'DLT' as "a technology that enables the operation and use of distributed ledgers" and 'distributed ledger' as "an information repository that keeps records of transactions and that is shared across, and synchronised between, a set of DLT network nodes using a consensus mechanism".

[284] Benos, Evangelos & Garratt, Rod & Gurrola Perez, Pedro, 'The economics of distributed ledger technology for securities settlement' (2019). Ledger. 4. 10.5195/ledger.2019.144.

[285] In 2015 an estimated EUR 17-24 billion was spent annually on trade processing globally; Bech, J. Hancock, T. Rice & A. Wadsworth, 'On the future of securities settlement', Bank for International Settlement, BIS Quarterly Review, March 2020.

[286] DLT-based Capital Market Report, Size and Growth of the Global DLT Wholesale Market 2024.

[287] Fixed income issuance includes bonds, bills, commercial paper, covered bonds, and structured notes.

[288] Shabsigh, G., Khiaonarong, T. Leinonen H., 'Distributed ledger technology experiments in payments and settlements', International Monetary Fund, June 2020.

[289] See 'The use of DLT in post-trade processes', Annex 1, Advisory Groups on Market Infrastructures for Securities and Collateral and for Payments, European Central Bank, April 2021.

[290] The Impact of Distributed Ledger Technology in Global Capital Markets, published by the Global Financial Markets Association (GFMA) together with Boston Consulting Group (BCG), Clifford Chance and Cravath,

and operational efficiency benefits (e.g. approximately USD 20 billion annually in global clearing and settlement costs), innovation-led growth, broader market access and new liquidity pools when operating at scale (e.g. an approximately USD 16 trillion global market for tokenised illiquid assets by 2030).

One important aspect of the developments in relation to the use of DLT in the post-trade market in the EU was the establishment of the DLTPRR (adopted in 2022). Its aim was to establish a flexible regulatory framework that would enable the industry to use DLT to introduce experiment to gain efficiencies in, for example, issuance and transfer of financial instruments and aspired to create a flexible framework that would allow certain derogations from the standard rulebook (i.e. the CSDR) to make it easier for participants to the pilot regime to experiment with DLT for CSD services.[291]

Another, important aspect of the developments of the use of DLT in settlement markets is allowing for cash settlement on DLT-based structures. The ECB has engaged in initiatives to test and consider the potential of using DLT in the post-trade market. Between May and November 2024, the Eurosystem engaged with 64 market participants[292] across different sectors and countries in conducting trials[293] involving real transactions as well as experiments using mock scenarios with nearly EUR 1.6 billion in central bank money being settled as part of this work. Following its decision, taken in February 2025,[294] to expand its initiative to settle transactions recorded on DLT in central bank money, the ECB Governing Council in June 2025, approved a plan that will enable settling DLT transactions using central bank money. The initiative follows a two-track approach where the first track, named Pontes,[295] provides a short-term offering to the market – including a pilot phase – and the second track, named Appia,[296] focuses on a potential long-term solution and is in line with the Eurosystem's commitment to supporting innovation without compromising on safety and efficiency in financial market infrastructures.[297]

Swaine & Moore LLP, May 2023, impact-of-dlt-on-global-capital-markets-full-report.pdf (accessed 25 May 2025).

[291] The DLTPRR has been in application since March 2023 and is subject to review under the SIU. Details as to such review can be found in Annex 10 – Innovation (DLT).

[292] https://www.ecb.europa.eu/paym/pdf/participants_eurosystem_exploratory_work.pdf.

[293] Exploratory work on new technologies for wholesale central bank money settlement

[294] Eurosystem expands initiative to settle DLT-based transactions in central bank money, 20 February and https://www.ecb.europa.eu/press/pubbydate/2025/html/ecb.exploratoryworknewtechnologies202506.en.html#toc11

[295] Pontes will offer a Eurosystem DLT-based solution, linking DLT platforms and TARGET Services to settle transactions in central bank money. The Eurosystem plans to launch a pilot for Pontes by the end of the third quarter of 2026. It will offer a single Eurosystem solution which incorporates features used in the Eurosystem's exploratory work on DLT in 2024. During the pilot, the Eurosystem will also explore the feasibility of further enhancements in line with the TARGET Services operational, legal and technical standards. Between now and the launch of the Pontes pilot, the Eurosystem will consider requests for further DLT-related trials and experiments.

[296] Appia focuses on a long-term approach for an innovative and integrated ecosystem in Europe that also facilitates safe and efficient operations at the global level. The Eurosystem will actively continue to analyse DLT-based solutions and collaborate with public and private stakeholders.

[297] Eurosystem expands initiative to settle DLT-based transactions in central bank money, 20 February: https://www.ecb.europa.eu/press/pubbydate/2025/html/ecb.exploratoryworknewtechnologies202506.en.html#toc11.

The ECB has engaged in collaborative projects with several third-country central banks (e.g. Bank of Japan, Bank of England) and also participates in global central bank initiatives coordinated by the BIS.

Several EU CSDs have also started to use the new technology, some within the current framework set out under the CSDR, others within the framework set out under the DLTPRR. Examples include:

- In 2023, Euroclear[298] launched its Digital Securities Issuance (D-SI) service. The service enables the issuance, distribution and settlement of fully digital international securities - Digitally Native Notes (DNN) - on DLT. The D-SI service operates under the CSDR as part of Euroclear's D-FMI DLT platform which is connected to the conventional settlement platform of Euroclear for secondary market operations in DNN, granting investors full access to trading venues and liquidity management facilities. In 2024, Euroclear participated in an experiment to tokenise gilts, Eurobonds and gold to circulate these 'digital twins' in a novel collateral management system.

- In 2024, CSD Prague became the first CSD to gain an authorisation for a DLT settlement system under the DLTPRR.[299] As a result, the CSD offers issuers of book-entry securities registration of issues in a newly created DLT-based registry, which allows the maintenance of a securities account, the crediting of shares or bonds to this account as part of a primary subscription, an issue increase or a transfer from another account based on an agreement with the counterparty.

- In 2024, Deutsche Börse Group's Clearstream established its next-generation digital issuance platform D7, that provides a fully digital alternative to conventional physical issuance and processing of securities. The platform covers all retail structured products issued in Germany as well as a range of debt capital market products. D7 participated as a DLT market operator in the ECB's trials and experiments.[300]

Provision of cross-border CSD-services

The three 'core' CSD services described in Section 2.3, i.e. notary, central maintenance and settlement services, can be provided cross-border in the EU. To do so, CSDs must comply in certain cases with a passport system allowing them to provide their services across the EU, as well as with rules on the establishment of various types of links between CSDs. CSDs offer EU notary services cross-border when they cater for the issuance of financial instruments by an issuer from a Member State that is different from the Member State the CSD is authorised in. Similarly, CSDs offer EU central maintenance services when they maintain at top tier level the accounts of participants that are established in a Member States that is different from the Member State the CSD is authorised in. Under the CSDR, for the purposes of passporting rules,

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[298] https://www.euroclear.com/services/en/primary-issuance/digital-financial-market-infrastructure.html#:~:text=D-SI%20is%20the%20first%20service%20offering%20available%20on,settlement%20platform%20%E2%80%93%20all%20in%20compliance%20with%20CSDR.

[299] https://www.cdcp.cz/csd-prague-receives-first-european-dlt-register-approval/?lang=en#:~:text=The%20CSD%20was%20the%20very%20first%20institution%20in,Bank%20with%20notification%20from%20the%20European%20regulator%20ESMA.

[300] https://www.clearstream.com/clearstream-en/securities-services/issuance-1-/electronic-securities.

CSDs are considered to offer notary and central maintenance services cross-border where they offer such services with respect to financial instruments constituted under the law of another Member State, as defined under the CSDR. As regards settlement services, those services are notably considered cross-border at CSD level when the Member State[301] where the securities were issued is different from the Member State[302] where the securities are settled. The latter is only possible when a link[303] between the CSD of issuance and the CSD of settlement is established.

One way of measuring cross-border activity is to look at the number of links between CSDs, the volume (i.e. number) and value of settlement instructions settled through those links. There are different types of links (e.g. standard, indirect[304]). The introduction of the CSDR in 2014 led to the creation of a large number of links between CSDs in the EEA, although their number declined slightly between 2020 and 2022 from 174 to 161, numbers rose again to 180 in 2025. The CSDs with the highest number of links established with other CSDs from the EEA are the two ICSDs (26 for Clearstream Banking SA and 21 for Euroclear Bank). Among the members of ECSDA (40 national and international CSDs that go beyond the EU), there are a total of 372 links, 46% of which are direct links, 37% are relayed links and 17% are indirect links. More than half of these links are used on a daily basis.[305]

Although the number of links between EEA CSDs decreased between 2020 and 2022, the total volume and value of instructions settled through those links has almost doubled during the same period, going from 23.6 million instructions for a total value of EUR 131.2 trillion to 44.1 million transactions for a total value of EUR 261.8 trillion.[306] The share of cross-border settlement in total settlement also grew, from approximately 12.3% in 2017 to 19% in 2022.[307] This increase in cross-border activity was mainly through ICSDs. Indeed, the average value of instructions settled through links is more than 9 times higher in ICSDs than in other CSDs. In terms of financial instruments settled through links, the majority are shares (19%), closely followed by sovereign and corporate bonds (17% each), and other types of transferable securities (16%).[308]

A similar picture emerges when one looks at the volume and value of cross-CSD settlement instructions settled in T2S. One of the objectives of T2S was to make settlement between accounts in different CSDs simpler. Indeed, between 2020 and 2024, the volume of instructions settled in T2S increased approximately 64%, from 1.75 to 2.9 million, while the value of those

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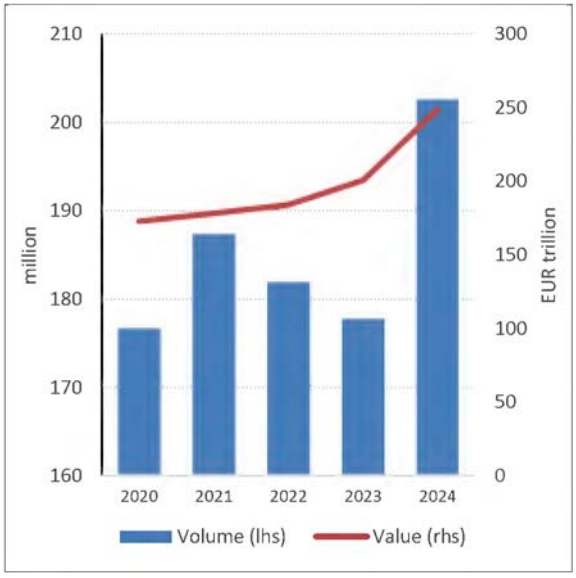
[301] i.e. the Member State of the issuer CSD.
[302] i.e. the Member State of the investor CSD.
[303] See Glossary for definition.
[304] See Glossary for definitions.
[305] "CSD Links Report", ECSDA, October 2025.
[306] See "Provision of cross-border services by CSDs and handling of applications under Article 23 of CSDR from 2020 to 2022", European Securities and Markets Authority ESMA74-2119945925-1568, 31 January 2024. See paragraph 92.
[307] Based on own calculations, by combining ESMA data for cross-border activity (See ESMA Reports ESMA70-156-3569 & ESMA74-2119945925-1568) with total value of settlement instructions from the ECB securities trading, clearing and settlement data base.
[308] "Provision of cross-border services by CSDs and handling of applications under Article 23 of CSDR from 2020 to 2022", European Securities and Markets Authority, ESMA74-2119945925-1568, 31 January 2024. See paragraph 94.

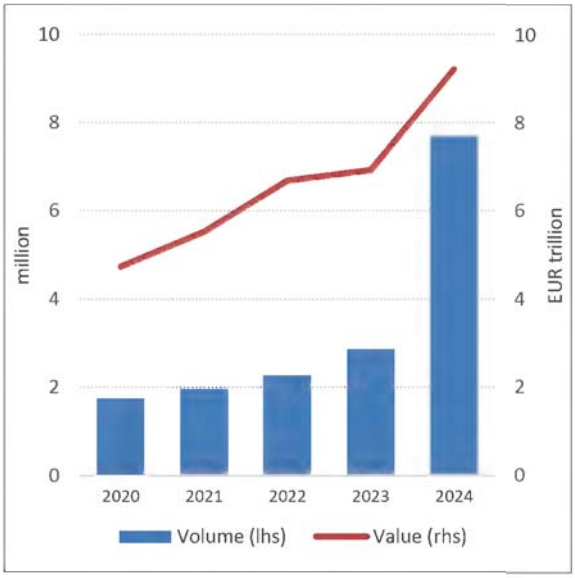
instructions increased by approximately 46%, from 4.7 to 6.9 trillion (see Figure 2 below).[309] However, as shown in Figures 3 and 4, while the increase was material, the volume and value of cross-CSD settlement represents only a fraction of the overall volume and value settled in T2S. Indeed, in 2024, the volume and value of cross-CSD settlement represented, respectively, 3.7% and 3.8% of the total volume and value of settlement in T2S.[310]

Figure 2: Total volume and value of all settlement instructions settled in T2S



Source: TARGET Services Annual Report 2024. See Chart 18 and Chart 22.

Figure 3: Total volume and value of cross-CSD settlement instructions settled in T2S



Source: TARGET Services Annual Report 2024. See Chart 35 and Chart 36.

Figure 4: Share of cross-CSD settlement instructions in total volume and value of settlement instructions settled in T2S

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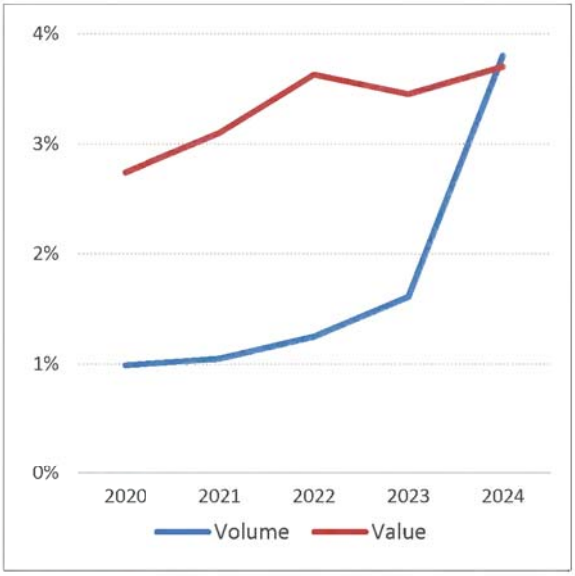
[309] Please note that the numbers differ from those provided in the ESMA report due to the different scope: not all CSDs participate in T2S. In particular, the main driver behind this is that both ICSDs, Euroclear Bank and Clearstream Banking SA, do not settle their transactions through T2S: the former is a participant in T2S, but has yet to start settling its transactions through the platform, while the latter is not a participant. The absence of the two ICSDs has a particularly strong impact on the cross-border settlement numbers, as those two account for the majority of cross-border settlement in the EU.

[310] "TARGET Services Annual Report 2024", European Central Bank, July 2025. See chapter "Intra-CSD, cross-CSD and external CSD settlement".



Box 1: TARGET2-Securities (T2S)

T2S was launched in 2015. It is a common platform that offers settlement of securities in central bank money. It is operated by the Eurosystem. At present, 24 CSDs[311] are connected to T2S, including all euro area CSDs authorised under the CSDR, with the exception of Clearstream Banking SA (Luxembourg), AthexCSD (Greece) and CDCR (Cyprus). CSDs connected to T2S include 3 CSDs operated by central banks (Belgium, Bulgaria and Greece), 2 CSDs from non-euro area Member States (Denmark and Romania) and one non-EU CSD (Switzerland).[312] T2S offers settlement in Euro and in Danish Krone.

Through its goal to make cross-border securities settlement operations as seamless as domestic ones, T2S has contributed to removing some of the barriers in cross-border settlement. This has been accomplished by the effective outsourcing of settlement from CSDs to T2S (central maintenance and notary services remain in national CSDs).[313] T2S has i) harmonised business hours and calendars, ii) addressed the absence of, or differences in, intraday settlement finality affecting cross-border transactions, iii) put in place common communication and messaging standards, and iv) made idiosyncratic technological infrastructure redundant. In addition, T2S enabled cash pooling, allowing market participants to consolidate their cash balances into one single account at a central bank connected to the platform and to benefit from liquidity optimisation as well as netting tools. Finally, it also contributed to the efforts aimed at adopting harmonised market standards, including for corporate actions.

[311] One of those CSDs is Euroclear Bank. As explained in footnote 90, the latter is connected to T2S but has yet to start settling its transactions in T2S.

[312] For a list of CSDs participating to T2S see: https://www.ecb.europa.eu/paym/target/target-professional-use-documents-links/t2s/shared/pdf/List_of_CSDs_connected_to_T2S.pdf

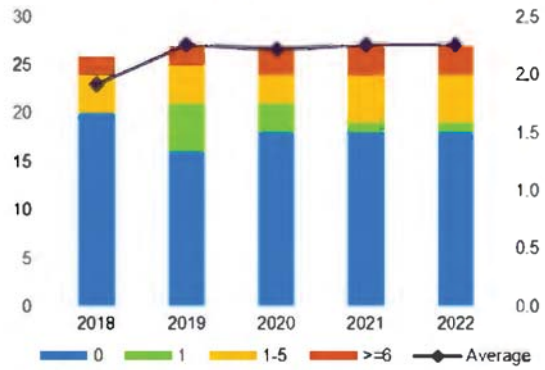
[313] T2S is therefore not considered a CSD under the CSDR. Please note that T2S only performs the technical settlement; from a legal perspective, settlement takes places in the securities accounts of the CSDs connected to T2S.

Participation in T2S is not sufficient to allow for cross-CSD settlement of securities; for that to happen, links need to be established between CSDs that are connected to T2S. Once links are established in accordance with the requirements and procedures set out in the CSDR,[314] cross-CSD settlement via T2S becomes possible. T2S has helped to reduce the costs of settlement for cross-border transactions. In addition, the streamlining of processes and standardisation fostered by T2S has reduced the cost of establishing direct standard links between CSDs connected to T2S compared to those not connected to T2S. Finally, T2S has also reduced the costs of cross-border settlement via banks, since they now only need one cash account at a central bank connected to T2S.

Another way of measuring the evolution of cross-border services provided by CSDs is to look how important the services provided by a CSD established in a Member State are for participants and issuers from other Member States.

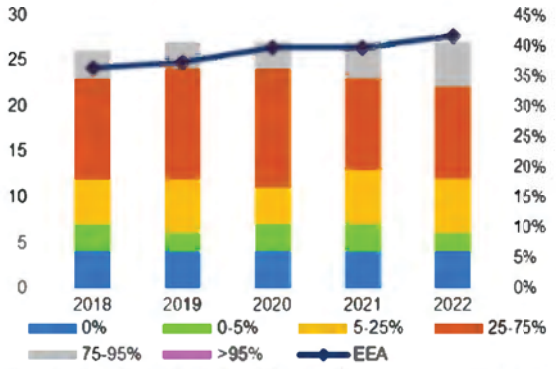
As shown in Figures 5 and 6, the number of host Member States in which the activities of CSDs from other Member States are of substantial importance has remained stable since 2020. Most CSDs have no substantially important activity in any host Member State, i.e. most CSDs mainly provide their services to domestic participants. Although the extent of cross-border provision of notary and central maintenance services can be measured in various ways, it is evident that apart from the two ICSDs, the vast majority of CSDs are serving national markets. While most CSDs provide between 5%-20% of notary and central maintenance services in relation to securities issued by issuers from other EEA states, 3 of them provide almost all their services in respect of such instruments: the two ICSDs and Nasdaq CSD.[315]

Figure 5: Number of CSDs by bucket of number of other EEA states for which a CSD is of substantial importance



Note: Number of CSDs by bucket of number of other EEA states for which a CSD is of substantial importance, excluding home states. Average per CSD reported on the right-hand side.

Figure 6: Number of CSDs by bucket of share in other EEA states of the value of financial instruments that are initially recorded or centrally maintained in securities accounts by the CSD for participants from other Member States.



Note: Number of CSDs by bucket of share in other EEA States of the value of financial instruments that are initially recorded or centrally maintained in securities accounts by the CSD for participants from other MS. Participants' perspective. EEA-level share reported in % on the right-hand side.

[314] See Section 2.4.2.3 and Section 3.1.1.

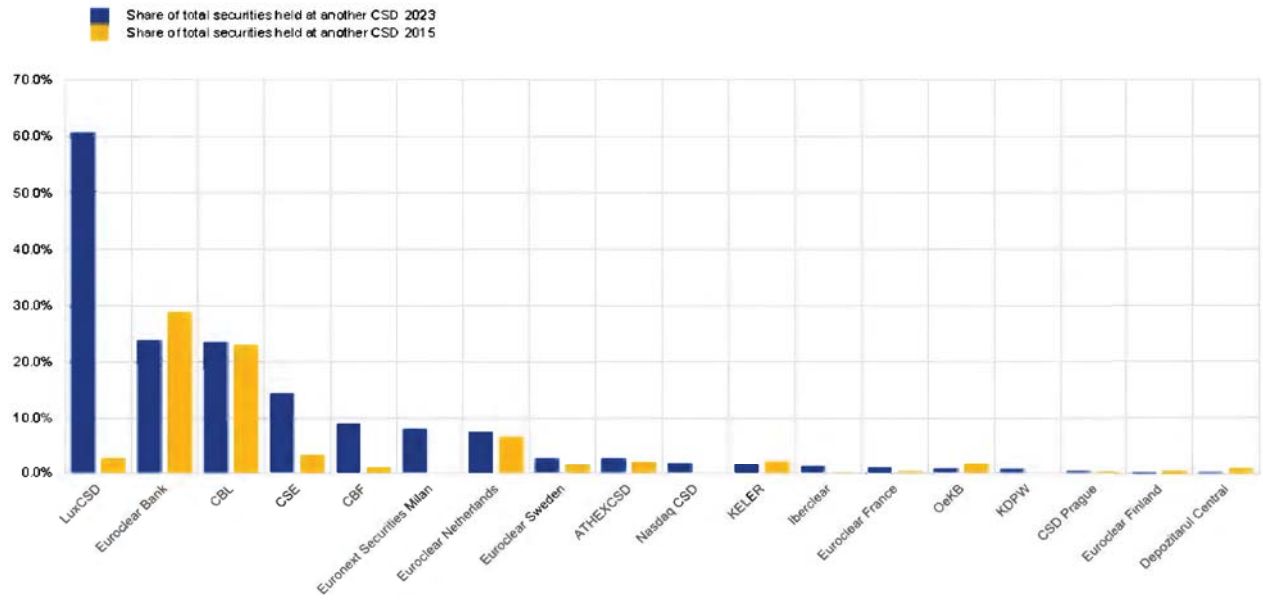
[315] "Provision of cross-border services by CSDs and handling of applications under Article 23 of CSDR from 2020 to 2022", European Securities and Markets Authority, ESMA74-2119945925-1568, 31 January 2024. See paragraph 79.

Source: "Provision of cross border services by CSDs and handling of applications under Article 23 of CSDR from 2020 to 2022", ESMA74,2119945925-1568, paragraphs 73 and 80.

A similar picture emerges when the share of securities that a CSD holds in other CSDs are looked at as a share of total securities it holds. As Figure 7 shows, only three EU CSDs (i.e. the two ICSDs and the Luxembourgish CSD) have a share of more than 20%, while a large majority of CSDs has less than 5%. This shows the challenges that investors in smaller markets face in accessing investment opportunities (and providing liquidity) throughout the EU. While a smaller CSD (as an investor-CSD) can theoretically rely on a single link to another CSD with multiple links to gain relayed access to a large number of issuer-CSDs, in practice, among CSDs with one or two links, the ability to establish broad access appears to be lacking.[316] Therefore, these low figures can, more generally, be a sign of the low level of cross-border investment in the EU, and not only a sign of low use of links.

Figure 7: Securities held at another CSD 2015 and 2023

[316] See Advisory Group on Market Infrastructures for Securities and Collateral (Ami-Seco), "Remaining barriers to integration in securities post-trade services – issues and recommendations", Chapter 5.2.1, September 2025.



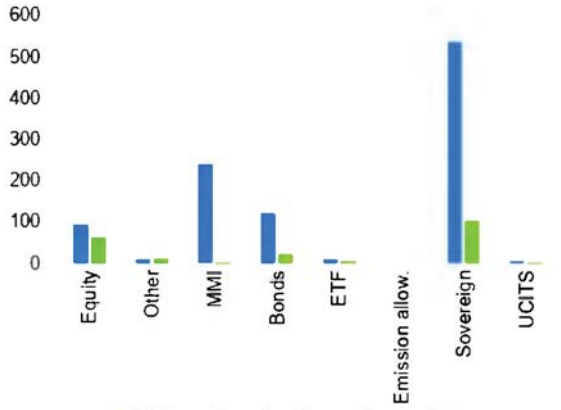
Source: Calculations based on ECB Securities Settlement Statistics, see: https://www.ecb.europa.eu/stats/payment_statistics/securities/html/index.en.html

Based on the CSD data provided above, one could conclude that while cross-border provision of services in the area of post trade has increased since the introduction of the CSDR, the increase has been relatively limited. However, looking only at CSD data can provide a misleading picture. Indeed, as regards settlement services, there is growing recognition[317] that a large share of cross-border settlement, in particular in terms of volume, is executed outside of CSDs via a process referred to as internalised settlement. Internalised settlement is the process under which an intermediary (a bank or an investment firm) settles securities transactions in its own accounts, outside of a CSD's securities settlement system. This is possible where both parties to a transaction have an account with the same intermediary; in such cases the transaction is settled in the accounts of the institution without triggering a corresponding change in the CSD's accounts. In a report[318] published in 2020, ESMA already emphasised "*the extremely high values and volumes of internalised settlement*".

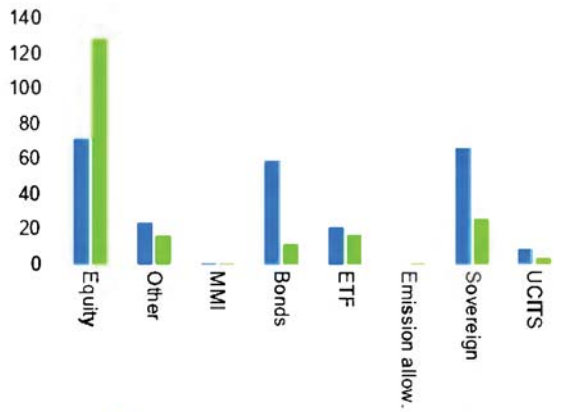
Figure 8: Activity of CSDs (in blue) vs. settlement internalisers (in green) – value (left; in EUR trillion) and volume (right; in million) of settlement instructions. Average over 2024.

[317] See ESMA Report on Trends, Risks and Vulnerabilities No. 2, 2025, ESMA50-1949966494-3846, 9 September 2025. ESMA50-1949966494-3846 Trends, Risks and Vulnerabilities (TRV) Report, No. 2, 2025.

[318] "CSDR Internalised Settlement", European Securities and Markets Authority, ESMA70-156-3729, 05 November 2020.



Note: 2024 Average quarterly value of settled instructions at EU CSDs and settlement internalisers (SetIns) in EUR tn.
Sources: CSDR9, ESMA.



Note: 2024 Average quarterly number of settled instructions at EU CSDs and settlement internalisers (SetIns) in mn.
Sources: CSDR9, ESMA.

Source: TRV Risk Monitor. ESMA Report on Trends, Risks and Vulnerabilities No. 2, 2025, ESMA50-1949966494-3846, 9 September 2025. TRV Statistical Annex. ESMA Report on Trends, Risks, and Vulnerabilities No. 2, 2025, ESMA50-1949966494-3847, 9 September 2025.

Recent data[319] confirms this: as shown in Figure 8, ESMA's observation holds particularly true for equities, where internalised settlement volumes in 2024 were almost double than the total settlement volumes of CSDs. In terms of value, settlement internalisers processed approximately two-thirds of what was processed by CSDs. For exchange-traded funds, the role of settlement internalisers over the same period was less important, though still significant: transactions settled by settlement internalisers were approximately 80% of those settled by CSDs, both in terms of volumes and values. Settlement carried out by settlement internalisers has also increased over time. In terms of volume, as of end-2024, settlement internalisers accounted for approximately almost 50% of total settlement in the EU, up from approximately 40% in Q1 2023. In terms of value, that number was around 18% of total settlement, up from roughly 12% over the same period. In addition, while there are several thousand settlement internalisers active in the EU, this activity is highly concentrated: the top five entities account for over 90% of total internalised settlement. Nevertheless, it should also be noted that the fail rates associated with this activity are noticeably lower than those in CSDs. As of Q1 2025, in terms of volume, fail rates associated with internalised settlement were just under 3%, in contrast to the 6% fail rate for settlement at EU CSDs. In terms of value, settlement fail rates at settlement internalisers and CSDs amounted equally to approximately 2.5%. Fail rates, however, are heterogeneous across different asset classes and can vary drastically. For example, in terms of volume, settlement internalisers had higher fail rates than CSDs for UCITS and money market instruments. In terms of value, settlement internalisers had higher fail rates than CSDs for UCITS, sovereigns, bonds, and money market instruments.

[319] Figures provided by ESMA using information reported under Article 9 of the CSDR.

3. ASSESSMENT OF PROBLEMS AND NEED TO ACT

3.1. PROBLEM DEFINITION AND DESCRIPTION OF CURRENT STATE-OF-PLAY

3.1.1. Lack of market integration and scale

The settlement landscape in the EU is highly fragmented. Fragmentation forces market participants to route trades and settle through multiple CSDs or intermediaries, leading to a patchwork of fees, duplicative operational set-ups and costs, as well as complex back-office arrangements for managing accounts, procedures, and navigating disparate legal regimes. This also has implications for the operational, legal, and business risks borne by a given firm. Fragmented custody of securities can also impede a market participant's ability to mobilise collateral for covering exposures from financial transactions and can even have an effect on funding markets, in which highly liquid securities play a critical role. Costs for core services can also vary widely across the EU settlement ecosystem with smaller infrastructures serving smaller markets sometimes charging comparatively higher costs. For example, one market participant indicated that, on average, it pays almost four times more in settlement fees at the EU CSD that demands the highest premium versus the one to which it pays the lowest fees. Safekeeping fees on the other hand could be up to seven or eight times more depending on the market and the type of instrument.[320]

In order for the SIU to deliver on its objectives, the fragmentation of the market for post-trading services needs to be addressed. This fragmentation is due to persistent barriers to cross-border operations, which are either legal or regulatory in nature – both at EU and national levels – or due to an entrenched, legacy market structure and practices that reinforce the lack of seamless settlement across borders within the Union. This fragmentation prevents both infrastructure providers and their users from benefitting from economies of scale, i.e. access to greater liquidity, lower costs of trading and settlement, etc. For example, one CSD has noted that while some activities (i.e. finance, compliance, regulatory management, audit, and risk management, among others) have been able to be consolidated into a single entity within the group, other key activities – such as operations and management functions – have remained siloed due to legal, fiscal and operational constraints that act as barriers in the post-trade space, e.g. disparate legal frameworks across Member States in the EU.

CSDs that wish to operate across borders, and issuers that wish to issue their securities in other Member States, still face significant compliance, operational and adaptation costs linked to a complex, non-fully harmonised regulatory landscape, and supplementary, often diverging, national rules and specificities. As a result, cross-border issuance remains low. According to a recent report by Oliver Wyman, between 2021 and 2025, 90% of EU companies with smaller issuances (below EUR 50 million) issued within their home markets. For larger issuances, that number remained relatively high at 75%. However, those that did issue abroad, typically chose to do so in the US.[321]

The current passporting regime, although simplified by CSDR Refit, remains subject to national corporate and securities law obligations (in accordance with Articles 23(3) and 49(1)

[320] Confidential information provided to DG FISMA services.
[321] "The Liquidity Matrix – Rebalancing European Fragmentation: Addressing fragmentation in European Equity Markets", Oliver Wyman, July 2025.

www.parlament.gv.at

of the CSDR), and creates uncertainty for CSDs wishing to operate in other Member States, limiting their ability to fully utilise the freedoms of establishment and provision of services. As an example, one small CSD indicated that setting up notary and central maintenance services for a single asset class in another Member State took almost five months with a cost of EUR 30 000 and involved, among other things, legal and risk assessments, regular communication with local authorities, and changes to rulebooks and procedures. This, in parallel, also limits issuers' freedom to issue in any CSD in the EU. As a result, the freedom for issuers to use a CSD of their choice is little used in practice. Issuers prefer their "home" CSD, where the legal framework is aligned.[322] Groups operating several CSDs across multiple Member States face regulatory barriers in allocating resources optimally and are not able to fully leverage the synergies that can be drawn from consolidation.[323] As a result, the opportunities afforded by the Single Market are not being fully exploited, leading to suboptimal outcomes.

For intermediaries that wish to provide cross-border services to their clients, the fragmentation of the post-trading infrastructure means they must connect to several CSDs or use other intermediaries, including sub-custodians, that are connected to those CSDs (the latter intermediaries benefit from this status quo as they offer, at a cost, a single point of access that is otherwise not possible with a fragmented EU market infrastructure landscape). According to one firm connection costs vary between EUR 4 million and 10 million, depending on the CSD.[324] The costs of maintaining those connections also vary, between EUR 0.5 million and 3 million annually. According to the information received, the highest part of the costs is due to national specificities that need to be accommodated, and not by the existence of the CSD itself.[325]

This entails higher costs, and hence higher fees, for cross-border transactions compared to domestic transactions, which in turn translates into less cross-border investment in securities (including because the high costs may prevent the creation of connections between markets). The average total settlement cost to a CSD client in Europe is EUR 0.53 per transaction, of which roughly EUR 0.10 is pass-through of T2S charges. For T2S CSDs, the average settlement instruction fee is EUR 0.34, including T2S charges.[326] This compares unfavourably with North America, where the average total settlement cost per transaction is EUR 0.25.[327] Another source indicates that settling in a European CSD is on average 65% more expensive than a North American (US and Canada) CSD with a weighted average of EUR 0.38 across 9 European CSDs. Furthermore, every EU-based CSD included in the analysis exhibited a higher fee per settlement than the two North American CSDs. Including the ICSDs, this means that if European markets applied the same prices for CSD services as those in North America, this

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[322] "Study on consolidation and reducing fragmentation in trading and post-trading infrastructures in Europe", Final Report, Bourse Consult & Civitta, September 2025: https://op.europa.eu/en/publication/doi/10.2874/2649452

[323] See Section 3.2.2.

[324] Confidential information provided to DG FISMA services.

[325] Confidential information provided to DG FISMA services.

[326] "Analysis of CSD fees in major European markets", AFME, October 2025.

[327] "Study on consolidation and reducing fragmentation in trading and post-trading infrastructures in Europe", Final Report, Bourse Consult & Civitta, September 2025 (forthcoming).

would yield a cost savings of approximately EUR 947 million.[328] This has ultimately negative consequences for the international competitiveness of the EU capital market.

3.1.2. Fragmented, less efficient and ineffective supervision

Please refer to the Annex 11 on supervision, Section 3b.

3.1.3. Obstacles to innovation and uptake of new technologies[329]

A combination of EU legislation, such as the CSDR, the SFD and the FCD, that was not initially drafted with the specific characteristics of new technologies, in particular DLT, creates legal uncertainty for market participants. Oliver Wyman noted that such new technologies have the potential to increase the efficiency and resilience of the back-office processes that underpin settlement. In addition, DLT-based systems can improve the security and transparency of transaction reporting and help reduce the cost of sometimes complex reconciliation exercises.[330] However, while this technology is promising, as noted in a recent publication by the Deutsche Bundesbank,[331] it still suffers from "limited scalability and technical maturity", which currently hinders its widespread use and adoption. These limitations include high latency – i.e. the time it takes for a transaction to be finalised – as well as interoperability with other systems, including traditional infrastructure.

Respondents to the targeted consultation noted that legal uncertainty on the applicability of concepts, such as book-entry form and securities accounts, are faced by market participants seeking to apply new technologies as well as those who simply want to engage in cross-border activity. Divergent national approaches across the EU to DLT-based post-trade services, including settlement services, is also noted in the targeted consultation as it creates legal uncertainty and hurdles in the provision of cross-border provision of services both for new and traditional operators. The lack of clear rules makes the cross-border deployment of new technologies (e.g. DLT) considerably more complex, time-consuming, expensive and resource-intensive than necessary or desirable.

This in turn limits innovation by new providers and/or existing post-trade services providers, as it hinders the development of new business models using DLT in the provision of post-trade services and in particular settlement services, and the development of a more integrated and technologically advanced EU capital market. It also stifles competition among providers of CSD services, irrespective of the technology they operate with, such as notary, maintenance and settlement (both traditional and DLT-based) as some national regimes may facilitate it, and others not, fragmenting the market, preventing cross-border activity and potentially putting the EU capital market at a competitive disadvantage internationally.

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[328] "Analysis of CSD fees in major European markets", AFME, October 2025.
[329] Please see Annex 10 – Innovation (DLT) for further details on DLT aspects and on the DLTPRR in particular.
[330] "The Liquidity Matrix – Rebalancing European Fragmentation: Addressing fragmentation in European Equity Markets", Oliver Wyman, July 2025.
[331] "Digital money: options for large-value payments in central bank money", Deutsche Bundesbank, Monthly Report, September 2025.

3.2. PROBLEM DRIVERS

The aforementioned problems are driven by two main drivers: (1) barriers to cross-border activities and innovation; and (2) limited tools and powers at EU level to ensure convergent supervision and effective oversight. This section focused on the first of those drivers. For more information on second driver, please see Section 3 of Annex 11 on supervision. It is important to note that, although they are analysed in separate annexes, these two drivers are closely related, interacting to reinforce and exacerbate each other, thus creating market fragmentation, preventing or deterring market efficiencies and consolidation.

The drivers identified below have been identified through a range of sources including, but not limited to the targeted consultation, discussions with stakeholders, experience of the design and implementation of the relevant legislation.

3.2.1. Barriers to freedom of issuance, passporting and cross-border provision of services

Freedom of issuance, i.e. the right for companies to record their securities in any EU CSD of their choice is enshrined in Article 49 of the CSDR. However, this right is without prejudice to the "*corporate or similar law of the Member State under which the securities are constituted*". Inconsistent and disparate national laws on securities ownership, corporate registration, and tax procedures create frictions, which limit cross-border issuance (e.g. a requirement to appoint a local tax agent, which may be difficult to find and add another layer of cost). As highlighted by several respondents to the targeted consultation, the wording of Article 49 has proven insufficient to ensure freedom of issuance in the EU, particularly in light of the divergent understanding by Member States of the concept of "*corporate or similar law of the Member State under which the securities are constituted.*" This has enabled some Member States' laws to even contain restrictions that, in practice, prevent or make difficult the issuance of securities in another Member State. For example, several respondents to the targeted consultation pointed out that national securities laws of certain Member States directly or indirectly only allow dematerialised issuance of securities in the domestic CSD. In particular, some respondents highlighted that national provisions governing the recording of issuance, dematerialisation and securities lifecycles require structures or solutions that are not feasible for non-local CSDs. Other respondents noted that, even where national rules do not explicitly mandate the use of domestic CSDs, the fragmentation of national regimes and the different national interpretations of certain CSDR concepts (such as that of "*corporate laws under which securities are constituted*") directly affect the possibility for a CSD to offer services to foreign issuers and hence for EU issuers to freely issue securities in any EU CSD. In other jurisdictions, corporate law is embedded in other domestic financial law (e.g. securities law), which makes identifying relevant corporate law aspects legally challenging.

Furthermore, although the CSDR requires Member States to "*compile a list of key relevant provisions of their corporate or similar law*" and communicate this information to ESMA for publication, the list[332] is not considered by CSDs and issuers to be compiled in a way that is conducive to identifying the relevant requirements, despite efforts in CSDR Refit to provide clarity. For example, stakeholders note that in some cases the list only provides high-level references to national laws, which are oftentimes only available in the local language and

[332] The list can be found on ESMA's website: ESMA70-155-11634 Key relevant provisions of national corporate or similar law - Article 49 CSDR.

without further information and no clear indication of how these are linked to the CSDR requirements.

These barriers restrict an issuer's freedom of choice and increase the costs of, and deter the provision of, cross-border issuance services by CSDs thereby undermining the objectives of the SIU.

Relatedly, passporting under the CSDR – i.e. the possibility for a CSD from one Member State to provide its notary and central maintenance services in another Member State – remains incomplete, as described in the first paragraph of this section. According to stakeholders' responses to the targeted consultation national authorities sometimes impose specific requirements that restrict the ability of CSDs to offer services across borders. Article 23 of the CSDR, as amended by CSDR Refit, allows an authorised CSD to provide core services – or set up a branch – in another Member State subject to certain conditions. These conditions primarily relate to the provision of certain information to the home Member State's competent authority, namely where in the EU the services are to be provided, the services that are to be provided, the type of involved financial instruments, the currencies to be processed, the organisational structure of the branch (if applicable) and an assessment of how the CSD intends to allow its users to comply with the law in the host Member State (the latter information only needs to be provided in relation to shares). The home Member State's competent authority is required to transmit this information to the host Member State's competent authority within two months, unless the former competent authority does not wish to allow the CSD to provide these services (or to set up a branch) as it has reasons to doubt the adequacy of the administrative structure or the financial situation of the CSD intending to provide services in the host Member State or the adequacy of the measures the CSD intends to take to allow its users to comply with the law in the host Member State (in relation to shares). The CSD may then provide its services – or set up a branch – in the host Member State at the earliest fifteen calendar days following this transmission of information. This means that the home Member State's competent authority can deny the CSD the possibility to provide services in a host Member State, on the basis of an assessment of how the CSD intends to allow its users to comply with the national law provisions in the host Member State. This contrasts the Commission's original proposal on CSDR Refit, which limited the possibility for Member States to refuse passporting to only where the home Member State's competent authority had reasons to doubt the adequacy of the administrative structure or the financial situation of the CSD.

Moreover, the CSD must wait a minimum of two months plus fifteen days following the provision of the required information to its competent authority before it can provide its services – or set up a branch – in another Member State or make changes to the range of services provided, or before it is informed by the home Member State's competent authority of its decision not to transmit the information to the host Member State's competent authority. This process, as has been highlighted by several respondents to the SIU targeted consultation, is unnecessarily cumbersome, complicated, and costly, and undermines the ability of EU CSDs to passport their services in the EU.

CSDs operated by public bodies are not subject to the passporting requirements. This create an unlevel playing field between public CSDs and CSDs authorised under the CSDR that is particularly acute for the provision of cross-border services, which necessitate the passporting of central maintenance services for CSDs establishing links, or for the issuance of securities under the law of another Member State. Exempted from the burdensome processes pertaining to passporting, public CSDs can thus provide those services more easily.

According to estimates provided in the CSDR Refit impact assessment,[333] obtaining a passport costs, on average, approximately EUR 30 000 and requires one person to work full time between 1 and 3 months to prepare the application. According to one CSD, obtaining a legal opinion related to compliance with the legal framework of a particular country has a cost of, on average, EUR 20 000 to EUR 25 000. Legal costs therefore comprise a substantial proportion of the total cost associated with setting up a passporting regime. In fact, one CSD noted that it had spent almost EUR 1 000 000 solely on legal fees in an effort to set up passporting arrangement across a large number of Member States. Relatedly, according to one source, even arranging for extending the scope of services provided to an additional instrument type could cost between EUR 10 000 and EUR 15 000. In certain cases, passporting requests were not met due to incompatibilities in legal frameworks.[334] In addition, according to those estimates, the monitoring needed to ensure the continued compliance with the requirements for the passport costs, on average, approximately EUR 2 000 per year. So a CSD that wants to provide its services for financial instruments constituted under the law of all other (i.e. 26) EU Member States would have to pay approximately EUR 780 000 to obtain all the necessary passports, would need between 26 and 78 months to prepare the applications (assuming only one person would work on the process full time) and would have to pay EUR 52 000 per year to monitor compliance with the requirements for the different passports. It should be noted in particular that CSDs are required to provide an assessment of the measures the CSDs intend to take to allow their users to comply with the law in the host Member State, in relation to shares, meaning that a separate assessment needs to be provided for each Member State in which the CSD intends to provide services. In its latest report on the issue ESMA assessed that the disproportionate length of time to get a "green light" for the passport as well unpredictability with regards to duration of the processing time remain some of the main obstacles for the CSDR passporting regime.[335]

As CSDR Refit simplified the passporting procedure, the abovementioned estimates may no longer be entirely accurate. However, many respondents to the SIU targeted consultation highlighted how even after those simplifications, the passporting procedure remains excessively burdensome due to the need for CSDs to undertake complex and divergent assessments. These issues serve to deter or increase the cost of cross-border operations and the cross-border provision of services in contrast to the objectives of EU legislation and the SIU. Nevertheless, ESMA analysis[336] shows that Clearstream Banking SA as well as CSDs from the Euroclear group have been granted passports in nearly all EEA Member States, indicating the potential of CSD passports for cross-border integration.

3.2.2. Barriers to intra-group outsourcing

The CSDR treats intra-group outsourcing – e.g. outsourcing services to a subsidiary or sister entity within the same corporate group – the same way as it treats outsourcing to a third party; in other words, it applies the same requirements to both types of outsourcing. This imposes unnecessary burdens and stifles operational efficiencies that could be realised by groups operating across borders. This has, in turn, important implications for competition in the sector.

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[333] See Section 2.3.1 of the CSDR Refit impact assessment, available at 220316-csdr-review-impact-assessment_en.pdf. This data only refers to the cost of obtaining a passport and does not include the cost for obtaining a CSD authorisation.

[334] Confidential data provided to DG FISMA services.

[335] "Provision of cross-border services by CSDs and handling of applications under Article 23 of CSDR from 2020 to 2022", European Securities and Markets Authority, ESMA74-2119945925-1568, 31 January 2024.

A healthy competitive landscape would allow for any consolidation to benefit from economies of scale and integration of technical systems and processes. Instead, groups of CSDs are prevented from designing their organisational structure, including through staff-sharing and other arrangements, that best suits their objectives. This prevents them, and the settlement sector more in general, from reaping the rewards stemming from competition and consolidation.

Articles 19 of the CSDR includes an obligation for a CSD to seek authorisation in case it wishes to outsource a core service to a third party. Article 30 of the CSDR sets out the requirements that need to be fulfilled when the CSD outsources any activities and services (core and non-core). The procedures to be followed are set out irrespective of whether the third party is part of the same corporate group. This prevents CSD groups from taking full advantage of the possible benefits from corporate synergies (e.g. allowing settlement, asset servicing, cash settlement, IT, or human resources to be handled by a single entity in the group), including the outsourcing of key services and is contrary to the Commission's objective of promoting consolidation in the post-trade space as stated in the SIU Communication. An example that has been highlighted by a CSD relates to the treatment of staff sharing arrangements between CSDs that are part of the same group, which under the current CSDR framework is treated in the same way as outsourcing with third-party providers. A national authority also highlighted that the CSDR framework does not sufficiently cater for intra-group outsourcing. Other respondents to the targeted consultation (including CSDs and a national authority) generally mentioned that the approach to the qualification of outsourcing is not harmonised between national competent authorities. Even where a college of supervisors is in place, there are separate rulebooks for each of the entities and strict requirements for outsourcing or sharing resources between group entities. As a result, commercial efforts to consolidate market infrastructures have not been able to deliver their full benefits.[337]

It should be noted that considerations from an ICT risk perspective as regards outsourcing intragroup versus outsourcing to an external third party are included in other relevant regulations such as Regulation (EU) 2022/2554 ('DORA'). The latter acknowledges the relevance of intragroup outsourcing and maintains a uniform regulatory framework, applying the same requirements regardless of whether the outsourcing provider is part of the same group as the outsourcer.[338]

3.2.3. Barriers related to cash settlement

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[337] "Study on consolidation and reducing fragmentation in trading and post-trading infrastructures in Europe", Final Report, Bourse Consult & Civitta, September 2025: https://op.europa.eu/en/publication/doi/10.2874/2649452

[338] See Recital 31 of DORA: "While intra-group provision of ICT services entails specific risks and benefits, it should not be automatically considered less risky than the provision of ICT services by providers outside of a financial group and should therefore be subject to the same regulatory framework. However, when ICT services are provided from within the same financial group, financial entities might have a higher level of control over intra-group providers, which ought to be taken into account in the overall risk assessment."

In general, there are two types of barriers relating to cash settlement: (1) restrictions to the designation of a credit institution for the provision of banking type ancillary services and (2) issues related to settlement with tokenised forms of money.

As regards the first barrier, Article 40(1) of the CSDR requires CSDs to settle the cash leg of a securities transaction in central bank money where practical and available. Where this is not the case, it allows CSDs to the use commercial bank money to settle the cash leg of a securities transaction. In the latter case, the CSD can provide the commercial bank money itself (for that it needs to obtain a banking licence) or use the services of a credit institution or a CSD with a banking licence. Articles 54 and 55 of the CSDR detail, respectively, the requirements that need to be fulfilled under all three of those scenarios and the procedures for obtaining the relevant authorisations to provide banking-type ancillary services – e.g. providing cash accounts to, and accepting deposits from, participants, providing cash credit, engaging in treasury activities etc. – under those scenarios. A recent international review of the EU's implementation of the internationally agreed principles for financial market infrastructures[339] noted that central bank money should be the default settlement asset but recognised the EU framework's additional requirements for commercial bank settlement and thus considered the 'gap' to be minor.[340]

If a CSD wishes to avail itself of the services of a credit institution, certain conditions apply. For example, the credit institution must have a limited banking licence that allows it to provide only accounts for the cash payments[341] of securities transactions or the banking-type ancillary services listed in Annex C to the CSDR. That credit institution must also comply with additional capital, reporting and disclosure requirements. As an exception, if the total value of cash settlement through the accounts opened with such credit institution is below a certain threshold, the CSD can designate any credit institution. Among the 25 CSDs authorised under the CSDR, five CSDs are authorised to offer banking-type ancillary services. So far, one CSD, Euronext Securities Porto, has designated a credit institution that falls under the abovementioned exception. According to ESMA's CSD register,[342] no CSD has designated a credit institution with a limited banking licence as apparently no such credit institution currently exists. One respondent to the targeted consultation noted that credit institutions that wish to designate them for the provision of banking-type ancillary services do not because it is not viable to create a subsidiary with a limited banking licence to provide such services.

This limits a CSD's available options for settlement in commercial bank money in a foreign currency (i.e. a currency other that the one available in the CSD's Member State of establishment). In principle, the CSD still has plenty of options to choose from: it can (i) obtain itself a banking licence, (ii) avail itself of the services of a CSD with a banking licence, or (iii) attempt to gain access to the central bank of the foreign currency. In reality, option (iii)is theoretically possible, but it can be challenging to pursue for a CSD that is not domiciled in the jurisdiction of the central bank that issues the foreign currency or economically unviable, and option (ii) may also prove not economically viable, in particular when the settlement volumes may at first be small. This can make the provision of settlement services for certain instruments

[339] Principles for Financial Market Infrastructures.
[340] Implementation monitoring of PFMI: Level 2 assessment report for the European Union – PSs and CSDs/SSSs
[341] Those cash payments can only be in currencies that are not issued in the country where the CSD is established.
[342] ESMA70-155-11635 CSD Register

difficult, if not impossible. For example, this is particularly an issue for the settlement of exchange-traded funds (ETFs), which are composite instruments with underlying assets denominated in multiple, often non-EU (hence difficult to access for those CSDs), currencies as the CSD may be unable to offer the settlement in the currency of the denomination of the financial instrument.

This issue was also raised, albeit in a broader context, under CSDR Refit,[343] which noted that apart from being authorised themselves to provide banking services, CSDs may also use a designated credit institution for such services. That impact assessment also noted that the conditions set out in the CSDR for such institutions are very strict.

As regards the second barrier, as noted previously, the CSDR, in line with international standards, requires the settlement of transactions in central bank money where practical and available. Where the settlement of cash payments in central bank money is not practical and available, settlement may be undertaken in commercial bank money. For a CSD operating a DLT-based securities settlement system that wishes to use an asset that is directly compatible with the technology underpinning that system to settle the cash leg of a transaction, settlement in central bank money is currently not an option because currently EU central banks do not offer digital central bank money[344] for settlement on DLT platforms outside of trial environments (although the ECB recently announced a plan that will enable settling DLT transactions using central bank money[345]). While theoretically, technology could be used to bridge the gap between settlement via DLT and central bank money, it would involve creating an additional layer, entailing costs and complexity, as well as reducing the potential benefits of settlement via DLT. As such, at present, although some experimentation[346] has taken place, no such system exists. Such CSDs therefore need to use commercial bank money. However, while the DLTPRR allows for settlement to take place through tokenised forms of commercial bank money, or e-money tokens, at present, the concept of 'cash' used in the CSDR (and also in the SFD and the FCD)[347] lacks clarity on its scope, in particular in terms of new tokenised forms of money.

Respondents to the targeted consultation noted that CSDs wishing to operate DLT-based systems within the CSDR framework[348] cannot use any form of tokenised money as a settlement asset without legal ambiguity. 29 out of 33 of the respondents to these questions in the targeted consultation underlined the need to update the definition of cash to include certain forms of tokenised money. They argued that making use of the infrastructure for the variety of

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[343] Commission Staff Working Document, Impact Assessment Report accompanying the Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) No 909/2014, 16.3.2022, SWD(2022) 75 final.

[344] Central bank digital currency or CBDC is used interchangeable in this IA as referring to money issued digitally by a central bank immediately compatible to use with DLT technology and DLT based systems.

[345] ECB commits to distributed ledger technology settlement plans with dual-track strategy

[346] See, for example, https://www.bundesbank.de/en/tasks/payment-systems/trigger-solution/trigger-solution-920174

[347] Of the three pieces of legislation, only the FCD contains a definition of 'cash'; it defines it as money credited to an account in any currency, or similar claims for the repayment of money, such as money market deposits.

[348] As explained above, they can use certain tokenised forms of money in the context of the framework of the DLTPRR.

settlement assets, such as crypto-assets, would help pooling of assets, leveraging the existing market connectivity for bigger scalability for all relevant actors, further integration of diverse markets, injecting further safety and investor protection in these markets and would support the modernisation and positioning of European markets as global financial champions. Another respondent noted that the lack of a harmonised EU-level definition or regulatory framework explicitly recognising tokenised forms of money as cash represents a regulatory gap that limits the seamless integration of these instruments in DLT-based settlement infrastructures, stifling innovation and risking unregulated activity proliferating without the appropriate safeguards in place.

3.2.4. Underuse of T2S and the fragmented settlement landscape

Although settlement via T2S is growing, the platform continues to be underused by market participants. Despite 23 EU CSDs being connected to T2S, transactions settled through it represent less than 30% of the value of securities transactions settled in all CSDs.[349]. This is in part because two of the largest CSDs, namely the two ICSDs are still not settling through T2S; of the two, Euroclear Bank[350] is expected to start settling euro-denominated securities through T2S in Q2 2026 (this could lead to a substantial increase in the percentage of the total value of securities settled in T2S), while it remains unclear if and when Clearstream Bank SA intends to join. In addition, an important share of settlement, in particular over 80% in terms of volume and approximately 70% in terms of value of equity instruments, happens "outside" of CSDs at the level of settlement internalisers hence "outside" of T2S (see Section 2.4.2.3 and Section 3.2.5).

As regards the volume of transactions, T2S represents slightly less than half of the volume (number) of transactions settled in EU CSDs. The relatively low settlement volumes have an impact on the fees charged by T2S: given the latter's pricing strategy, which is based on the full recovery of the Eurosystem's expenses for operating the platform (including the original investment for its development),[351] lower settlement volumes therefore automatically mean a higher fee[352] per transaction settled. . The total fees charged to participating CSDs in 2023 amounted to EUR 121 million, which remains insufficient to cover the T2S operating costs of EUR 133 million.[353] In general, settlement costs (both within and outside T2S) remain a concern, with almost all stakeholder participating in the targeted consultation noting that these costs should be reduced to improve competitiveness of EU capital markets. Nevertheless, some EU stakeholders[354] estimate that T2S can help by contributing to the harmonisation of settlement processes and standards but only to a limited extent given the specific (notably domestic) requirements stemming from cross-border, cross-CSD settlement and given the fact that not all CSDs or currencies are connected to or available on T2S. Nevertheless, some

[349] Estimates based on the data from ECB Securities Settlement Statistics, see: https://www.ecb.europa.eu/stats/payment_statistics/securities/html/index.en.html
[350] Euroclear Bank settlement represents approximately half of EU settlement value.
[351] The initial investment is expected to be fully amortised by 2029, at which point the settlement fees are expected to decrease.
[352] T2S charges a single fee per transaction, irrespective of the volume of transactions settled through it by a CSD participant.
[353] "Study in consolidation and reducing fragmentation in trading and post-trading infrastructures in Europe" Bourse Consult & Civitta, 2025: https://op.europa.eu/en/publication/doi/10.2874/2649452
[354] Confidential data provided to DG FISMA services.

estimates indicate that using T2S could potentially reduce transaction costs by 30% when compared to settling in a CSD not connected to the platform.[355] This would translate to a saving of at least EUR 0.15 per transaction and a settlement cost of EUR 0.37. In addition, further costs savings generated by T2S would help further bridge the gap to US settlement costs of EUR 0.25 Euro per transaction. A user directly connected to T2S noted that once the T2S investment costs are fully amortised (in the near future), T2S settlement costs should decrease significantly.[356] These costs however can be substantial. Joining T2S has cost CSDs anywhere between EUR 23 million and EUR 113 million, more than half of which can be attributed to IT development costs, followed by testing, and staff support. In addition, maintenance costs can be up to EUR 1 million per year.[357]

The existing barriers that relate to market structure have also reinforced the high level of fragmentation in the market for CSD services. While T2S has centralised settlement infrastructure in the markets served by participating CSDs, its introduction was not sufficient to support seamless operations across borders.

As mentioned earlier, one way in which the CSDR tried to address this fragmentation was by facilitating the establishment of links between CSDs. However, as explained in Section 2.4.2.3, while links between CSDs in the EU have become more numerous, they are underutilised and with very few exceptions, most CSDs maintain only a small number of links (i.e. four or fewer). Furthermore, the existence of a link between two CSDs does not mean that a participant in either CSD can settle transactions in securities issued in the other. This depends on the type of financial instruments supported by a link (e.g. many of the existing links only support the settlement of bonds, but not shares), as well as on whether the link is unidirectional or two reciprocal links (i.e. a 'bidirectional link') have been established. When a link is unidirectional, the CSD requesting the link (known as an 'investor CSD') opens an account at a recipient CSD (i.e. an issuer CSD). When such a link is established, only participants in the investor CSD may settle a security held at an issuer CSD. In order to allow for the reciprocal scenario, a bidirectional link is needed, i.e. the two CSDs need to open an account at the other CSD to which the link is being established. As a result, although there are numerous links in place, the network they create is not complete and therefore the participants in all CSDs cannot settle, directly or indirectly, their transactions in all other CSDs. This is a particular obstacle for the growth and tapping into a European liquidity pool for smaller markets. Using as a case study[358] the operation of Nasdaq CSD in the Baltic states, the study on post-trade integration notes the limited connectivity with Euroclear and partial links to Clearstream as a factor deterring international investors from participating in IPOs in the Baltic states.

In order for a CSD to establish a link with another CSD, it must comply with EU regulatory requirements (Article 48 of the CSDR and the related regulatory technical standards)[359] and idiosyncratic national legal regimes (e.g. corporate, insolvency and tax laws), conduct risk

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[355] Confidential data provided to DG FISMA services.
[356] Confidential data provided to DG FISMA services.
[357] Confidential data provided to DG FISMA services.
[358] "Study on consolidation and reducing fragmentation in trading and post-trading infrastructures in Europe", Final Report, Bourse Consult & Civitta, September 2025: https://op.europa.eu/en/publication/doi/10.2874/2649452 .
[359] For example, a CSD wishing to establish a standard link must either submit an application for authorisation to its competent authority (for interoperable links) or notify that authority (for standard links), manage risks stemming from links etc.

assessments and technical verifications, set up internal procedures and appropriate IT infrastructure (e.g. to facilitate reconciliation and ensure secure compatibility and data integrity, among other things), establish contractual arrangements and service level agreements with the CSD it is connecting to and ensure compliance with the membership and operational requirements of that CSD. In addition, it has to perform ongoing due diligence in order to ensure ongoing compliance with all those elements, as well as part of the periodic CSD review and evaluation. As such, there are both one-off, initial costs related to the establishment of links (e.g. those related to IT setups, account setup and management, administrative work, coordination, and legal and risk assessments, among others), as well as ongoing maintenance costs to ensure, e.g. up-to-date legal opinions. According to several sources, the establishment of an inbound link can vary widely in terms of cost. On the low end, two CSDs with similar IT systems, harmonised messaging standards and minimal divergences in legal frameworks that wish to establish a link for a narrow set of instruments and straightforward services (e.g. for settling government bonds with standard interest payments) could do so for a one-time establishment cost of EUR 30 000 to EUR 60 000 and EUR 30 000 to EUR 50 000 in annual maintenance costs. More complex arrangements involving, for example, new markets and setting up bespoke services could cost between EUR 670 000 and EUR 1 330 000, especially in the case that changes would be needed to IT infrastructure and with ongoing maintenance costs of up to 2 bps in the most expensive markets. In any event, the establishment of a link could take up to six months. Altering an existing settlement arrangement could cost well over EUR 1 000 000 to complete, depending on the level of complexity and simply adding a new instrument category to the range of those covered by an existing link could cost almost EUR 200 000.[360] Over 85% of entities that provided a response to the question on links in the targeted consultation[361] indicated that there are barriers to the establishment of links, citing in particular issues with respect to compliance with EU regulatory requirements (notably the CSDR) and national laws, as well as market practices (i.e. lack of harmonisation in operational aspects including settlement cut-offs or corporate actions processing).

Although the CSDR has facilitated the establishment of cross-CSD links, this has not resulted in a fully integrated market for CSD services. Furthermore, existing barriers and frictions in cross-border settlement have spawned other avenues through which settlement can take place. In particular, settlement outside CSDs is growing through internalised settlement (see next section). Such developments raise level playing field considerations as well as growing challenges to the creation of an integrated and well-functioning EU settlement market, while also potentially creating increasing risks to transparency and systemic stability.

3.2.5. Internalised settlement

The barriers to settling across borders between CSDs have facilitated the entrance of intermediaries that act as a single entry-point within the fragmented settlement landscape. These intermediaries are connected to multiple CSDs and provide custody and settlement services to clients who wish to invest in securities issued in those CSDs. By virtue of their role, these intermediaries usually also act as settlement internalisers.

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[360] Confidential information provided to DG FISMA services.
[361] Thirty responses were received on this question.

www.parlament.gv.at

On the one hand, settlement internalisers play an important role in cross-border settlement: the networks created by these intermediaries help bridge gaps in the interconnectedness among CSDs (particularly in equity markets) thus reducing the costs of fragmentation of settlement infrastructure[362] and hence facilitate trading of financial instruments across the EU; they also provide custodial (and related) services and are a form of competition for CSDs in the provision of service to the benefit of market participants. On the other hand, these networks are opaque, contribute to maintaining the existing fragmentation of settlement infrastructure, as they reduce the economies of scale that could be achieved through the establishment of CSD links, thereby undermining the business case for those links. The concentration of activity in a systemic internaliser may bear risks if the settlement internaliser frequently facilitates timing mismatches by providing intraday credit or own inventory[363] and may lead to higher costs for end-investors than would be the case if the level of integration of settlement infrastructure(s) were higher. These additional costs make it more difficult for those end-investors to take advantage of investment opportunities or of capital flows pooling, thus affecting the efficient allocation of capital.

The growth of internalised settlement raises the question of whether all entities involved in settlement operate on a level playing field as CSDs face requirements under the CSDR when carrying out their activities, while settlement internalisers face much lighter requirements under the CSDR when carrying out those same activities. Indeed, the only requirement settlement internalisers are currently subject to under the CSDR (see Article 9 thereof) is to report to their competent authorities, on a quarterly basis, the aggregate volume and value of all securities transactions that they settle outside of a securities settlement system. This is because most settlement internalisers are supervised as banks and investment firms. However, although most settlement internalisers are also credit institutions and therefore face broader prudential requirements under the relevant banking legislation, the CSDR has additional requirements, e.g. for the provision of intraday credit, and other requirements, e.g. settlement discipline to which internalised settlement is not subject. Furthermore, ESMA's 2020 report on settlement internalisation noted that the main risks introduced by settlement internalisers are legal and operational.[364]

The responders to the targeted consultation did not call, with the exception of CSDs and a few Member States, for additional regulatory requirements. Still, the lack of transparency concerns authorities and raises the question of how the prominence of this activity impacts the integration and efficiency of post-trade processes. In the conclusions of the abovementioned report on settlement internalisers, ESMA highlighted the importance of continuing to monitor this activity to assess whether it should be regulated in the future. ESMA stated that this monitoring is particularly important due to the high, and increasing, values and volumes of internalised settlement activity, as well as the high level of concentration in this space.

3.2.6. Lack of transparency on prices charged, and service provided, by CSDs

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[362] This is because using intermediaries avoids clients the need to connect to multiple CSDs themselves and thus incur the related costs. Anecdotal evidence points to cost savings for clients of up to 60%.
[363] Feedback from the targeted consultation.
[364] 2020 ESMA Report on Internalised Settlement. See also Section 2.4.2.3 on provision of cross-border CSD services.

The CPMI-IOSCO Principles for Financial Market Infrastructures state that "*transparency helps ensure that relevant information is provided to an FMI's participants, and the public to inform sound decision making and foster confidence*". One of the key aspects related to this is transparency of prices and fees for services offered by CSDs. While the CSDR requires that CSDs publicly disclose their prices and fees and provide clients with information that allows them to reconcile invoices, this is not often accomplished in a very clear and straightforward way.[365] The total fee schedules of all EU CSDs are estimated to amount to 1000 pages, underlining both the lack of standardisation in terms of terminology and categorisation as well as opaque disclosure of tariffs.[366,367] A lack of consistent price transparency across the settlement landscape hinders competition by preventing market participants from making effective comparisons between CSDs and thus making informed decisions on where to settle transactions. It also creates additional costs for market participants in reconciling fees across multiple CSDs. This is particularly relevant in the context of settlement in T2S. As CSDs have different practices in terms of how they pass on T2S charges and what fees they charge in order to facilitate settlement in T2S, it is important for the participant to have transparency on these practices in order to make informed decision on where to execute settlement for their trades.

A related issue is transparency with respect to the services provided by individual CSDs. The CSDR requires that ESMA publish a register[368] that includes the name of each CSD operating in the Union, the services provided, as well as information related to cash settlement and the provision of banking-type ancillary services. However, the information is currently provided by CSDs in an unclear and complex manner, making it difficult for market participants to have clarity on the services provided by CSDs. For example, in the case of links between CSDs, it is not straightforward to identify the instruments that can be settled via those links.

3.2.7. Insufficient compatibility of existing rules with DLT[369]

Even though legislation aims to cater for technology available at the time when it is drafted, it cannot predict how technology will develop in the future, and hence cannot ex ante ensure its future compatibility with new technology. When new technology does appear, the application and interpretation of existing law can be such that the law itself becomes a barrier to the adoption of the technology.[370]

Current EU legislation in the settlement area predates DLT and was therefore not designed with it in mind. Indeed, given that the current rules are designed to cater for centralised structures,

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[365] In a survey on CSD fee schedules 13 market participants (out of 14) indicated that CSD fees schedules are too complex. Source: "Study on consolidation and reducing fragmentation in trading and post-trading infrastructures in Europe", Final Report, Bourse Consult & Civitta, September 2025: https://op.europa.eu/en/publication/doi/10.2874/2649452 .

[366] "Study on consolidation and reducing fragmentation in trading and post-trading infrastructures in Europe", Bourse Consult & Civitta, 2025.

367 "Analysis of CSD fees in major European markets", AFME, October 2025

[368] The registered is available at https://www.esma.europa.eu/sites/default/files/library/esma70-155-11635_csds_register_-_art_21.pdf.

[369] See Annex 10 – Innovation (DLT) for further details on DLT aspects and on the DLTPRR in particular.

[370] "Distributed ledger technology for securities clearing and settlement: benefits, risks, and regulatory implications", R. Priem, Financial Innovation 6, 11 (2020).

which are, in many aspects, fundamentally different[371] from the decentralised structures introduced by DLT, many of the definitions and concepts relevant to the provision of post-trade services and in particular settlement services - and consequently the corresponding requirements - are not (fully) compatible with DLT.[372] This gives rise to legal uncertainty or, in extreme cases, may prevent DLT-based structures to comply with certain requirements. According to some stakeholders,[373] this hinders the introduction of new business models using DLT, which could achieve greater connectivity, innovation and competition.

One example of a concept that creates legal uncertainty is that of 'book-entry form'. The CSDR requires issuers to ensure that the securities admitted to trading, or traded, on a trading venue are recorded in book-entry form and specifies that the method for such an initial book-entry recording should not be imposed by the Regulation.[374] In addition, the CSDR requires that for a transaction in transferable securities, the transferable security is previously recorded in a CSD. Respondents to the targeted consultation pointed out that, for some DLT-based structures, ensuring compliance with the requirement (for a transferable security to be recorded in a CSD) is not straightforward and may require a significant level of legal interpretation. This can raise uncertainty as to whether certain DLT-based securities can be recorded and represented in book-entry form in a CSD and hence whether they can be admitted to trading, or be traded, on trading venues. This can lead to costs for developing legal opinions in different jurisdictions. Those who responded to questions on this subject in the targeted consultation as well as stakeholders[375] noted that the "book-entry form" requirement in Article 3(2) of the CSDR is seen as a barrier and that the entry in the books of a CSD is not compatible with DLT. While national laws offer legal certainty within a Member State, they may also create fragmentation across the EU. Given that many definitions and requirements in the CSDR, as well as the SFD and the FCD, incorporate, directly or indirectly, the concept of book-entry, the legal uncertainty related to that concept has wider knock-on effects for legal certainty when those definitions

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[371] As a respondent to the targeted consultation noted, "[t]he emergence of DLT-based tokenised financial instruments challenges the traditional roles and mandatory use of CSDs. In a DLT environment, core CSD functions such as notary services, safekeeping, and settlement can be fulfilled by registrars, custodians, or wallet operators. The integrity of the issue is ensured through recording on the distributed ledger itself, with smart contracts governing the issuance. This makes a separate book-entry system operated by a CSD non-essential for creation or transfer of the asset. Settlement can occur directly on-chain between custodians or even between investors, eliminating the need for CSD-operated settlement accounts."

[372] This is why the DLTPRR was introduced: to create an environment that would enable the use and experimentation with DLT in this area.

[373] See for example, "Use of DLT and Tokenisation in Financial Markets", November 2024, 20241104_AFME Submission to EC_Final.pdf

[374] Recital 11, Regulation No. 909/2014 of 23 July 2014 on improving securities settlement in the European Union and on central securities depositories. OJ L257, 28.8.2014.

[375] "The law and regulation of TradFi has developed over hundreds of years and may operate in a way which is incompatible with DLT technology. Legislation and regulation should be technology agnostic based on "same activity, same risk, same regulatory outcome". For example: A clear advantage of a DLT blockchain is its ability to keep immutable and dematerialized records. Under EU law (the Central Securities Depositories Regulation (CSDR)) it is a requirement that for a security to be traded on a trading venue (an exchange or a multilateral system) it must be recorded in book-entry form in a centralized securities depository (CSD). Whilst these obligations do not actually prohibit the issuance of DLT-based financial instruments they are a fetter on DLT's development and the ability to harness its many advantages including the development of a secondary market." The Impact of Distributed Ledger Technology in Capital Markets Ready for Adoption, Time to Act, August 2025, https://www.gfma.org/policies-resources/joint-trades-publish-report-on-the-impact-of-dlt-in-capital-markets/

and requirements are applied to DLT-based structures. Examples are the definitions of 'immobilisation'[376] and 'dematerialised form'[377] in the CSDR, the definition of 'transfer order'[378] in the SFD and the definition of 'book entry securities collateral'[379] in the FCD.

The consequences extend beyond the abovementioned EU acquis. For example, under the Eurosystem's rules securities need to be recorded in book-entry form in an eligible securities settlement system in order to be eligible as marketable-assets collateral for Eurosystem credit operations, meaning that where a DLT platform is not a securities settlement system, assets may be considered ineligible for classification as marketable assets for collateral purposes.[380]

A qualified majority of the respondents, covering different categories of respondents, to the question in the targeted consultation also pointed to some difficulties with the definition of 'CSD'[381] as provided in the CSDR, raising questions about whether it restricts new market entrants focusing on only one core service as well as whether they could provide other services at the same time and nearly all (with the exception of some CSDs) of the respondents noted that functions reserved for CSDs may be safely, securely and effectively performed by other participants in a DLT environment.

As the scope of the protections granted under the FCD and the SFD depends on several concepts and definitions specified therein, legal uncertainty as regards the compatibility of those concepts and definitions to, or their outright incompatibility with, certain DLT-based structures results in those structures not being able to benefit from the protections provided under the two Directives (e.g. settlement finality, netting and enforcement of collateral). In addition to the definition of 'transfer order' and 'cash'[382] mentioned above, the following definitions and concepts play an important role in determining the protections under the two Directives:

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[376] Defined as the act of concentrating the location of physical securities in a CSD in a way that enables subsequent transfers to be made by book entry.
[377] Defined as the fact that financial instruments exist only as book entry records.
[378] Defined as i) any instruction by a participant to place at the disposal of a recipient an amount of money by means of a book entry on the accounts of a credit institution, a central bank, a central counterparty or a settlement agent, or any instruction which results in the assumption or discharge of a payment obligation as defined by the rules of the system, or ii) an instruction by a participant to transfer the title to, or interest in, a security or securities by means of a book entry on a register, or otherwise.
[379] Defined as financial collateral provided under a financial collateral arrangement which consists of financial instruments, title to which is evidenced by entries in a register or account maintained by or on behalf of an intermediary.
[380] "Scaling DLT Capital Markets Enabling Central Bank Money Settlement and Collateral Eligibility for DLT-based Securities", May 2025 Enabling Central Bank Money Settlement and Collateral Eligibility for DLT-based Securities Final-1.pdf and "Scaling DLT-based Capital Markets, A Policy Roadmap for the EU", July 2024 AFME_DLT_SSA_Bonds_Policymaker_EU_05.pdf
[381] Defined as a legal person that operates a securities settlement system and provides at least one other core service listed in Section A of the Annex to the CSDR.
[382] See Section 3.2.7.

- 'settlement account': as noted by respondent to the targeted consultation,[383] settlement via a DLT-based settlement system is concluded in a decentralised manner,[384] (i.e. there is no real registration on an account);
- 'settlement finality': stakeholders[385] as well as nearly all of the respondents[386] to the question in the targeted consultation pointed out that a general understanding on how different DLT-based systems can achieve finality is needed and the importance of DLT settlement systems being able to benefit from settlement finality under the SFD. At present, it is not clear whether it is possible to identify certain finality moments for certain type of DLT-based settlement systems, including the moment of entry of a transfer order into that system;[387,388]
- 'settlement agent'[389]: a DLT-based settlement system would not necessarily qualify as a system due to its participants and because the definition assumes traditional CSD features, for example it refers to settlement accounts used for settlement (see above) thereby potentially limiting the uptake of DLT-native solutions;
- 'financial instrument' and 'securities': the CSDR, the FCD and the SFD contain different definitions of those terms: the CSDR uses a definition that treats those terms as synonymous,[390] the FCD defines the former term as a set list of instruments,[391] whereas the SFD defines the latter term.[392] Of the three definitions, the one in the CSDR refers to DLT-

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[383] A few respondents noted the need to clarify the definition explicitly, whilst all respondents answering a question if the definitions create barriers, where they all noted that the definitions should already be technology neutral but a clarification to this effect would be beneficial and this request can also be found in many of the responses to other questions related to post-trade.

[384] For example, a respondent to the targeted consultation noted that under the definition of 'securities account' in the CSDR, it is unclear whether DLT addresses could be considered as accounts.

[385] The report "The Impact of Distributed Ledger Technology in Capital Markets Ready for Adoption, Time to Act" call for the establishment of clear and consistent legal and regulatory frameworks for tokenized financial instruments, focusing on asset classification, settlement finality, contract enforceability, consumer protection, and cross-border recognition and states "Clarify the application of settlement finality frameworks to DLT-based systems, including permissionless networks where risk controls and validator governance are robust, August 2025, https://www.gfma.org/policies-resources/joint-trades-publish-report-on-the-impact-of-dlt-in-capital-markets/.

[386] Among the 22 respondents to the question if SFD protection is important for settlement systems based on DLT that settle trades instantly and atomically, and not on a deferred net basis or in settlement batches, there was a very strong support for the ability to designate DLT systems under SFD.

[387] There are different views presented among the respondents to the question if settlement systems that achieve probabilistic (operational) settlement finality should be designated and benefit from SFD protections.

[388] A respondent to the targeted consultation noted that cross-border transactions within the EU face uncertainty regarding which national laws apply, especially when DLT-based assets are involved, and that the conflict of laws between different jurisdictions can hinder the finality of transactions.

[389] Defined as an entity providing to institutions and/or a central counterparty participating in systems, settlement accounts through which transfer orders within such systems are settled and, as the case may be, extending credit to those institutions and/or central counterparties for settlement purposes.

[390] It defines 'financial instruments' or 'securities' as financial instruments as defined in point (15) of Article 4(1) of Directive 2014/65/EU. The latter Directive defines 'financial instruments' as instruments specified in Section C of Annex I, including such instruments issued by means of distributed ledger technology.

[391] Shares in companies and other securities equivalent to shares in companies and bonds and other forms of debt instruments if these are negotiable on the capital market, and any other securities which are normally dealt in and which give the right to acquire any such shares, bonds or other securities by subscription, purchase or exchange or which give rise to a cash settlement (excluding instruments of payment), including units in collective investment undertakings, money market instruments and claims relating to or rights in or in respect of any of the foregoing.

[392] 'Securities' is defined as all instruments referred to in Section C of Annex I to Directive 2004/39/EC.

based financial instruments with most legal clarity albeit via a reference to Directive 2014/65/EU ('MiFID II'), which is transposed by Member States. The divergent approaches and different formulations[393] result in legal uncertainty as regards whether and how tokenised financial instruments/securities are recognised as 'financial instruments'/'securities', how their ownership is defined, and when their settlement becomes legally final in a DLT-based system. The lack of legal certainty as to the applicability of specific SFD concepts for certain DLT-based systems might prevent Member States from designating DLT-based systems which limits competition with conventional systems (e.g. because large or institutional customers are not willing to use systems that do not benefit from SFD protections (see Section 3.2.12). This is likely to hinder competition, innovation, and the development of a more integrated and technologically advanced financial market in the EU. In addition, the lack of legal certainty as to the applicability of the protections granted by the FCD can reduce the attractiveness of DLT-based assets for investors as in the case of lack of eligibility for central bank credit operations (see above). This reduces collateral mobility, a key efficiency aspect for an integrated market. However, it should also be noted that the diverging definitions of financial instruments and securities are also due to the different scope and purpose of the cited legislation (CSDR, SFD, FCD). See also Section 3.2.11 on the harmonisation of eligible securities under the SFD.

Aside from the issues related to definitions and concepts described above, respondents to the targeted consultation also flagged issues related to specific requirements set out in EU legislation. One respondent pointed to certain requirements in the CSDR that create legal uncertainty including how: i) requirements on outsourcing create legal uncertainty as to whether the use of certain distributed validation models are considered as outsourcing, ii) requirements on messaging-based communication relate to DLT-based systems that rely on direct ledger interactions or smart contract triggers, and iii) requirements on account segregation result in legal uncertainty as to how segregation requirements are met when using DLT-based infrastructures, particularly regarding how on-ledger addresses should be treated for regulatory purposes.

3.2.8. Lack of harmonised conflict-of-law rules

In the absence of harmonisation of securities law at EU level, different interpretations of the existing conflict-of-law rule in the SFD and the FCD may create legal uncertainty, which is detrimental to cross-border investment.

The existing conflict-of-law rule in the SFD referring to the rights in relation to collateral in the system states that the law determining the rights of holders of a collateral security is the law of the Member State where that right "*is legally recorded in a register, account or centralised deposit system*". However, the SFD does not provide further details to help identify more precisely the country where the right is recorded. As noted in the Commission Communication on the applicable law to the proprietary effects of transactions in securities,[394] Member States have interpreted and/or developed the above conflict-of-law rule in different ways to be able to apply them in practice. Even if a Member State did not clarify in its national laws implementing the relevant provisions of the SFD, other elements in that Member State

[393] This issue can be further exacerbated by divergent transpositions of the FCD, the SFD and MiFID II.
[394] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the applicable law to the proprietary effects of transactions in securities, COM(2018) 89 final.

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may provide some (diverging) guidance as to how to determine the location of the register/account/centralised deposit system in practice, such as case law or academic literature. These differences result in potentially different determinations as to the national regime applicable to the rights over securities, depending on the Member States of the (judicial) authorities which make that determination based on the conflict-of-law rule.

In particular, the absence of a uniform solution as to where the register/account/centralised deposit system is recorded, the majority of Member States rely on objective factors to determine the location of the securities.[395] Some Member States refer to a specific location and some leave it to market practice to determine the location of the account provider.[396,397] The uncertainty created by the different approaches as to the applicable national legal regime to rights over securities makes those transactions more expensive as market participants need to mitigate or reduce that legal uncertainty by asking for costly legal opinions and/or by ensuring compliance with different legal regimes. Consequently, this uncertainty may even discourage EU and non-EU investors from engaging in cross-border transactions.

Moreover, respondents to the targeted consultation noted that the SFD conflict-of-law rule was not adapted, and might not be able to be applied, to certain type of DLT-based systems and tokenised securities. As pointed out by a respondent to the targeted consultation, the current legal frameworks rely on clear, centralised record-keeping and concepts such as 'securities accounts'. Such assumptions are incompatible with certain DLT systems that may be: (i) decentralised and not tied to a single operator or location; (ii) peer-to-peer and accountless (users hold keys rather than accounts); (iii) immutable and autonomous, with finality and transfers handled algorithmically. Consequently, in some of those systems is not possible to identify an account, register or centralised deposit system in order to apply the conflict of law rule in SFD.

A similar problem arises in relation to the lack of a conflict-of-law rule applicable to proprietary aspects of securities transactions for CSDs. Although the Commission's CSDR proposal did include such rule - the Commission proposed to use the law of the country where the account is maintained[398] - the provision was removed by the co-legislators during the negotiations. In the absence of a conflict-of-law rule, Member States have developed and apply their own conflict-of-law rules, which sometimes differ and even contradict each other. Consequently, the rights of the counterparties to a cross-border securities transaction may differ depending on the authorities competent to assess the case and the determination they make as to the applicable national law. This legal uncertainty theoretically translates into higher costs of cross-border securities transactions which may limit or even deter investors from engaging in cross-border transactions. Nevertheless, feedback from the targeted consultation is showed that views

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[395] For example, in Germany it is the law of the country which supervises the relevant registrar or account, in the Slovak Republic it is the law of the register where the collateral is recorded.

[396] For example, in Austria it is the place where the account is effectively maintained, in Belgium it is the main establishment of the account provider, in Estonia the place where the register is placed, and in Finland it is the branch of the account provider.

[397] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the applicable law to the proprietary effects of transactions in securities, COM(2018) 89 final.

[398] "That account shall be presumed to be maintained at the place where the CSD has its habitual residence."

both the existence and size of the problem as well as the potential solutions differed considerably.

3.2.9. Diverging protections for participation of EU entities in third-country systems

The SFD does not apply to third-country systems. However, Member States are able to adopt legislation to extend SFD-like protections to domestic entities participating directly in third-country systems and to any relevant collateral they provide in those systems ('extension for third-county systems').[399] By applying those protections, the national law is disapplied for orders that those entities enter into the covered third-country systems thereby contributing to the settlement finality of those orders.

13 Member States[400] have not adopted legislation introducing a regime for an extension for third-county systems, while 10 Member States[401,402] have. The latter group of Member States introduced this legislation to ensure, in particular, that their banks would continue to be able to participate in third-country systems after the UK's departure from the EU. However, the approaches they have chosen to follow in their legislation differ, i.e. they apply different criteria and different procedures to grant the extension.[403]

Third-country systems have an interest in legal certainty and settlement finality protection in the case of the insolvency of their EU participants. Hence there is a risk that participants from Member States that have not provided an extension for third-country systems might be refused access to third-country systems or might be subject to higher collateral requirements in case they maintain such access. Because not all Member States have provided such extensions and because those Member States that have done it adopted different approaches, there is also a lack of a harmonised treatment of participation in those systems in the EU. This has an impact on both third-country systems and EU entities. For the latter, the fragmentation in approaches has created an unlevel playing field between different EU entities seeking to use third-country systems.

Divergent transpositions in relation to participants and indirect participants under the SFD

The SFD defines a 'participant' as "*an institution, a CCP, a settlement agent, a clearing house, a system operator or a clearing member of a CCP authorised pursuant to Article 17 of Regulation (EU) No 648/2012*" and an 'indirect participant' as "*an institution, a central counterparty, a settlement agent, a clearing house or a system operator with a contractual relationship with a participant in a system executing transfer orders which enables the indirect*

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[399] Recital 7 of the SFD states that "*[...] whereas Member States may apply the provisions of this Directive to their domestic institutions which participate directly in third country systems and to collateral security provided in connection with participation in such systems*".

[400] AT, BG, CY, CZ, ES, HR, HU, LT, PT, SI, SK, RO, PL.

[401] BE, DE, DK, EE, FI, FR, IT, LU, NL, SE.

[402] The remaining Member States have not provided any information as to whether they grant protection to their domestic institutions participating in third-country systems.

[403] 7 Member States assess a third-country system's compliance on a case-by-case basis with certain criteria and if they are satisfied that those criteria are met, the system is granted an extension for third-county systems. 3 Member States do not assess the compliance of a third-country system upfront. Instead, only third-country systems that correspond to the definition of a system under the SFD can be subject to such extension; where an extension is granted, if insolvency proceedings are opened for a domestic participant, the rules governing the third-country system apply to the domestic participant to such third-country system.

participant to pass transfer orders through the system, provided that the indirect participant is known to the system operator". There are several issues related to these concepts.

One issue is the definition of 'participant'. Unlike CCPs, CSDs are not explicitly mentioned in the list of participants. This does not necessarily mean that when a CSD that participates in a system designated under the SFD (e.g. because it has a link with the CSD operating that system) it is not protected; in principle, it can still be considered as a 'participant' in its role as 'settlement agent' or 'system operator'. However, the lack of an explicit reference creates uncertainty. During the 2021 targeted consultation that was carried out as part of the review of the functioning of the SFD, respondents pointed out this issue and were in favour of adding an explicit reference to CSDs to the definition of 'participant'; the same issue was pointed to during the 2025 targeted consultation.

Another issue relates to Member States' interpretation of whether the list of entities included in the definition of 'participant' is exhaustive. Some Member States consider the list as exhaustive and have hence extended the SFD's protections solely to those entities that are explicitly referred to in the definition. Other Member States consider that the list is not exhaustive and have therefore decided to include additional entities in their transposition of the definition in national law. As a result of these divergent interpretations, costly legal assessment and legal opinions are required to understand which entities are considered participants under the national transpositions of the SFD.

A further issue with the definition of 'participant' is that it provides challenges for systems based on new technologies, in particular those based on DLT. The decentralised nature of those systems and the likely difference in their structure compared to the structure of systems currently designated under the SFD means that the participants in the former can differ from the participants in the latter[404] and may not be explicitly covered by the definition of 'participant'. Respondents to the targeted consultation raised several issues in this context. First, they noted that an operator of a DLT-based settlement system that settles tokenised securities might not be eligible to be a participant in an SFD-designated system because the SFD requires participants to be entities listed in Article 2, point (f), of the SFD. Second, and applying to systems more broadly, if that system wants to include types of participants beyond those included in the definition (e.g. non-financial companies and investors), it will not fit the letter of the SFD's list of participants and may therefore not be considered a 'system'[405] under that Directive. Finally, because of the link between the definitions of 'participant' in the SFD and the CSDR, the operator of that system will not be able to be authorised as a CSD under the latter.[406] Combined with the abovementioned issue of how exhaustive list of entities included in the definition is considered by Member States, this can lead to different outcomes in different Member States.

Finally, one issue is related to the possibility that the SFD gives to Member States to consider an 'indirect participant' as a 'participant', if justified on the grounds of systemic risk. Where an indirect participant is considered to be a participant on grounds of systemic risk, this does

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[404] See Section 3.2.9 for further details.

[405] The SFD defines a system as a formal arrangement between three or more participants excluding the system operator.

[406] The risk that the direct participation of retail investors in a DLT-based settlement system would disqualify the operator of that system to be authorised under the SFD was recognised in the DLTPRR, which provides an exemption for such cases.

not limit the responsibility of the 'participant' through which the indirect participant passes transfer orders to the system to comply with the SFD requirements and those of the system. During the abovementioned 2021 consultation, some stakeholders also pointed out that different Member States took different approaches as regards the protections granted in relation to indirect participants: in some Member States indirect participants in systems could enjoy SFD protections (for more information on SFD protections see Section 3.2.12), while in others they could not. They complained that the lack of a harmonised approach to this issue, created an unlevel playing field across Member States

3.2.10. Divergent transpositions in relation to securities eligible for SFD protection

The SFD provides protection for payment systems as well as securities settlement systems (see Section 3.2.12 for more information on SFD protections). For a securities settlement system to benefit from the protections granted under the SFD, it has to execute securities transfer orders. Article 2, point (h), of the SFD defines securities as "*all instruments referred to in section C of Annex I to Directive 2004/39/EC*".

In bilateral discussions, stakeholders raised an issue that is analogous to the one described in Section 3.2.10 in relation to the definition of 'participant', namely that Member States have different interpretations as to whether the list of instruments included in the definition of 'securities' is maximum or minimum harmonisation. Based on the information provided, it would appear that at least some Member States have included additional instruments in their national transpositions of the definition. In addition, since the definition contains a reference to a list of instruments provided in the annex of a Directive, the above issue may be compounded, at least in theory, by different transpositions by Member States of that list under that Directive. This creates market fragmentation.

The same issue of fragmented application of the SFD also concerns the concept of 'payment' falling within the protections under the SFD. Differing transpositions of the concept of 'payment' in Member States can lead to a different degree of protection. The SFD (Article 2, point (i), first indent) defines a payment transfer order as "*any instruction by a participant to place at the disposal of a recipient an amount of money by means of a book entry on the accounts of a credit institution, a central bank, a central counterparty or a settlement agent, or any instruction which results in the assumption or discharge of a payment obligation as defined by the rules of the system*". For instance, interpretations can differ when it comes to the definition of money or book-entry as both terms are not defined in the SFD. The transposition of some Member States might for instance be more accommodating to new regulatory and technological developments than others.

3.2.11. Diverging SFD designation practices for EU systems

Another source of fragmentation is the way in which Member States have transposed the SFD as regards the designation process of EU systems.

The SFD does not provide rules on the procedural aspects to be followed (including timelines, information to be requested from a system operator and how the assessment of a system should be carried out), and the criteria to be used, by Member States when designating a system. As a result, Member States have adopted different solutions that can lead to very different outcomes. For example, systems operated by CCPs are designated in different ways in different Member States: some are designated as settlement systems, some as payment systems, and some system operators operate more than one designated system.

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Divergent national practices, specifically as regards i) concrete timelines regarding the designation process, ii) an explicit requirement for regular checks by Member States whether their SFD-designated systems are still SFD-compliant, and iii) a clear requirement for operators of the SFD-designated systems to notify the national competent authority of any relevant changes in the rules of the system it operates, are also likely behind some of the past issues related to the list of SFD-designated systems that is publicly available on ESMA's website.[407] For example, in one instance the list contained information that hadn't been updated to reflect changes to the name of the operator of an SFD-designated system, which created legal uncertainty for market participants as they did not know whether the system in question was still covered by the SFD's protections. Coupled with diverging transpositions as regards the scope of the SFD (see Sections 3.2.10 and 3.2.11 respectively), the above create legal and operational uncertainty as different systems have different scope of protection under national law, which exacerbates fragmentation and creates unnecessary costs.

3.2.12. Different levels of transparency under the SFD

The rules put in place by the SFD do not ensure an adequate level of transparency in relation to the information on systems designated under that Directive. Under the SFD, Member States are only required to notify the systems, and the respective system operators, which benefit from the protections granted under that Directive to ESMA; ESMA is then required to publish that information on its website. However, neither Member States[408] nor system operators are required to disclose information on the participants in those systems or the main rules governing them. This obligation falls on the participants in those systems, but only upon request of anyone with a legitimate interest. As a result of this approach, there are differences in the amount and type of information made publicly available in relation to the systems designated under the SFD, their participants and the rules governing their functioning. These differences result in information asymmetry among systems designated in different Member States or even in the same Member State. In turn, this information asymmetry creates an unlevel playing field for market participants, which is detrimental to the performance of risk assessments related to participation in a designated systems and to the trust in those systems. Respondents to the targeted consultation claimed this prevented them from obtaining a comprehensive picture of the scope of the protections granted under the SFD.

A similar issue arises in relation to the notification of the decision to open insolvency proceedings against a participant in an SFD-designated system. Currently, the relevant judicial or administrative authority must notify the appropriate authority chosen by the Member State of the decision regarding the opening of insolvency proceedings against a participant in an SFD designated system. That Member State authority must also immediately notify the European Systemic Risk Board, other Member States and ESMA. Market participants asked for this decision to be made available to other market participants for whom such a decision would be important as well, including the system operator and the system's other participants, or even made publicly available. They also pointed to some related uncertainty regarding the moment

[407] List of designated authorities, payment systems and securities settlement systems
[408] Nb. Member States receive this information from system operators as part of the designation process.

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that the notification of the system becomes valid (e.g. what happens if a participant becomes insolvent after notification but before publication on ESMA's website).

3.2.13. Different moments of settlement finality

The SFD leaves the determination of the different moments of settlement finality to each system.[409] There are three such moments commonly referred to: i) the moment of entry of a transfer order into a system, ii) the moment at which an order that entered into the system cannot be revoked, and iii) moment of finality of transfers of securities and cash. Under the SFD, each system is left to define the first two of those moments. The SFD does not explicitly refer to the third of those moments.

This can result in different finality moments being defined by different systems (even in the same Member State).[410] These differences may, in turn, result in some market fragmentation and may make the setting up of interoperable links between CSDs more difficult.[411] Indeed, according to Article 48(8) of the CSDR, interoperable securities settlement system and CSDs using a common settlement infrastructure must establish identical moments of entry of transfer orders into the system and of moments of irrevocability of transfer orders entered into the system; they must also have equivalent rules concerning the moment of finality of transfers of securities and cash. In practice, interoperable links may not be possible if there are differences on the settlement finality moments of the systems at stake, to the detriment of cross-border settlement, and in turn the benefits for the EU economy and EU investors as described in the main report.[412]

In addition, although the different systems document and communicate their settlement moments, participants in several systems, in particular in different Member States, need to know the moments of finality in each market/system. As these moments may not align, a payment deemed final in one system might not yet be final in another if it is part of a chain of transactions, and this legal uncertainty may discourage market participants from entering into cross-border transactions.

4. OBJECTIVES

4.1. GENERAL OBJECTIVES

The general objective of the proposed reforms is to promote market integration and efficiency, in particular for cross-border transactions. To achieve this, it is imperative to address existing fragmentation and inefficiencies that act as barriers to modern, frictionless cross-border issuance and settlement of financial instruments. To this end, necessary steps should be taken to promote competition in the post-trading sector, ensure robust supervision, provide legal

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[409] Nb. Member States may set out conditions on the moment of entry of a transfer order into a system in the law governing their systems. In such cases, differences in implementation are not due solely to choices made by CSDs.
[410] Even if a Member State's law sets out conditions as to the moment of entry, different systems in that Member State might designate slightly different moments of entry of transfer orders into the system.
[411] Nb. this remark is not applicable to CSDs connected to T2S since the T2S framework agreement mandates a harmonised settlement finality among the CSDs connected to T2S.
[412] Nb. for CSDs participating in T2S this problem cannot arise as all those CSDs must use the same settlement finality moments, namely those defined by T2S.

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clarity in a uniform manner across the EU, provide an environment that would allow to take full advantage of the benefits brought by new technologies, reduce unnecessarily burdensome requirements that act as impediments to market growth, and ultimately reduce costs and maximise benefits for consumers and firms.

This initiative is also in line with the broader objectives of the SIU in tackling barriers to financial market integration and fostering competitiveness of the EU capital markets at the global level. As mentioned in the Communication on SIU as pertains post-trade, "*it is important to enhance the interoperability, interconnection and efficiency of EU [...] post-trading infrastructures*". This effort is not, however, restricted to what can be accomplished at EU level; it also encompasses steps to be taken at the level of Member States, as they too bear the responsibility of achieving the goals of this EU-wide effort.

4.2. SPECIFIC OBJECTIVES

Linked to the problem drivers discussed above are the three specific objectives of the proposals put forward to promote market efficiency, in particular with respect to cross-border post-trade services. These are (i) enable further market integration and scale effects by increasing cross-border activity, (ii) improve supervision by reducing divergences, and (iii) facilitate innovation by enabling the use of new technologies. The specific objectives are without prejudice to the ultimate constraint of not undermining financial stability, as well as the integrity of markets and the entities that participate therein.

4.2.1. Enable further market integration and scale effects by increasing cross-border activity

To enable true market integration and foster cross-border scale effects in the Union, the post-trade framework must be adapted to support a more seamless, competitive, and future-proof environment. A key priority is to strengthen the CSDR to ensure freedom of issuance so that issuers can choose any CSD in the Union without facing unnecessary legal or operational barriers imposed at national level. Relatedly, passporting provisions should be modified to prevent national authorities from restricting the ability of CSDs to offer services across borders. Furthermore, to support market development, restrictions in the ability of CSDs to designate third-party entities for cash settlement in commercial bank money should be eased, in particular for non-EU currencies. In parallel, barriers to establishing links between CSDs should be reduced to promote efficient interconnections. Greater use of T2S, which should continue evolving as the central pillar of an integrated EU settlement ecosystem, should also be encouraged.

The CSDR should seek to ensure a level playing field between entities providing settlement services. It should also permit corporate groups operating multiple post-trade entities to outsource core and related services within the group, allowing them to benefit from economies of scale and consolidation. A related aspect to help promote market integration and scale entails increasing transparency. The relevant CSDR provisions should be strengthened to promote greater price transparency by clarifying the type and format of information that CSDs must provide to their participants. This should be done in a way that enables market participants to more easily compare service costs across CSDs in the Union, enhancing competition and informed decision-making. In parallel, transparency around settlement carried out by the banks and investment firms that operate as settlement internalisers should be improved to ensure that authorities can monitor market developments, identify emerging risks early, and determine

whether regulatory intervention may be warranted. Further transparency regarding the scope of settlement finality protections would also increase market participants' willingness to enter into cross-border transactions on the basis of more sound risk-based decision-making. Together, these measures will contribute to a more open, efficient, and resilient settlement landscape.

4.2.2. Improve supervision by reducing divergences

See Annex 11 on supervision, Section 4, Option 2.

4.2.3. Facilitate innovation by enabling the use of new technologies

To enable the safe and effective adoption of new technologies in post-trade, and in particular the settlement space, relevant Union legislation must be fit for purpose in a future shaped by innovation. To this end, greater legal and regulatory certainty should be provided to market participants and definitions – such as 'book-entry form' and 'securities account' – should be modernised to ensure they reflect technological developments. Moreover, rules should be adapted to account for activities using DLT-based assets, and steps should be taken to ensure that the regulatory environment supports the use of such assets for satisfying cash obligations, ensuring consistency, flexibility, and resilience in a rapidly evolving financial ecosystem.

The CSDR is complemented by the DLTPRR that enables innovation and experimentation to take place for activities undertaken by CSDs including settlement, maintenance and notary services. Any amendments to the CSDR should aim to bring clarity to the application of CSDR. As such, the aim is to ensure that the CSDR (as well as other legislation, e.g. SFD) is applicable to DLT-based structures in a manner equal to its application to conventional post-trade structures and entities. The DLTPRR today limits the authorisations it provides in order to allow for experimentation, for example in relation to product coverage compared to the CSDR and applies thresholds to limit risks. This initiative would provide more clarity on how conventional CSDs could provide DLT based services as part of their services under the CSDR as well as provide more room for the possibility of scaling up for entities under the DLTPRR.

5. POLICY OPTIONS AND ASSESSMENT

5.1. POLICY OPTIONS RELATED TO THE CSDR

5.1.1. Option 1 (CSDR): Status quo

This option introduces no amendments to the CSDR. It is the 'do-nothing' option against which the other policy options will be assessed.

5.1.2. Option 2 (CSDR): Broad review to enhance the functioning of market infrastructure

This option would present targeted, but ambitious amendments to the CSDR to address the individual problem drivers described in Section 3.2, in particular Sections 3.2.1 - 3.2.8, and address the outlined barriers. Given the multiplicity of issues identified, a wide range of targeted measures will be needed to address them; those measures are described below.

Option 2.1 (CSDR): Ensuring freedom of issuance and facilitating passporting and the cross-border provision of services

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To facilitate the freedom of issuance and promote the SIU objectives more broadly, this option would limit the possibility of Member States to impose additional requirements on issuers that act as a barrier to cross-border issuance. To achieve this, changes to Article 49 of the CSDR would be required, in particularthe broad references to national laws in Article 49 of the CSDR would be removed as they create uncertainty (issuers have to comply with national law and the governing contractual law of the securities regardless of those references).

The requirements under Article 23 of the CSDR on offering CSD services in other Member States would be simplified. A right for authorised CSDs to automatically provide services, or set up a branch, in any Member State in the EU would be introduced. There would not be additional requirements – other than a simple notification – (other requirements, such as the requirement for CSDs to provide a complex and burdensome assessment of how they intend to allow their users to comply with host Member State law in relation to shares, would be removed).

Within this framework, where the CSD would provide the relevant information, the possibility for denying the provision of CSD services would be effectively removed.

Moreover, where there are potential breaches of EU law, these would be investigated and, if needed, enforcement ensured.

Option 2.2 (CSDR): Supporting outsourcing

Under this option, the procedures to be used (including timelines) and information to be provided in case of the outsourcing of non-core CSD services would be clarified; a distinct procedure would be developed for outsourcing core CSD services to entities within the same group and a Level 2 mandate given to ESMA to determine the circumstances that would qualify as outsourcing of core services.

This option would also clarify that the use of DLT by a CSD to provide services as set out in the CSDR should not necessarily be considered as outsourcing within the meaning of the CSDR, but should however be approved.

Option 2.3 (CSDR): Cash settlement

In order to introduce more flexibility for CSDs that wish to designate a credit institution for the settlement of cash payments in non-EU currencies, this option would remove the requirement for such designated credit institution to have a special purpose authorisation that allows them to only provide such services without the ability to carry out other activities, provided that where such a credit institution is designated, settlement only happens in real time, and that the real-time settlement entails minimal credit or liquidity risks for the designated credit institution and the participants of the CSD concerned.

As proposed by some stakeholders[413], digital forms of money including some forms of tokenised cash would be permitted for settlement of the cash leg of transactions (as needed until tokenised central bank money would be made available and thereafter to complement

[413] The respondents across categories of respondents broadly supported that the concept of cash needs to be updated to generally include tokenized forms of money, particularly the emergence of tokenised central bank money, tokenised commercial bank money and electronic money tokens and a few respondents was broadly of the view that tokenised versions of cash was already included.

such central bank money, for cases in which settlement in the latter would not be required). Certain tokens, for example, asset referenced tokens, would however be excluded. Nevertheless, the general principle that settlement should continue to be done in central bank money where practical and available should be maintained in the CSDR in order to ensure compliance with international standards.

Option 2.4 (CSDR): Promoting the use of T2S and connecting the fragmented settlement landscape

To promote the use of T2S, all EU CSDs would be mandated to connect to the T2S platform in the case that they settle in a T2S-supported currency. To achieve this, the Commission would encourage the Eurosystem to expand the platform's functionalities, including the possibility to serve a broader range of currencies issued in the EU (the Commission would also encourage the central banks issuing those currencies to make them available in T2S), as well as improve the handling of corporate actions and asset servicing by standardising related processes, including messaging protocols for processing settlement instructions and codifying communication procedures between CSDs and market participants, as well as with other market infrastructures. The Commission would also encourage the Eurosystem to continue exploring ways to improve and expand the functionality of T2S in a cost-effective manner, including reviewing the current pricing arrangements.

Under this option, the notion of *CSD hubs* would be introduced. The concept would cover, in particular, CSDs providing services in several Member States and those processing a high value of settlement instructions relative to all settlement in the EU. In order to optimise the impact of the above measure pertaining to the use of central bank money for cash settlement as well as to ensure greater interconnectedness between CSDs, all EU CSDs considered to be hubs would be required to establish links with one another, while the remaining CSDs would be required to establish links with at least one EU CSD hub (to the extent that such link is not already in place). All the aforementioned links (i.e. links between CSD hubs and links between those CSD hubs and the remaining CSDs) would be required to be bi-directional, interoperable and able to settle all financial instruments available for settlement within the given CSD. This option would also require CSDs operated by public sector bodies[414] to adhere to the interconnectedness requirements, including the requirement to establish and maintain links with other CSDs.[415] This would create a settlement network with several key, interconnected nodes through which the remaining CSDs would be able to access any other CSD via a relayed

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[414] In the EU, there are six CSDs operated by central banks and the Cypriot CSD is owned and operated by the Ministry of Finance of Cyprus. In Belgium, the National Bank of Belgium Securities Settlement System (NBB-SSS is operated by the National Bank of Belgium. In Bulgaria, the Bulgarian National Bank Government Securities Settlement System (BNBGSSS) is operated by the Bulgarian National Bank. In Czechia, the Short-Term Bond System (SKD) is operated by the Czech National Bank. In Greece, the Bank of Greece Securities Settlement System (BOGSSS) is operated by the Bank of Greece. In Poland, Skarbnet4 is operated by the National Bank of Poland. In Romania, Safir is operated by the National Bank of Romania.

[415] Article 1(4) of the CSDR exempts members of the European System of Central Banks (ESCB), Member State national bodies, and other public bodies involved in public debt management that offer core CSD services through a CSD under their responsibility, from certain requirements of that Regulation. Specifically those articles on authorisation (Articles 10 to 20 and Article 30(4)), an aspect of the user committee (Article 28(6)), supervision (Article 22 on review and evaluation, Article 24 on the freedom to provide services in another Member State, and Article 24 (cooperation between home and host Member States), Article 27 on management)), investment policy (Article 46), prudential (capital) requirements (Article 47) and recovery (Article 22a). Moreover, in accordance with Article 1(4), the requirements to report to competent authorities or relevant authorities or to comply with their orders under CSDR do not apply.

link arrangement. CSDs operating one or more DLT-based securities settlement system authorised under the DLTPRR would not be required to link those systems to conventional securities settlement systems authorised under the CSDR at this point in order to enable them to experiment with different technologies.

In addition, to streamline the establishment of interoperable links, ESMA should be the authority authorising such links. The process would be simplified. ESMA would not be allowed to refuse the establishment of an interoperable link unless it would threaten the smooth and orderly functioning of financial markets or cause systemic risk. For standard and customised links, the requirements under Article 52 of the CSDR would be amended to remove the possibility for a recipient CSD to refuse to establish such links.

Finally, to further improve the harmonisation of standards in settlement operations this option would mandate ESMA to codify, through Level 2, the relevant harmonised standards.

Option 2.5 (CSDR): Increasing transparency

To increase transparency of prices and fees of CSD services, ESMA would be mandated to create a harmonised template and/or structure for the public disclosure of those prices and fees. This option would also introduce a similar public disclosure by ESMA of the information reported by settlement internalisers and a mandate for the transparency of prices and fees for services that they provide to their clients.

In addition, to increase overall transparency in settlement in the EU and to level the playing field across the entities that provide settlement services, this option would expand the existing ESMA mandate under Article 74(1c) to produce a report on settlement internalisers' activity based on collected data, including data on settlement efficiency, as well as on the fees and pricing of services in the area of settlement, and to issue any policy recommendations it deems appropriate (e.g. with respect to preventing settlement fails, measures to address settlement fails, more frequent and more granular reporting, increasing transparency, the protection of securities of participants and those of their clients, settlement finality, etc.).

Option 2.6 (CSDR): Legal certainty

This option would amend the CSDR to provide legal certainty as well as introduce more technological neutrality in the relevant definitions, concepts and requirements, thus ensuring that the CSDR applies equally to CSDs irrespective of the technology used in the provision of services. For example, the concept of 'book-entry form' would be amended to clearly include DLT-based records. In addition, this option would amend the definition of 'securities account' to ensure that the terminology works for transactions on a ledger, which would then include records using distributed or otherwise shared electronic ledgers to credit and debit such securities.

The above clarifications would also bring legal clarity to other concepts, definitions and requirements under the CSDR that use the above concepts and definitions (directly or indirectly).

5.1.3. Option 3 (CSDR): Far-reaching review to impose an integrated market

This option would include even more ambitious amendments to the CSDR than option 2. As is the case for the latter, given the multiplicity of issues identified, a wide range of targeted measures will be needed to address them; those measures are described below.

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Option 3.1 (CSDR): Ensuring freedom of issuance and facilitating passporting and the cross-border provision of services

The CSDR would be amended to effectively remove any additional requirements – including with relation to relevant national law – prior to a CSD being able to offer CSD services, or set up a branch, in another Member State. Article 23 of the CSDR would be amended to explicitly enshrine the right of an authorised CSD to automatically be able to provide services, or set up a branch, in any Member State in the EU without any additional requirements, including no need for a notification. Under this option, a CSDs would be able to provide services in relation to securities issued according to the law of all Member States, regardless of whether there is any intention to serve markets in a particular Member State. The simplifications to Article 49 of the CSDR proposed under Option 2 would apply under this option as well.

Option 3.2 (CSDR): Supporting outsourcing

This option would treat any kind of services – be they core or non-core – delegated to another entity within the same corporate group as if they were carried out by the entity itself. This would effectively limit the scope of Article 30 of the CSDR, applying no requirements for outsourcing of core and non-core CSD services to other entities in the same group.

The same clarification in relation to DLT as in Option 2 would be included in this option as well.

Option 3.3 (CSDR): Cash settlement

The requirement for a designated credit institution that provides banking-type ancillary services to have a limited authorisation that allows them to only provide such services without the ability to carry out other activities would be deleted in its entirety. This would allow any credit institution to provide such banking-type ancillary services to CSDs for any currency and without any further restrictions.

Compared to Option 2, this option would allow CSDs operating DLT-based systems to operate using a wide range of stablecoins under MiCA, for example, asset-referenced tokens, for settling the equivalent of the cash leg of securities transactions.

Option 3.4 (CSDR): Promoting the use of T2S and connecting the fragmented settlement

To further promote the use of T2S, it would be transformed into a CSD ('T2S CSD'), as proposed in the Noyer report,[416] and all CSDs in the EU would be required to connect to it via bidirectional links.[417] To facilitate this arrangement, T2S CSD would need to effectively serve all EU currencies for settlement in central bank money (both existing and CBDC, once available) and would be required to allow settlement in commercial bank money (both non-digital and digital, including DLT-based) for settling transactions in securities denominated in non-EU currencies (e.g. Eurobonds and ETFs).

This would allow any participant in any EU CSD to access markets served by any other CSD in the Union.

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[416] See Section 5.3.1 of the Noyer report.

[417] Nb. The establishment of bi-directional links between all CSDs could also be done without converting T2S into a CSD.

Option 3.5 (CSDR): Increasing transparency

In addition to what is proposed under Option 2 to increase transparency of fees and prices, this option would also require CSDs and settlement internalisers to charge the same fees and prices for cross-border services as they charge for domestic services.

Option 3.6 (CSDR): Legal certainty

The CSDR was developed following the financial crisis and a subsequent a call from the Financial Stability Board[418] for more robust financial market infrastructures. The 2012 impact assessment on CSDR noted that there was no common definition of a CSD, but in general terms, there is nevertheless a range of functions that are performed by many CSDs.[419] With this in mind, the CSDR defined a CSD as one entity providing two or more core services. This allowed the entity to keep the record of the information feed during the whole lifecycle of a security (issuance, multiple trading, redemption). In a DLT environment, however, the provision of these core services could be unbundled and provided by different entities. Under this option, the CSDR would therefore be fully revised to cater for functional or service-based authorisations reflecting structures that cover the whole chain of trading, clearing and settlement and therefore would move away from the traditional sectorial separation between functions and services and would focus on the services provided rather than the entity providing them. For example, it would allow for per-service authorisation and would adjust requirements to the service provided. Similarly to Option 2, this option would also amend definitions, concepts and requirements to make them compatible with DLT-based structures.

5.2. POLICY OPTIONS RELATED TO THE SFD

5.2.1. Option 1 (SFD): Status quo

This option introduces no amendments to the SFD. It would remain a Directive. Differing national transpositions would remain, with the consequent impacts on and additional costs for market participants. It is the 'do-nothing' option against which the other policy options will be assessed.

5.2.2. Option 2 (SFD): Comprehensive review to enhance the functioning of market infrastructure

The SFD would be converted into a Regulation (Settlement Finality Regulation (SFR)). This would require setting out in a more precise way matters related to protections granted by the SFD in order to achieve a harmonised approach across the EU. Given the multiplicity of issues identified, a wide range of targeted measures would be required to address them; the main ones of those measures are described below.

Option 2.1 (SFD): Legal certainty for digital innovation

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[418] On 20 October 2010, the Financial Stability Board meeting in Seoul called for updated standards for more robust core market infrastructures.

[419] Impact assessment accompanying the document Proposal for a Regulation of the European Parliament and of the Council on improving securities settlement in the European Union and on Central Securities Depositories (CSDs) and amending Directive 98/26/EC, SWD(2012) 23 final, 7 March 2012.

To ensure legal certainty and to enable certain DLT-based systems to benefit from the protections under the SFR (via designation under the Regulation), this option would amend definitions, concepts and requirements to make them DLT compatible. These would include changes to several definitions and concepts, such as 'system', 'participant', 'institution', 'settlement agent', 'settlement account', 'transfer order', 'settlement finality' (see Section 3.2.7 for details), 'securities', and 'collateral security'.

This option would also clarify that the concept of payment includes certain tokenised versions thereof to ensure a harmonised approach to novel forms of money and cash.

Option 2.2 (SFD): Conflict-of-law rule

To address the problems identified (see Section 3.2.8) arising from the current conflict-of-law rule in the SFD, this option would clarify and develop the existing conflict-of-law rule so that: (i) market participants and (judicial) authorities could apply it directly - without the need for further developments or interpretations by Member States; and (ii) the revised conflict-of-law rule can be applied also directly to designated DLT-based systems and tokenised securities – since tokenised securities may not necessarily be maintained in an account located in a Member State in all cases.

In particular, this option would complement the current conflict-of-law rule in the SFD by: (i) for traditional systems, further specifying concretely how to determine the Member State where securities are legally recorded on a register, account or centralised deposit system; and (ii) by establishing as a "fall-back" connecting factor where the account based conflict of law as in (i) cannot be applied, the law governing the system – the law of the Member State which designated the system as per Article 2 SFD.

Option 2.3 (SFD): Participation of EU entities in third-country systems

Third-country systems would need to be registered[420] in the EU for those systems to be protected in case of insolvency of any of the EU entities participating in them. ESMA and the ECB/ESCB would also be the single contact point for third-country systems for securities settlement systems and payment systems respectively and help those systems to find and contact the relevant authorities in Member States for registration. The assessment itself would however be undertaken by Member States as certain aspects of national law might need to be taken into consideration. ESMA/ECB/ESCB would also ensure that there is coordination between different Member States with participants in the third-country system and thus undertaking the assessment to ensure a consistent approach across the EU.

Absent harmonisation of EU insolvency law, Member States would be left to implement the registration in their national law but the new SFR would harmonise the rules of the relevant assessment of such third-country systems by mandating ESMA and ECB/ESCB respectively for securities settlement/clearing systems and payments systems - in close cooperation with the ESCB - to develop Level 2 measures to ensure that the assessment criteria are applied in a consistent way across Member States.

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[420] Currently, SFD designation requires a system to be governed by the law of a Member State. As third-country systems are systems governed by the law of a third country, a designation under the SFD as it currently stands is not possible. Therefore, this section talks about registration to differentiate. The concept of registration would need to be defined in the SFD.

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ESMA would publish the list of third-country systems registered by Member States (see Section 5.2.2.7).

Option 2.4 (SFD): Scope of participants

To ensure a harmonised approach to the scope of participants under the new SFR, this option would explicitly include CSDs in the list of participants.[421]

This option would further expand the list of participants by allowing, in addition to the existing list of participants, all legal entities that qualify to participate in a system by complying with certain conditions set out in the SFR and in the rulebook of the system. Those conditions would consider the risks the participants may present to the system and specify how such risks would be mitigated by the participant, for example by having competent personnel and appropriately designed risk functions relevant for the participant; the conditions would be proportionate. A Level 2 mandate for ESMA and EBA, in cooperation with the ESCB, to amend the list of participants and to further specify the conditions, differentiating, if necessary, by the type of system, would be included as well. This would create a level playing field among systems regarding participants and the set-up would mimic and build on the current protection that exists for clearing members that participate in a CCP where the CCP needs to ensure that the participants admitted have sufficient resources and operational capacity to meet the obligations arising from participation in the system(s) operated by the CCP and where all the other requirements set by the system have to be met by the participants.

Option 2.5 (SFD): Scope of eligible securities

This option would introduce a common definition of eligible securities under the new SFR in all Member States, establishing a harmonised list with all securities that would be eligible. This would be done by amending the definition by way of a reference to the definition of 'financial instruments' set out in Article 4(1), point (15), of MiFID II. This option would also introduce a mandate for a Level 2 act enabling the list of eligible securities to be amended in the future to take into account market developments and/or further specify the instruments to ensure greater harmonisation.

Option 2.6 (SFD): Designation practices for EU systems

Under this option, the new SFR would introduce harmonised requirements for the designation of systems and streamline designation practices. Specifically, the amendments would include clear requirements on what information to provide in the notification, provide the assessment criteria and the procedures and timelines to be followed. This would be complemented with a mandate to develop the details in Level 2. Member States would continue to designate systems under their national laws. ESMA and the ECB/ESCB would be mandated to check the alignment of designations of, respectively, securities settlement systems and payment systems across Member States in order to ensure a harmonised approach across the EU.

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[421] Since the adoption of EMIR, CCPs have been added to the list of eligible direct SFD participants. However, the definition of 'CSD' set out in Article 2(1), point (1), of the CSDR are not explicitly included although their participation is implicitly covered as 'settlement agents' and 'system operators'. Yet, Article 39(1) of the CSDR, requires Member States to designate and notify securities settlement systems operated by CSDs in accordance with the SFD. Therefore, it would follow that CSDs should be explicitly added to the list of eligible participants in the SFD.

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Option 2.7 (SFD): Transparency

To ensure that the publicly available information about valid designations is accurate, this option would include a requirement for Member States to provide ESMA with accurate and up-to-date information related to the designated EU systems that ESMA would then publish on its website. In addition, Member States would be required to provide more information to ESMA than they currently do including on direct participants in the designated systems, the rules of those systems and how those systems ensure settlement finality protection (some of that information may not be published on ESMA's website). ESMA would be required to publish information on the third-country systems registered by Member States on its website as it currently does for designated EU systems, as well as clarity on the scope of that registration. In order to facilitate comparability of the information to be published, this option would mandate ESMA to develop a template for Member States' notification of systems with the required related information.

Option 2.8 (SFD): Settlement finality moments

Under this option, the new SFR would determine the moments of entry of transfer orders into the system, irrevocability of such transfers orders, and possibly, the moment of finality of the execution of the transfer order. The ability of Member States under the current SFD to apply national conditions would be removed. ESMA, in cooperation with the ECB/ESCB, would be mandated to further specify, if necessary, the above moments of finality for systems other than securities settlement systems operated by CSDs (for the latter, see Section 5.1.2.4) in Level 2, taking into account the specificities of the different types of systems.

5.2.3. Option 3 (SFD): Extensive review to impose an integrated market

This option would include even more ambitious amendments to the SFD than option 2. As is the case for the latter, given the multiplicity of issues identified, a wide range of targeted measures will be needed to address them; those measures are described below.

Option 3.1 (SFD): Legal certainty for digital innovation

In addition to ensuring legal certainty on concepts, definitions and requirements and to enable certain DLT-based systems to benefit from the protections under the Settlement Finality Regulation (via designation under Settlement Finality Regulation), this option would also aim to provide legal certainty in relation to other aspects on the holding of securities as well as further harmonising the designation of systems where they are operated by using DLT.

Option 3.2 (SFD): Conflict-of-law rule

This option would include in the new SFR the conflict-of-law rule set out in the Hague Convention on the applicable law to certain rights in respect of securities held with an intermediary. The applicable law would be the law of the country named in the account agreement with the relevant intermediary, backed by a so-called 'reality test' intended to ensure that the intermediary does actually conduct securities business in that jurisdiction, even though not necessarily in relation to the account in question.

Option 3.3 (SFD): Participation of EU institutions in third-country systems

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The responsibility for registering third-country systems would be given to ESMA (for securities settlement systems) and ECB/ESCB (for payment systems).

Option 3.4 (SFD): Scope of participants

Under this option, any entity that is allowed by a system operator to participate in a system based on the admission criteria of the system would be considered a participant (as opposed to only certain regulated financial entities). Amendments would also be made to sectoral legislation, such as the CSDR, to ensure alignment.

Option 3.5 (SFD): Scope of eligible securities

Under this option, any instrument would be considered an eligible security. This option would allow operators of designated systems to choose the instruments that would be included in the protections provided under the new SFR.

Option 3.6 (SFD): Designation of EU systems

Under this option, ESMA (for securities settlement systems) and ECB/ESRB (for payment systems) would be given the responsibility for the assessment and designation of EU systems under the new SFR.

Option 3.7 (SFD): Transparency

This option would fully harmonise the information that is to be published by ESMA, including, among others, the designated system, its rules and its direct and indirect participants, as well as the third-country systems to which Member States extended their domestic participants' protection. ESMA would also publish with unrestricted access information on the opening of insolvency proceedings against a direct or an indirect participant of any designated EU system. Information on other matters related to SFR-designated systems would also be made public in a centralised form. The additional elements of information to be published would be identified by ESMA as necessary and included in Level 2 legislation.

Option 3.8 (SFD): Settlement finality moments

This option would fully harmonise the three settlement finality moments at EU level in a uniform way for all types of systems, without taking into account the specificities of different types of systems.

6. IMPACT OF THE POLICY OPTIONS

This section describes the impact of the policy options presented above.

6.1. IMPACT OF THE POLICY OPTIONS REGARDING THE CSDR

6.1.1. Option 1 (CSDR) – Status quo

Since this option would not amend the CSDR, the problems and problem drivers described, respectively, in Sections 3.1 and 3.2 would persist and would not be resolved. Consequently, potential improvements would be left to initiatives from the private sector or Member States, which are however not likely to result in the removal of the existing barriers to market integration and cross-border activities.

6.1.2. Option 2 (CSDR) – Comprehensive review to enhance the functioning of market infrastructure

Option 2.1 (CSDR): Ensuring freedom of issuance and facilitating passporting and the cross-border provision of services

This option would be effective in directly meeting one of the specific objectives of the overall proposal in that it enables further market integration and scale effects by facilitating passporting of CSD services in the EU and ensuring that freedom of issuance is effective, thus increasing the supply of CSD services cross-border. This would also be complemented with measures to improve transparency of fees and prices of CSDs to enable issuers and investors to compare offers and services throughout the EU (see Section 3.2.6) in order to stimulate the demand side.

In their replies to the targeted consultation, several stakeholders (including CSDs and national authorities) highlighted that the complex passporting processes entail high costs for CSDs, particularly in terms of administrative burden, as well as legal analysis and compliance costs. Some respondents have also evidenced that there are costs due to missed opportunities where there is demand for cross-border issuance. In the targeted consultation,[422] 70% of stakeholders indicated that there are barriers to the freedom of issuance in the EU. Moreover, several stakeholders evidenced that fragmentation at the CSD level results in increased and persistent costs for end-investors.[423]

On the other hand, it should be noted that some stakeholders (including a few national authorities) denied having identified any regulatory or supervisory barriers to freedom of issuance and provision of cross-border services in the EU, albeit some (notably CSDs), while denying formal barriers, evidenced that practical challenges and compliance costs remain for CSDs, due to the costly assessments needed for passporting caused by the fragmentation of Member States requirements, including divergent interpretations of the relevant CSDR provisions. Simultaneously, CSDs report disproportionate length and costs of the passporting process, citing administrative burden, supplementary reporting requirements, transparency issues and unpredictability with regard to the costs of applying the passport.[424]

Generally, respondents to the targeted consultation did not seem to envisage that any costs could stem from a simplification of the passporting procedure or the enhancement of the freedom of issuance in the EU.

This option would accomplish the objectives of the overall proposal by reducing the burden for CSDs in providing services across borders, thus reducing the corresponding costs. Legal clarity would also reduce costs for issuers, ensuring freedom to issue their securities in whichever EU CSD they want by restricting national law from imposing additional requirements that go beyond EU law. This option, by enabling further market integration, would reduce costs for investors as well.

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[422] See "Targeted consultation of integration of EU capital markets", Question 3.1.1.

[423] "Study on consolidation and reducing fragmentation in trading and post-trading infrastructures in Europe", Final Report, Bourse Consult & Civitta, September 2025: https://op.europa.eu/en/publication/doi/10.2874/2649452.

[424] "Provision of cross-border services by CSDs and handling of applications under Article 23 of CSDR from 2020 to 2022", European Securities and Markets Authority. See paragraphs 176 and 177.

The above would be achieved at no additional cost for CSDs or issuers (in fact, the administrative costs related to the various procedures are expected to fall).

As such, this option is also coherent with the objectives of the SIU to create a more harmonised and standardised market in that it helps reduce fragmentation in EU capital markets.

Option 2.2 (CSDR): Supporting outsourcing

Clarifying the procedures for outsourcing of CSD services and simplifying those procedures in case of the outsourcing of those services to other entities within the same group would be effective in directly meeting one of the specific objectives of the overall proposal in that it would enable further market integration and scale effects by allowing CSDs to more efficiently outsource their activities, in particular within the same group, leading to cost savings and increased competitiveness, while maintaining the relevant risk mitigation requirements. One corporate group that comprises at least one CSD indicated that more accommodating intra-group outsourcing provisions – e.g. with respect to IT and human resources – could yield a cost savings of approximately 15 percent.

This option was generally supported by CSDs who responded to the targeted consultation and who highlighted that the current outsourcing framework is overly burdensome particularly with respect to staff sharing among CSDs belonging to the same group. Generally, respondents to the targeted consultation did not seem to envisage that any costs could stem from the clarification of outsourcing requirements and the simplification of outsourcing procedures with respect to intra-group outsourcing should entail additional costs for stakeholders. It should however be noted that a small number of national competent authorities who responded to the targeted consultation considered that the current approval processes under the CSDR remain suitable, as they correctly cater for the relevant risks, with one authority cautioning, for example, on the risk of empty shells emerging and the corresponding risks to business continuity. As such, those authorities indicated that no changes are therefore necessary.

This option would accomplish the objectives of the overall proposal by reducing the burden and costs for CSD groups in providing their services in the most efficient way in accordance with their business strategy.

It will also help facilitate innovation by enabling the use of new technologies. By explicitly clarifying the use of DLT and how outsourcing rules apply to such new technologies, the proposal would facilitate innovation. This, in turn, would contribute to a more innovative EU capital market. Overall, the proposal is generally coherent with the objectives of the SIU, as it aims to promote a more integrated, innovative and efficient EU capital market, as well as the Commission's Digital Europe Programme.

Option 2.3 (CSDR): Cash settlement

By facilitating CSDs' ability to designate credit institutions for settling the cash leg of securities transactions in commercial bank money, this option would allow CSDs to offer settlement in services for which access to central bank money is not possible or very costly. This option would not entail any significant costs for CSDs or for credit institutions they would designate; any costs that would be incurred would not be imposed, i.e. the CSD would incur them only if it decided to offer the service. This would increase the competition among EU CSDs for the provision of settlement services in financial instrument denominated in non-EU currencies.

In addition, this option would help meet the specific objective of facilitating innovation by enabling the use of new technologies, as it would facilitate the use of DLT by CSDs by allowing them to utilise digital forms of money, including tokenised cash, for settlement. The proposal would also contribute to improving supervision by reducing divergences, as it provides clarity on the use of different forms of money for settlement and ensures that CSDs can operate efficiently and safely. However, in the short term, this option may contribute to further fragmentation of the CSD market as it would facilitate the establishment of settlement systems that would not be able to interact in a straightforward fashion with one another (i.e. settlement systems settling in tokenised money would require different technical solutions to be able to settle cross-border transaction with settlement systems settling in traditional central bank money or in commercial bank money). This is why the impact on enabling further market integration and scale effects by increasing cross-border activity would be less, although the increased efficiency and reduced costs resulting from the proposal could potentially lead to increased cross-border activity.

88% of respondents to this question in the targeted consultation representing a wide range of financial sector stakeholders and a few Member State authorities agreed that the definition of cash needed to be updated to include, for example, tokenised forms of money, in particular tokenised commercial bank money and electronic money tokens. Those who opposed an update to the definition of cash viewed the existing definition as already covering DLT versions of traditional cash.

This option is coherent with the objectives of the SIU, as it aims to promote a more integrated, innovative, and efficient EU capital market. By enabling the use of DLT and digital as well as tokenised forms of money, the proposal would contribute to a more modern and competitive market, which is in line with the broader goals of the SIU. Overall, the option has the potential to promote innovation, improve supervision, and increase efficiency in the market, making it a useful step towards achieving the objectives of the package.

Option 2.4 (CSDR): Promoting the use of T2S, connecting the fragmented settlement landscape and enhancing the role of links between CSDs

This option would help meet the specific objective of enabling further market integration and scale effects by increasing cross-border activity, as requiring a connection to T2S and thus facilitating settlement in central bank money would make settlement safer. It would facilitate, in conjunction with mandating the establishment of links, cross-border settlement, reducing barriers and increasing efficiency. It would create a settlement network with several key, interconnected nodes at its centre allowing participants in any EU CSD to settle securities transactions in any other CSD via a relayed link arrangement, thus increasing competition between CSDs. According to ECSDA, relayed links are an efficient means to connect to markets where low volumes and relatively high legal, operational and legal costs would make a direct link not economically viable. In fact, the establishment of relayed link arrangements has increased over the past few years. Since 2021, while the number of direct links has remained relatively static and indirect links have decreased by almost 40%, the number of relayed links has increased by almost 30%.[425]

Among the 32 CSDs established in the EU, 23 are connected to T2S. This option would therefore incur the costs of those nine CSDs connecting to T2S. There are currently 180 links

[425] "CSD Links Report", ECSDA, October 2025.

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established between EEA CSDs. Under this option, the establishment of an additional 10 to 15 inbound links would be needed. Since these links would be established among CSDs connected to T2S, which harmonises technical connectivity and settlement processes, the cost would be significantly less than for the case where CSDs would need to make changes to technical infrastructure and align protocols. As discussed in Section 3.2.4, a simple link established between two T2S-connected CSDs could entail an initial cost of EUR 30 000, whereas more complicated arrangements could increase that cost by at least an order of magnitude. Some of the already established links would need however to be amended, notably to expand the scope of instruments that can be settled under that link in order to be able accept all the instruments issued by the issuer CSD via the link. Such costs would be offset by the fact that a peripheral CSD would only be required to establish a single link to one CSD hub, while markets served by other CSDs could be accessed through these central CSDs via relayed arrangements. If most CSDs in the EU currently maintain four or fewer links (see Sections 2.4.2.3 and 3.2.4), then up to three of these links would no longer necessarily be needed to be maintained leading to conservatively estimated savings of at least EUR 100 000 per year, assuming the low end of the annual link maintenance costs quoted in Section 3.2.4. This approach in any case seems to be the direction of travel on the part of the industry. In July 2025, Euroclear issued a press release indicating their intention to provide a single point of access across all financial asset classes for all EU CSDs in the 27 Member States.[426]

The targeted consultation showed some support for establishing a minimum number of links in the targeted consultation. This was particularly the case from investor associations, investment firms in certain Member States, as well as a few market infrastructures. There was also support from a few Member States. Although the question of a hub and spokes model was not specifically asked in the targeted consultation, one industry association supports the concept of a settlement system with hubs and spokes as a way to forward the integration of settlement in the EU. This option will also likely be supported by regulated market participants (including brokers, dealers, trading venues or intermediaries) which will be able to settle any instrument issued in an EU CSD for the cost of the connection to one of the CSD of substantial importance. On the contrary, "spoke" CSDs are likely to oppose the establishment of links in the case that they have not already established any links. Moreover, the hub CSD would be able to passport central maintenance services for all instruments issued by the hub to the 'spoke' Member State.

In turn, greater use of T2S would drive down the cost of settling in T2S, thereby reducing post-trading costs, and increase harmonisation as CSDs joining T2S would use common standards. If the volumes settled at the two ICSDs in the EU were to move to T2S and a 30% decrease in settlement fees can be expected when moving volumes to T2S from CSD internal settlement (see Section 3.2.4), this could lead to a total possible savings of approximately EUR 86 million across the EU settlement landscape. This figure takes as a starting point the 2024 settlement volumes processed by Euroclear Bank (200 nm) and Clearstream Banking SA (115 mn)[427] and assumes that the average fee per settlement instruction at the ICSDs is EUR 0.91, as noted in a recent AFME publication.[428]

In terms of costs for CSDs, connecting to T2S would imply an initial investment cost for CSDs to adjust their systems, which can vary dramatically depending on the CSD as discussed in

[426] https://www.euroclear.com/newsandinsights/en/press/2025/mr-19-connecting-eu-markets-across-asset-classes.html
[427] Settlement volumes sourced from the ECB Statistical Data Warehouse.
[428] https://www.afme.eu/publications/reports/analysis-of-csd-fees-in-major-european-markets/

Section 3.2.4. As the CSDs in the EU that are not yet connected to T2S are relatively small, using an estimate on the low end of the range for connecting to T2S for those CSDs would yield a total cost of just over EUR 200 million. However, that would only apply for a small number of CSDs that are not already connected to T2S. The costs for CSDs of establishing links would include an initial investment cost to establish a link and then limited costs to maintain it. The vast majority of CSDs would likely establish only one bidirectional link, so the costs of complying with the requirement set out in this option would likely be contained. They may be further reduced if a CSD already has such a link in place and if both it and the CSD with which it would establish a link are both connected to T2S. In terms of benefits for CSDs, they would depend on investor demand to use their services for settling cross-border transactions.

At the same time, this option would reduce the regulatory burden of establishing links by simplifying the application process and replacing the current regime with a more streamlined one. Furthermore, this option would harmonise standards in settlement operations, facilitating further integration. The adoption of those standards would entail some initial investment costs for those CSDs that do not already use them. For example, it has been noted by some stakeholders that despite the existence of ISO standards providing the classification of transactions and the associated codes, information on the types of transactions is not populated consistently in settlement-related messaging. The lack of consistent use of transaction type codes limits and/or prevents straight-through-processing/automation in certain post-trade activities and, ceteris paribus, results in a higher number of errors. This applies also to know-your-customer and customer due-diligence procedures. The coexistence of the ISO15022 and ISO20022 messaging standards also prevents further harmonisation of settlement/reconciliation, asset servicing and reporting processes.[429] Similar problems mar custody and asset servicing activities, i.e. activities aimed at ensuring that investors receive full information and comprehensive services during the lifetime of their assets. Although the 2017 European Post-Trade Forum report indicated significant harmonisation, the 2024 Corporate Events Group Report[430] revealed that compliance with the various standards was limited. Specifically, only eight out of 40 markets met the market CA standards, 15 out of 28 markets adhered to the T2S CA standards and ten out of 31 markets complied with the market standards for shareholder identification. For instance, in its public consultation submission[431] Deutsche Boerse estimated that around 50% of the cost to process corporate events is spent today by custodians to source the correct information.

This option is less directly related to facilitating innovation by enabling the use of new technologies, although it would include the possibility of settling transactions in CBDCs once they would become available.

This option would help meet the specific objective of enabling further market integration and scale effects by increasing cross-border activity, as it would facilitate cross-border settlement and hence of cross-border trading, reducing barriers and increasing efficiency. By facilitating the settlement of transactions across different Member States and currencies, this option would

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[429] "Remaining barriers to integration in securities post-trade services – Issues and Recommendations", Advisory Group on Market Infrastructures for Securities and Collateral, September 2025.
[430] See Advisory Group on Market Infrastructures for Securities and Collateral (Ami-Seco), "Corporate Events Compliance Report – 2024 Monitoring Exercise", ECB, December 2024.
[431] See Deutsche Börse Group's response to the European Commission's call for evidence on the Savings and Investment Union, Section 3.1.1 – Cross-border provision of CSD services and freedom of issuance.

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contribute to a more harmonised and standardised market, which is in line with the broader goals of the SIU. The proposal would also contribute to improving supervision by reducing divergences, as it would promote a standardised and harmonised approach to settlement across the EU. Since CSDs authorised under the DLTPRR would not be required to link with other CSDs (although they would be free to do so, if they so wished), this option would contribute to facilitating the development of new services and technologies.

The proposal is coherent with the objectives of the SIU, as it would promote a more integrated and efficient EU capital market. By facilitating the settlement of transactions across different EU CSDs and promoting a standardised and harmonised approach to settlement, the proposal would contribute to a more harmonised and standardised market, which is in line with the broader goals of the SIU. Overall, this option would promote market integration and innovation, improve supervision, and increase efficiency in the market, making it a useful step towards achieving the objectives of the package.

Option 2.5 (CSDR): Increasing transparency

By improving transparency and comparability of fees and prices that CSDs charge for their services, and in combination with the other measures (in particular the establishment of links), this option would facilitate competition between CSDs. Since the CSDR already requires CSDs to disclose publicly their fees and prices, the additional administrative costs related to this adjusted requirement would be negligible. The majority of respondents to the targeted consultation (in particular banks, markets associations and some NCAs and Finance Ministries from five Member States) agreed that the transparency of settlement pricing and CSD services should be improved, noting that increasing the harmonisation of CSD fee schedules would enhance competition and market efficiency. One CSD, while broadly supporting increased transparency of settlement pricing, cautioned that the introduction of additional reporting requirements should be carefully considered to avoid undue burdens for financial infrastructures. It should however be noted that three CSDs, including two major CSD groups, as well as two NCAs, considered that the requirements on transparency set out in the CSDR are already sufficient.

In addition, this option would help meet the specific objective of improving supervision, as improved transparency (i.e. reporting) for supervisors would allow them to better monitor and oversee internalised settlement activity and act in case of reduced settlement efficiency of settlement internalisers. This would help promote a more stable and efficient market. It would also help market participants to compare the settlement efficiency of settlement internalisers with that of CSDs. The administrative costs of the transparency requirements for settlement internalisers would be minimal. Many respondents to the public consultation (particularly banks and banking associations, but also some NCAs, Finance Ministries and Central Banks from seven Member States) consider that the current reporting obligation of internalised settlement already allows for an accurate identification of the risks stemming from settlement outside of a CSD, and considered that imposing additional obligations on settlement internalisers too burdensome and not sufficiently justified. However, it should be noted that several other NCAs and Ministries of Finance from six Member States as well as market infrastructures and financial market associations noted the lack of sufficient knowledge on the risks that could stem from settlement internalisation, notably in terms of concentration risk, and the absence of a level playing field between settlement internalisers and CSDs. These respondents advocated for a more detailed reporting by settlement internalisers (or at least for those with very high volumes of activities) and/or the publication of information by internalisers on their activities, including settlement fail rates.

Reducing the burden for CSDs to provide cross-border services, imposing a hub and spoke model for the settlement landscape and promoting the use of T2S will have the combined effect of decreasing existing frictions in cross-border settlement operations and make for a more interconnected settlement network in the EU. This will have implications for the transparency of settlement as there will be a decreased need for settlement internalisers to fill in the gaps inherent in the current fragmented settlement landscape. A decreased need for the services of settlement internalisers would increase settlement done directly in CSDs, which would allow these infrastructures to reap further benefits from economies of scale leading ultimately to lower costs for CSD participants and end investors.

This option is coherent with the objectives of the SIU, as it would to promote a more integrated, efficient, and transparent EU capital market. By increasing transparency, this option would contribute to a more harmonised and standardised information on CSD fees and services, which is in line with the broader goals of the SIU. Overall, this proposal would promote more effective supervision and further market integration, making it a useful step towards achieving the objectives of the package.

Option 2.6 (CSDR): Legal certainty

This option would help meet the specific objective of facilitating innovation by enabling the use of DLT, as it would provide legal certainty on the application of that technology in the context of securities settlement and post-trade activities more in general. The proposal would also contribute to improving supervision by reducing divergences, as it would help to ensure consistency in the application of the rules across different Member States and technologies. This would ensure that CSDs have clarity that they can also provide services using DLT under the CSDR, facilitating the use of new technologies in the provision of services by CSDs under the CSDR and innovation. This would allow the DLTPRR be able to focus on its core aim to enable innovation and the testing of new innovative post-trade structures and would facilitate a smooth transition (where this is opted for by a DLTPRR participant) into the CSDR regime.

To improve the compatibility of the CSDR with DLT is generally supported by a wide range of respondents to the targeted consultation. One example of this is the technological neutrality of the definition 'central securities depository' that was labelled as a "strong concern" or "rather a concern". Respondents justified the need for clarity to ensure how this, and other terms ("accounts", "book entry" or "dematerialised form") would apply in a DLT environment. Respondents also viewed improving the technological neutrality of CSDR as the most efficient legislative path to integrating DLT securities into the single market.

In terms of costs, clarity on the application of the CSDR would reduce costs for CSDs seeking to provide DLT-based services as they would not need to seek as much legal advice as is currently the case. In terms of costs for market participants, such as issuers and investors, clarity will also reduce implementation costs. The reduction in costs should be particularly marked for issuers of DLT-based securities and providers of DLT-based services, as they would not need to seek as many legal opinions to ascertain if their activities are in line with the different national laws. This would, in turn, reduce costs for the clients of those providers. No new costs related to this option were identified in the targeted consultation.

This option would also provide further clarity on how conventional CSDs could provide DLT-based services under the CSDR. It would also provide CSDs initially authorised under the DLTPRR with a smoother path to compliance with the full requirements of the CSDR if they wished to scale up their activities beyond the limits provided under the DLTPRR.

This option would be also coherent with the objectives of the SIU pertaining to the promotion of innovation as well as the objectives of the broader Digital Strategy, by promoting a more efficient, and innovative EU capital market and would ensure consistency and complementarity of the CSDR with the DLTPRR as the scope and objectives of the two Regulations differ, but complement each other as in the medium to long run, firms under the DLTPRR would be able to scale-up by moving to the broader CSDR regime. By providing legal certainty and clarity on the application of DLT, this option would help to promote the development of new financial products and services and would contribute to a more competitive and innovative market. Overall, this option would promote innovation, and facilitate more effective supervision, making it a useful step towards achieving the objectives of the package.

This option would, however, at least initially, contribute to further fragmentation of the CSD landscape by facilitating the authorisation of new entrants operating with a technology not directly compatible with the other CSDs' technology. This could lead to additional costs for financial intermediaries, including brokers, dealers or settlement agent as they would need to invest in specific operational features in order to connect to these new CSDs.

6.1.3. Option 3 (CSDR) – Extensive review to impose an integrated market

Option 3.1 (CSDR): Ensuring freedom of issuance and facilitating passporting and the cross-border provision of services

By removing barriers to freedom of issuance and facilitating passporting and the cross-border provision of services this option would help meet the specific objective of enabling further market integration and scale effects by increasing cross-border activity, as it would reduce barriers to entry and allow CSDs to operate more easily across borders.

In their replies to the targeted consultation, several stakeholders (including CSDs and national authorities) highlighted that the complex passporting processes entail high costs for CSDs, particularly in terms of administrative burden, as well as legal analysis and compliance costs. Some respondents have also evidenced that there are costs due to missed opportunities where there is demand for cross-border issuance. Moreover, several stakeholders noted that fragmentation at the CSD level results in increased and persistent costs for end-investors.[432]

On the other hand, it should be noted that some stakeholders (including a few national authorities) denied having identified any regulatory or supervisory barriers to freedom of issuance and provision of cross-border services in the EU, albeit some (notably CSDs), while denying formal barriers, evidenced that practical challenges and compliance costs remain for

[432] "Study on consolidation and reducing fragmentation in trading and post-trading infrastructures in Europe", Final Report, Bourse Consult & Civitta, September 2025: https://op.europa.eu/en/publication/doi/10.2874/2649452 .

CSDs, due to the costly assessments needed for passporting caused by the fragmentation of Member States requirements, including divergent interpretations of the relevant CSDR provisions. Simultaneously, CSDs report disproportionate length and costs of the passporting process, citing administrative burden, supplementary reporting requirements, transparency issues and unpredictability with regard to the costs of applying the passport.[433]

Generally, respondents to the targeted consultation did not seem to envisage that any costs could stem from a simplification of the passporting procedure or the enhancement of the freedom of issuance in the EU.

However, this option would also raise several concerns. For example, removing all additional requirements and notifications with respect to passporting could lead to a lack of transparency and accountability, as the home authority would not be notified of the intention to provide cross-border notary and central maintenance services by the CSD. Host Member States would also not be notified and would hence have limited oversight and control over the CSD's activities. The concerns would remain relevant also in the context of EU single supervision, as in the absence of a passporting notification the single EU supervisor would have less visibility on the cross-border activities of the CSDs it supervises. Hence, while integrating the market, this option would also present potential risks to financial stability as well as in ensuring compliance with national and EU law.

Overall, while this option would promote freedom of issuance and facilitate passporting and the cross-border provision of services, it would also raise significant concerns. As such, it would not be coherent with the objectives of the SIU, which aims to promote an efficient and integrated EU financial system, while preserving financial stability.

Option 3.2 (CSDR): Supporting outsourcing

This option would eliminate costs related to procedures for outsourcing CSD services to entities within the same group, by removing any requirements related to such outsourcing. It would also reduce costs for CSDs outsourcing their services to third parties (i.e. entities outside the CSD's group) by simplifying and harmonising the related procedures. Similarly to Option 2, by explicitly addressing the use of DLT and aiming to provide clarity on its application, this option would also facilitate innovation. Nevertheless, the legal and governance issues covered by Article 30 would still need to be covered by regulatory requirements as long as they are provided by different legal entities, even within the same group, and especially if these include non-regulated entities or non-EU entities.

A simplification of the rules on outsourcing was generally supported by CSDs who responded to the targeted consultation and who highlighted that the current outsourcing framework is overly burdensome, particularly with respect to the rules on staff sharing among CSDs belonging to the same group. Generally, respondents to the targeted consultation did not seem to envisage any costs stemming from the clarification of outsourcing requirements. Moreover, the simplification of outsourcing procedures with respect to intra-group outsourcing should not entail additional costs for stakeholders. It should however be noted that a small number of national competent authorities who responded to the targeted consultation considered that the current approval processes under the CSDR remains appropriate, as the framework correctly

[433] "Provision of cross-border services by CSDs and handling of applications under Article 23 of CSDR from 2020 to 2022", European Securities and Markets Authority. See paragraphs 176 and 177.

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caters for the relevant risks, with one authority cautioning, for example, on the risk of empty corporate shells emerging and the corresponding risks to business continuity. As such, those authorities indicated that no changes are therefore necessary.

In terms of alignment with the specific objectives of the package, this option would help enable further market integration and scale effects by allowing CSDs to more efficiently outsource activities within their group, potentially leading to cost savings and increased competitiveness. It is estimated[434] that savings, in terms of staff sharing and implementation of shared platforms, could reduce CSD costs by up to 15%. However, removing any requirements for outsourcing core CSDs activities within groups could endanger the robustness of the CSDs and hence have negative impacts on financial stability. Moreover, respondents to the targeted consultation did not seem to advocate for the removal of all requirements with respect to intra-group outsourcing under the CSDR, also in light of the risks that need to be taken into account, as highlighted by some of the NCAs' responses. In light of this, the solution proposed under option 2 would provide a more balanced approach.

The proposal is aligned with the objective of facilitating innovation by enabling the use of DLT.

Overall, this option is only partially coherent with the objectives of the SIU, as it would promote efficiency, competitiveness, and innovation in the industry, but would not necessarily ensure financial stability. By simplifying the outsourcing procedure and providing clarity on the use of new technologies like DLT, the proposal could be a useful step towards achieving the broader goals of the SIU.

Option 3.3 (CSDR): Cash settlement

EMTs under MiCA represent a highly resilient and programmable form of on-chain money, suitable for settlement and collateral purposes in tokenized markets. Current frameworks (CSDR, DLTPR) artificially restrict the use of EMTs by requiring issuer-bank status, excluding most EMIs This option would help meet the specific objective of facilitating innovation by enabling the use of DLT, as it would allow CSDs to use digital money to operate, such as tokenised cash, as well as using a wide range of stablecoins under MiCA, including asset-referenced tokens, for settlement and provide more flexibility in the provision of banking-type ancillary services. It would also contribute to enabling further market integration and scale effects by increasing cross-border activity, as the use of such digital money and stablecoins would reduce barriers to cross-border transactions.

Generally, 29 of the respondents (out of 33) to the targeted consultation supported updating the definition of cash needs to be updated to include tokenized forms of money, in particular the emergence of tokenised central bank money, tokenised commercial bank money and electronic money tokens. A few stakeholders supported going further by including asset-referenced tokens and a wider range of tokens, or even a non-exhaustive definition. Those stakeholders argued that the wider the range of acceptable assets, the more advantages including more pooling of assets, better leverage of exiting market connectivity and scalability. They also emphasised such a measure would support the modernisation and positioning of EU financial markets globally.

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[434] Confidential submission by an FMI conglomerate to DG FISMA services.

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However, this option would also raise several concerns. For example, removing the restrictions on credit institutions providing banking-type ancillary services would increase the risk of systemic instability, as credit institutions may take on more risk, in particular intraday credit risk, which is not covered by prudential banking rules, and become more interconnected with CSDs. Furthermore, the use of stablecoins such as asset-referenced tokens for settlement would also raise concerns about financial stability, as these assets may not be as stable as non-digital forms of money and could be subject to significant price volatility. This could increase the risk of settlement fails and undermine the stability of the financial system.

In terms of coherence with the objectives of the SIU, this option would not be entirely aligned, as it could have a negative impact on financial stability.

Option 3.4 (CSDR): Promoting the use of T2S, connecting the fragmented settlement landscape, and enhancing the role of links between CSDs

A T2S CSD would compete with other EU CSDs in providing CSD services (the competition would be on equal terms from a regulatory perspective, as following the option described in Section 6.1.3.3 T2S CSD would be subject to the full set of CSDR requirements), and its connection via links to all EU CSDs would facilitate cross-border settlement. Turning T2S into a CSD would require a significant initial investment to expand its functionalities which would have to be reflected in the price of its services.

While T2S operating as a CSD of CSDs is technically feasible, the full benefits of this solution would only be available if issuers would issue directly in T2S CSD or if a common issuance scheme across CSDs would be established. In the former case, T2S CSD would need to operate under one of the existing national frameworks/laws (alternatively, an EU-level legal framework for issuance of securities in T2S CSDs would need to be developed). Such solution would, however, entail potential conflicts of laws with the other national laws that were not chosen (e.g. T2S CSD would not be able to support 27 different ways of executing corporate actions). To avoid those conflicts, T2S would need to run multiple securities settlement systems (one for each Member State). In such case, however, it is questionable whether T2S CSD would solve any of the current issues identified in Section 3.2.4, as long as each Member State would have a different legal system ruling securities holdings.

In addition, CSDs would need to establish links with T2S which would also entail some initial investment costs plus some costs to maintain those links. However, since a single link with the T2S CSD would allow any linked CSD to access any other linked CSD, this would make existing bilateral links obsolete and hence eliminate the cost of maintaining them. This option would help meet the specific objective of enabling further market integration and scale effects by increasing cross-border activity, as it would create a single, interconnected platform for settlement across the EU. However, there are also potential drawbacks related to this option. The main one concerns the potential negative implications for competition and innovation if most of the issuance and settlement activity would get concentrated in T2S CSD over time. As pointed out by respondents to the targeted consultation, the public sector is considered as too slow to drive innovation. Consequently, this option is not fully aligned with the objectives of the SIU.

Option 3.5 (CSDR): Increasing transparency

In addition to what is proposed under Option 2 to increase transparency of fees and prices, this option would also require CSDs and settlement internalisers to charge. Mandating CSDs and settlement internalisers to charge the same fees and prices for cross-border services as they

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charge for domestic services would most likely lead to lower fees and prices for cross-border post-trade services. However, this reduction would likely come at the expense of an increase in fees and prices for domestic post-trade services.

While this option could theoretically have some merits, defining the scope of the requirement would be extremely challenging (e.g. what is cross-border, what is the service category being considered, how to distinguish cross-border within the EU compared to between the EU and the rest of the world). The complexity of designing and implementing such an approach combined with the additional reporting requirements would make this option costly. These costs could in theory be passed on through the holding chain, potentially increasing the costs of investing and issuing in the EU, which would not be in line with the objectives of the SIU.

Moreover, while the majority of respondents to the targeted consultation (in particular banks, markets associations and some NCAs and Finance Ministries) agreed that the transparency of settlement pricing and CSD services should be improved, there did not seem to be clear positions advocating for the solution analysed in this section. On a similar note, while several NCAs and Financing Ministries as well as market infrastructures and market associations advocated for a more detailed reporting by settlement internalisers (or at least for those with very high volumes of activities) and/or the publication of information by internalisers on their activities, including settlement fail rates, there seemed to be no clear positions advocating for the option analysed in this section.

Option 3.6 (CSDR): Legal certainty

Integrating DLT-based instruments into the existing framework allows for consistent application of rules regarding ownership transparency, asset segregation, and corporate actions processing. This approach also simplifies regulatory oversight, ensures compliance with AML/KYC regulations, fosters interoperability between DLT platforms and traditional markets, and provides much-needed legal certainty for market participants. Gradual adaptation of CSD services to accommodate DLT-based instruments, rather than wide-ranging changes or exemptions, ensures continued robust protection of the financial system while fostering responsible innovation.

There was some support by one association to integrate DLT trading and settlement systems (DLT TSS) within a modernised CSDR and MiFID II frameworks. Embracing these technologies will enhance market efficiency and legal certainty, foster innovation, and support Europe's competitive edge in global financial markets.

A majority of the respondents, covering a wide range of respondents including fintech firms as well financial institutions, note that the rise of DLT-based tokenised financial instruments necessitates a reassessment of how CSD services are defined, delivered, and regulated as DLT fundamentally transforms the execution of core post-trade services and that within a DLT context, many CSD core services can be automated, embedded, and verified directly on-chain.

Nevertheless, the comprehensive revision of the CSDR envisaged under this option would be a complex task that would require a considerable amount of time to ensure that the final outcome would not introduce new uncertainties and risks. The respondents opposing such an approached, including CSDs and some financial institutions, noted that the emergence of DLT-based tokenized financial instruments does not necessitate a fundamental change in the provision of CSD services or the requirement to use a CSD their core function remains the same. They argued that integrating DLT-based instruments into the existing legislative

framework allows for consistent application of rules regarding ownership transparency, asset segregation, and corporate actions processing, and that it simplifies regulatory oversight, ensures compliance with AML/KYC regulations, fosters interoperability between DLT platforms and traditional markets, and provides much-needed legal certainty for market participants. Finally, it was argued that a gradual adaptation to accommodate DLT-based instruments, rather than wide-ranging changes or exemptions, ensures continued robust protection of the financial system while fostering responsible innovation. As such, while this option could ultimately deliver on the objectives of greater innovation and consolidation in the post-trade sector, it is premature at this stage in view of the very limited evidence as to the consequences – benefits and costs - of such new approach.

Legal certainty is also affected by the absence of harmonised securities law and whilst there is a broad consensus by the respondents, that they do not think that it is the national legal system itself that creates the barrier, as the national legal systems are clear, the differences between Member States introduces a level of complexity in cross-border transactions and therefore results in practice that it is more difficult to reach legal certainty in cross-border transactions. Therefore, several respondents representing different stakeholders supported an enhanced EU-wide harmonization of securities law and civil law and some stakeholders, mainly CSDs and fintech companies, advocated for the establishment of a 28th regime covering securities law. This was supported by AMI-SeCo in its response to the targeted consultation, noting that at least in the area of securities law, introducing an optional but comprehensive 28th (EU) legal regime is a promising approach. A full harmonisation of EU securities law would be a complex task that would require a considerable amount of time to ensure that the final outcome would not introduce new uncertainties and risks. However, more limited and directed measures should be carefully assessed within the deliverables of the SIU. In particular in relation to systems operating using DLT as noted in the responses "The European Commission could tackle the legal fragmentation in respect of the issuance and transfer of digitally native securities by creating a 28th legal regime that defines how a digitally native security can be validly issued and transferred, how ownership rights are evidenced on DLT and what the holding model is (intermediated vs direct). For digital securities, instead of replicating 27 national regimes, we see a strong case for Member States to focus efforts on a 28th regime to pave the way for digital capital markets. This includes ensuring that a 28th regime is designed to facilitate interoperability and acceptance of digital securities between DLT and the traditional systems. The benefits of a 28th should be available not just for FinTechs and digital securities, but also established market players and traditional systems and securities where it could contribute to EU integration and the removal of frictions. This cannot be included under the revisions to CSDR but should be assessed were suitable within the EU acquis.

The costs of this option would likely be significant, especially if new authorisations would be required. Such a major overhaul of CSDR would also have implications on the DLTPRR as the entities authorised under the latter must also comply with the CSDR unless a derogation has been decided upon within the remit of the DLTPRR authorisation and where compensatory requirements apply.

Overall, a less radical intervention in the post-trade market is preferred at this stage. Hence, while this option has potential benefits and support among a few respondents, who view DLT as the main technology for the post-trade market, it also raises significant implementation risks and challenges that need to be carefully considered.

6.1.4. Choice of preferred policy option

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The table below shows a comparison of the merits of the individual options put forth above for each of the topics covered. Option 2 presents the way forward most closely aligned with the objectives of the SIU and which maintains the most appropriate balance between improving market integration and supervision, and facilitating innovation in post-trade while also reducing, to the extent possible, any administrative and/or regulatory burden.

	Effectiveness			Efficiency (cost-effectiveness)	Coherence
	Enable further market integration and scale effects by increasing cross-border activity	Improve supervision by reducing divergences	Facilitate innovation by enabling the use of new technologies		
Option 1 (CSDR) – Status quo	0	0	0	0	0
Option 2 (CSDR) – Comprehensive review to enhance the functioning of market infrastructure	++	++	++	+	++
Option 3 (CSDR) – Extensive review to impose an integrated market	++	+	+	--	-

Legend:		
+++ = Very positive	+/- = Mixed effect	- = Slightly negative
++ = Positive	0 = No effect	-- = Negative
+ = Slightly positive		--- = Very negative

6.2. IMPACT OF THE POLICY OPTIONS REGARDING THE SFD

6.2.1. Option 1 (SFD) – Status quo

Since this option would not amend the SFD, the problems and problem drivers described, respectively, in Sections 3.1 and 3.2 would persist and would not be resolved. Consequently, potential improvements would be left to initiatives from Member States (the private sector has little scope for action as the issues have their origin in law), which are however not likely to result in the removal of existing barriers to market integration and cross-border activities.

6.2.2. Option 2 (SFD) – Comprehensive review to enhance the functioning of market infrastructure

Converting the SFD into a Regulation would allow for a more consistent and homogeneous approach across the EU. This could help reduce the fragmentation and associated costs. This is backed up by a recent study which noted that converting the SFD into a directly applicable

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regulation would ensure uniform application of settlement finality rules, reduce legal risk, and strengthen the foundation for interoperable, consolidated market infrastructures. Such a change would align with recent policy calls, including from AMI-SeCo and the European Parliament, for greater legal convergence in post-trade processes.[435] At the same time, it was acknowledged by some market participants responding to the targeted consultation that converting into a Regulation would have some limitations given the current lack of a uniform EU insolvency framework. The benefits of greater harmonisation would therefore be less than if insolvency laws were also harmonised. In previous consultations in 2021 on this subject, some respondents also noted that Directives may provide a better tool to balance between harmonisation and Member States' flexibility, which is particularly important against the diverse legal environments in Member States' insolvency, corporate or securities laws, for which there is no full harmonization.[436]

In general, in the targeted consultation, the majority of market participants[437] favoured converting the SFD into a Regulation, with a minority disagreeing. Support came from CCPs, market participants promoting the use of new technologies, banks and banking associations. CSDs and regional financial market participants in contrast argued, that the current Settlement Finality Directive worked well in their view. In a discussion in 2020[438], Member States that took the floor reserved judgement noting that further analysis would be needed, and careful consideration should be given to possible changes resulting from the review. More recently, those Member States (2) that have expressed a view are split.

Option 2.1 (SFD): Legal certainty for digital innovation

This option would help meet the specific objective of facilitating innovation by providing clarity on concepts currently used in the SFD as well as enabling DLT-based systems to be designated under the new SFR subject to certain requirements being met. Also, while the definition of collateral security under the old SFD and the new SFR is broader than the definition of financial collateral under the FCD, the SFD/SFR has an explicit reference to the FCD for collateral security and updating the definition of financial collateral under the FCD in relation to DLT seems warranted to align with the DLT updates suggested under the SFR. This option would enable a level playing field in the protections provided under the SFR irrespective of the technology used (DLT or not) for settlement services. By harmonising definitions, concepts and related requirements it would avoid the proliferation of different national approaches regarding DLT-based structures and would therefore support market integration and innovation, in line with the objectives of the SIU.

In the 2021 targeted consultation on SFD, while some potential areas for clarification were already raised, a majority (28 respondents) replied that experience with the Pilot Regime for market infrastructures based on DLT should be gained before considering possible issues in the SFD. 12 did not consider that such experience necessary. Potential areas for clarifications were the concept and definition of 'system' (22 respondents thought it should be clarified or amended

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[435] "Study on consolidation and reducing fragmentation in trading and post-trading infrastructures in Europe", Final Report, Bourse Consult & Civitta, September 2025: https://op.europa.eu/en/publication/doi/10.2874/2649452

[436] Commission Summary report of the targeted consultation on the review of the Directive on settlement finality in payment and securities settlement systems 12 February 2021 - 7 May 2021, page 44.

[437] Mainly, CCPs' representatives, market participants promoting the use of new technologies, banks and banking associations.

[438] Expert Group meeting with Member States on SFD, 27 October 2020.

to apply explicitly in a permissioned DLT context), 'transfer order' (13 respondents in favour of clarification), book-entry (16 respondents in favour of clarification), 'settlement account', 'settlement agent' (13 respondents in favour of clarification), links with other financial market infrastructures and trading venues (9 respondents in favour of clarification).

The 2025 targeted consultation drew similar conclusions. While there was some support for clarifications of some of the definitions in order to facilitate its application in a technology-neutral manner, around half of the respondents considered that the criteria to be met for a system to be designated serve their purpose to ensure the integrity of financial market infrastructures and financial stability and the current standards in that respect should not be lowered, even to accommodate new technologies. Nevertheless, a minority of respondents representing different types of stakeholders considered that the current criteria for designation under SFD criteria may not allow designation of innovative or smaller systems using new technologies like DLT. They noted that it is difficult for non-traditional systems to fulfil those criteria even if they are secure.

This option would also contribute to improving supervision by reducing divergences, as it would help to ensure consistency in the application of rules across different Member States and technologies. In this respect, an association of different types of stakeholders expressed concerns about the inconsistent application of the settlement finality frameworks across the EU due to the fact that different Member States have varying regulatory approaches to settlement finality, especially with respect to digital assets and tokenisation. Clarity on the application of the SFR would therefore also facilitate innovation by ensuring systems have clarity that they may also provide services using DLT and still be able to benefit from the protections under the SFR on, for example settlement finality and enforceability of collateral. This would as a result facilitate the use of new technologies in the provision of settlement services.

In terms of costs, clarity on the application of the SFR would reduce costs for system operators as they would not need to seek as much legal advice as they currently do on how to interpret the rules. For market participants, the provided clarity would also reduce costs for the provision of cross-border settlement services, as they would not need to seek as many legal opinions as they currently do to see if their activities are in line with the different national laws. This would, in turn, reduce costs for the clients of those providers. No new costs related to this option were identified in the targeted consultation.

This option is also coherent with the objectives of the SIU, as it would promote a more integrated, efficient, and innovative EU capital market. By providing legal certainty and clarity on the application of the SFD and the FCD, including in relation to the se of DLT, this option would help to enable the development of settlement structures and ensure equal treatment of financial instruments, independently of whether they are created on DLT and would therefore contribute to a more competitive and innovative market. Overall, this option would promote innovation, effective supervision, and market integration, making it a useful step towards achieving the objectives of the package.

Option 2.2 (SFD): Conflict-of-law rule

The option to complement and further develop the existing conflict-of-law to allow a uniform interpretation by Member States would allow increasing legal certainty as to the applicable legal regime in case of conflicts regarding cross-border securities transactions. It would also prevent market fragmentation arising from different national determinations as to the applicable legal regime to cross-border securities transactions. This would lead to significant

cost savings for market participants, both in terms of seeking costly legal opinions and in ensuring compliance with multiple legal regimes with different requirements. Increased legal certainty and the above-mentioned cost savings would facilitate cross-border transactions and attract non-EU investors.

These benefits would also extend to DLT-based systems. It is to be noted that in the 2021 consultation, the majority of those who responded (i.e. 23 respondents out of 30) replied that the concept of 'conflict of laws' should be clarified or amended to apply explicitly in a permissioned DLT context. Several respondents pointed to the fact that conflict of law issues in the DLT context could arise from challenges in identifying the location of the asset (e.g. for exchange or transfer crypto-assets), or the participants (e.g. in permissionless DLT system) or the location of the register or account (in which Member State; where the relevant entries are made or maintained, are not meaningful concept, as the register or account could be stored on every node in a DLT network). Instead, they argued that governing law should be determined by the location of the central authority (Place of the Relevant Operating Authority approach, Place of the Relevant Intermediary approach set out in Article 9(2) of SFD) and one said that if there is no central operator, by the rules of the system. One respondent considered it best to enable participants in a system to agree on the governing law, but to avoid forum shopping there may be a need for regulatory constraints. Other respondents pointed out that this area of uncertainty has implications beyond the SFD and may require attention at an international level.

In the 2025 targeted consultation, there was also general consensus throughout respondents which provided some explanations in their responses, that the current conflict of law rule in SFD should be clarified and/or adapted for DLT-based systems, in particular, since there is a general concern or uncertainty regarding how to define where the account or register is located or maintained in the meaning of SFD and FCD. Some respondents were in favour of having only one conflict of law rule for both traditional and DLT-based systems (though with further clarification for the latter), and some pointed out that the main connecting factor should be the place of the operating authority of the system in permissioned systems. Other criteria should be developed for permissionless systems.

All types of stakeholders would be positively affected by the increased legal certainty arising from the proposed conflict-of-law rule in the new SFR. The costs of this option would be minimal, mainly consisting of costs for Member States action to align their national laws in case it is not in line with the revised and potentially extended conflict-of-law rule in the SFR. At the same time, stakeholders would enjoy significant savings from the lack of necessary legal opinions in the future and the need to comply with different legal requirements in different Member States.

This option is coherent with the objectives of the SIU, as it would promote a more integrated, efficient, and innovative EU capital market. This option would help reduce fragmentation and promote a more harmonised market, which is in line with the broader goals of the SIU. Overall, this option would promote innovation and market integration, making it a useful step towards achieving the objectives of the package.

Option 2.3 (SFD): Participation of EU entities in third-country systems

This option would formalise and harmonise the process for extending the protections of the SFR to EU participants in third-country systems. In doing so, it would ensure a level playing field for participants from different Member States, ensuring that they could participate in those

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systems or that they would not be subject to higher collateral requirements, as the case may be. As such, this option would contribute to market integration as – on the one hand - a formalised and harmonised process ensures clear standards and sets out what market participants can expect across Member States and – on the other hand – ensure a streamlining of access conditions for all EU-institutions participating in a third-country system,

Respondents to the 2025 targeted consultation considered that the lack of or inconsistent requirements as concerns SFD protections to institutions participating in third-country systems could be a barrier or at best create an unlevel playing field since some EU entities may benefit from protection while others not. Moreover, around half expressed concerns about the lack of transparency in the designation of third-country systems. Some of the respondents noted that the SFD should be amended to provide for a harmonised EU-wide approach to designation for third-country systems, allowing participants from all EU Member States to benefit from the protections of the SFD where they participate in third-country systems, and to consider whether an EU approach or a national approach would be best.

It was also noted that the lack of transparency about which jurisdictions have extended protection could discourage institutions' cross border participation. This opacity may lead to legal uncertainty for EU entities participating in or interacting with these systems and result in an uneven playing field. ESMA or the Commission could maintain a public list.

In the targeted consultation in 2021, the large majority (41 respondents) thought that EU entities that participate in third-country systems should benefit from protection under the SFD (three disagreed and 28 did not reply or expressed an opinion). Respondents said such an extended protection would be important for financial stability and ensure that EU participants are granted access to third-country systems. According to confidential information received from stakeholders, some EU stakeholders have been refused access to third-country systems because of the lack of SFD-like protections in their Member State. Moreover, 22 respondents favoured a solution where the criteria for SFD-like protection would be set at EU level, but the decisions to extend SFD-like protections would continue to be taken at the level of the Member States. In those respondents' view, this solution would be greater harmonisation within the EU but give the possibility to consider national market characteristics and laws. This was the most favoured option to cater for participation of EU entities in third-country systems.

This option would be beneficial both for EU participants in third-country systems and for third-country systems in which EU entities participate. In particular, EU participants would save the costs of the higher collateral requirements required by third-country systems if the SFR protections would not be applicable to EU entities participating in those systems. Third-country systems would benefit from the SFR protections in case of insolvency of an EU participant. The costs of this option would be comprised of the costs for Member States to adjust to the new process.

Option 2.4 (SFD): Scope of participants

Harmonising the list of eligible participants, as envisaged under this option, would ensure that the scope of protection under the SFR is the same across Member States. This would reduce the legal uncertainty that exists today and would help market participants avoid costs for legal opinions as well as facilitate cross-border access to other systems because of reduced legal uncertainty related to participation in those systems. Consequently, it would enable further market integration and increase cross-border activity. This option would also benefit DLT-based systems as it would allow them to be designated under the SFR and hence benefit from

its protections. Some stakeholders noted in this respect that the current scope of participants in the SFD may constitute a barrier for new entrants.

The costs of this option would largely be limited to costs for Member States to amend their legislation, if necessary. Unless a Member State would have extended the list of eligible participants beyond what would be covered under this option, there would not be any significant impacts for the operators of those systems or the participants in those systems. However, where a Member State has adopted a broad definition of participant under its national law that would not fall within the harmonised definition of participant under the SFR, systems and participants in that Member State would incur the costs of adjustment (including those related to the exclusion of some of the participants from the system and its protections).

This option is coherent with the objectives of the SIU, as it would promote a more integrated, efficient, and innovative EU capital market. This option would help reduce fragmentation and promote a more harmonised market, which is in line with the broader goals of the SIU. Overall, this option would promote innovation and market integration, making it a useful step towards achieving the objectives of the package.

In the targeted consultation on the SFD in 2021, a majority (56 respondents) replied that the list of eligible SFD participants should be extended; four said that the list should be modified and two did not see any need for modifications. Some stakeholders pointed out that the SFD covers two types of systems (payment systems and securities settlement systems) operated by three types of market infrastructures (payment systems, CCPs and CSDs). In their view, each system would require different types of modifications of SFD. The main feedback from that consultation was the following:

- Legal versus natural persons: A majority of respondents (31) said that only legal persons should be allowed to participate; 10 did not consider such limitation useful and 31 did not reply. Those opposed to such a limitation argued that natural persons should be eligible as participants if they meet criteria under SFD (e.g. if they are authorised under MiFID2). Others said that it would not be justified to limit the possibility to take up certain activities based only on the legal nature of the entity and specific criteria addressing potential issues with the participation of natural persons in SFD systems should be considered, although recognising that such specific criteria could result in complex and burdensome legislation. Some said that participation of natural persons will in any event be exceptional as they are normally unable to meet the rules and requirements of systems (e.g. capital, organizational and technological requirements) and argued that there is no need to limit participation to legal persons. Regarding systems based on Distributed Ledger Technology ('DLT'), some respondents pointed out that novel systems, potentially fostered by DLT, might render designated systems accessible to natural persons too.
- CSDs: All respondents that replied to the question (24 respondents) agreed to add CSDs to the list of participants. No respondent disagreed. Respondents noted that although CSDs are covered as 'settlement agents' and 'system operators', they should be added to the list of participants in SFD to provide clarity and transparency, especially when a CSD participate in another CSD as an investor CSD or in a third-country system. Some respondents, mainly representing banks, thought that SFD finality should apply to any transaction settling in a CSD, including CSDs acting as participants in other CSDs. A CCP viewed that it would increase the protections for all systems to add CSDs to the list of participants and it would be important to minimise conflicts between different settlement finality provisions.

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- Criteria: On replacing or complementing the current list of eligible participants by a risk-based approach to determine participation, 19 respondents replied that it would be too difficult operationally and would jeopardize a risk-based approach; 12 respondents thought that it could be a good idea as it would ensure that only entities which are systemically important benefit from SFD protection, notwithstanding their legal form.

The feedback to the 2025 consultation was more general, with a few respondents pointing out that a fixed list of participants may hinder innovation and discourage open-access models including a broad range of participant types. One respondent noted that broadening the potential participants in designated systems could open doors for new entrants and cross-border consolidation of services. Other respondents had a different view and considered that the current list of participants does not create any barrier to entrance.

Option 2.5 (SFD): Scope of eligible securities

This option would harmonise the scope of protection under the SFR and help market participants to avoid costs for legal opinions and facilitate cross-border access to other systems because of reduced legal uncertainty. It would also reduce market fragmentation since the same types of securities would benefit from SFR protections across the EU and the costs of cross-border transactions (please see Section 3.2.12 for more information on protections currently provided by the SFD). DLT-based systems would also benefit from this option, as the expanded scope would also cover DLT-based securities.

The costs of this option would largely be limited to costs for Member States to amend their legislation, if necessary. Unless a Member State would have extended the list of eligible securities beyond what would be covered under this option, there would not be any significant impacts for the operators of those systems or the participants in those systems. In those Member States, the harmonisation introduced by this option would cause adjustment costs for system operators and market participants. Overall, the harmonisation will bring clarity on the scope of the protection of the SFR in relation to eligible securities and will therefore, reduce legal fragmentation and reduce costs and thereby facilitate cross-border access to other systems and cross-border transactions.

This option is coherent with the objectives of the SIU, as it would promote a more integrated, efficient, and innovative EU capital market. This option would help reduce fragmentation and promote a more harmonised market, which is in line with the broader goals of the SIU. Overall, this option would promote innovation and market integration, making it a useful step towards achieving the objectives of the package.

Although this issue was not explicitly asked in the 2025 targeted consultation, the issue was raised by at least one stakeholder, who emphasised the need to harmonise eligible securities. However, it is in line with the support for greater harmonisation that many stakeholders favour in the 2025 consultation on SFD as mentioned and explained in more detail in section 6.2.2.

Option 2.6 (SFD): Designation practices for EU systems

This option would harmonise the designation process and conditions for EU systems under the SFR. Combined with the closer involvement of ESMA and the ECB/ESCB, it would ensure a level playing field, facilitate cross-border settlement and contribute to reduced fragmentation. Since this option would also cover DLT-based systems, it would support innovation. This option would address the uncertainty as to the applicable laws that stakeholder claim results from the lack of harmonisation of the criteria used by Member States to designate systemically

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important infrastructures and cause discrepancies in the entities covered by the settlement finality protections.[439]

In the 2025 consultation, when asked whether diverging national practices for notifying systems create an uneven level playing field or legal uncertainty, views were split with a slight majority not viewing them as a barrier. In particular, while a respondent noted that there is unlevel-playing field resulting from diverging national practices for notifying designated systems under the SFD that can result in inconsistent protection levels and operational requirements, disadvantaging certain systems and reducing overall market efficiency, this was not the view of other respondents. Of those providing further input, two as well as a few Finance Ministries/competent authorities expressed the view that diverging national practices for notifying systems under the SFD can create an uneven playing field and lead to legal uncertainty. One example provided was the absence of a clear definition of the term 'adequacy of the rules of the system' (see Art. 2 (a) SFD). Differences in how Member States interpret and implement notification procedures may result in inconsistent protection levels and operational requirements, disadvantaging certain systems and reducing overall market efficiency.

This option would entail some costs for Member States, as they would have to adjust their designation processes. The need to re-designate already designated systems under the new conditions would likely entail some costs, although those should be contained for both Member States and system operators as most of the information needed for re-designation should already be available to Member States. Strengthening ESMA's and the ECB/ESCB's role may require some additional resources to fulfil their new tasks.

This option is coherent with the objectives of the SIU, as it would promote a more integrated, efficient, and innovative EU capital market. Some stakeholders also noted that improving the clarity of the designation process would foster mutual trust across jurisdictions. This option would help reduce fragmentation and promote a more harmonised market, which is in line with the broader goals of the SIU. Overall, this option would promote innovation and market integration, making it a useful step towards achieving the objectives of the package.

Option 2.7 (SFD): Transparency

This option would increase transparency on the scope of settlement finality protections in a harmonised way across Member States. It would address the current market fragmentation resulting from the current information asymmetry. At the same time, this option would allow market participants across Members States to obtain a comprehensive picture of the systems protected under the SFR and the scope of the protections for each of those systems. This would, in turn, foster trust in designated systems, including DLT-based systems.

The majority of respondents to the 2025 targeted consultation considered that a centralised overview over the insolvency of participants of all SFD designated systems is not needed or that its absence does not create a legal barrier.

However, more transparency could enhance legal certainty and facilitate the assessment of risk exposure. In this respect, several respondents to the 2025 targeted consultation noted that further transparency would also increase competition among designated systems in the EU. In

[439] Response to the 2025 targeted consultation by an association of stakeholders.

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particular, the reduction in legal uncertainty would encourage cross-border membership in designated systems. Consequently, cross-border activity would be increased and would facilitate further market integration and scale effects. It would also foster confidence in DLT-based systems designated under the SFR and therefore facilitate innovation.

The reluctance of some market players to provide further transparency on some elements, e.g. on the rules of the systems and on their participants, based on the commercial or confidential nature of this information, may be nuanced by adopting the appropriate levels of disclosure, in particular when participants can be natural persons (the fact that some CSDs currently already publish a list of their participants would seem to indicate that disclosure is possible). Several respondents (9) to the targeted consultation expressed concerns about the commercial sensitivity of this data and noted that CSD participants already have the necessary access to counterparty information in the CSD for purposes of their use of the CSD services. Others noted that for certain information, iit would be better to have a targeted and confidential communication framework between competent authorities and infrastructure operators.

The related cost for publishing the additional information would be rather limited for system operators, as the information to be published is to a great extent already provided to the designating authorities. ESMA might face slightly higher costs for personnel to do a quality check of the additional information received as well as publishing it.

This option is coherent with the objectives of the SIU, as it would promote a more integrated, efficient, and innovative EU capital market. This option would help reduce fragmentation and promote a more harmonised market, which is in line with the broader goals of the SIU. Overall, this option would promote innovation and market integration, making it a useful step towards achieving the objectives of the package.

Option 2.8 (SFD): Settlement finality moments

The harmonisation of the settlement finality moments, at least for certain systems such as CSDs, would tackle potential market fragmentation resulting from different requirements and practices across Member States and systems. At the same time, harmonisation would facilitate interoperability and the set-up of CSD links, and therefore it would support cross-border settlement. However, for other types of systems covered by the SFR the level of harmonisation would be lower and would focus on common factors established by the SFR to ensure the technical moments already defined in different types of systems remains valid. Since this option would clarify the common factors for settlement finality moments also for DLT-based systems, it would encourage innovation and accessibility to the protection under the SFR.

In particular, as the harmonisation of the core terms of the moment of entry into the system and of irrevocability could take into account the specificities of the different types of systems and also cater for the specificities of DLT-based systems, and, where relevant, the current operationalisation of settlement finality moments in the existing CSD links and other interoperability arrangements between designated systems – e.g. for CSDs the determination should be in line with the settlement moments in T2S – this option would not involve substantial changes and/or costs for the existing EU systems. At the same time, it would address the complexities stemming from different finality moments in different systems that cross-border participants operating in multiple systems need to deal with. This option would also

mitigate the uncertainties regarding the finality in cross-system transactions where the finality moments are not aligned, claimed by some stakeholders.[440]

In the 2021 consultation on SFD, a majority (20 respondents) agreed that the SFD should clearly stipulate the legal duty for SFD systems to specify the moments of entry and irrevocability and when settlement is enforceable and irrevocable; eight disagreed; two were neutral and 42 did not reply or express an opinion. The 2025 targeted consultation feedback was more nuanced with diverging views regarding whether the lack of harmonised settlement finality moments creates legal uncertainty or prevents the development of the single market.

Those favouring more specifications, considered the SFD should specify the moment of entry into the system and irrevocability, and where the settlement is enforceable and irrevocable to avoid uncertainty, in particular with respect to third-country systems and interoperable systems (which are increasingly important) where irrevocability of the cash and security legs is not simultaneous. These stakeholders (which included banks, investment firms, associations of different types of stakeholders, Member States and innovative companies) noted that further harmonisation would enhance legal certainty in the provision of cross-border services through CSD (interoperable) links, as well as settlement certainty and efficiency across the Union, which would contribute in the end to making the EU a more attractive market, with reduction in costs and the risk mitigation needed in the settlement space. Cross-border participants operating in multiple systems, must understand and manage different points of finality in each market, which creates complexity. The costs of these barriers are mostly hidden risk and complexity – participants may avoid connecting to certain systems or demand higher collateral to cover potential legal risk, which reduces efficiency. Finally, it was also noted that it may be beneficial to integrate settlement finality provisions within the CSDR framework.

Several respondents opposing further clarifications argued that SFD is sufficiently clear and has provided a stable legal framework that has worked so far. The objective of SFD is to ensure that the settlement in a system can continue despite a participant's insolvency. The system therefore needs to have clear rules to which insolvency law can refer, but the SFD should not design those rules Other respondents considered the SFD should specify the moment of entry into the system and irrevocability, and where the settlement is enforceable and irrevocable to avoid uncertainty, in particular with respect to third-country systems and interoperable systems (which are increasingly important) where irrevocability of the cash and security legs is not simultaneous. Regulation could incentivise system operators to establish such rules.

Finally, one stakeholder pointed out the limitations of further harmonisation noting that the harmonisation of settlement finality moments is also linked to the harmonisation of securities laws and insolvency laws. In their view, only with clarity about when transfers of securities and cash become unconditional, irrevocable and enforceable (in all EU jurisdictions), a real break-through would be achieved.

This option is coherent with the objectives of the SIU, as it would promote a more integrated, efficient, and innovative EU capital market. This option would help reduce fragmentation and promote a more harmonised market, which is in line with the broader goals of the SIU. Overall,

[440] Response to the 2025 targeted consultation by an association of stakeholders.

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this option would promote innovation and market integration, making it a useful step towards achieving the objectives of the package.

6.2.3. Option 3 (SFD) – Extensive review to impose an integrated market

As with Option 2, conversion into a Regulation with greater harmonisation would bring benefits. See also Section 6.2 above.

Option 3.1 (SFD): Legal certainty for digital innovation

A large proportion of those respondents that provided detailed replies to the questions on this topic in the targeted consultation supported provided greater legal certainty about the legal status of tokenised securities, including rules around dematerialisation, transfer of ownership, and finality, remains unclear or fragmented. They asked for legislation to explicitly recognise digital tokens or ledger entries as carrying the same (or comparable) legal rights as traditional securities, potentially by developing an optional EU-level legal framework for digital securities (i.e. a 28th regime).[441]

The additional measures contained in this option (compared to Option 2), while desirable, go beyond the scope of the SFR and would warrant consideration as part of the SIU reflections on a 28th regime, in line with what suggested by stakeholders, or the potential revisions of the Shareholders Rights Directive.[442]

Option 3.2 (SFD): Conflict-of-law rule

This option, based on the conflict-of-law rule in the Hague Convention on the applicable law to certain rights in respect of securities held with an intermediary, would increase legal certainty and reduce the high costs of legal opinions and compliance with the requirements of different legal regimes achieved to address legal uncertainty. However, market fragmentation would remain as the applicable legal regime would vary from one system to another, due to the choice of law element of the conflict of law of the Hague Convention. This would likely also have a negative impact on the overall protection of the system as it could result in fragmentation in the way the different laws chosen by parties ensure protection under the SFR. These issues were also pointed out by the ECB in its Opinion concerning the signing of the Hague

[441] They proposed creating a framework that would not replace national laws in their entirety. Rather, it could be narrowly focused on critical legal aspects directly impacted by the shift to digital infrastructures, notably i) the holding model, including the legal recognition of direct or indirect holding structures in DLT environments; and ii) the legal certainty regarding the moment and conditions under which title is effectively transferred in DLT environments.

[442] "The Commission will assess the need for, and consider a potential review of the Shareholders Rights Directive by Q4 2026 to make it easier for investors, intermediaries and issuers to operate across Member States", Savings and Investments Union , A Strategy to Foster Citizens' Wealth and Economic Competitiveness in the EU, Brussels, 19.3.2025, eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52025DC0124,

Convention on the Law applicable to certain rights in respect of securities held with an intermediary.[443]

As such, this option would not be fully in line with the SIU objective of increasing market integration and efficiency. Moreover, this option would involve a complete change from the existing conflict of laws contained in the SFD and the FCD, which none of the respondents to the 2025 targeted consultation requested. Instead, further clarification of the existing conflict of laws rule and in particular as regards DLT-systems seem to be more appropriate.

Option 3.3 (SFD): Participation of EU entities in third-country systems

To empower ESMA (for securities settlement systems) and the ECB/ESCB (for payment systems) the assess and register third-country systems under the SFR would ensure maximum harmonisation, both of processes and criteria used for decisions. It would also have the advantage that decisions would be automatically applicable throughout the EU. However, given that the assessment needs to be undertaken in relation to national insolvency law, they may not be very familiar with national insolvency laws of all the Member States [or would have to obtain legal knowledge in this area], this may make their work challenging. In terms of costs, ESMA and the ECB/ESCB would need to be given substantial resources to take up this new role.

In the 2021 consultation on SFD, stakeholders saw the benefits as well as the drawbacks of this option. While respondents favoured a solution where criteria for SFD-like protections would be set at EU level, but the decisions to extend SFD-like protections would be taken at the level of the Member States, respondents considered that decisions to extend SFD-like protections to third-country systems to be taken at EU level on the basis of EU-wide criteria as a second-best option, as it would ensure a level playing field in the EU and predictability for market participants. However, the inability to consider national market characteristics and laws was raised as a potential drawback of such solution.

As such, while this option would be in line with the SIU objective of increasing integration, it may not be in line with the objective of efficiency and could lead to substantial delays and costs.

Option 3.4 (SFD): Scope of participants

Allowing system operators to choose who can participate in their systems would provide most flexibility to system operators and ensure that they can quickly react to new market developments, including the use of new technologies. In particular, it would provide DLT-based systems with the ability to achieve protection under the SFR without the hurdles that exists

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[443] "*Indeed, determining the law applicable to the rights resulting from book-entry securities on the basis of the law chosen in the agreement between the SSS or CSD and its account holder could theoretically lead to various laws governing these proprietary aspects within one SSS or CSD, including one or more laws from outside the jurisdiction where the SSS or CSD is located or even from outside the Community. If these laws are not harmonised, the effects of such diversity on settlement finality, in particular where the law(s) chosen in the account agreement does not offer protection comparable to the protection under the Settlement Finality Directive, might potentially endanger the soundness of the entire system and entail systemic risks*". Opinion of the European Central Bank of 17 March 2005 at the request of the Council of the European Union on a proposal for a Council decision concerning the signing of the Hague Convention on the Law applicable to certain rights in respect of securities held with an intermediary (COM(2003) 783 final, OJ C 81/10.

today as this option would enable the extension of the protections under the SFR to all DLT-based system and their participants.

Granting DLT-based systems and their participants protection without any conditions applicable under sectoral legislation would further enable and support innovation. It could help preserving systemic stability if the DLT-systems in question were to be considered systemically important and could not be protected by the SFR if they would not be able to comply with the SFR participation requirements.

While facilitating innovation, this option would, however, also come with less certainty to other market participants as it would be less clear who could participate in which system. The potentially diverging approaches would lead to more fragmented markets and would thus not be in line with the objectives of the SIU. In addition, more divergences regarding the scope of participants would make supervision more difficult. Consequently, this option would come with high costs related to legal opinions which market participants might want to obtain before participating in a system as well as significantly increased supervisory costs given the various diverging aspects to consider for supervisors.

While a majority of respondents to the 2021 consultation on the SFD were in favour of extending the list of participants, they also said that only legal persons should be allowed to participate, thus limiting the potential eligible participation. (please see Section 6.2.2.4 for more details regarding the consultation responses).

In the 2025 targeted consultation, specific views on participants were expressed by respondents. For example, a bank argued that it is necessary to harmonise how different Member States handle the insolvency of indirect participants under the SFD and financial collateral rules. It also considered that payment and e-money institutions should be able to be recognised as participants in a settlement system for SFD purposes.[444] In this same vein, an industry association claimed that the protection in Article 9(1) of SFD should be available to clients of participants, in the event of the insolvency of that participant. A market authority considered that limiting the participants of SFD-designated systems is adequate, as institutions, as defined in Article 2 of the SFD are in many cases subject to special insolvency rules, namely resolution. They were also not in favour of broadening the scope of participants to retail investors as it may be the case potentially in infrastructures authorised under the DLTPRR, not subject for example to insolvency law.

Another request put forward by respondents to the 2025 targeted consultation was to apply settlement finality protections to all activity processed by the system (whether CSD, CCP or payment system), independent of the regulatory status of the participant in the system. In the case of CCPs, they wanted this protection to also cover clients and indirect clients (also in the interest of safeguarding the default management procedures of CCPs, in particular the transfer of client positions in the event of a default of a clearing member).

While this option would enable the market to respond to market developments and evolving technologies, allowing the same disapplication of national insolvency law for retail investors as for institutions could raise questions as the former are much less likely to have an impact on the stability of the system. At the same time, it would be important for the market and other

[444] Please note that this is already the case following the amendments to the SFD introduced by Regulation (EU) 2024/886.

participants to the system to have clarity on the scope of protection and that all participants to the system would be protected (and not just some) as any discrepancies in the protection would result in legal uncertainty on the scope of the protection provided under the SFR and result in less trust in designated systems. It could further be argued that retail investors cannot be required to familiarise themselves with the law governing the system which might be different from the law of the Member State they are established in/are familiar with. However, again the counter argument would be that it is more important to protect the system as a whole and ensure the same law applies to insolvency of its participants and all participants are protected. Overall, this option would allow the system operator to decide its participants and thereby decide over a topic that Member States might want to decide on given it disapplies certain national insolvency law provisions. Also, this option would lead to more fragmented markets and hence be against one of the objectives of the SIU.

At the same time, it would create an unlevel playing field between DLT operators and operators of systems that do not use DLT. As such it would increase market fragmentation and this option would, therefore, not be in line with the SIU objective of increasing market integration and efficiency.

Option 3.5 (SFD): Scope of eligible securities

Leaving it to system operators to choose which securities are eligible under the SFR for their respective system comes with similar benefits and risks as outlined above for letting system operators choose who can participate in their SFR-designated system. This would be sub-optimal. While it gives system operators greatest flexibility and might to a certain extent facilitate the use of new technologies as doubts about the eligibility of securities using new technologies could easily be addressed by the system operator, it would lead to more fragmented markets and hence be against the objectives of further market integration and improved supervision by reduced divergence the SIU. Consequently, this option would come with high costs related to legal opinions which market participants might want to obtain when participating in a system as well as significantly increased supervisory costs given the various diverging aspects to consider for supervisors. These costs might occur on a regular basis as system operators could change the accepted securities at their discretion.

In the targeted consultation on the SFD in 2021, some stakeholders, mainly representing banks, argued that the protection of the finality of transfer orders should apply to any transfer executed within an SFD-designated system.

Option 3.6 (SFD): Designation practices for EU systems

This option would ensure an even more harmonised approach to the designation of EU systems across Member States than one based on Member States' designation on the basis of harmonised criteria and procedures, but it would also require significant effort and resources for ESMA and the ECB/ESCB to build the necessary expertise and infrastructure to run the designation process.

While this option would foster market integration and ensure harmonisation to the greatest extent possible, it would - for instance - not be suited to cater for differences in Member States insolvency law and it would come with high costs for ESMA and the ECB/ESCB to build the necessary expertise and infrastructure that might not be justified given the occasional nature of the designation process and total number of systems designated.

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The 2021 consultation on the SFD did not include a question asking stakeholders for their opinions on transferring from Member States to ESMA or ESCB/ECB the power to designate systems under the SFD. In the 2025 targeted consultation a market participant supported moving the designation of systems under the SFD to the EU level.

Option 3.7 (SFD): Transparency

This policy option would aim to harmonise in a more far-reaching way the information to be published by ESMA in order to provide full transparency on designated systems across Member States.

The additional information to be published would facilitate the establishment of links, i.e. the assessment of moments of finality, between CSDs as well as access for participants across the EU, for example who could see and choose which system offers the best option to choose for settlement and payment. Under the option described in Section 5.2.2.3, ESMA would also have the information on which third-country systems have been registered by Member States. It would also facilitate convergence in market practices as ESMA would be able to identify divergences and inconsistencies more easily.

However, it is expected that providing transparency on additional elements than the designated systems, its rules and its participants would be unlikely to provide additional benefits in terms of competition, trust in the systems and sound risk decision making that would allow to further integrate the fragmented EU market and promote cross-border settlement.

At the same time, this option would entail some risks. For example, transparency on indirect clients may not provide further insights on the protection of the systems to foster trust – as they generally do not benefit from SFD protection as they do not pose systemic risk (for more information regarding protections provided by the SFD, see Section 3.2.12). Information on indirect participants could however be considered as business secrets of participants. The publication of the opening of insolvency proceedings may also present different legal challenges on the basis of national insolvency rules.

While this option would facilitate further market integration by enabling market participants to take decisions based on the most comprehensive information provided for systems across the EU, not all the information might be necessary but might create undue burden for system operators and ESMA to ensure accuracy and regular updates of the data, in addition to privacy concerns.

Option 3.8 (SFD): Settlement finality moments

Full harmonisation of the three settlement finality moments for all the different types of systems – without taking into account their respective characteristics and specificities – may be to the detriment of the well-functioning and optimisation of some types of systems. Moreover, this option would not take into account the current operationalisation of existing different finality moments by different types of systems and would require substantial implementing changes and costs. This option is also hindered by the fact that only with clarity on when transfers of securities and cash become unconditional, irrevocable and enforceable (in all Member States) would this be feasible. Moreover, for DLT-based systems, probabilistic settlement cannot, in principle, ensure irreversibility so this option would need to be accompanied by additional safeguards to address this issue.

As pointed out in Section 6.2.3.8, in the 2021 consultation on SFD, several respondents argued that the SFD is sufficiently clear and has provided a strong and stable legal framework that has worked so far. They were of the view that, as the objective of SFD was to ensure that the settlement in a system could continue despite a participant's insolvency, the system needed to have clear rules to which insolvency law could refer, but the SFD should not design those rules. They pointed out that, on the basis of the SFD, system operators have developed robust technical and legal systems, and that a change would involve more than changing rules (e.g. technical developments, reassessments). One respondent argued that clarifications in sectoral regulation would be more proportionate. Other respondents considered that the SFD should specify the moment of entry into the system and irrevocability, and where the settlement was enforceable and irrevocable to avoid uncertainty, in particular with respect to third-country systems and interoperable systems (which are increasingly important) where irrevocability of the cash and security legs is not simultaneous. They were of the view that regulation could incentivise system operators to establish such rules.

6.2.4. Choice of preferred policy option

	Effectiveness			Efficiency (cost-effectiveness)	Coherence
	Enable further market integration and scale effects by increasing cross-border activity	Improve supervision by reducing divergences	Facilitate innovation by enabling the use of new technologies		
Option 1 (SFD) – Status quo	0	0	0	0	0
Option 2 (SFD) – Comprehensive review to enhance the functioning of market infrastructure	++	+	++	+	++
Option 3 (SFD) – Extensive review to impose an integrated market	+	++	++	--	-

Legend:		
+++ = Very positive	+/- = Mixed effect	- = Slightly negative
++ = Positive	0 = No effect	-- = Negative
+ = Slightly positive		--- = Very negative

7. MONITORING

The options laid out above aim to reduce fragmentation and barriers in post-trade processes, as well as ensure that the EU financial acquis is sufficiently technologically neutral to allow for the uptake and implementation of novel technologies. To achieve these aims, the Commission has proposed a set of comprehensive and targeted amendments to the CSDR and the SFD. The

resulting amendments should include a provision stating that an evaluation of the outcomes should be carried out in order to evaluate the extent to which the stated aims have been met. In principle, this should take place after five years of their entry into force. In particular, there should be a focus on whether the proposed amendments will have reduced the barriers that exist in cross-border operations and are fit-for-purpose in an evolving technological landscape. The evaluation should consider all aspects of the CSDR and SFD, with a particular focus on those laid out below.

Specific objective to measure	**Monitoring indicators**	**When will monitoring start**	**By whom**	**Source of information**
Enable further market integration and scale effects by increasing cross-border activity	Total cross-border settlement activity (volume/value by instrument) Total cross-border issuance (value/volume) Number of CSDs that are part of a group that engage in intra-group outsourcing of core CSD activities Number of CSDs experimenting with new technologies Volume and value of settlement conducted by settlement internalisers Number of CSDs that designate credit institutions to provide banking-type ancillary services Volume and value of settlement activity taking place in T2S Total number of CSD links Total number of third-country systems designated under the SFD Total number of systems designated under the SFD Total number of participants that benefit from SFD protection	Date of application.	ESMA/ESCB	ESMA/ESCB
Facilitate innovation by enabling the use of new technologies	Settlement activity (in volume and value terms) executed using novel technologies	Date of application.	ESMA/ESCB	ESMA/ESCB

Specific objective to measure	Monitoring indicators	When will monitoring start	By whom	Source of information
	Total amount of cash leg settlement executed with digital money Total number of DLT based SFD designated systems			

ANNEX 9: SECTORAL ANNEX ON ASSET MANAGEMENT

1. INTRODUCTION

Creating a unified single market for investment funds and asset managers is a key part of the SIU because it would help raise capital in the EU, allocate that capital more efficiently and provide greater choice and better value to EU investors. A single market for the asset management sector has not been fully achieved to date. This is due to persistent regulatory and operational barriers as well as diverging supervisory practices, at European and Member State levels, despite the adoption of the CBDR and CBDD in 2019 (the 'CBD framework').

Indeed, the CBD framework introduced measures to impose certain requirements and increase transparency, including requiring ESMA to establish a central database of national rules concerning marketing requirements, as well as requiring competent authorities to publish information on regulatory fees and charges. The Commission's assessment shows that transparency has not resulted in improved convergent approaches by Member States.

Notification processes to exercise the marketing and management passports in the UCITS and AIFM frameworks can often amount to a "re-authorisation" at host Member State level, making cross-border marketing an administrative and financial challenge for fund viability. Indeed, when national requirements are different or too complex, asset managers often set up new local funds instead, or limit fundraising to familiar jurisdictions.[445] This results in smaller fund sizes, higher fees, fewer investment choices for investors, and smaller investing tickets. This latter aspect is of particular significance for the SIU, especially in innovative sectors and, more broadly, in infrastructure, where the small size of the EU fund sector remains a structural weakness. In addition, there is currently no effective mechanism to address passport-related issues between Member States in an efficient and timely manner. The absence of such alignment can lead to divergences between NCAs and Member States, which may in turn create or reinforce barriers to cross-border activities.

As well as national requirements, provisions in the EU framework also hinder efficient time and access to the single market. There are variations in the UCITS authorisation process across Member States, even though funds are authorised under the same EU framework. The notification requirements for new UCITS share classes, as well as material changes to fund documentation, are unnecessarily lengthy. The de-notification processes have also become too complex, and the pre-marketing ban under AIFMD unnecessarily blocks marketing of new AIFs. These provisions can be simplified to create a more streamlined single market for investment funds, while at the same time ensuring the same level of investor protection that exists today.

Asset managers often operate through group structures with regulated subsidiaries across the EU. The current regulatory and supervisory frameworks do not reflect these structures, and duplicative requirements are often imposed on entities of the same group operating in more than one Member State. Simplifying compliance and easing delegation rules for EU regulated group entities operating in the single market would reduce administrative burdens and improve scalability of the EU asset management sector.

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[445] Study of barriers to, and drivers of, the scaling-up of funds investing in innovative and growth companies

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Under current rules, AIFs and UCITS funds are required to appoint a depositary located in the same Member State where the investment fund is authorised. In Member States lacking depositary services or with highly concentrated depositary markets where sometimes less than a handful of entities offer depositary services, this requirement can limit operational flexibility and increase costs for both UCITS and AIFs and for investors or limit the growth of the investment fund sector for certain markets. During the most recent AIFMD review[446], smaller markets were permitted to appoint depositaries established in other Member States, but only under strict economic conditions and at the discretion of the Member State concerned. The new rules will apply from April 2026. For UCITS, the appointment of a depositary in another Member State is still not possible. Allowing UCITS and AIFs to freely appoint depositaries in Member States other than their home Member State, without preconditions such as economic thresholds or Member State specific restrictions would help reduce market concentration, lower costs, and enhance the overall efficiency and competitiveness of the EU depositary market.

Finally, the supervisory framework for the asset management sector would benefit from enhanced coordination. This is addressed in Annex 11 on supervision.

2. THE EU ASSET MANAGEMENT SECTOR AND LEGAL FRAMEWORK

2.1. SIGNIFICANT GROWTH BUT RELATIVE DECLINE GLOBALLY

The EU's asset management sector has undergone remarkable expansion over the past decades, establishing itself as a central pillar of the region's financial ecosystem. At the heart of this growth lies the development of a minimum common regulatory framework most notably through the introduction of the UCITS Directive in 1985 followed by the AIFMD in 2011.

The UCITS framework is the EU's flagship regime for retail investment funds. It provides a harmonised set of rules on eligible assets, diversification, and investor protection, allowing UCITS funds to be marketed to retail and professional investors and managed across the EU via a passport. This cross-border distribution mechanism is a key feature, supporting a deep and integrated single market for collective investment funds and asset managers.

The AIFMD framework governs managers of AIFs such as private equity, hedge, and real estate funds. It establishes a regulatory framework focused on transparency, risk management, and investor protection, particularly for professional investors. Like the UCITSD, AIFMD provides a passport, enabling authorised EU AIFMs to manage and market EU AIFs to professional investors across the EU under a single regulatory approval. The UCITSD and AIFMD underpin the EU's asset management landscape, offering distinct but complementary frameworks with single market scalability at their core.

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[446] Directive (EU) 2024/927 of the European Parliament and of the Council of 13 March 2024 amending Directives 2011/61/EU and 2009/65/EC: Directive - EU - 2024/927 - EN - AIFMD II - EUR-Lex

In terms of growth in collective investment schemes in the EU, as at end 2024, the total NAV in the EU asset management industry amounted to approximately EUR 20.5 trillion[447], of which approximately EUR 12.6 trillion (61%) was held in UCITS funds[448] and EUR 7.9 trillion[449] (39%) in AIFs. Net assets of EU funds have effectively doubled over the past ten years (i.e. 95% growth over the decade). Between approximately 46% of this total net assets growth was attributed to new net inflows and around 54% to asset appreciation.[450] Taking inflation into account, in inflation-adjusted terms, the real growth of the European fund segment over 10 years is approximately 60%.[451] The growth of exchange-traded funds ('ETFs') in recent years is also noteworthy. ETFs have become a widely popular investment vehicle with European ETFs reaching a record of almost EUR 2.2 trillion in AuM at the end of 2024 (a 33% increase from the previous year)[452], with EUR 2 trillion consisting of UCITS funds.[453]

Overall, the above figures demonstrate that the EU fund industry has recorded steady growth over the past decade. However, this growth should be contrasted to global peers, as well as roughly estimated in inflation-adjusted terms. The EU fund industry growth over the past decade lagged global and US trends in aggregate net assets growth. Notably, global investment fund assets rose from USD 17.7 trillion (~ EUR 14.5 trillion) in 2014 to over USD 39 trillion (~EUR 37.7 trillion) by end 2024, corresponding to a 120% growth over that time.[454] Graph 1 shows that the US has the largest share of total NAVs of worldwide regulated open-ended funds.

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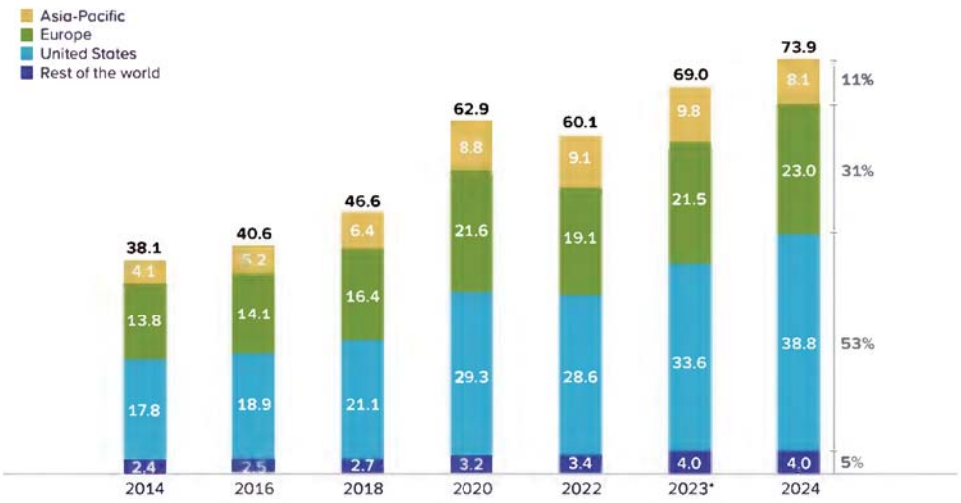
[447] EFAMA Factbook 2025, page 14. Available: https://www.efama.org/sites/default/files/fact-book-2025_lowres.pdf; supported by internal calculations.
[448] EFAMA 2025 calculations and internal calculations conducted by Commission services based on commercial databases that contain UCITS data.
[449] ESMA data, from the AIFMD reporting.
[450] EFAMA Factbook 2025, page 8. Available: https://www.efama.org/sites/default/files/fact-book-2025_lowres.pdf
[451] Based on estimates of the global consumer price inflation rates (annual % change) for 2014 to 2024, based on FRED data from the World Bank / IMF, the cumulative price increase of assets (global inflation with a CAGR of around 3.2%) from 2014 to 2014 was about 37%.
[452] Source: European ETFs Attract Record Inflows in 2024, Morningstar, 28 January 2025. Available here: European ETFs Attract Record Inflows in 2024 | Morningstar Europe
[453] Source: EFAMA Industry perspective, Issue No. 1, April 2025. Available: efama-industry-perspective_active-etfs_april-2025_0.pdf
[454] Investment Company Institute (ICI) 2025 Investment Company Fact Book. Available: 2025 Investment Company Fact Book, and Worldwide Public Tables.

Graph 1: Total NAVs of worldwide regulated open-ended funds (trillions of USD by region, year-end)[455]



2.2. UNEVEN DEVELOPMENT OF FUND MARKETS ACROSS THE EU

Large asymmetries exist between Member States in terms of fund domiciliation. The top four Member States for fund domiciles, Luxembourg, Ireland, Germany and France, held around 82% of total EU fund assets at the end of 2024. Luxembourg alone accounts for EUR 6.8 trillion (33% of the EU total AuM). Ireland follows with EUR 4.9 trillion AuM (24% of the total). These figures reflect the development, over several decades, of infrastructure conducive to fund domiciliation, as well as favourable regulatory, tax and administrative environments.

The asymmetries are also apparent when comparing the aggregate net size of EU investment funds with the total GDP. If the total EU AuM amounts to about 110% of EU GDP, the divergences across the Member States are extreme. For example, if France and Sweden are performing above the EU average at 90% and 120% of GDP respectively (around the EU average of 110%), several Member States are falling behind. For instance, Spain has investments at 28% of GDP, Italy at 20% and Poland at 13.6%.

This, combined with the very limited degree of cross-border provision of investment funds in the EU generally (see below), shows that there is a low market penetration of investment funds in many Member States and hence that many EU markets are underinvested.

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[455] ICI 2025 Investment Company Fact Book, page 14.

Table 1: Net assets and number of funds in the EU (Q4 2024 data)[456]

Member State	Total Net Assets (millions of EUR)			Number of funds		
	Total	UCITS	AIFs	Total	UCITS	AIFs
Austria	200.827	105,827	95.000	1.902	874	1.028
Belgium	276.212	229,112	47.100	1.064	583	481
Bulgaria	1.898	1,498	400	163	127	36
Croatia	4.528	3,228	1.300	146	117	29
Cyprus	8.623	623	8.000	361	31	330
Czech	57.876	13,576	44.300	932	119	813
Denmark	307.360	199,299	108.061	959	694	265
Estonia	2.300	-	2.300	147	-	147
Finland	185.667	164,067	21.600	661	390	271
France	2.135.150	976,950	1.158.200	8.628	3,093	5.535
Germany	2.945.331	549,131	2.396.200	9.418	2,959	6.459
Greece	19.694	17,894	1.800	359	312	47
Hungary	34.193	3,793	30.400	579	53	526
Ireland	4.920.103	4,043,403	876.700	8.363	5,531	2.832
Italy	453.502	309,702	143.800	2.233	1,115	1.118
Latvia	500	-	500	50	-	50
Lithuania	500	-	500	11	-	11
Luxembourg	6.836.951	4,776,451	2.060.500	18.596	9,746	8.850
Malta	32.111	3,111	29.000	430	112	318
Netherlands	766.535	98,335	668.200	2.607	94	2.513
Poland	93.682	36,782	56.900	1.251	257	994
Portugal	39.143	20,043	19.100	560	166	394
Romania	8.088	4,688	3.400	126	92	34
Slovakia	11.400	7,600	3.800	117	67	50
Slovenia	6.850	6,250	600	125	71	54
Spain	461.025	381,225	79.800	4.561	2,854	1.707
Sweden	671.868	631,068	40.800	1.012	609	403
Total	20.481.913	**12,583,652**	7.898.261	65.361	**30,066**	35.295

2.3. LIMITED CROSS-BORDER PROVISION OF INVESTMENT FUNDS

Despite decades of regulatory efforts to create a single European capital market, the cross-border marketing of investment funds within the EU remains limited. While the UCITSD and

[456] Source: Data on UCITS based on EFAMA Quarterly statistical release Q4 2024, available here: quarterly-statistical-release-q4-2024.pdf. Data on AIFs provided by ESMA.

the AIFMD have enabled the cross-border marketing of investment funds through an EU-passport, both the share of assets, as well as the absolute number of investment funds marketed on a cross-border basis continues to be disproportionately small compared to the size of the EU net assets. To date, many EU-domiciled funds are still predominantly sold in their country of domicile, and a significant portion of national fund markets remain highly fragmented.

The low cross-border activity of funds throughout the EU can be illustrated by the fact that, despite the EU passport, UCITS funds are on average marketed in only one Member State in addition to the home Member State of their domicile. There is only a noteworthy cross-border activity from Ireland and Luxembourg in the EU. However, in contrast, UCITS funds domiciled in Spain, Italy, Denmark, Portugal and Poland are often exclusively marketed in the countries of domicile and are not marketed beyond these Member States.

Table 2: Average number of Member States where UCITS are marketed on a cross-border basis[457]

Range (average number of Member States)	UCITS Domicile (average number of Member States where funds are marketed cross-border)
More than 4	Luxembourg (4.8), Lithuania (4.8), Ireland (4.1)
Between 2 and 4	Estonia (3.3), Malta (2.4)
Less than 2	France (1.7), Belgium (1.5), Finland (1.6), Sweden (1.5), Netherlands (1.5), Germany (1.3), Austria (1.3), Latvia (1.3), Denmark (1.1), Spain (1.0), Italy (1.0), Portugal (1.0), Poland (1.0)
Average across the EU Member States	**2.0**
Average per fund	**3.2**

2.4. FRAGMENTED INVESTMENT FUND MARKETS

The EU investment fund market is fragmented, which is apparent from the high number of investment funds and the small size of funds.

- There are approximately 35,000 EU AIFs and 4,500 AIFMs, which translates into an average net asset size of an EU AIF of approximately EUR 224 million (EUR 318 million in terms of AuM).[458]
- There are approximately 30,000 UCITS funds and 1,700 UCITS management companies[459], which translates into an average net asset size of an EU UCITS fund of approximately EUR 420 million.
- There are approximately 11,400 UCITS funds smaller than EUR 100 million, accounting for 2% of UCITS assets.[460]

[457] Source: Morningstar data; internal calculations by the Commission.
[458] ESMA data, June 2025.
[459] EFAMA data and ESMA database (quarterly-statistical-release-q4-2024.pdf), UCITS entities, available here: https://registers.esma.europa.eu/publication/searchRegister?core=esma_registers_upreg
[460] Morningstar data, by end 2024.

- With approximately 65,000 EU investment funds and the total net size of the EU asset industry representing EUR 20.5 trillion in terms of net assets (EUR 23.5 trillion in terms of AuM), the average size of the EU investment fund is approximately EUR 313 million (EUR 365 million in terms of AuM).

In contrast, US-domiciled investment funds tend to be significantly larger, on average, than their EU counterparts. The average US fund has approximately EUR 2.3 billion in assets[461], which partially reflects a different market structure as well as the high degree of market scale and consolidation of the US fund industry. Furthermore, the average size of UK-domiciled authorised investment funds is smaller than that of the US but significantly larger than that in the EU. Based on industry-wide net assets of approximately EUR 2.2 trillion, the average UK fund size is estimated at EUR 660 million.[462]

These figures highlight the scale advantage enjoyed by funds domiciled outside the EU, particularly in the US, where deeper capital markets, distribution efficiencies and regulatory scale effects enable greater fund consolidation. Scale is critical in investment funds because many costs (legal, IT, reporting, compliance) have a fixed component. Larger funds spread these costs over more assets, lowering unit costs and investor fees. Scale also increases bargaining powers with service providers and counterparties, securing better terms. Finally, it enables access to larger investment tickets, such as infrastructure or private markets, expanding diversification for investors and providing investees with deeper capital pools. An ESMA study[463] has shown that in the EU and US fund markets, larger share classes and parent companies have lower costs, confirming the importance of economies of scale. Furthermore, the study shows that the negative relationship between share class size and costs is more pronounced in the US market: this seems to indicate that, as they grow, US funds achieve greater cost efficiencies than their EU peers. All this suggests that a single market with less fragmentation and larger funds can – assuming unimpaired competition – bring efficiency gains to the EU fund sector, and ultimately lower investor costs and provide greater value for money.

Therefore, the EU market suffers from both the size of its investment funds and its asset managers. There is evidence in academic literature that this also negatively affects performance.[464] A study from the Investment Company Institute[465] shows that the EU's cross-border fund market tends to have larger costs (on average +20% for a fixed income fund).

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[461] ICI, 2025 Investment Company Fact Book, available here: 2025-factbook-quick-facts-guide.pdf

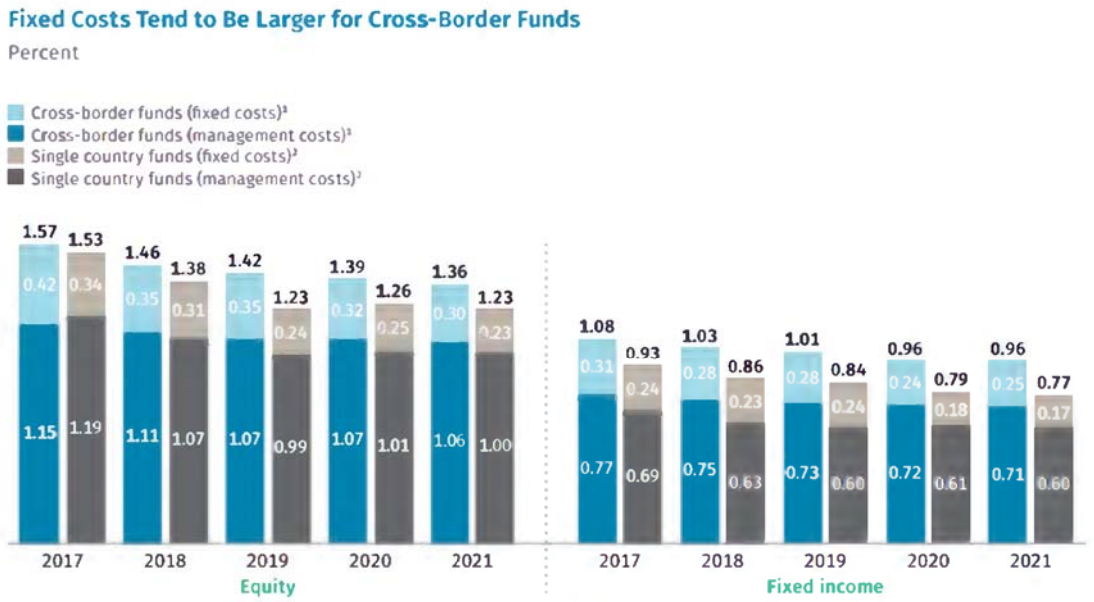
[462] The Investment Association, Investment Management in the UK 2023-2024, available here: https://www.theia.org/sites/default/files/2024-10/Investment%20Management%20in%20the%20UK%202023-2024.pdf.

[463] ESMA, The scale factor: Impact of size on EU fund cost structures, February 2025

[464] Ibid.

[465] ICI Research perspective, October 2022, available: Ongoing Charges for UCITS in the European Union, 2021

Graph 3: Costs for equity and fixed income funds[466]



In addition to the small average size of EU investment funds, it is noteworthy that both the UCITS and the AIFs segments are characterised by extremely high fragmentation with a pattern of a relatively small number of funds concentrating the bulk of the assets and a large number of small and very small funds. Notably:

- **UCITS market**: Only around 3,500 UCITS funds (13% of the total number of UCITS funds) were above EUR 2 billion, whilst the remaining 87% of the UCITS funds were below EUR 2 billion. Furthermore, approximately 5,300 funds (37% of the total UCITS number) were below EUR 50 million. [467]
- **AIFs market:** This market fragmentation is even more pronounced where a few large EU AIFs accounted for most of the AIF market. In 2020, AIFs with a NAV larger than EUR 1 billion accounted for less than 3% of all AIFs but for 54% of the NAV. In contrast, smaller AIFs with a NAV lower than EUR 500 million accounted for 93% of all AIFs but only 32% of the NAV.[468]

Instead of relying on the cross-border passport, managers often create similar but legally separate investment structures that are tailored to the regulatory, fiscal and commercial needs of distinct EU local markets. This, in turn, results in fragmentation and duplication, since the funds may (and often do) have the same investment strategy, portfolio composition and management team, but are domiciled, authorised and supervised separately in different Member States. Local regulatory restrictions or differences in marketing requirements or duplicative authorisation needs often imply that fund managers either cannot or are disincentivised to establish a single vehicle to raise capital across all EU Member States.

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[466] ICI Research perspective, Ongoing Charges for UCITS in the European Union, 2021, page 19.

1.1. [467] **INTERNAL CALCULATIONS BY COMMISSION SERVICES; MORNINGSTAR UCITS DATA, MAY 2025.**

[468] ESMA Annual Statistical Report of AIFs, 2022, available here: esma50-165-1948_asr_aif_2022.pdf

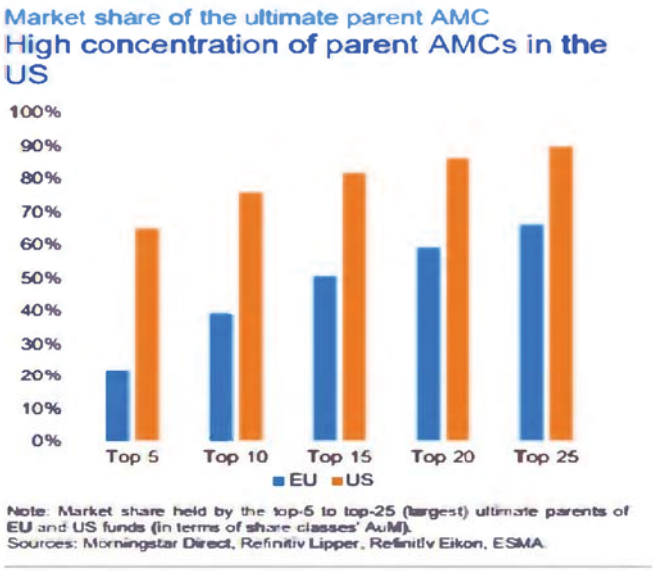
2.5. LARGE PARTS OF DEPOSITARY SERVICES MARKETS ARE UNDER-SERVED OR HIGHLY CONCENTRATED

As regards underserved depositary markets, the breakdown of depositaries across Member States is the same as the breakdown of UCITS domiciliation, since depositaries must be established in the Member State where the UCITS are domiciled.

2.6. FRAGMENTATION IN THE EU ASSET MANAGEMENT MARKET STRUCTURE AND OPERATIONS

The EU asset management industry is, just like the fund sector, fragmented with a mix of large, mid-sized and small asset managers that operate in different Member States to a varying degree. For UCITS funds, the top five asset management groups manage over EUR 3.5 trillion in UCITS assets, which corresponds to 28.6% of total UCITS net assets, compared to more than 60% in the US. The top 10 groups manage around EUR 5 trillion of UCITS and account for about 40% of total UCITS assets, and the top 20 manage over EUR 6.65 trillion in UCITS assets, or about 53% of total UCITS assets. The relative size for the fund sector and comparison with the US is depicted in the graph 4 below.

Graph 4: Relative size of the largest EU asset management groups[469]



This pattern reflects a broader structural feature of the EU fund market, i.e. the persistence of nationally siloed competitive dynamics and fragmentation, despite the existence of the UCITS and AIFMD regimes. Competitive pressure across borders may be negatively affected, as the leading asset managers in one Member State are often largely absent from the top rankings in another.

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[469] ESMA TRV Risk Analysis The scale factor: Impact of size on EU fund cost structures, available here: ESMA50-524821-3575 The scale factor: Impact of size on EU fund cost structures

Table 3: Market share of the top 5 largest asset managers by Member State[470]

Top 5 Managers' market share (%)	Countries (with %)
Above 75%	Slovenia (100%), Slovakia (91%), Greece (92%), Denmark (90%), Finland (83%), Czech Republic (76%)
Between 75% and 50%	Croatia (74%), Belgium (71%), Hungary (68%), Austria (66%), Romania (63%), Spain (62%), Bulgaria (60%), Sweden (59%), Poland (58%), Portugal (57%), Germany (57%), Italy (54%),
Between 50% and 25%	France (46%), Ireland (42%), Cyprus (35%), Malta (35%)

Differences in business models explain part of the fragmentation: some groups consolidate operations into a few cross-border hubs, while others maintain networks of local entities with duplicated functions. A degree of localisation is often justified by investor expectations and customer support needs. However, fragmentation also reflects non-commercial factors such as divergent tax, corporate, securities and regulatory frameworks across Member States. This can lead to inefficient resource allocation, hinder scale economies, and increase costs for investors. It further complicates supervision, as oversight is spread across multiple legal entities and jurisdictions, obscuring group-level risks and hampering timely cross-border coordination, especially in times of stress.

Table 4: Number of EU entities composing the top 30 EU asset management groups[471]

Number of UCITS management companies and AIMFs within large EU asset management groups	% of asset manager groups
Between 1 to 4 asset managers	43%
Between 5 to 10 asset managers	37%
Between 11 to 15 asset managers	17%
>15 asset managers	3%

Number of entities within large EU asset manager groups	% of asset manager groups
Between 1 to 4 entities	23%
Between 5 to 10 entities	33%
Between 11 to 15 entities	27%
>15 entities	17%

3. ASSESSMENT OF PROBLEMS AND NEED TO ACT

3.1. PROBLEM DEFINITION – BARRIERS TO CROSS-BORDER ACTIVITIES OF THE EU FUND VALUE CHAIN

The value chain for the EU fund market remains fragmented and lacks scale, as evidenced in Section 2.4. of this Annex, with declining competitiveness compared to other regions, under-served investor segments, limited cross-border marketing activity and a patchwork of fund and asset manager rules. Together, these weaknesses prevent the emergence of a truly integrated and scalable ecosystem.

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[470] Source: EFAMA data and DG FISMA internal calculations and estimates, June 2025.
[471] Source: Morningstar and ESMA Database of UCITS management companies and AIFMs.

The specific barriers described in this section are:

- Barriers to cross-border activities of investment funds (section 3.2);
- Barriers to cross-border activities of depositary services (section 3.3);
- Barriers to cross-border activities of asset managers and asset management groups (section 3.4); and
- Other barriers to the growth of the investment fund sector stemming notably from some UCITS investment limits on securitisations and indices (section 3.5).

This analysis focuses only on barriers arising from financial regulation and its application, excluding those related to tax, corporate, or securities law.

3.2. BARRIERS TO CROSS-BORDER ACTIVITIES OF INVESTMENT FUNDS

Desk research by the Commission together with the Commission consultation and bilateral engagements with stakeholders show that EU and national requirements and practices still makes the EU marketing passport extremely difficult to navigate. The CBDR created an ESMA database with hyperlinks of NCAs' websites with information on national marketing rules and fees which enhanced the transparency somewhat. However, transparency alone cannot address the root problem, which is the barriers themselves.

Barriers in the EU framework include the current notification procedure for the UCITS and AIFM marketing passport (which is unnecessarily time consuming and administratively demanding especially where a manager seeks to market a fund in EU 27), the one-month notification of new share classes of a UCITS fund, the ability for Member States to impose ex-ante verification requirements on marketing communications and translation requirements. Barriers in national frameworks include country-specific disclosure requirements, administrative and operational issues (e.g. bespoke filing systems), additional marketing rules, regulatory fees and charges, reporting obligations, and local physical presence requirements.

There are several causes for these barriers. First, while notification rules have been harmonised through changes to the UCITSD[472] and AIFMD, a broad margin of discretion is left to Member States, allowing them, to a large degree, to impose their own procedures, regulatory fees, IT systems, and requirements. Second, under the fund frameworks, Member States can adopt national rules where EU rules are absent. Since EU marketing rules are mostly principle-based (e.g. requiring that information is clear, not misleading, and consistent with pre-contractual documents), many Member States set out detailed marketing rules, which in turn affect product design. Indeed, marketing is essential for raising capital. If a fund cannot be sold in a Member State, managers must adapt to comply with local marketing rules, creating fund-specific versions for national markets that can pass regulatory scrutiny. This fragmentation reduces the overall size and growth of investment funds in the Union. These barriers impact the growth of all fund types, including ETFs, which have experienced exponential levels of growth in recent years, due to their attractiveness which can be attributed to their relative low cost, the ability to invest in a simple and transparent manner in products that are diversified and liquid.

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[472] Notably through the introduction of a system of "pre-authorisation" from the host NCAs (until UCITS III) to a "notification-only" to host NCAs introduced by UCITS IV.

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It is questionable whether those diverging national requirements deliver any real benefits to consumers. Where regulation of certain aspects is indeed needed, such rules should be harmonised and applied consistently across the EU market.

A more detailed description of the problem drivers is presented below.

a) Barriers related to the authorisation and notification requirements

In the consultation, 68% of respondents reported divergent UCITS authorisation practices across Member States and NCAs, noting that inconsistencies in procedures, information requirements and timelines create complexity and inefficiency. Examples include the need for board approval for a new sub-fund in some jurisdictions but not others, shareholder approval for changes of investment objectives, and a general lack of transparency on approval timelines, all of which hinder the seamless operations of investment funds across the Union.[473]

On the UCITS and AIFM passporting framework, 73% of respondents (asset managers and professional associations) indicated that current marketing passport provisions are not sufficiently simple or proportionate. They argued that passporting should be reduced to a straightforward notification process given that funds are already authorised by their home NCA. The existing web of bilateral notifications imposes unnecessary administrative burdens on funds, fund managers and regulators.[474] One large asset manager in the Nordic region specifically mentioned challenges in processing passporting notifications, necessitating a one-month timeframe before it can effectively begin marketing in host Member States due to frequent delays in the process.

b) Marketing requirements

Most respondents to the targeted consultation noted that approaches to marketing rules differ substantially across Member States, with the EU framework notably the CBDR offering Member State discretion in this regard. Some NCAs require pre-approval (ex-ante verification) of marketing communications, while others do not. Requirements around content standards also vary, making it difficult for fund managers to use standardised marketing communications in the single market. Respondents also noted that some Member States have requirements regarding country-specific disclosures in fund documentation. One prominent fund industry association noted that a country fund supplement is required in seven Member States (Austria, Belgium, Denmark, France (in some cases), Germany, Ireland, Poland). A mid-sized fund manager reported the cost of compliance with country-specific disclosure rules as EUR 65,000 annually.

The UCITS and AIFM marketing passport enables funds authorised in one Member State to be marketed across the EU via a notification procedure between NCAs. In principle, host NCAs cannot block access or challenge the home authorisation. In practice, however, divergent national marketing requirements, especially relating to the form and content of marketing

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[473] In response to the targeted consultation, one mid-sized fund manager noted variable authorisation processing times across NCAs, ranging from a couple to several months regardless of the complexity of the case, as well as the variation in the level and style of information to be provided to, and approved by, NCAs which can complicate cross-border operations and lead to an uneven playing field across Member States.

[474] Examples: new share classes of an existing UCITS must be notified one month before marketing, the de-notification process and obligation to publish an intention to terminate marketing even where no investors remain, or the 36-month pre-marketing blackout for similar strategies to the one of the AIF that was de-notified.

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materials and ex-ante checks of marketing communications, create burdens and delays. A mid-sized fund manager reported the cost of compliance with marketing communication rules as EUR 100,000 annually.

Finally, most industry respondents reported not using ESMA's database on national marketing requirements due to complex, incomplete, or outdated information. As a result, fund managers face higher costs and slower market access, while the database underscores the complexity of national rules despite common UCITD and AIFMD texts.

c) Administrative requirements – national rules concerning local physical presence, regulatory fees and translations

The CBD framework prohibits host Member States from requiring UCITS and AIFs that are marketed in their territory to have a local physical agent in their host jurisdiction or to appoint a third party for the performance of certain tasks. Many respondents to the targeted consultation reported that in practice several Member States continue to require funds from other Member States to appoint such local agents. Consultation feedback highlighted that these requirements undermine the UCITS and AIFM passport and can often deter managers from adopting a European strategy. One large asset manager reported such requirements in Austria, Germany, Italy, Spain Poland and Portugal.

Desk-based research and consultation responses shows that at least 11 Member States require UCITS and AIFs to appoint a local agent for varying reasons (tax representation, payments/redemptions, regulatory fee handling, intermediary activities, reporting). In some cases, this stems from NCA expectations rather than law. Information provided by a mid-sized asset manager and a prominent industry association shows the average annual cost of EUR 42,500 for appointing a local physical agent in one Member State, with the highest reported cost for one Member State being EUR 80,000.

On regulatory fees and charges levied by some NCAs, of the stakeholders that replied to this part of the targeted consultation 58% considers fees and charges a significant barrier to the distribution of investment funds. Stakeholders explain that whilst each individual fee may sometimes appear as immaterial, it can very quickly lead to significant costs when taking into account the administration burden of keeping track with all annual fees and the time they are due. Respondents also noted that, for both UCITS and AIFs marketed in host Member States, information on the fees levied by host competent authorities is not easily available, e.g. poorly structured and hard to find fee information on NCAs websites, often resulting in the need to engage local counsel for advice. Case Study 2 highlights a cost of EUR 65,000 associated with the payment of regulatory fees for one AIF marketing on a pan-EU basis.

The cross-border distribution framework sought to enhance transparency, including in relation to fees and charges levied by host competent authorities for UCITS and AIFs marketed in their territories, and to limit burdensome or opaque practices. One measure required NCAs to publish applicable regulatory fees online and ESMA to maintain a database of such information. However, in practice, fee transparency remains limited. In many cases, fees are not clearly presented, complicated to follow or easily accessible on NCA websites, and fund managers may only become aware of the full cost late in the registration process.

Administrative issues linked to fees include:

(i) variability – the extent and clarity of fee disclosure varies across jurisdictions. Some NCAs provide clear, comprehensive schedules, while others offer only limited or outdated information;

(ii) structuration – differences in how fees are defined, structured, and presented make it difficult for fund managers to compare costs across Member States. Some NCAs aggregate multiple services into a single fee, others itemize extensively, complicating cost transparency;

(iii) accessibility – fee information is not always easy to find or available in English, which can hinder access for non-domestic managers; and

(iv) timing – it is frequent that authorities continue to request fee payments even after fees have been paid and marketing has been closed.

The Impact Assessment undertaken in 2017 showed that the level of fees levied by host NCAs varies considerably, both in absolute amount and how they are calculated.[475] Significant variations in the levels of fees charged remain today. Table 5 provides an overview of the regulatory fees imposed on incoming funds by EU 27 host NCAs, based on research by the Commission Services during H1 2025. It is based on one single sub-fund being marketed cross-border and is compiled on a best-efforts basis, due to some constraints in finding the correct information on NCA's websites, and variations such as indexing, the number of sub-funds and applying conversion rates in some cases.

Table 5 – Fees charged by NCAs on a UCITS fund operating on a cross-border basis

Number of NCAs charging regulatory fees (initial and/or annual)	**Approx. 18**
Number of NCAs that do not charge regulatory fees	**Approx. 9**
Number of NCAs where information is unclear	**14**
Highest initial fee (EUR)	**4400**
Highest annual fee (EUR)	**3452**
Average initial fee (EUR)	**985**
Average annual fee (EUR)	**1061**

On translation requirements, most asset management industry association cite national requirements on translating documents as a barrier. One prominent industry association noted that there is no uniformity in local language translation obligations, meaning that in some

[475] For example, ongoing regulatory fees for a UCITS fund with five sub-funds marketed to retail investors vary from EUR 0 to EUR 10,275 and for an AIF with the same structure marketed to professional investors vary from EUR 0 to EUR 15,000.

Member States, every investor-facing document, including prospectuses and key information documents, must be translated into the local language unless investors explicitly consent otherwise, while other Member States take a more flexible approach, permitting a single marketing package to be used across borders. This fragmentation prevents the use of a single marketing communication package across multiple countries, increasing administrative burden.

3.3. BARRIERS TO CROSS-BORDER ACTIVITIES FOR DEPOSITARY SERVICES

One of the main pillars of the AIFMD and UCITSD frameworks that protects investors is a depositary regime. AIFMs and UCITS managers are required to appoint for each fund they manage a single depositary that should be authorised in the same country as the fund. For AIFMs, the adoption of this regime was accompanied by a transitional period that lasted until July 2017, during which the competent authorities of the home Member State of an AIF could allow the appointment of a depositary established in another Member State.[476] Several competent authorities made use of this possibility to avoid a market concentration, which could pose risks to the financial stability in the concerned Member States.

The end of the transitional period caused difficulties for many UCITS and AIFs in smaller markets where there was still a lack of supply of depositary services, mainly due to some Member States having an extremely concentrated depositary market. Notably, in one Member State two depositaries hold over 40% of the financial instruments and four depositaries hold 70% of the financial instruments. In another Member State, only three depositaries offer their services.

To address the challenges faced by certain Member States in ensuring an adequate supply of depositary services, the co-legislators recently amended AIFMD to introduce a derogation allowing certain AIFMs to appoint a depositary in a Member State other than the Member State of the AIF.[477] Such an appointment is subject to number of conditions:

- that the competent authorities have received a reasoned request from an AIFM demonstrating the lack of depositary services in the home Member State of the AIF;
- the aggregate amount in the national depositary market of the home Member State of the AIF of assets entrusted for safekeeping on behalf of EU AIFs authorised or registered managed by an EU AIFM does not exceed EUR 50 billion; and
- the Member State of the AIF has decided to allow the appointment of a depositary in other Member States.

Even when the above-mentioned conditions are fulfilled, national authorities may still refuse the appointment of a depositary located in another Member State, based solely on their assessment that adequate depositary services are already available domestically, without being required to provide justification or supporting evidence.

First, while the new rules introduce the possibility for cross-border provision of depositary services for AIFs, the EUR 50 billion threshold significantly limits their application to only a few Member States. Second, as EU financial markets evolve, several Member States currently below the threshold may soon exceed it, potentially losing access to cross-border depositary

[476] Article 61(5) of AIFMD.
[477] Article 21(5a) of AIFMD, introduced by Directive (EU) 2024/927.

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services shortly after the rules come into effect. Third, allowing Member States to decide whether to permit the appointment of a depositary in another Member State, even when the economic conditions are met, adds further fragmentation and undermines the creation of a truly integrated single market for AIFs, AIFMs and depositaries.

As regards the UCITS depositary regime, under the current framework, UCITS are not allowed to appoint a depositary in a Member State other than the home Member State of the UCITS. While this requirement was initially introduced to ensure strong regulatory oversight and investor protection, it presents several challenges that negatively affect the functioning and competitiveness of the UCITS market across the EU.

One public sector stakeholder replied to the targeted consultation that the AIFMD and UCITSD should be revised to ensure authorised depositaries are allowed to provide depositary services without restrictions across the EU. In their view, the recent amendments to the AIFMD introduce too many conditions for allowing the appointment of a depositary in another Member State and consider those conditions "*restrictive and protectionist for no apparent reason.*" In addition, a large asset manager marketing UCITS in 16 Member States and AIFs in 18 Member States supports the development of a European passport for depositaries and reported that recognising a depositary established in another Member State should be allowed.

In particular, Member States with a limited number of licensed depositaries often face difficulties in ensuring a sufficient and competitive supply of depositary services. This lack of competition can result in higher fees for UCITS and AIFs, lower service quality, and reduced operational efficiency, ultimately harming investors through increased costs and diminished returns.

Moreover, this limitation acts as a barrier to market entry and growth, discouraging fund promoters from establishing UCITS and AIFs in Member States where the depositary market is underdeveloped. This contributes to a concentration of UCITS and AIFs in a few Member States with large and mature financial sectors, while limiting the development of the fund industry in others. As a result, the rule undermines the objectives of the single market by perpetuating geographic disparities and hindering the integration of EU financial markets.

The inability of UCITS and the limited ability for AIFs to appoint a depositary in another Member State also creates regulatory fragmentation within the single market. It prevents funds from benefiting from cross-border efficiencies and accessing potentially more competitive or specialised depositary services available elsewhere in the EU. This constraint is increasingly at odds with the promotion of the freedom to provide services.

For smaller Member States in particular, the domestic supply of depositary services may be insufficient to support a growing or diverse investment fund sector. In some cases, the volume of activity is too low to attract multiple providers, which can result in over-reliance on one or two institutions. This not only restricts competition but also raises concerns about financial resilience and systemic risk.

Finally, the requirement to appoint a depositary in the same Member State as the UCITS or AIF no longer fully reflects technological progress, as depositary functions (e.g. safekeeping, oversight, and record-keeping) can increasingly be performed efficiently across borders without the need for a physical presence in the same jurisdiction. Modern communication and supervisory technologies facilitate the provision and monitoring of these services, suggesting

that the current rule may impose unnecessary restrictions on cross-border integration of the EU fund market.

3.4. BARRIERS TO CROSS-BORDER ACTIVITIES FOR ASSET MANAGERS

The current regulatory framework under UCITSD and AIFMD does not recognise the group dimension. Asset management groups operate based on authorisations of individual asset management companies, with organisational requirements being met at the level of each individual management company.

First, when functions of a management company are delegated to another entity within the same group, the delegating entity remains subject to the same stringent requirements that apply to a delegation to a third party (e.g. due-diligences, monitoring, resource requirements). This can be disproportionate and inefficient in cases where the delegate is another EU authorised asset manager within the same group, placed under the supervision of an NCA. Several respondents to the consultation (asset managers and professional associations) also indicated that the obligation to maintain effective oversight of delegated functions in EU intra-group delegation constitutes the main obstacle to the consolidation of the functions of asset-management groups in the EU. One large asset manager, which is authorised in four Member States and has branches in seven Member States noted, in its response to the consultation, that it sees merit in recognising the notion of asset management group in the specific case of intra-group delegation arrangements to avoid duplication of reporting, including to the same NCA. It noted that reporting just once, instead of twice on the exact same things would substantially alleviate the regulatory burden.

Second, although the AIFMD and UCITSD frameworks have introduced harmonised rules for the authorisation of AIFMs and UCITS management companies, as well as for the information to be submitted to national competent authorities, divergent national practices in the authorisation process continue to persist. 82% of respondents to the Commission's consultation (asset managers and professional associations) mentioned they face differing authorisation processes and interpretations of key concepts by NCAs. The issue is particularly acute for groups of asset management companies with subsidiaries in several Member States, as they must comply with multiple diverging requirements, authorisation processes and regulatory interpretations when establishing operations across the EU. It also affects the ability of AIFMs and management companies to manage funds in Member States other than their home jurisdiction, since they must navigate additional requirements, procedures, and disclosures imposed by host authorities, which may diverge from those applicable in their home Member State. These inconsistencies complicate cross-border operations and hinder the functioning of the management passport, leading most respondents to call for greater harmonisation.

Third, the AIFMD and UCITSD frameworks follow a minimum harmonisation approach, meaning that they set only a baseline of rules and allow Member States significant discretion in transposing and implementing the provisions. These national discretions vary in form and impact. In many instances, Member States are permitted to authorise or restrict certain activities by AIFMs and UCITS beyond the minimum requirements set by EU law. For example, the Directives allow Member States to permit or prohibit AIFMs and UCITS management companies from carrying out certain ancillary services or set out an open list of reporting or disclosure requirements, allowing Member States to require additional information beyond what is mandated at the EU level. Similarly, under the UCITSD, Member States can allow

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UCITS to exceed investment and diversification limits, leading to divergent portfolio rules across jurisdictions.

Such regulatory flexibility results in significant disparities in the legal and operational conditions applicable to asset managers and investment funds across the EU. Particularly, fund managers operating cross-border and asset management groups are confronted with a complex patchwork of national rules, creating legal uncertainty, increasing compliance burdens, and discouraging cross-border scalability. For example, a management company managing UCITS across multiple Member States must ensure that each fund complies with the investment and diversification limits as implemented in each jurisdiction, significantly increasing the operational burden and costs of cross-border activities. Similarly, asset management groups with subsidiaries in multiple Member States must navigate varying disclosure and reporting requirements, as well as differing rules on whether ancillary services may be performed and must adapt their IT systems to the specificities of each Member State in which they operate. Stakeholders have consistently highlighted that divergent national practices and interpretations hinder fund managers' ability to operate cross-border and increase operational complexity, as they must comply not only with the rules of their home Member State but also with host Member States' requirements, which often diverge due to the flexibility allowed under UCITS and AIFMD. This fragmented landscape particularly affects smaller and newer fund managers who may lack the resources to adapt to different regulatory regimes, effectively limiting their ability to expand their operations beyond their domestic markets.

Moreover, regulatory divergence complicates supervisory cooperation between home and host Member States and weakens the overall coherence of the EU framework. It undermines the level playing field among funds and asset managers and creates inefficiencies for both market participants and national competent authorities. Investors, too, may face inconsistent levels of investor protection depending on the jurisdiction in which a fund and/or its manager are domiciled or marketed. To illustrate the extent of the issue, the Commission has identified at least 20 instances of national discretion in the AIFMD and UCITSD frameworks, which contribute to inconsistent national practices, increase regulatory fragmentation, and create unnecessary barriers to cross-border activity within the internal market. Appendix A provides a list of relevant national discretions identified in UCITSD and AIFMD respectively.

Fourth, the UCITSD requires each Member State to establish its own set of prudential rules and rules of conduct applicable to management companies authorised within their jurisdiction (Articles 12 and 14 UCITSD). AIFMD equally lacks a harmonised EU framework in this area. Consequently, Member States have developed their own national rules, resulting in considerable divergences in the regulatory and supervisory treatment of UCITS management companies and AIFMs across the Union. This has led to national discrepancies that concern, for example, organisational arrangements, risk management procedures or rules relating to conflicts of interest and best execution. The problem is particularly acute for asset management groups operating through subsidiaries in multiple Member States, as they must monitor and comply with divergent national prudential requirements and conduct standards depending on the jurisdiction of each subsidiary. The lack of harmonised prudential and conduct rules undermines the goal of a uniform regulatory framework for UCITS and AIFMs, creating market fragmentation, hindering cross-border activity, and raising costs for managers who must adapt to varying national standards. Addressing it is essential to strengthen the integrity and competitiveness of the market.

3.5. OTHER BARRIERS TO THE GROWTH OF INVESTMENT FUNDS

The UCITSD establishes investment and diversification limits, which are designed to ensure investor protection by promoting risk-spreading and limiting excessive exposure to any single issuer or asset, reflecting the retail nature of the UCITS product. However, market participants have expressed concerns that certain limits may hinder investment and the development of specific market segments, particularly securitisations and equities held by active funds, thereby undermining the competitiveness and growth of these segments in the EU.

First, under Article 56(2)(b) UCITSD, a UCITS may not acquire more than 10% of debt securities from a single issuer. Intended to limit concentration in corporate debt, this rule also affects securitisations. Most consultation respondents (72%, mainly large asset managers) argued that the rule, which was adopted before Regulation (EU) 2017/2402, is outdated, as securitisations are more diversified and subject to strict regulatory requirements. They stressed that the 10% cap prevents meaningful portfolio allocations to securitisations and called for exemptions or tailored adjustments to support competitive, diversified strategies. On the other hand, several respondents to the consultation noted that their investments in securitisations remain well below the 10% limit, and therefore they do not consider this restriction to be a barrier to UCITS investing in such products. A few respondents also emphasized that UCITS is a retail product, cautioning that greater exposure to securitisations would be inconsistent with its retail character and could pose risks to investor protection.

Second, under the 5/10/40 rule in Article 52(2) UCITSD, as a general rule UCITS cannot invest more than 10% in one issuer, and holdings above 5% cannot exceed 40% of assets. This seeks to protect retail investors and prevent concentration risks. However, asset managers that responded to the consultation noted it constrains equity fund managers in single European markets, as they must underweight or sell outperforming companies exceeding 10% of assets. On the contrary, passive funds replicating indices benefit from higher thresholds (20%, up to 35% under Article 53).

4. OBJECTIVES: ENABLE MARKET INTEGRATION AND SCALE EFFECTS IN CROSS-BORDER ACTIVITIES FOR THE EU FUND MARKET VALUE CHAIN

The objectives are to foster market integration and scale in the fund and asset management sectors by enabling seamless cross-border operations. Greater competition will pressure uncompetitive players to cut costs or exit, driving consolidation and specialisation. This should generate scale benefits for investors while avoiding higher regulatory entry barriers, ensuring competition remains strong and cost savings are passed on. Ultimately, the initiative seeks to reduce costs borne by EU investors and remove barriers to sector growth and cross-border activity.

4.1. REDUCTION OF COSTS AND BURDENS STEMMING FROM THE UNNECESSARY ADMINISTRATIVE BARRIERS

Unnecessary administrative barriers continue to impose significant costs on EU asset managers. These costs are higher particularly when funds are being marketed on a cross-border basis. The burdens arise from persistent regulatory fragmentation, duplicative procedures, divergent local interpretations of EU rules, and the lack of fully harmonised digital processes among NCAs. Launching a UCITS fund still typically requires between EUR 300 000 and EUR 500 000 in upfront costs, which among other costs comprises legal structuring,

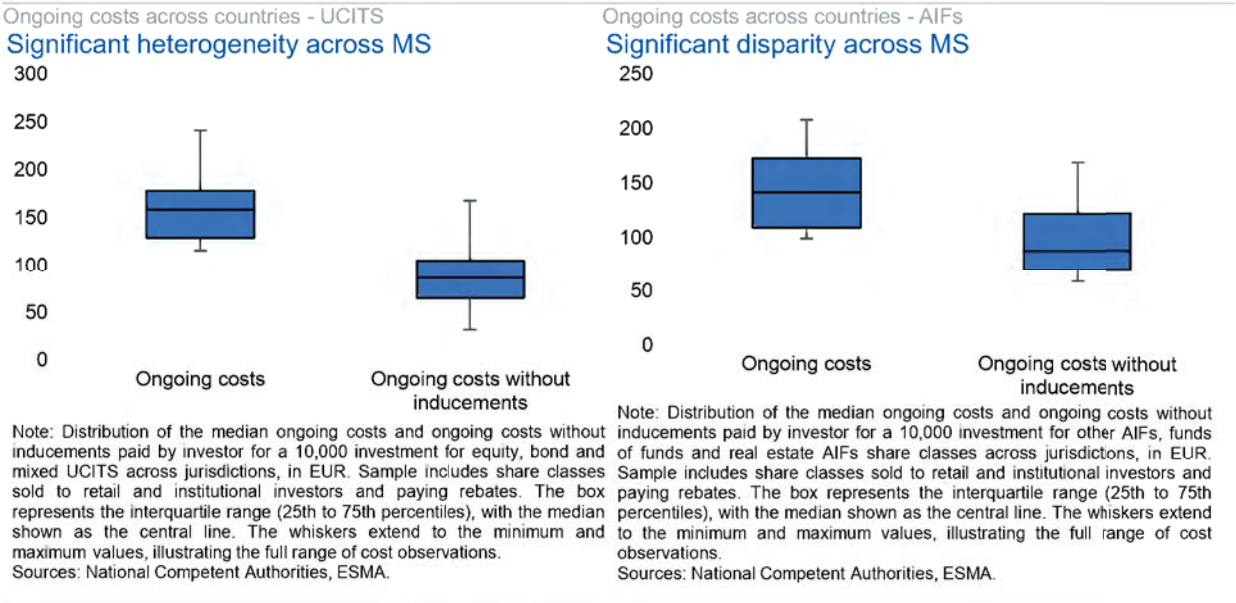
documentation, registration, and compliance with local marketing rules. The administrative costs of registering a UCITS in one additional Member State can range from EUR 20 000 to EUR 60 000, depending on translation, legal, and agent fees. For an EU AIFM, depending on the Member State in question, the size and the intended investment and the marketing strategy, the AIFMD authorisation costs can exceed EUR 750 000.[478]

Taking account of pre-authorisation discussions with NCAs, the average time-to-market for a UCITS fund on a cross-border basis is estimated at 4 to 6 months (with reports of much longer timelines), while for an EU AIF it ranges from 6 to 12 months, particularly when marketed to retail or semi-professional investors in jurisdictions with stricter local rules.[479]

The costs borne by investors reflect all these factors. For instance, US mutual funds demonstrate significantly lower asset-weighted average product costs—0.65% for active funds and 0.05% for index equity funds—compared to UCITS.[480] ESMA showed that the total costs of smaller equity, bond and mixed funds are higher by respectively 14%, 27% and 17% than the total costs of larger funds. This is aggravated by the size of the management company.

Coupled with the fragmentation due to distinct national requirements described earlier, this also results in significant heterogeneity in the costs borne by investors for the same product across Member States, which provides an indication of the benefits that further market integration could bring.

Graph 5: Ongoing costs of investing in funds across Member States[481]



[478] Source: DG FISMA calculations based on document annexed to Invest Europe's contribution to the Targeted consultation on integration of EU capital markets submission, 2025.
[479] Ibid.
[480] Source : EFAMA report, February 2025 A like-for-like comparison of the cost of US mutual funds and UCITS is missing from the latest ESMA report
[481] ESMA Report on total costs of investing in UCITS and AIFs, 2025

Case studies

Case study 1 – Costs as represented by a P&L model

The costs can be illustrated through a simplified P&L model. For a UCITS fund managing EUR 100 million in assets, earning a management fee of 0.75%, annual gross revenues would be EUR 750,000, possibly supplemented by EUR 50,000 in other income (e.g. performance fees or securities lending). However, administrative burdens erode this margin. Operating costs for fund administration, custody, legal, regulatory and compliance—including those directly attributable to fragmented EU rules - can total EUR 600,000 to EUR 700,000.

This leaves a net profit before tax in the range of EUR 100,000 to EUR 200,000, corresponding to a margin of just 13 to 25%, far below the global average for asset management profitability. A reduction of EUR 100,000 in administrative burden could boost profits by 50% or more, significantly improving scalability and attractiveness of cross-border operations.

Moreover, indirect costs arise from delayed market entry, missed investment opportunities, and the legal complexity of maintaining multiple small-scale fund structures rather than consolidating operations. Eliminating administrative inefficiencies and gold-plating across Member States is estimated to have the potential to generate annual savings of EUR 1.5 to EUR 2 billion for the EU fund industry (European Commission, CMU 2021 Progress Report).

Case study 2 – Costs associated with cross-border marketing of UCITS funds

As asset manager with a pan-European strategy for two UCITS umbrella funds, comprising almost 50 sub-funds, incurs almost EUR 1 million in annual costs when distributing those sub-funds across 14 Member States due to host Member State requirements regarding regulatory fees, local agents and translations, together with associated legal fees related to the maintenance of fund registrations.

	Once-off (EUR)	Annual (EUR)
Initial regulatory registration costs	600,000	
Annual maintenance regulatory costs		600,000
Facilities Agent costs		250,000
Legal costs related to the maintenance of fund registrations		90,000
Translation requirements		45,000
Total annual		**EUR 985,000**

Source: European asset manager

Case study 3 – Cost of NCA fees for a AIFM with an EU strategy for one AIF

The table below sets out the costs associated with the payment of NCA fees in respect of one AIF with a pan-EU strategy, as reported by a large AIFM. In short, one manager must pay EUR 65,000 to adopt an EU-wide strategy for one AIF only, as a consequence of NCA fees and charges.

Type of cost	Costs of EU strategy for one AIF
Total NCA fees	EUR 38,000 (fees vary from EUR 800 to EUR 1,400 per fund/per year)
Use of "local agents"	EUR 25,000
Internal costs of organising these arrangements	EUR 2,000
Total cost for one AIF	**EUR 65,000**

The AIFM reported some additional costs for complying with marketing rules as follows:

- Costs associated with hiring 2-3 FTE compliance roles
- Approx. EUR 400,000 on costs of hiring secondees
- Approx. EUR 400,000 on ad-hoc legal advice

Source: Invest Europe

Case study 4 – Cost savings and EU expansion potential for one large EU asset manager

An asset manager with a focus in the Nordic region faces significant costs and barriers in the few Member States where its funds are marketed and even more challenges with developing a pan-European strategy for its funds. It currently manages more than 100 funds and discretionary mandates on behalf of institutional investors and offers a wide range of products and advisory services aimed at private individuals, institutional investors and distributors. Its funds are currently available for marketing in four Member States, including the home Member State.

The total annual value of the managers distribution costs, excluding headcount, within the EU, but outside the Nordic region, is approx. EUR 665,000. If the below proposals (explained further in Section 5) were adopted, this would result in annual cost savings for the manager and ultimately EU investors of EUR 673,900, as set out below. The manager would also consider developing a true single market strategy by expanding the marketing of its funds in 17 Member States.

Proposal	Estimated costs savings (annually in EUR)	Estimated headcount savings
A more harmonised authorisation procedure	300,000 on regulatory fees	1
	20,000 on country specific market research	
	10,000 on legal opinion to enter a new market	
Passporting upon authorisation	400 per requested country + 1 month time to market	None reported
Removal of pre-marketing rules under Articles 32a(3) and 32a(4) of AIFMD	4,500 (expected to increase)	None reported
Strengthen existing prohibition on local physical agent	144,000 for local agents in 3 Member States	None reported
Marketing communications at EU level	50,000 for marketing communications tool 50,000 on legal opinions	2
Removal of county specific disclosures in fund documents	30,000 for production 35,000 for translation	1
Limit translation requirements to key information document referred to in Article 78 of UCITSD	20,000 for production 10,000 for translation	1
Total estimated savings if these proposals are adopted	**EUR 673,900**	**5**
Additional Member States where marketing would take place if no barriers	**17**	

Source: European asset manager

Evidence of the adverse impacts of administrative barriers on cross-border funds can also be found by comparing the costs of cross-border vs single-country funds. For example, a report by the Investment Company Institute[482] shows that in 2022 the fixed costs of cross-border funds, measured as a percentage of the fund's size, were 8.2% higher than those of single-country funds: when applied to the average size of an equity cross-border fund of EUR 504 million, this results in an average extra cost of EUR 400,000 per cross-border fund per year.

The lack of supervisory convergence and digital interoperability further exacerbates these burdens. As of 2024, only a limited number of NCAs offer end-to-end digital submission systems, and the absence of a unified passporting database means fund managers must often duplicate filings and notifications.

5. POLICY OPTIONS

5.1. POLICY OPTIONS FOR INVESTMENT FUNDS

This chapter sets out and assesses policy options linked to the problem drivers, covering authorisation and notification, marketing, and administrative requirements, with the aim of increasing harmonisation and transparency to improve single market access and ultimately deliver benefits to EU investors.

5.1.1. Baseline/Status quo

This option introduces no amendments to the asset management framework. It is the 'do-nothing' option against which the other policy options will be assessed.

5.1.2. Comprehensive review to enhance the functioning of investment funds

This option introduces targeted but ambitious measures to re-organise the marketing of UCITS and AIFs in the single market, harmonise and streamline rules (e.g. relating to disclosures in fund materials), reduce time, costs, and documentation for fund marketing, thereby easing single market access, lowering investment costs, and expanding choices for EU investors.

a) Standardise authorisation and notification procedures

This option would entail new proposals relating to the current fund authorisation and marketing notification and de-notification rules for funds operating under the UCITS and AIFMD frameworks. The proposals will necessitate amendments to the UCITSD, AIFMD, and the CBDR. In particular, the new proposal for passporting upon authorisation seeks to dramatically reduce the current time and administration involved for UCITS funds and certain AIFs accessing host Member States. It also aims to increase harmonisation in marketing requirements and notifications by importing the provisions on the marketing of UCITS and EU AIFs managed by EU AIFMs to CBDR.

Specifically, these proposals will:

1. Harmonise authorisation procedures and timelines to bring more predictability and transparency to the authorisation processes, enabling pan-European managers to better plan a European strategy, thereby reducing costs through efficiencies and potentially

[482] ICI research perspective: Ongoing Charges for UCITS in the European Union, 2022 (2023).

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encouraging access to more Member States and to better serve EU investors. For pan-European managers, predictability regarding the timing of authorisations and other aspects of the process in the EU is essential. Areas to be harmonised cover:

(i) UCITS fund authorisations, to cover *inter alia* the information to be submitted as part of the fund authorisation application;
(ii) subsequent notification of changes in the scope of the initial authorisation; and
(iii) the timelines that managers can expect to experience for the above, subject to complete information being submitted.

2. To improve timeliness and broaden access to the single market, a new regime would be introduced to allow immediate single market access for UCITS upon authorisation ("passporting upon authorisation"). Under this regime, UCITS funds would have immediate access on authorisation to their chosen Member States. Operationally, the home NCA would liaise with ESMA and the relevant host NCAs through an ESMA data platform, ensuring that information on fund authorisations and related documentation is shared in a harmonised and transparent manner. From the date of authorisation, UCITS would be able to market in all designated Member States without additional notifications. The same simplified procedure would also apply to authorised AIFMs seeking to market the AIFs they manage on a cross-border basis. The aim is to reduce time, costs and administrative burdens for UCITS, AIFMs and NCAs by replacing the current fragmented system of bilateral notifications with a streamlined and centralised process and common rules.

3. Improve time to market and reduce administrative burden by introducing a simplified procedure for the notification of material changes to marketing notifications and fund documents by reducing the current one-month notice period to 15 business days. Material changes will be shared swiftly with host NCAs and ESMA through the ESMA data platform.

4. Improve time to market, reduce administrative burdens and improve investor experience, by removing the requirement for one-month notification of new share classes in the UCITSD. The notification requirement does not add value as investors must receive pre-contractual registration documents before investing regardless of registration. According to a large European funds industry association, this requirement impacts the timeline for revenue earning for managers (e.g. USD 100m investment at 15bps; one month of not earning revenue will cost the business USD 12,500 over that month).

5. Improve procedures and timelines for the de-notification of funds, which should be processed by the home NCA and transmitted to the relevant host Member States and ESMA through the ESMA data platform within five working days. This will trigger more timely and accurate updates to ESMA's register, making it clear where funds are no longer marketed, bringing certainty to this area. Specifically on de-notifications relating to AIFs, under this option, the 36-month pre-marketing ban contained in Article 32a(3) of AIFMD would be repealed. The pre-marketing ban has the following negative impacts: (i) additional cost to investors, if the AIFM has no mechanism by which to test investor appetite other than by registering the fund under marketing in the EU; (ii) barrier to investment opportunities for investors, if the AIFM is disincentivised from registering for marketing and distortion in demand for similar strategy products; (iii) barrier to investment capital in EU investee companies, resulting in slower European economic growth; and (iv) increased bureaucracy, and administrative and compliance costs for the AIFM. AIFMs need to adjust internal processes and systems to ensure that (a) a new offer is not inadvertently

made to investors in the relevant Member State in respect of an AIF which has been de-notified, and (b) an AIF with "similar investment strategies or investment ideas" is not subsequently pre-marketed in that Member State. This measure will result in substantial costs savings as illustrated by the below example provided by a fund association of behalf of a large AIFM:

> *Taking an example of an AIF with a 10-year lifespan marketing in 10 EU jurisdictions, this could incur approximately EUR 210,00 per AIF in fees payable for registration outside of the fundraising period. Where a manager has a single vintage of a full range of AIFs (18 different AIFs across various strategies, including master/feeder and sleeve structures), this could amount to EUR 3,780,000.*

b) Harmonise and enhance marketing rules

Streamlining some of the current marketing rules and regimes at EU and national level would involve repealing some EU provisions and addressing national frameworks. A more harmonised framework would promote access for funds to enter more markets and improve time to market. The CBD framework covers different aspects of marketing, including bringing more transparency on national frameworks. However, such national frameworks inhibit investment funds from being marketed in a seamless way in the single market, thus impacting the experience for the end-user, i.e. EU investors.

This option would entail various revisions, as well as new proposals relating to the current marketing rules and regimes for funds operating under the UCITS and AIFMD frameworks. The proposals to introduce enhancements will necessitate amendments to the CBDR.

Specifically, these measures would:

1. Replace Article 7 of the CBDR concerning ex-ante verification of marketing communications. This provision allows Member States/NCAs to require prior notification of marketing communications which AIFMs/ UCITS management companies intend to use directly or indirectly in their dealings with investors. This provision impacts time to market and has very little added value considering that UCITS and AIFMs are authorised products. In addition, the NCA from only one jurisdiction (Belgium) carries out systematic ex-ante verifications of marketing communications.[483] It is therefore proposed to replace this optionality with the possibility for NCAs to verify marketing communications ex post and to request home competent authorities to take action, where they have reasonable grounds to suspect that marketing communications do not comply with the requirements of CBDR. ESMA's powers to address cross-border barriers would allow home and host NCAs to exchange views and reach consensus where issues on marketing communications arise. Where necessary, ESMA could also exercise binding mediation powers. Convergence in this area allows for the use of a single marketing communication package across the single market.

2. Remove Member States' discretion as regards national laws, regulations and administrative provisions governing the marketing requirements for UCITS and AIFs concerning the format and content of marketing material. It is proposed to introduce an empowerment for

[483] ESMA report on Marketing requirements and marketing communications under the Regulation on cross-border distribution of funds, 3 July 2023, at page 8, available here.

a Commission delegated act, specifying the content and format of marketing communications. The intention of these reforms would be to have harmonised, pan-European standards for marketing materials, whilst preventing Member States from imposing additional elements and requirements, thereby reducing administrative burdens and making access to the single market easier. According to a review performed by ESMA, NCAs broadly apply the rules on marketing materials stemming from the AIFMD and UCITS Directive, including the provisions introduced by the CBD framework and the ESMA Guidelines. However, it is reported that the NCAs from two jurisdictions (Bulgaria and Ireland) apply additional requirements on the content, format and manner of presentation of marketing communications, including compulsory warnings and restrictions on the use of certain words or phrases.[484]

3. Address divergences in Member State rules concerning disclosures in fund documentation (e.g. country-specific disclosures in the prospectus or supplements) by harmonising the existing requirements in the UCITSD and AIFMD on disclosures in fund documentation (i.e. the content of the prospectus and annual and half-yearly reports), resulting in a truly pan-European framework for disclosures in fund documentation.

4. Harmonise marketing communication rules and reduce national divergences, by repealing the following provisions of the CBDR:
    - Article 5 – Publication of national provisions concerning marketing communications;
    - Article 6 – ESMA central database on national provisions concerning marketing requirements; and
    - Article 8 – ESMA report on marketing communications.

c) Strengthen provisions to prohibit host Member States from requiring the appointment of local physical agents, streamline regulatory fees information and translation requirements

On physical local presence regimes, Article 92(2) UCITSD provides that Member States shall not require a UCITS to have a physical presence in the host Member State or to appoint a third party for the purposes of undertaking various activities relating to the fund, such as processing subscription, repurchase and redemption orders, making information and documents available to investors and acting as a contact point for communicating with the NCAs. A similar requirement exists for AIFs that are marketed to retail investors under Article 43a(2) of the AIFMD.

Under this option, it is proposed to strengthen the UCITSD and AIFMD rules to solidify this provision so that host Member States and NCAs no longer require a local presence, through any means, such as law, handbooks, market practice or otherwise and under all circumstances, not only those currently listed in the above-mentioned Articles.

On regulatory fees, Article 10 CBDR requires host competent authorities to publish and maintain up-to-date information on their websites listing the fees or charges that they levy on UCITS and AIFs that are marketed in their territory. Under this option, it is proposed remove

[484] ESMA report on Marketing requirements and marketing communications under the Regulation on cross-border distribution of funds, 3 July 2023, at page 7, available here: ESMA34-45-1814 - 2023 Report to EU Institutions on national rules governing marketing requirements

this obligation and instead introduce an obligation for NCAs to communicate information on the applicable fees and charges, their frequency and the modalities of their payment to ESMA, which should in turn publish this information on its website. NCAs can still choose to publish the information on their own website, but it is only the information on ESMA's website that should be relied on, the rationale being that the ESMA resource should be a "one stop shop" for funds operating in the single market. This streamlined approach should dramatically reduce costs on funds/managers associated with the administration burden of keeping track of all annual fees and the time they are due (see Case Study 2 and Case Study 3 in Section 4.1 on costs). In addition, ESMA would be tasked with conducting a review of the NCA regulatory fees and charges in relation to the activities of AIFs and UCITS marketed in their territory and shall submit a report to the Commission indicating whether such fees or charges are consistent with the overall cost relating to the performance of the functions of those competent authorities

On translation requirements, fragmented national rules prevent the use of a single marketing communication package across the single market and increase the administrative burden for managers wishing to follow a pan-European strategy. Under this option, it is proposed to limit translation requirements to the key investor information referred to in Article 78 UCITSD and the key information document referred to in Article 82a UCITSD, while all remaining documentation should be provided at least in a language customary in the sphere of international finance. The ESMA data platform should allow for the automatic translation of all documentation accompanying marketing notifications in any official language of the Union.

5.2. POLICY OPTIONS FOR DEPOSITARIES

5.2.1. Baseline/Status quo

In the absence of any policy action, the baseline scenario applies. The current AIFMD and UCITS frameworks on the provision of depositary services would remain unchanged, leaving existing challenges unresolved. For instance, economic research[485] concluded that despite the CBDR that aimed to drive convergence or complete removal of local requirements that Member States impose on cross-border funds, some EU Member States have sought to maintain or even strengthen their requirements.

5.2.2. Comprehensive review: EU-depositary passport

This option would introduce an additional building block to the internal market by creating an EU-level depositary passport, complementing the existing AIFM management and marketing passports. Considering that most depositaries are credit institutions or investment firms, the EU-level depositary passport would build on the passport that already exists for those institutions under Directive 2013/36/EU and Directive 2014/65/EU. Limiting the passport to such entities would also be more optimal from a financial stability and investor protection perspective, as they are already subject to harmonised EU-level authorisation, prudential requirements, and supervision, ensuring consistent safeguards across Member States.

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[485] Investment Company Institute (ICI), Cross-Border Frictions Within EU Capital Markets Can Drive Up Costs, June 2023, available here: Cross-Border Frictions Within EU Capital Markets Can Drive Up Costs | Investment Company Institute

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A depositary passport would enable AIFMs and UCITS to appoint a depositary located anywhere within the EU, while allowing depositaries to offer their services on a cross-border basis. In practice, this would remove the current restriction requiring the depositary to be established in the same Member State as the fund, thereby facilitating cross-border access to depositary services.

5.3. POLICY OPTIONS FOR ASSET MANAGERS

5.3.1. Baseline/Status quo

Under the baseline scenario, divergent national practices in the authorisation and operations of AIFMs and UCITS management companies, as well as national discretions would persist. Asset managers and asset management groups operating across several Member States would continue to face duplicative and inconsistent requirements, such as differing documentation standards, and procedural variations.

5.3.2. Comprehensive review: Standardise the authorisation process, streamline organisational and delegation requirements for asset management groups and eliminate national divergences for asset managers

a) Policy options for asset management groups

Option 2 would necessitate to define the notion of the EU group of a management company or AIFM for the purposes of UCITS/AIFMD, building on the existing acquis with possible adaptations where required. Said notion would comprise all management companies and AIFMs, as well as investment firms and credit institutions that are duly authorised under Directive 2013/36/EU and Directive 2014/65/EU, respectively. All entities within the group should be established in the EU and controlled by the same parent. Option 2 would further allow EU-based management companies and AIFMs that form part of a group to be able to utilise the human and technical resources of other entities within the group in order to conduct their business. This option would require an amendment to Article 7(1) UCITSD and 7(2) AIFMD to clarify that an EU management company within a group will be able to rely on the human and technical resources of other entities within the group to conduct its business. In those cases, the management should specify in its application for authorisation the human and technical resources that are utilised for this purpose within the group.

National competent authorities should neither prohibit nor discourage such intra-group resource sharing. Instead, they should recognise and actively facilitate the consolidation and optimisation of group-wide resources if so wished, provided that robust governance and risk management arrangements are in place.

In addition, Option 2 would amend the delegation provisions in the AIFMD (Article 20) and UCITSD (Article 13) to exclude intra-group delegation arrangements (i.e. specifically, the mutualisation of functions between entities within the same EU group) from the scope of delegation rules. This would apply to all groups independently of their size.[486] Such amendment would clarify that the transfer of functions between management companies, AIFMs,

[486] See Sectoral Annex 11 on supervision as regards suggested enhanced supervisory arrangements for large groups, intended to facilitate the supervision in case of such arrangements for such groups.

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investment firms and credit institutions within the same EU group should not qualify as delegation within the meaning of Article 20 AIFMD and Article 13 UCITSD. Accordingly, these intra-group arrangements would no longer be subject to the full set of delegation-related compliance requirements, with the exception of the obligation to inform the national competent authorities of the delegation arrangement, alleviating unnecessary administrative burdens while preserving high supervisory standards. However, management companies and AIFMs will remain fully liable for any functions or services carried out by other entities within their EU group and should ensure that reliance on such entities does not render them mere letter-box entities.

To ensure legal certainty, enhance the competitiveness of the EU asset management sector and strengthen the EU's open strategic autonomy in financial services, Option 2 would apply exclusively to delegation arrangements between entities within the same group that are established in the Union. Limiting this option to EU-based regulated firms would ensure that all entities within the same group operate under a common legal, regulatory, and supervisory framework, which is essential for maintaining a high level of investor protection and effective oversight. EU management companies are subject to harmonised rules under the AIFMD and UCITSD, as well as to supervision by national competent authorities within the European System of Financial Supervision. Similarly, investment firms and credit institutions are duly authorised and supervised in the Union and are subject to prudential and organisation requirements. This shared regulatory environment facilitates mutual trust and consistent supervisory practices.

b) Policy options to remove barriers arising from national divergences

First, Option 2 seeks to harmonise authorisation requirements by clearly defining the information that management companies and AIFMs must submit as part of the authorisation process. This would ensure that all applicants are subject to consistent regulatory expectations and reporting standards across the EU. With a view to eliminating national divergences and ensuring consistent harmonisation of the authorisation process across the EU, this option would require ESMA to develop Regulatory Technical Standards specifying the information that must be submitted to competent authorities as part of an authorisation application. In parallel, ESMA would also be empowered to develop Implementing Technical Standards to define the standardised format, templates, and procedures for submitting such information.

Second, Option 2 proposes amending the UCITSD and AIFMD to remove the provisions that allow Member States to interpret, supplement, or derogate from core rules and which impose barriers to the development of the single market. Instead, the Directives would be revised to provide fully harmonised requirements that all UCITS management companies and AIFMs must follow across the EU, irrespective of where they are established or operate. In particular, Option 2 would entail the replacement of optional provisions such as those allowing Member States to authorise additional services (e.g. Article 6(3) UCITSD and Article 6(4) AIFMD) with uniform rules defining the permissible scope of services. It would also seek to establish harmonised EU rules on investment and diversification limits for UCITS, removing Member States' discretion to raise or lower those limits (Article 51-57 UCITSD). In addition, this option aims to standardise rules for depositaries, eliminating Member State discretion to allow alternative depositary models.

Moreover, Option 2 proposes to align reporting and disclosure standards, ensuring that periodic reporting (e.g. Article 21 UCITSD and Article 22 AIFMD) and prospectus disclosures are consistent across Member States, and have the same exemptions or transitional periods, such

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as the 6-month derogation for newly authorised UCITS to comply with certain UCITS requirements (Article 57(1) UCITSD).

Finally, Option 2 proposes to further harmonised conduct and prudential rules, by allowing ESMA to develop guidelines, so that each management company and AIFM would be subject to the same risk management, organisational, and conduct-of-business obligations regardless of their home jurisdiction.

5.3.3. Extensive review: Group level authorisation of asset managers

This option would entail a fundamental overhaul of the current authorisation regime for asset manager groups under the AIFMD and UCITS frameworks. Specifically, it would introduce a group-level authorisation mechanism whereby, in cases where asset managers operate as part of a group, a single authorisation would be granted to the parent undertaking of the group. Under this option, organisational and prudential requirements (own funds, full-time employees, human and technical resources etc.) will no longer be assessed at the level of each individual management company but will be consolidated and assessed at the level of the group.

The competent authority of the parent entity would be responsible for granting this authorisation and would be in charge of supervising all companies within the group. National competent authorities in other Member States where the group operates will no longer have supervisory powers over the companies within the group that operate in their territory but could have the right to regularly receive information from the NCAs of the parent company of the group on group operations and to inform those national competent authorities where they have grounds to believe that the subsidiaries of the group in their jurisdictions act contrary to the EU acquis. Once authorised at group level, the home NCA would notify the competent authorities of all Member States in which the group operates through subsidiaries. This would allow all EU-based management companies within the group to carry out activities across the Union based on this single authorisation, significantly reducing regulatory duplication for each group. Where this is not already the case, EU financial conglomerates would have to designate a parent for the asset management part of a conglomerate. Similarly, third country conglomerates or standalone asset management groups would also have to designate an EU parent. The parent would also need to effectively control all subsidiaries and branches for the purposes of this framework.

This option would not affect asset managers operating as stand-alone entities, which would continue to be authorised individually under existing national procedures.

This option would require an amendment to AIFMD and UCITSD to introduce a group level authorisation by the NCA of the parent company or another designated entity within the group. Similarly to Option 2, this option would also necessitate clarifying what is an "asset management group" for the purposes of UCITS/AIFMD. Existing mechanisms for interaction with other legal frameworks would be maintained but attached to the group level. In addition, this option may affect all investment funds, as the designated asset manager (or AIFM or UCITS management company), which is responsible for managing the fund, would need to be replaced in all fund documentation to reflect the new functioning of the asset management framework.

5.4. POLICY OPTIONS FOR OTHER BARRIERS TO THE GROWTH OF THE INVESTMENT FUND SECTOR

5.4.1. Baseline/ Status quo

Under the baseline scenario, the current UCITS framework would remain unchanged. The existing investment and diversification limits would continue to apply, including the 10% cap on debt securities issued by a single body under Article 56(2)(b), which also covers investments in securitisations, and the 5/10/40 issuer concentration rule under Article 52. The higher thresholds of 20% and 35% for index-tracking UCITS under Article 53 would also remain limited to passive funds. No exemptions or adjustments would be introduced for securitisations or for actively managed funds seeking to replicate or outperform indices.

5.4.2. Comprehensive review: UCITS investment limits

Under Option 2, the UCITSD would be amended to allow greater flexibility in specific cases.

The current 10% cap on debt securities under Article 56(2)(b) UCITSD would be increased to 15% only for UCITS investing in securitisations recognising their distinct characteristics and regulatory safeguards. During the consultation, some large asset managers and professional associations advocated for removing the limit entirely or raising it to 50%, citing the inherently diversified nature of securitisations. At the same time, several smaller asset managers noted that their current allocations to securitisations are well below the existing 10% threshold. A few stakeholders (notably NCAs) also highlighted potential financial stability and investor protection risks arising from excessive exposure to securitisations, stressing that UCITS is a retail product primarily targeted at retail investors. Given that diversification and investment limits are a fundamental principle of the UCITS framework, designed to ensure investor protection and financial stability, a more moderate adjustment is warranted. Increasing the limit to 15% strikes a sensible balance: it reflects the consultation feedback, acknowledges the current market practices, and allows UCITS greater flexibility to invest in securitisations without undermining the core principles of risk-spreading and investor protection.

In addition, the 20% issuer limit currently applicable to index-tracking UCITS under Article 53 UCITSD would also be extended to UCITS that are managed by reference to an index that is be recognised by ESMA. ESMA would establish and regularly update a list of recognised indices, providing clarity and ensuring consistency across the EU.

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6. IMPACT OF POLICY OPTIONS

6.1. IMPACT OF THE POLICY OPTIONS REGARDING INVESTMENT FUNDS

6.1.1. Baseline/Status quo

PROS:

An advantage of "doing nothing" would mean that stakeholders and NCAs do not have to consider any changes to their current operating and compliance frameworks and can continue operating in the existing environment in the same manner.

CONS:

Conversely, the disadvantage of "doing nothing" would be that stakeholders' continue operating in an environment which is not conducive to a "single market" for investment funds. Asset managers will continue to have to manage barriers and inconsistencies in operating in different Member States. This exiting environment will continue to have a detrimental impact on the end user, i.e. EU investors, in terms of lack of choice and competition and unnecessary costs.

Option 1 did not receive support during the targeted public consultation. A majority of stakeholders, including industry representatives, supported improvements in this regard.

6.1.2. Comprehensive review to enhance the functioning of investment funds

PROS:

First, Option 2 directly addresses shortcomings, recognised by the Commission services and reported by stakeholders, in the current regulatory framework by introducing explicit provisions to harmonise and improve time and access for funds entering the single market, as well as repealing unnecessary provisions that hinder market access. These enhancements will address the current fragmented nature for UCITS and AIFs accessing EU markets outside their home Member State. Moreover, importing marketing rules from AIFMD and UCITSD into CBDR would achieve greater harmonisation and eliminate diverging national interpretations in that area.

Second, standardising and simplifying the procedures and timelines for the fund authorisation, marketing notification and de-notification procedures will bring more predictability and transparency around these processes, supporting consistency, convergence and enabling stakeholders to have clear expectations and be better placed to plan. This will save time and costs, which will ultimately benefit EU investors.

Third, the development of a data platform that would allow NCAs to share information and documentation on the cross-border marketing of UCITS and AIFs would simplify and expedite the marketing procedure, facilitate market access and increase transparency and cooperation among NCAs.

Fourth, Option 2 will improve time to market, reduce administrative burdens and improve investor experience, by removing the requirement for one-month notification of new share

classes in the UCITSD. The current notification requirement does not add value as investors must receive pre-contractual registration documents before investing regardless of registration.

Fifth, standardising the framework for marketing communications, in particular under CBDR will bring more predictability and transparency, supporting consistency, convergence and enabling stakeholders to have clear expectations and be better placed to plan. This will save time and costs, which will ultimately benefit EU investors.

Sixth, Option 2 would greatly reduce unnecessary complexity and burdensome requirements (and associated costs) for funds and fund managers, as they would have more certainty that a local physical agent is no longer needed or required in host Member States. It will remove the uncertainty brought about in some host Member States, where the market practice is to appoint a local agent in all circumstances. Fund managers would have less need to obtain legal advice to understand national requirements for funds accessing the single market.

CONS:

Implementing Option 2 would necessitate a comprehensive review of the current authorisation timelines and procedures, as well as assessing what is considered material and non-material changes.

Finally, strengthening the requirement against physical presence in the host Member State might be perceived as affecting negatively the effectiveness of investor protection, whereby investors will not know where or how to access relevant fund information, particularly in their own language. However, the language requirement for investor communication will be maintained, in view of digitalisation, this requirement anyhow is inefficient and outdated, and investors will continue to have the choice to opt for an asset manager with physical presence in their jurisdiction.

6.1.3. Comparison of the options

	Effectiveness	Efficiency	Coherence	Overall score
Option 1 Baseline scenario	-	-	-	-
Option 2 Comprehensive review regarding investment funds authorisation and marketing	++	++	+++	++

Legend: +++ = very positive ++ = positive + = slightly positive +/- = mixed effect 0 = no effect - = slightly negative -- = negative --- = very negative

6.1.4. Preferred option

Option 2 is the preferred option because it directly addresses recognized shortcomings in the cross-border operations of investment funds in a targeted manner by harmonising procedures for fund authorisation, marketing notification and de-notification procedures across the EU. It removes unnecessary provisions that hinder cross-border market access, standardises timelines and establishes a common data platform for the sharing of marketing notifications, resulting in greater predictability, transparency, and convergence for both UCITS and AIFs. These changes would reduce administrative burdens, simplify regulatory obligations and save time and costs for funds and fund managers, while facilitating a faster access to the single market for investment funds.

Additionally, Option 2 would improve the single market environment by removing the need for local agents in host jurisdictions. This would simplify administration, lower compliance costs and encourage fund managers to market in more Member States, increasing competition and investment choices for EU investors.

6.2. IMPACT OF THE POLICY OPTIONS REGARDING DEPOSITARY SERVICES

6.2.1. Baseline/Status quo

PROS:

An advantage of "doing nothing" would mean that fund managers would not have to consider any changes to their current frameworks on the provision of depositary services and could continue operating in the existing environment in the same manner.

CONS:

First, under Option 1, the recent targeted amendment of AIFMD allowing cross-border depositary appointments would have limited positive effects, as the EUR 50 billion threshold restricts its use to only a few Member States, with others likely to lose eligibility as their markets grow. Second, national authorities would retain broad discretion to refuse cross-border appointments even where conditions are met, perpetuating fragmentation and uncertainty. Smaller markets with few depositary providers would therefore continue to face structural difficulties, discouraging the establishment of AIFs in those jurisdictions.

Third, maintaining the status quo would imply that for UCITS the historical prohibition on appointing a depositary in another Member State would sustain high concentration and limited competition in smaller markets, resulting in higher costs, lower service quality, and operational risks from over-reliance on a small number of providers. Investors would ultimately bear these costs, while fund promoters would be discouraged from setting up UCITS in Member States with underdeveloped depositary markets.

Overall, Option 1 would preserve market fragmentation, reinforce geographic imbalances, and undermine the creation of a more integrated and competitive single market for funds.

6.2.2. Comprehensive review: EU-depositary passport

PROS:

Option 2 would allow the cross-border provision of depositary services across all Member States. It aligns with the principles of the internal single market and would be the most effective way to enhance competition in the depositary sector.

A depositary passport would promote integration of EU financial markets and strengthen the cross-border provision of depositary services. At the same time, it would foster greater competition among depositaries and improve the quality and cost of depositary services which, according to some stakeholders (asset managers and NCAs from Member States with more concentrated depositary markets), are prohibitive in some smaller Member States. Moreover, a depositary passport would help jurisdictions with limited local depositary capacity by widening access to services and addressing supply shortages. This, in turn, would support the growth of their investment fund markets, which are often constrained by the scarcity of depositary providers, ultimately benefiting fund investors across the EU.

CONS:

This option is not supported by the majority of stakeholders (asset managers, business associations and NCAs), who argue against the need for an EU-wide depositary passport and emphasise the risks and operational complexities of having depositaries and funds supervised by different national authorities. The idea of a depositary passport was already examined during the recent review of the AIFMD and UCITS frameworks, where it met with strong resistance from both Member States and stakeholders. Feedback to the current consultation confirms that these positions have not changed, with stakeholders continuing to oppose the introduction of such a passport.

6.2.3. Comparison of the options

	Effectiveness	Efficiency	Coherence	Overall score
Option 1 Baseline scenario	-	-	-	-
Option 2 Comprehensive review	+++	+	+++	++

Legend: +++ = very positive ++ = positive + = slightly positive +/- = mixed effect 0 = no effect - = slightly negative -- = negative --- = very negative

6.2.4. Preferred Option

Option 2 would be the preferred option as it delivers a fully integrated internal market solution and directly addresses the structural fragmentation of the EU depositary market. Unlike more limited measures, a full depositary passport would create a coherent EU-wide framework, complementing the existing UCITS and AIFM management and marketing passports and ensuring consistency across fund regulation. By allowing fund managers to appoint a depositary located anywhere in the Union, this option removes national barriers, enhances competition, and encourages greater efficiency in the provision of depositary services. Increased competition is expected to lower costs for fund managers and, ultimately, for investors, while also incentivising improvements in service quality.

From a policy perspective, Option 2 supports the SIU by removing one of the remaining barriers to an integrated invest funds marker. Importantly, the passport would build on existing EU-level authorisations and prudential rules for credit institutions and investment firms, ensuring high standards of investor protection and supervisory consistency. In this way, Option 2 represents a proportionate and future-proof response to the shortcomings of the current system, offering clear benefits for both fund managers and investors across the Union.

6.3. IMPACT OF THE POLICY OPTIONS REGARDING ASSET MANAGERS

6.3.1. Baseline/Status quo

PROS:

An advantage of "doing nothing" would mean that fund managers would not have to consider any changes to their current frameworks on the operations of asset managers and their groups and could continue operating in the existing environment in the same manner. Option 1 will not disturb the current well-established national supervisory and regulatory practices and will

not require management companies and AIFMs to adapt their organisational structures and portfolios to a new set of requirements.

Moreover, retaining the current system preserves the flexibility of Member States to adapt regulatory requirements to their specific market structures, supervisory traditions, and investor profiles. This flexibility can be useful in ensuring that rules are proportionate to national conditions, allowing national competent authorities to respond to local market risks. However, such flexibility creates barriers to the cross-border operations of asset managers and to the development of an integrated market for investment funds.

CONS:

First, under Option 1, divergent national practices in the authorisation and operations of AIFMs and UCITS management companies would persist. This Option would perpetuate the fragmentation of supervisory and regulatory practices across Member States. This would maintain high administrative costs, prolong authorisation timelines, and discourage cross-border activity, ultimately reinforcing market fragmentation and limiting the competitiveness of EU asset managers.

Second, asset management groups would continue to face duplicative and inconsistent requirements and intra-group delegation would remain subject to the same requirements as third-party delegation, creating inefficiencies and disproportionate compliance burdens.

Third, noting the EU's broader objectives to advance the SIU, a policy option to retain the current regime would represent a missed opportunity to reduce barriers to market integration, streamline regulatory oversight, and enhance investor confidence across the EU.

6.3.2. Comprehensive review: Standardise the authorisation process, streamline organisational and delegation requirements for asset management groups and eliminate national divergences for asset managers

PROS:

First, Option 2 would alleviate some of the operational and financial burden that groups of management companies currently face. Permitting the sharing of resources would contribute to avoiding unnecessary duplication of resources across different entities within the group and would allow the efficient centralisation of resources, such as IT systems, compliance teams, risk management functions, or administrative staff. Recognising the concept of an asset management group would also enhance the effectiveness of supervisory oversight of such entities, as further detailed in the Annex on supervision.

Second, as regards delegation, Option 2 would substantially reduce the burden asset management groups, as it will remove the need to establish and maintain distinct resources dedicated solely to the oversight and monitoring of delegated activities carried out by another group entity. Requiring duplicative oversight structures for intragroup arrangements creates unnecessary administrative complexity and costs, without enhancing investor protection or improving risk management outcomes. Option 2 also enjoyed the support of the majority of stakeholders (mainly asset managers and business associations) that responded to the public consultation. Third, by harmonising the content and structure of authorisation submissions, Option 2 would enhance legal clarity, improve the consistency of assessments across Member States, and increase the overall efficiency of the authorisation process, thereby fostering greater supervisory convergence.

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Fourth, eliminating national discretions and replacing them with harmonised rules would significantly reduce regulatory fragmentation. This would create a more level playing field for UCITS and AIFMs, facilitating cross-border activity and contributing to the creation of a truly integrated internal market for investment funds. Harmonisation would also improve legal clarity for fund managers operating across multiple Member States by replacing a patchwork of national rules with a single set of EU rules.

Fifth, better harmonised conduct and prudential rules would help ensure consistent standards of investor protection across the EU, regardless of the jurisdiction in which a fund is domiciled or marketed.

CONS:

First, Option 2 alone would not address the existing divergences in supervisory practices among national competent authorities, since supervision would remain fragmented. Each entity within the group would continue to fall under the jurisdiction of its respective home NCA, preventing a unified supervisory approach. However, other measures are proposed under the SIU proposal to give ESMA a stronger operational coordination role over groups of asset managers, with the aim of increasing supervisory cooperation and convergence in their oversight (see Sectoral Annex 11 on supervision).

Second, Option 2 would be administratively complex and may involve significant transition costs for both regulators and fund managers that would be required to abandon well-established market practices and national requirements and adapt their organisational and prudential frameworks as well as the portfolios of the funds they manage to the new requirements. However, these transitional costs are expected to be outweighed by long-term cost savings resulting from compliance with a single, harmonised set of rules rather than navigating 27 different national regimes.

6.3.3. Extensive review: Group level authorisation of asset managers

PROS:

First, Option 3 directly addresses a significant shortcoming in the current regulatory framework by introducing explicit provisions for asset management groups, which are currently not formally recognised nor subject to coordinated supervision. By establishing a group-level authorisation regime, Option 3 would streamline regulatory oversight, reduce administrative and compliance burdens, and promote greater integration of the EU asset management market. It would eliminate duplicative and potentially inconsistent authorisation processes across Member States, allowing groups to consolidate internal functions (e.g. compliance, risk management, IT systems) and achieve operational efficiencies. Option 3 would also enhance supervisory consistency and effectiveness by ensuring that the entire group is overseen by the competent authority of the parent entity. This centralised supervision would provide a holistic and comprehensive view of the group's operations, reducing the risk of conflicting supervisory practices and improving the quality of oversight across jurisdictions.

Second, by standardising the information to be provided as part of the authorisation procedure, Option 3 would contribute to greater legal certainty, comparability, and efficiency in the authorisation process, while supporting supervisory convergence across Member States.

CONS:

First, under Option 3, the authorisation and supervision of the entire asset management group would be centralised under the competent authority of the parent entity requiring host

supervisors to relinquish oversight of local subsidiaries and raising concerns about the loss of local insight. It also risks weakening supervision, as home authorities may lack knowledge of specific activities and risks in other Member States. Moreover, it would require a major overhaul of current procedures and supervisory frameworks also in areas where problems were not identified, creating significant disruption and transitional challenges for regulators and market participants.

Second, this option may affect all investment funds, as the designated asset manager (AIFM or UCITS management company), which is responsible for managing the fund, would need to be replaced in all fund documentation to reflect the new functioning of the asset management framework.

Third, Option 3 did not receive broad support during the public consultation. The majority of stakeholders (55%), including industry representatives and national authorities, did not identify significant issues with the current authorisation framework for asset management groups, apart from national divergences, and expressed reservations about introducing a group-level authorisation regime. Those respondents argued that asset managers operate under diverse business models with no uniform structure, and that granting an AIFMD/UCITSD licence to an entity other than the one carrying out regulated activities could create supervisory and investor protection risks. They also cautioned that concentrating resources in a few entities might raise substance-related challenges and additional risks.

6.3.4. Comparison of the options

	Effectiveness	Efficiency	Coherence	Overall score
Option 1 Baseline scenario	-	-	-	-
Option 2 Comprehensive review	++	++	+++	++
Option 3 Extensive review	++	+	+	+

Legend: +++ = very positive ++ = positive + = slightly positive +/- = mixed effect 0 = no effect - = slightly negative -- = negative --- = very negative

6.3.5. Preferred Option

Option 2 is considered the most appropriate and proportionate solution. It addresses inefficiencies in authorisation and delegation requirements for asset management groups in a targeted way while preserving the current regime, which stakeholders generally view as functioning well. It would enable groups to use resources across subsidiaries without duplicating core functions such as compliance or IT, resulting in significant savings. By streamlining intra-group delegation and oversight, Option 2 removes the need to create parallel resources solely for monitoring activities performed by other group entities. Unlike a shift to group-level authorisation this option also avoids investor protection risks linked to limited supervisory insight into cross-border operations.

Compared with other options, Option 2 strikes the right balance between effectiveness and proportionality, as it removes national discretions and divergent rules and replaces them with harmonised rules across the EU, enhancing legal clarity, ensuring consistent investor protection, and facilitating cross-border activity. It would also improve supervisory convergence and cooperation, strengthening the EU's competitiveness as a global asset management hub and advancing the broader objective of a strong SIU.

6.4. IMPACT OF THE POLICY OPTIONS REGARDING OTHER BARRIERS TO THE GROWTH OF INVESTMENT FUNDS

6.4.1. Baseline/ Status quo

PROS:

Maintaining the current framework under the UCITSD would preserve the existing investment and diversification limits. This would ensure continuity and stability in the regulatory framework, but it would also mean that the concerns raised by stakeholders regarding investments in securitisations and high-performing equities through an active investment strategy remain unaddressed.

CONS:

First, maintaining the current 10% limit for investments in securitisations would continue to restrict UCITS' ability to allocate meaningful portions of their portfolios to these asset classes, hindering the development of the EU securitisation market, and failing to acknowledge that securitisations are diversified and well regulated under the Securitisation Regulation.

Second, Option 1 would continue to force active managers, with an investment strategy aimed at outperforming a benchmark, to underweight or divest from successful companies once their index weight exceeds 10%. As a result, actively managed funds would remain disadvantaged compared to passive funds, with constraints that could narrow investor choice and potentially dampen returns.

Third, under the baseline scenario, successful companies whose growing market capitalisation leads to an increased weight in major indices would remain penalised, which could hinder the development of the European equity market.

Fourth, Option 1 does not enjoy the support of the majority of stakeholders (mainly large asset managers), most of whom called for targeted adjustments to both the equity and securitisation limits.

6.4.2. Comprehensive review: other barriers to the growth of investment funds

PROS:

First, Option 2 would provide a targeted and proportionate adjustment to the UCITSD, addressing two areas where the current limits have been criticised as overly restrictive. By raising the 10% cap for securitisations to 15%, the framework would better reflect the diversified nature of securitisations, and the regulatory safeguards introduced under the Securitisation Regulation. This would give UCITS managers greater flexibility to allocate meaningful exposures to securitisations and contributing to the development of the EU securitisation market.

Second, Option 2 would level the playing field between passive and active index funds. It would enable active strategies to better reflect the composition of relevant indices and allow investors broader access to high-performing equities. Option 2 would also contribute to the development and growth of the European equity market. ESMA's role in maintaining a list of recognised indices would enhance legal certainty and ensure consistent application across Member States.

Third, Option 2 enjoyed the support of the majority of the respondents to the consultation.

CONS:

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Option 2 introduces additional complexity to the framework by creating differentiated rules depending on the type of assets and the active or passive strategy of a fund. This may require UCITS managers to adapt compliance and reporting systems, while national competent authorities would need to monitor adherence to ESMA's evolving list of benchmarks.

6.4.3. Comparison of the options

	Effectiveness	Efficiency	Coherence	Overall score
Option 1 Baseline scenario	-	-	-	-
Option 2 Comprehensive review	++	++	++	++

Legend: +++ = very positive ++ = positive + = slightly positive +/- = mixed effect 0 = no effect - = slightly negative -- = negative --- = very negative

6.4.4. Preferred option

Option 2 is the preferred choice as it offers a targeted and proportionate adjustment that addresses key shortcomings of the current UCITS framework without requiring a full overhaul. By modestly raising the securitisation cap and aligning rules for active and passive funds, this option enhances diversification, supports the development of EU securitisation and equity markets, and improves investor choice.

APPENDIX A – LIST OF NATIONAL DISCRETIONS

The table below provides a list of national discretions in the UCITS Directive and AIFMD that constitute barriers to cross-border activities in the asset management sector.

No.	Article	Description
		UCITS Directive
1.	**Article 6**	3. Member States **may** authorise management companies to provide, in addition to the management of UCITS, the following services:
2.	**Article 7**	1. **Without prejudice to other conditions of general application laid down by national law**, the competent authorities shall not grant authorisation to a management company unless the following conditions are met: (c) the application for authorisation is accompanied by a programme of activity setting out, **at least**, the organisational structure of the management company (e) information is provided by the management company on arrangements made for the delegation and sub-delegation to third parties of functions in accordance with Article 13, comprising **at least** the following: For the purposes of point (a) of the first subparagraph, Member States **may** authorise management companies not to provide up to 50 % of the additional amount of own funds referred to in point (i) of point (a) if they benefit from a guarantee of the same amount given by a credit institution or an insurance undertaking which has its registered office in a Member State, or in a third country where it is subject to prudential rules considered by the competent authorities as equivalent to those laid down in Community law.
3.	**Article 29**	1. **Without prejudice to other conditions of general application laid down by national law,** the competent authorities of the investment company's home Member State shall not grant authorisation to an investment company that has not designated a management company unless the investment company has a sufficient initial capital of at least EUR 300 000.
4.	**Article 39**	6. Member States **may**, in accordance with the second subparagraph of Article 57(1), provide for a derogation from Articles 52 to 55 for receiving UCITS.
5.	**Article 45**	2. Without prejudice to paragraph 1, for mergers between UCITS and by way of derogation from Article 84(1), Member States **may** allow the competent authorities to require or to allow the temporary suspension of the subscription, repurchase or redemption of units provided that such suspension is justified for the protection of the unitholders.
6.	**Article 51**	2. Member States **may** authorise UCITS to employ techniques and instruments relating to transferable securities and money market instruments under the conditions and within the limits which they lay down provided that such techniques and instruments are used for the purpose of efficient portfolio management.

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		3. Member States **may** provide that a UCITS invests in index-based financial derivative instruments, those investments are not required to be combined for the purposes of the limits laid down in Article 52.
6.	**Article 52**	2. Member States **may** raise the 5 % limit laid down in the first subparagraph of paragraph 1 to a maximum of 10 %. If they do so, however, the total value of the transferable securities and the money market instruments held by the UCITS in the issuing bodies in each of which it invests more than 5 % of its assets shall not exceed 40 % of the value of its assets. That limitation shall not apply to deposits or OTC derivative transactions made with financial institutions subject to prudential supervision 3. Member States **may** raise the 5 % limit laid down in the first subparagraph of paragraph 1 to a maximum of 35 % if the transferable securities or money market instruments are issued or guaranteed by a Member State, by its local authorities, by a third country or by a public international body to which one or more Member States belong. 4. Member States **may** raise the 5 % limit laid down in the first subparagraph of paragraph 1 to a maximum of 25 % where bonds were issued before 8 July 2022 and met the requirements set out in this paragraph as applicable on the date of their issue, or where bonds fall under the definition of covered bonds in point (1) of Article 3 of Directive (EU) 2019/2162 of the European Parliament and of the Council. 5. Member States **may** allow cumulative investment in transferable securities and money market instruments within the same group up to a limit of 20 %.
8.	**Article 53**	1. Without prejudice to the limits laid down in Article 56, Member States **may** raise the limits laid down in Article 52 to a maximum of 20 % for investment in shares or debt securities issued by the same body when, according to the fund rules or instruments of incorporation, the aim of the UCITS' investment policy is to replicate the composition of a certain stock or debt securities index which is recognised by the competent authorities, on the following basis: […]
9.	**Article 54**	1. By way of derogation from Article 52, Member States **may** authorise UCITS to invest in accordance with the principle of risk-spreading up to 100 % of their assets in different transferable securities and money market instruments issued or guaranteed by a Member State, one or more of its local authorities, a third country, or a public international body to which one or more Member States belong. The competent authorities of the UCITS home Member State shall grant such a derogation only if they consider that unitholders in the UCITS have protection equivalent to that of unitholders in UCITS complying with the limits laid down in Article 52.
10.	**Article 55**	1. A UCITS may acquire the units of UCITS or other collective investment undertakings referred to in Article 50(1)(e), provided that no more than 10 % of its assets are invested in units of a single UCITS or other collective

		investment undertaking. Member States **may** raise that limit to a maximum of 20 %. 2. Member States **may**, where a UCITS has acquired units of another UCITS or collective investment undertakings, provide that the assets of the respective UCITS or other collective investment undertakings are not required to be combined for the purposes of the limits laid down in Article 52.
11.	**Article 56**	3. Member State **may** waive the application of paragraphs 1 and 2 as regards: […]
12.	**Article 57**	1. While ensuring observance of the principle of risk spreading, Member States **may** allow recently authorised UCITS to derogate from Articles 52 to 55 for six months following the date of their authorisation.
13.	**Article 69**	2. The prospectus shall contain **at least** the information provided for in Schedule A of Annex I, in so far as that information does not already appear in the fund rules or instruments of incorporation annexed to the prospectus in accordance with Article 71(1). 4. The half-yearly report shall include **at least** the information provided for in Sections I to IV of Schedule B of Annex I.
14.	**Article 83**	2. By way of derogation from paragraph 1, a Member State **may** authorise a UCITS to borrow provided that such borrowing is:
AIFMD		
15.	**Article 6**	4. By way of derogation from paragraph 2, Member States **may** authorise an external AIFM to provide the following services: […]
16.	**Article 7**	2. (e) information on arrangements made for the delegation and sub-delegation to third parties of functions in accordance with Article 20, comprising at least the following: […]
17.	**Article 9**	6. Member States **may** authorise AIFMs not to provide up to 50 % of the additional amount of own funds referred to in paragraph 3 if they benefit from a guarantee of the same amount given by a credit institution or an insurance undertaking which has its registered office in a Member State, or in a third country where it is subject to prudential rules considered by the competent authorities as equivalent to those laid down in Union law.
18.	**Article 21**	3. In addition, Member States **may allow** that in relation to AIFs which have no redemption rights exercisable during the period of 5 years from the date of the initial investments and which, in accordance with their core investment policy, generally do not invest in assets that must be held in custody in accordance with point (a) of paragraph 8 or generally invest in issuers or non-listed companies in order to potentially acquire control over such companies in accordance with Article 26, the depositary may be an entity which carries out depositary functions as part of its professional or business activities in respect of which such entity is subject to mandatory professional registration recognised by law or to legal or regulatory provisions or rules of professional conduct and which can provide sufficient financial and professional guarantees to enable it to perform effectively the relevant depositary functions and meet the commitments inherent in those functions.

19.	**Article 22**	2. The annual report shall **at least** contain the following: […]
20.	**Article 29**	2. The additional information to be included in the annual report of the company or the AIF, in accordance with paragraph 1, shall include **at least** a fair review of the development of the company's business representing the situation at the end of the period covered by the annual report.

ANNEX 10: SECTORAL ANNEX ON INNOVATION (DLTPR)

1. INTRODUCTION

Stifled innovation is one of the problems negatively impacting SIU progress. This annex elaborates the problem through the lens of problems affecting the DLTPR framework, which was set up precisely to support DLT-based innovation in financial services. After describing the problem and its drivers, the annex explores a set of targeted policy measures aimed at making the DLTPR more usable for the issuance, trading, settlement and safekeeping of tokenised financial assets. The policy measures analysed aim at ensuring that the DLTPR attracts the observed increase in market interest, globally and in Europe, in leveraging DLT for financial services. The annex concludes with the choice of the preferred option for mitigating the problem drivers contributing to the identified problem of low participation rate in the DLTPR, based on three analytical dimensions: effectiveness in achieving the stated objectives, efficiency (costs and risks) and coherence with other policy objectives pursued by the Commission.

2. DESCRIPTION OF MARKET AND ENVIRONMENT

Use of DLT in financial markets (MIFID instruments) is considered by parts of the financial industry to represent the next step in the evolution of financial market architecture. This evolution has many aspects. One important feature of DLT-based infrastructure is that it represents a shift from market structure based on distinct but interconnected intermediaries and systems (trading venues, clearing and settlement systems, payment systems etc) to a platform-based financial architecture. This allows various intermediaries in the financial value chain to provide services on common platforms (distributed, shared ledgers) that enable cryptographically secure and programmable execution of transactions, as well as direct deployment of software applications. By moving financial activities to a common platform, or set of common platforms, DLT-based infrastructure could provide a simpler financial architecture, compared to today's multi-layered trading and post-trading ecosystem supported by varied intermediaries and marked by many inefficiencies. This type of market structure may make reconciliation of data across intermediaries easier, as distributed ledgers can provide a golden record of market events retrievable by interested parties. This supports straight-through processing of financial activities and reduces costs. In post-trading processes, DLT is currently considered by parts of the industry as the most promising way to simplify procedures, reduce costs, and increase efficiency and security of transactions. It therefore has the potential to alter the post-trade landscape and transform how securities are held and recorded. While they hold many promises and can move markets toward more integrated and transparent post-trade structures, DLT market infrastructures (DLT MI) and markets organised around them are however still at an early stage of development. Today's deployment remains incremental and layered, with a number of challenges that pose a question to its wider up-take. For example, there is no market consensus around which distributed ledgers should be used for financial

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activities. Parts of the market prefer to engage with permissioned blockchains[487], which provide greater controllability of the key elements of the platform and may ensure enhanced privacy as compared to permissionless blockchains. Other industry participants prefer permissionless blockchains[488] because they are open to any and all participants, allowing them to attract more liquidity. They also guarantee greater system resilience due to greater distribution of the network. Greater maturity of interoperability solutions between DLTs may help resolve or mitigate some of these issues. Ensuring privacy of transactions[489] and automating identity (KYC) checks on DLT are another area where more progress is needed to facilitate adoption of the technology.

Regardless of outstanding challenges, in the past few years, especially in Asia, Europe and the US, the financial industry has been increasingly engaging with DLT. Asset managers have taken to tokenising[490] funds, in particular money market funds[491], to make them available to customers that want to hold funds on distributed ledgers ('on-chain'), such as crypto-asset traders. Issuers, together with banks and financial market infrastructures (FMIs) have been tokenising increasing volumes of debt instruments (albeit from a low base)[492], with the aim of enhancing the efficiency of bond markets, including liquidity, issuances costs and yields.[493] The industry is also using DLT to speed up the exchange of collaterals, introducing efficiencies and lowering risk.[494] Certain incumbent FMIs, in particular CSDs have set up DLT-based platforms to support issuance and transfer of tokenised financial instruments.[495] Certain large banks have also been building tokenisation platforms, while fintech entrants are setting up their own DLT-powered trading and settlement platforms.[496] According to the European Banking Authority (EBA),[497] in 2023 more than 60% of surveyed EU banks were exploring, experimenting with, or using DLT solutions. Finally, recognising the interest of the wholesale financial market in DLT and the potential of the technology, the Eurosystem held in 2024 exploratory experiments with DLT-adapted technical solutions for settlement in central bank money. The trials included a total of 64 participants, comprising central banks, financial market participants and DLT operators, and tested a wide range of use cases such as securities settlement, domestic payments, and FX transactions.[498] Following successful market engagement, in June 2025 the ECB Governing Council approved a plan that will enable settling of DLT transactions using central bank money.

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[487] Permissioned blockchains are a type of distributed ledger where the rights to validate transactions and participate in the network are limited to authorised parties only.
[488] Permissionless blockchains are a type of distributed ledger where the rights to validate transactions and participate in the network are open to any party without the need for a prior authorisation
[489] On technical solutions for enhancing privacy on distributed ledgers, see p. 25 of the EC-commissioned study on enhancing financial services with permissionless blockchains, available at: https://op.europa.eu/en/publication-detail/-/publication/cab54e8e-ad3b-11ef-acb1-01aa75ed71a1/language-en
[490] I.e. representing assets as cryptographically secured entries in distributed ledgers
[491] For example https://securitize.io/learn/press/blackrock-launches-first-tokenized-fund-buidl-on-the-ethereum-network
[492] See on tokenisation of government bonds https://www.bis.org/publ/bisbull107.pdf
[493] https://www.bis.org/publ/bisbull107.pdf
[494] See most recently https://www.thetradenews.com/jp-morgan-executes-first-live-dlt-enabled-collateral-mobilisation-transaction-on-eurex-clearing/
[495] Examples include the US DTCC, Euroclear, Clearstream, Swiss SDX, which is part of the SIX Group
[496] In Europe, examples include 21X (holder of DLT Pilot licence) and Axiology
[497] https://www.eba.europa.eu/sites/default/files/2024-04/69001f7d-be44-456e-a40a-2d2f0e5a84f4/factsheet%20on%20uses%20of%20DLT%20in%20the%20EU%20banking%20and%20payments%20sector.pdf
[498] https://www.ecb.europa.eu/press/intro/news/html/ecb.mipnews241204.en.html

Against these industry and public sector developments, the DLT Pilot represents the main pillar of Commission's policy to support DLT-based innovation in Europe. Adopted in 2022 as an important plank of the Commission's Digital Finance Strategy, its aim was to establish a flexible regulatory framework that would enable the industry to use DLT to introduce efficiencies in the issuance, trading and transfer of financial instruments, while ensuring risks are appropriately mitigated. It aspired to create a flexible framework that would allow certain derogations from the standard rulebooks (CSDR and MIFID) to make it easier for Pilot participants to leverage DLT for trading and CSD services. It has been in application since March 2023, and has so far attracted four participants that have received the permission to operate under the DLT Pilot, while several other applications are in the pipeline.

3. ASSESSMENT OF PROBLEMS AND NEED TO ACT

Drivers:

Driver 1: Disproportionate and inflexible regulatory obligations for DLTPR applicants

Driver 2: Regulatory barriers to scale, scope and long-term investments

↓

Problem:

Stifled innovation: Low take-up of the DLT pilot regime

Consequences:

- *Reduced innovation and lower efficiencies in issuance, trading and settlement of financial instruments in Europe*
- *Lower competitiveness of EU capital markets*

↓

General objective

1) *Adjust the DLTPR to facilitate DLT-based financial innovation*
2) *Maintaining regulatory standards which effectively capture and address risks of respective activities*

↓

Specific objectives

SO1: Ensure that DLTPR lays down proportional and principles-based regulatory requirements for small businesses participating in the Pilot

SO2: Remove regulatory barriers to support long-term investments under the Pilot [duration], broad-based participation [large firms, CASPs] and varied projects under the DLTPR [asset scope]

3.1. PROBLEM DEFINITION AND DESCRIPTION OF CURRENT STATE-OF-PLAY

Innovation is one of the strongest drivers of efficiency gains in financial markets. Stifled innovation is one of the main barriers to the development of an efficient SIU. DLT is a technology that currently has the most potential to impact market structure and is seeing increased use by a wide spectrum of market participants. The Commission considers DLTPR

as a key enabler for responsible DLT innovation in trading and CSD services.[499] This innovation necessitates sufficient regulatory flexibility to accommodate the specificities of DLT and novel business models that arise from its use. To fulfil its objective, it is important that DLTPR appropriately reflects market needs, while ensuring appropriate risk mitigation. Failing to channel innovation through the framework may result in reduced deployment of DLT-based solutions in Europe's financial markets, leading to loss of efficiencies and competitiveness. Given the intrinsic connection between the success of the DLTPR and the uptake of DLT innovation in Europe, the problem of stifled innovation can be viewed through the lens of problems affecting the ability of the DLTPR to attract innovative projects.

The DLTPR set out to achieve two narrowly connected objectives. Firstly, to support innovation in DLT by attracting businesses to deploy their solutions within an adapted but limited framework. The DLTPR created an adapted elective rulebook which Pilot participants can use to set up DLT-based trading and settlement infrastructures and seek specified derogations from those provisions in the standard rulebooks (CSDR, MIFID) that were considered incompatible or poorly adapted to DLT, and instead applying alternative or compensatory obligations. For example, to ensure DLT can be robustly leveraged for settlement of assets against money, the DTLRP explicitly allowed the use of electronic-money tokens[500] as means of payment. This allowed DLT market infrastructures to make use of the functionality to programmatically 'swap' tokens in an efficient manner between two accounts on DLT, organising delivery vs payment of e.g. a tokenised bond against tokenised electronic money. This would not be possible with traditional forms of money eligible for use in settlement under the DLTPR – (non-tokenised) commercial bank money and central bank money.

Accounting for the needs and specificities of DLT-based market infrastructures, the regime sought to identify and address legal and operational barriers to broader adoption of DLT in the EU financial sector. Furthermore, its aim was to attract projects under a closely supervised framework that would allow supervisors and policy makers to learn from the concrete projects leveraging DLT deployed within the DLTPR. Learnings about different business models, risk profiles of various activities, roles of intermediaries participating in the ecosystem as well as technological challenges would form an analytical basis for changes to the standard rulebook, to ensure it is adapted to DLT and therefore technologically neutral, allowing Pilot participants to continue their activity under the sectoral legislation (CSDR, MIFID). However, these objectives were not fully realised.

Since its entry into force (May 2022) over more than three years ago, the DLTPR has attracted only four participants. One of those participants is an established CSD (CSD Prague), while three others are fintech entrants to the market (360X, 21X and Axiology). DLTPR was set up precisely to allow innovative new entrants to leverage DLT in providing trading and CSD services. Comparatively, the UK's Digital Securities Sandbox, which is a similar regime to

[499] The three core CSD services as defined in CSDR are as follows: initial recording of securities in a book-entry system (notary service), providing and maintaining securities accounts at the top tier level (central maintenance service) and operating a securities settlement system (settlement service). CSDR lists additional ancillary services.
[500] In accordance with MiCA, electronic money tokens are a type of crypto-asset that purport to maintain a stable value by referencing the value of one official currency.

EU's Pilot, has attracted notably more interest: eleven applicants have checked into the sandbox since its start at the end of 2024.[501] This divergence suggests a mismatch between framework design and business models in the EU context rather than an absence of market interest in tokenisation .While the Pilot has been useful for a handful of applicants, it has not scaled in line with market developments, which has limited its learning potential.

At the same time, market interest in using DLT for financial services has been gradually increasing since the DLTPR framework was set up. In 2024, private sector involvement in DLT for financial services accelerated, with active participation from banks, payment service providers, stock exchanges, and clearing and settlement companies. The sharp increase in DLT based issuance volumes from 2023 to 2024 (albeit from a low base) signals growing acceptance and experimentation with DLT for bond issuance, especially in Europe and Asia. According to a 2025 AFME report[502], €3 billion in DLT-based fixed income instruments were issued globally in 2024-a 260% increase from €848 million in 2023. BIS Economic Report for 2025 also notes the nascent yet increasing size of tokenised bond markets.[503] The projected issuance in 2025 is €10 billion and €35–40 billion for 2026 if current trends continue.[504]

Because the relatively low market participation in the Pilot is set against a backdrop of increased industry interest in DLT and tokenisation, it can be concluded that the Pilot has not fully achieved its objective of attracting and supporting DLT innovation in Europe. This is further supported by feedback from key stakeholders. The SIU targeted consultation and bilateral contacts with the industry have revealed certain drawbacks of the Pilot that hamper its ability to attract projects. These have been also elaborated by ESMA[505] and certain NCAs.[506]

What are the consequences of the problem?

It is difficult to estimate the long-term impact of missed innovation opportunities, especially since the extent of future integration of DLT into financial markets is not yet clear. Innovation trends and their effects on the financial industry are difficult if not impossible to forecast. However, given the low participation rates in the Pilot, the industry's criticism of some of its features, and a globally increasing interest in using DLT for financial services and activities, an unchanged DLTPR risks failing in its objective of attracting innovation in Europe and providing experience-driven lessons for policy makers on how standard frameworks ought to

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[501] Full list available at https://www.bankofengland.co.uk/financial-stability/digital-securities-sandbox/digital-securities-sandbox-dashboard

[502] Source: https://www.afme.eu/news/press-releases/details/afme-launches-data-report-series-on-dlt-based-capital-market-

[503] https://www.bis.org/publ/arpdf/ar2025e3.pdf

[504] Source: https://www.fi-desk.com/measuring-digital-bond-issuance/

[505] ESMA's position: https://www.esma.europa.eu/sites/default/files/2024-04/ESMA75-117376770-460_DLT_Pilot_Regime_-_Letter_to_EU_Institutions.pdf and https://www.esma.europa.eu/sites/default/files/2025-06/ESMA75-117376770-460_Report_on_the_functioning_and_review_of_the_DLTR_-_Art.14.pdf

[506] See for example the Joint AMF-CONSOB paper on DLTPR: https://www.amf-france.org/sites/institutionnel/files/private/2025-04/amf_consob_position-paper-towards-a-more-competitive-european-pilot-regime.pdf

evolve to accommodate this technology and intermediaries using it. This may have serious repercussions.

If the EU fails to establish a sufficiently adapted and attractive framework for DLT deployment, it risks not fully benefiting from capital market efficiencies introduced by the technology. This would harm the industry and investors and lead to a loss of attractiveness of EU's capital markets. For example, DLT may, among others, lead to a reduced cost of issuance (due mainly to fewer intermediaries), faster settlement, disintermediation, creation of new markets, improved data flows between intermediaries and regulators and increased automation. More generally, it may lead to a financial system with less layers, where greater parts of the financial value chain are conducted on a single (DLT-based) platform.[507] DLT has the potential to move many elements of the financial value chain – such as issuance, recording and transfer of tokenised assets - to common and interoperable platforms (distributed ledgers, blockchains) on which regulated services are provided. Broad-based adoption of DLT promises to improve the efficiency of financial markets, by reducing settlement times, establishing new markets, entering into cross border/international markets, facilitating data reconciliation and increasing programmability of financial market activities.[508] [509]

Comparatively, the multi-layered market architecture of today, with functions like trading, clearing and settlement conducted within separate systems, results in many inefficiencies. This compression of layers may improve market efficiency, not least by supporting straight-through-processing of transactions.

Given the potential widespread impacts of this technology across the financial market value chain, stifled innovation in this area may compromise the long-term objectives of the SIU. Firstly, it could compromise the objective of the SIU to achieve greater market integration and efficiency through deployment of new technologies. Secondly, tokenisation of securities, through fractionalisation, cheaper issuance processes, easier transferability and direct holding models in digital wallets, may lead to a broader and more accessible offering of capital investment opportunities for retail investors in Europe. Tokenisation makes traditionally illiquid assets—such as private debt, corporate bonds, less liquid investment and real estate funds, SME debt and equity—more tradable.[510] By lowering barriers to entry, fractionalisation

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[507] There are, however, many challenges to DLT underpinning a more integrated financial architecture, most notably the current fragmentation of DLT-based activity across various distributed ledgers with low levels of interoperability among them.

[508] See OECD on the qualitative description of benefits: https://www.oecd.org/content/dam/oecd/en/publications/reports/2025/01/tokenisation-of-assets-and-distributed-ledger-technologies-in-financial-markets_be149012/40e7f217-en.pdf

[509] The 2023 report from AFME and Boston Consulting Group gives some projections: ~$15-20 billion (USD) in annual global infrastructure operational cost savings, ~$100+ billion (USD) annually in freed financial collateral and balance sheet efficiencies. See page 11 at https://www.afme.eu/Portals/0/DispatchFeaturedImages/20230512%20GFMAImpactofDLT%20FullReport%20FINAL%20FULL.pdf

[510] See The Impact of Distributed Ledger Technology in Capital Markets by GFMA https://www.gfma.org/wp-content/uploads/2025/08/1.-full-report-impact-of-dlt-in-cap-mkts-final-1.pdf

expands the investor base and stimulates activity in assets that once saw limited trading.[511] Incentivising retail participation in capital markets and mobilising investments in the European economy are one of the key objectives of the SIU. It should be noted, however, that some of these developments are already taking place outside the DLTPR, often under existing frameworks or in parallel initiatives by incumbents and fintechs. The challenge is therefore less about whether tokenisation will happen, but about whether the EU's dedicated pilot framework is sufficiently adapted to attract and retain such activity within its perimeter, so that the benefits and supervisory learnings accrue in Europe rather than elsewhere.

At the same time, these benefits and opportunities of tokenisation also bring risks that could negatively affect the stability of the EU's financial system, including heightened cyber-security vulnerabilities, operational resilience challenges, legal and market risks. Tokenisation could lead to increased interconnectedness between traditional financial institutions, technology providers, and decentralised networks, which may amplify systemic risks and the potential for contagion in the event of a disruption or cyberattack.[512] The distributed ledger infrastructures' underlying tokenised assets could also introduce new points of failure, especially if they rely on untested smart contracts, interoperable systems, or concentration in a few key technology providers. Furthermore, the borderless nature of token markets may complicate regulatory oversight and crisis management, as financial stability risks could propagate across jurisdictions with limited coordination mechanisms.[513]

Legal uncertainties may arise when tokenised assets are issued or transferred across jurisdictions, and inconsistent legal frameworks may lead to disputes over ownership, settlement finality, or the legal recognition of digital records. This lack of harmonisation can result in market fragmentation and pose challenges in crisis scenarios where investor protections or enforceability of claims become crucial. From a market perspective, the increased liquidity and 24/7 trading of tokenised assets could heighten volatility and contribute to procyclical behaviours, particularly during periods of stress when tokenised assets might be rapidly sold off or when automated smart contract liquidations are triggered. Additionally, valuation and settlement risks could arise if the integrity or reliability of distributed ledger data were compromised, undermining confidence in tokenised financial instruments and the wider market.[514]

Most of the cyber and operational risks are already addressed under the Digital Operational Resilience Act (DORA), which establishes a harmonised framework in the EU requiring all

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[511] See OECD Business and Finance Policy Papers, No. 75, 2025 Tokenisation of assets and distributed ledger technologies in financial markets

[512] ECB: Decrypting financial stability risks in crypto-asset markets https://www.ecb.europa.eu/press/financial-stability-publications/fsr/special/html/ecb.fsrart202205_02~1cc6b111b4.en.html?utm

[513] CEPR Crypto, tokenisation, and the future of payments, https://cepr.org/voxeu/columns/crypto-tokenisation-and-future-payments?utm

[514] BIS Financial stability implications of tokenisation
https://www.bis.org/fsi/fsisummaries/exsum_23905.htm?utm
BIS Tokenisation in the context of money and other assets: concepts and implications for central banks
https://www.bis.org/cpmi/publ/d225.pdf
OECD Regulatory Approaches to the Tokenisation of Assets
https://www.oecd.org/content/dam/oecd/en/publications/reports/2021/03/regulatory-approaches-to-the-tokenisation-of-assets_da7ae482/aea35466-en.pdf

financial entities to effectively withstand, respond to, and recover from ICT-related disruptions and cyberattacks through robust risk management, incident reporting, resilience testing, and oversight of critical third-party service providers.

Use of DLT for financial services should be industry- and use case-driven, as it is for the market to determine the economic efficiencies stemming from applying a specific technology. However, maladapted legal frameworks represent a barrier to the market in realising potential efficiencies using DLT. The need to adapt the framework stems from the fact that the financial markets value chain can be organised differently on DLT, in a way that does not map neatly to the market structure of today, and the standard rulebooks that codified business models and intermediary roles of traditional markets. For example, permissionless blockchains such as Ethereum can perform some of the technical functions that are performed by a CSD: they can facilitate trusted issuance and transfer of assets. However, permissionless blockchains are a decentralised computing infrastructure with verifiable execution and are not carriers of legal liability for ensuring certain outcomes in the market, the way that CSDs and other regulated financial entities do. Therefore, permissionless blockchains do not obviate the need for a regulated entity to ensure certain outcomes – e.g. legally protected and enforceable settlement of assets in a predictable manner. However, permissionless blockchains may facilitate a market structure that is different than that of today, whereby a wider set of regulated entities beyond the CSD may directly interact with a distributed ledger to provide for, among others, issuance, custody and settlement of assets, and use its functionalities to conduct peer to peer transactions. If the DLTPR does not create sufficient opportunities and clarity for EU market actors to make the necessary investments in DLT-based projects, the competitiveness and efficiency of EU capital markets may be harmed by pushing DLT investments elsewhere. Lack of home-grown know how in the area may compound over time and lead to dependencies on third country services providers for DLT-based service solutions.

Who is affected by the problem? In what ways, and to what extent?

The low uptake of the DLT pilot regime indirectly poses challenges for a broad range of stakeholders across the real economy and the financial industry. While it is true that many market participants have so far found ways to innovate outside the DLTPR framework — for instance by using existing MiFID/CSDR channels or bespoke platforms — the limited take-up still matters. Businesses, which are issuers of financial instruments, may miss out on key benefits of DLT, such as reduced costs and faster settlement. One paper by the Bank of International Settlements[515] noted that despite being in experimental phase, there is already evidence to suggest that issuance costs of tokenised bonds are comparable with traditional bonds, while liquidity may improve. As tokenisation solutions and processes mature, and market adoption spread, it can be reasonably expected that costs and liquidity improve further, bringing benefits to both issuers and investors. Low uptake tokenisation in the EU could mean missing out on these benefits. Small and Medium-Sized Enterprises (SMEs) could be disproportionately impacted. DLT could serve to reduce costs of issuance in particular for less

[515] https://www.bis.org/publ/bisbull107.pdf

liquid and less developed markets, such as capital markets for SME securities, be it public or private.[516] DLT-based financial market infrastructures may therefore support SMEs in raising debt and equity capital, which is one of the key objectives of the SIU. Furthermore, in the absence of a DLTPR adapted to their needs, Financial Market Infrastructures (FMIs)—including trading venues and CSDs —could struggle to modernise their operations and enhance service delivery through DLT. Greater use of DLT could help overcome barriers to market integration by automating and streamlining clearing and settlement, reducing costs. As multi-purpose platforms for asset issuance, holding, and transfer using distributed ledgers can also enhance interoperability between CSDs and other market operators where liquidity concentrates across platforms. The use of DLT based wholesale central bank digital currency (WCBDC) could make settlement on DLT platforms even more secure and coherent with existing settlement rules, which favour central bank money due to its credit risk-free nature, superior liquidity, and scalability.

Furthermore, the low uptake of DLTPR means there is less competitive pressure from innovative businesses, in particular in the area of post-trading. CSD markets feature high barriers to entry and are fragmented along national lines and therefore subject to low competitive pressure and pressure to innovate. If regulation does not adequately support entrants to the CSD services market that wish to leverage new technologies, this acts as a further market barrier, ultimately leading to lost efficiencies in financial market infrastructure overall. At the same time, the goal is not to multiply CSDs indefinitely (which would run counter to the consolidation objectives of the SIU) but rather to enable technology-driven consolidation. Well-designed DLT infrastructures could reduce duplication, allow smaller players to interconnect via shared platforms, and over time help rationalise the number of infrastructures while improving efficiency and resilience.

In the absence of developed DLT-based market infrastructures, asset managers may have difficulties in tokenising fund units, which may result in missed opportunities to introduce efficiencies in managing, distributing and transferring funds. Investors, both individual and institutional, may be unable to take advantage of the greater transparency, efficiency, and potential for real-time asset transfers offered by DLT. Finally, consumers of financial services may be indirectly affected, as they would be unable to benefit from the enhanced financial products and services that DLT could help enable—such as faster payments, lower fees, lower switching costs between intermediaries.

How will the problem evolve if not addressed?

The problem will likely persist. Enduring low participation rates in the Pilot means that the innovation potential demonstrated by the globally increasing interest in using DLT will either not be fully reached in the EU, or will be realised outside of the DLTPR, within or outside the

[516] See for example the SME-focused business model of CSD Prague's DLT settlement system and LISE's trading and settlement system, on p. 8 and p.11 respectively of ESMA's Report on the DLTPR. https://www.esma.europa.eu/sites/default/files/2025-06/ESMA75-117376770-460_Report_on_the_functioning_and_review_of_the_DLTR_-_Art.14.pdf

standard framework but subject to legal uncertainty as well as (costly) adaptations and compromises to operational and business models. Incumbents have innovated outside DLTPR with limited success, rather opting to rely on the standard rulebook which is less adapted to DLT (CSDR). Clearstream[517], and Euroclear[518], two largest CSD groups in Europe, have both developed digital asset platforms. However, such innovation initiatives may be forced to make certain compromises to remain compliant with the standard framework. These compromises may stem from the assumptions of intermediary roles, definitions and requirements embedded in CSDR as well as due to the lack of general flexibility to organise service provision in a way that leverages the full potential of the technology.[519] For example, settlement in the only DLT-available form of money – stablecoins – is not currently possible under the CSDR, requiring those operating under its framework to synchronise payment on traditional payment rails and asset settlement on DLT infrastructure. Use of permissionless blockchains, which are decentralised registers and settlement facilitators not operated by any single entity, may not be well accounted for, while the requirement to register assets in book-entry form may not be compatible with the use of DLT-based wallets.

Furthermore, the consequences of the problem may compound over time. Where EU start-ups and incumbents do not benefit from a well-adapted framework for the use of DLT in financial services, leading to the identified problem of low Pilot uptake, they may look to other jurisdictions that are better adapted to welcome their solutions. This will result in lost innovation opportunities. Failing to capitalise on the opportunity to attract innovation at this relatively early stage of DLT-based market development may have long-term consequences as accommodating jurisdictions establish themselves as hubs for DLT activity and draw in additional investment.

While not addressing the problem would likely result in some degree of DLT innovation in the EU, it is nonetheless likely to lead to lower levels of innovation overall. A poorly calibrated DLTPR may result in DLT-based solutions being developed outside of the EU and merely 'imported' via outsourcing agreements into EU. In this scenario, most software and financial know-how would reside outside the EU. This lack of home-grown know-how at the intersection

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[517] Clearstream, through its D7 digital post-trade platform, has become a leading provider for digital securities issuance in Europe. In January 2025, Evonik Industries AG, supported by Deutsche Bank, issued a €500 million five-year green senior bond via Clearstream's D7 platform. In 2024, KfW issued two digital bonds totalling €8.5 billion via D7, with another €9 billion already issued in 2025. Source: https://www.ledgerinsights.com/digital-bonds-show-significant-growth-afme/

[518] Euroclear has recently facilitated several notable digital bond issuances using its Digital Financial Market Infrastructure (D-FMI), which is based on Distributed Ledger Technology (DLT). Caisse des Dépôts et Consignations (France): Issued the first Digital Native Note (DNN) in bearer form under French law on the D-FMI platform, with a size of €100 million. The Asian Infrastructure Investment Bank (AIIB) issued a USD 300 million DNN, marking the first digital issuance by an Asia-based issuer on Euroclear's platform. The International Bank for Reconstruction and Development issued a €100 million digital bond on Euroclear's D-FMI, listed on the Luxembourg Stock Exchange. These issuances are fully dematerialized, settled same-day, and integrated with Euroclear's traditional settlement systems, ensuring compliance and liquidity. Source: https://www.euroclear.com/services/en/primary-issuance/digital-financial-market-infrastructure.html

[519] For example, many industry players are interested in setting up market infrastructures that engage in both trading and settlement of financial instruments, which is uniquely supported by instant gross settlement at the time of trade enabled by DLT. These hybrid trading and settlement infrastructures cannot be easily set up under the regular framework, which reflects the traditional separation of trading and settlement functions.

of DLT and finance could have material long-term consequences on the competitiveness and efficiency of EU's capital markets, depending on the general level of DLT adoption in finance.

3.2. PROBLEM DRIVERS

3.2.1. Disproportionate and inflexible regulatory obligations for DLTPR applicants

The DLTPR provides the regulatory flexibility necessary for the market to leverage DLT. It does so by granting its participants targeted exemptions from the standard rulebook. In exchange, participants must demonstrate how they will achieve regulatory objectives with alternative measures. While proved to be useful for DLTPR applicants, the mechanism of creating flexibility for innovation solely based on pre-identified derogations from specific provisions listed in DLTPR has shown its limitations, as the vast majority of the rules comprising the standard rulebook also apply in the Pilot.

Bilateral feedback from fintech companies highlighted that having to comply with CSDR and MIFID level 1, and especially the more detailed level 2 requirements, amounts to a compliance burden that is not appropriate for small business that want to enter the market by building small scale trading and settlement solutions and have limited resources. This is confirmed in ESMA's 2025 DLTPR Report to the Commission[520], where ESMA, having taken stock of the DLTPR's application, called for smaller businesses (SMEs or start-ups) to benefit from regulatory requirements adapted to their risk profile.[521] Regulatory constraints and compliance costs were also flagged by certain regulators implementing the Pilot.[522] Furthermore, some respondents to the SIU targeted consultation called for size-proportional compliance requirements under the Pilot. Additionally, CSDR requirements, which most DLTPR applicants must comply with, were established for CSDs that are systemic in nature and at a moment when many CSDs in Europe were already mature businesses. This reflected market reality; typically, in the EU, there is a single CSD servicing the entire capital market of a Member State, and such a CSD can therefore be considered of systemic importance for the capital market of that Member State. However, while appropriate for the types of entities it sought to regulate, this high regulatory standard in CSDR may represent a regulatory hindrance to entry for businesses wishing to provide small-scale CSD services under the DLTPR, which are by no means systemic. Similar conclusions can be drawn for MIFID, where requirements at level 2, while justified in general for trading venues, may lead to a disproportionate and maladapted rulebook for start-ups wishing to use DLT for trading services and gradually scale their operations. Furthermore, the

[520] https://www.esma.europa.eu/sites/default/files/2025-06/ESMA75-117376770-460_Report_on_the_functioning_and_review_of_the_DLTR_-_Art.14.pdf

[521] See p. 31 of ESMA's 2025 DLTPR Report.

[522] https://www.amf-france.org/sites/institutionnel/files/private/2025-04/amf_consob_position-paper-towards-a-more-competitive-european-pilot-regime.pdf

detailed obligations laid down in level 1 and 2, while essential for an integrated market, can constrain the flexibility that small firms need to experiment with new business models, since they were designed with systemic infrastructures in mind. Therefore, the combined effect of Level 1 and Level 2 creates a de facto barrier to the uptake of new technologies by smaller actors.

The initial success of UK's Digital Securities Sandbox (DSS)[523] – the equivalent of the EU's DLT Pilot in the UK - further supports the conclusion that MIFID and CSDR rules as currently modified by DLTPR are disproportionally cumbersome for small businesses. The comparatively more flexible and proportional DSS[524] has already attracted 16 participants, mostly fintech companies[525], despite the sandbox being in application less than a year and the UK being a comparatively smaller jurisdiction.

Finally, regulatory requirements in MIFID and CSDR may prove to be too rigid for deployment of innovative trading, issuance and settlement solutions. Based on historical market practice, current trading and post-trading frameworks assume the existence of intermediaries that have a particular role and risk profile in the market structure, which are then granularly regulated. A more fundamental issue is that MiFID/CSDR were designed for traditional infrastructures and cannot easily be "bent" to fit DLT models through derogations alone. Their Level 1/Level 2 layering reflects assumptions about intermediaries and risk profiles that may not map to DLT-based businesses. The objective should be to give startups and innovative entrants a workable, DLT-specific framework while safeguarding core regulatory outcomes.[526]

Relatedly, CSDR reflects the business practice of traditional market infrastructure, whereby a CSD infrastructure keeps securities accounts as entries on its IT systems, and also often runs an issuance register, with some CSDs (authorised as credit institutions) also managing settlement in commercial bank money on their banking systems, separate from asset registers. DLT represents an omni-asset platform[527] that can support representations of money and asset

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[523] The UK Digital Securities Sandbox (DSS) is a regulatory initiative jointly operated by the Financial Conduct Authority (FCA) and the Bank of England to allow firms to test and scale new technologies—such as distributed ledger technology (DLT)—in the trading and settlement of digital securities. The DSS is open to both established financial institutions and new market entrants legally established in the UK.

[524] The UK Digital Securities Sandbox (DSS) is notably broader and more flexible than the EU DLT Pilot Regime. It allows experimentation with a wider range of "developing technologies" (not limited to DLT), welcomes a broader set of participants (not just established financial market infrastructures but also smaller fintech), and permits a wider array of financial securities and activities. The DSS allows regulators (the Bank of England and FCA) to modify or temporarily waive certain legal and regulatory requirements that would otherwise apply to financial market infrastructure providers. The BoE has used its powers to disapply broad parts of CSDR level 2 to streamline and simplify the rulebook for sandbox participants. The DSS also uses a staged approach with "gates," allowing firms to gradually increase their activities as they demonstrate compliance and robustness, which can be less risky for small entrants.

[525] https://www.fca.org.uk/firms/innovation/regulatory-sandbox/accepted-firms

[526] One example of this is operational risk requirements laid out in level 2 of CSDR. While operational risks must be mitigated, some level 2 requirements are formulated with a presumption there is an identifiable service provider to the CSD. With DLT, some critical services may be provided by the DLT itself, which can be a decentralised infrastructure without an identifiable operator. Therefore, a more principles-based approach to operational risk management may be warranted to appropriately cover this interaction between DLT and a DLT market infrastructure.

[527] See Bindseil, Malekan, Public crypto networks as financial market infrastructures, 2025 at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5138052

that is normally not controlled by any single entity, with, large permissionless blockchains featuring robust decentralisation and platform accessibility open to all. In this architecture asset custodians can hold assets directly on DLT, without the need of using CSD systems for top tier account maintenance. Money can also be represented on the DLT platform, rather than existing as an entry on the bank's own systems. The notary function can be largely provided through control of the smart contract representing an asset (issuance) on-chain. Therefore, DLT-based infrastructure underpinned by open programmable platforms allows for a different distribution of intermediary roles than the one contemplated by CSDR, which largely implies that all three core CSD services are provided by one entity that is the operator of systems used for representing assets and sometimes money. This creates a barrier to the emergence of new business models that may seek to leverage all the advantages of DLT. From a commercial perspective, the requirement in the CSDR for a CSD to provide multiple CSD services also represents a high barrier to entry, requiring new entrants to establish both a (one-sided) network connecting trading parties (i.e. a settlement system) and a (two-sided) network connecting issuers and investors (notary, account maintenance), both subject to strong network externalities. These assumptions about intermediary roles and functions may negatively impact the development of DLT-based CSD services. At the same time, DLT-based market infrastructure is still in early stages of development, and therefore, intermediary roles and their risk profiles in the context of DLT should be assessed and tested carefully.

3.2.2. Regulatory barriers to scale, scope and long-term investments

The DLTPR laid down various **limits to the scale** of activities carried out under the Pilot. It sets a limit to the issuance size and market capitalisation of eligible assets (asset-specific caps), and an aggregate cap that limits the total value of financial instruments intermediated by a DLT market infrastructure. This cap was set at EUR 6 bn. The main objective of these limits was to preserve investor protection, market integrity and, in particular, financial stability in light of the novel nature of this technology and business models that leverage it.

However, these thresholds have been deemed too low by large financial entities, such as banks and CSDs. Feedback by market participants from the SIU targeted consultation and bilateral interviews reveals that the fear of breaching the thresholds in case of large issuances for corporates and sovereigns has kept certain large market participants away from applying for the Pilot. Indeed, a bond issuance for a large corporate can have a nominal size of billions of euros.[528] For a Pilot applicant recording or admitting to trading a few such issuances would either mean that it could not accept any further business, or worse, that it would need to wind

[528] The dominant format for single corporate bond issuances in Europe in 2024 was in the size range of €500 million to €1 billion. The most prominent corporate issuers, particularly those in the financial sector or large multinational corporations, often issued bonds in the €1–2 billion range per transaction. Source: https://www.helaba.de/blueprint/servlet/resource/blob/docs/638282/a3bff4f794f4322256956420a0397776/primaerm-eur-corpbonds-20240327-data.pdf

down its operations. This makes larger projects under the Pilot commercially unviable, even though the DLTPR was also aimed at large stakeholders.

This conclusion is further supported by ESMA's 2025 DLTPR Report, noting that feedback from NCAs and industry stakeholders support the conclusion that the current thresholds are too restrictive and 'exclude many large-cap issuers and well-established instruments, limiting the commercial viability and attractiveness of DLT infrastructures.'[529] Additionally, SIU consultation feedback showed that the majority of the respondents believed that current thresholds are too low, significantly limiting scalability, calling for their removal or significant increase. While the goals of the caps - market integrity, investor protection, and financial stability - remain legitimate, the regulators' and industry's deeper experience with DLT suggests the possibility of mitigating risks without hindering the commercial viability of large-scale projects. Experience with the DLTPR has demonstrated that setting product and aggregate caps on financial instruments intermediated by DLT market infrastructures, resulted in *de facto* regulatory barriers to the participation of large financial entities in the Pilot, thus limiting uptake. This runs counter the objective of the Pilot to support innovation and leverage experience with concrete projects to inform further policymaking.

Furthermore, with the stated aim of preserving investor protection, market integrity and financial stability, **DLTPR limits the scope of eligible assets that can be intermediated by DLT MIs** to simple instruments: certain shares, bonds and UCITS. Bilateral interviews with the industry, as well as ESMA's 2025 DLTPR report and reports by certain regulators[530] point to this limited scope of eligible assets as a material barrier for the broader take up of the Pilot. Notably, ESMA highlighted that DLT and the automation it can bring about may be particularly suited for markets in complex assets and less liquid assets (AIFs, complex bonds, structured products), while AMF[531] and CONSOB[532] additionally noted that adding derivatives under the scope of the Pilot may also attract new participants. Furthermore, certain academic articles also point to the missed innovation opportunities from excluding derivatives from the Pilot regime.[533] Enlarging the scope of eligible assets was seen as a key priority for enhancing the attractiveness of the Pilot by the majority of respondents to the SIU consultation – noting that extending the scope of assets into more complex products would attract professional investors – a key component in developing capital markets. To note that the scope of eligible assets in the DLTPR has been limited to simple instruments, in part, because retail investors can have direct access to trading and settlement infrastructures under the Pilot and therefore, it was deemed prudent to limit the types of instruments that retail investors can have direct access to on DLT MIs. However, MIFID investor protection rules can and should be applied in the DLT Pilot also in the scenario of expanded eligible assets. Put differently, the possibility of broad-based direct access to trading and settlement infrastructures should not govern the type of assets

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[529] https://www.esma.europa.eu/sites/default/files/2025-06/ESMA75-117376770-460_Report_on_the_functioning_and_review_of_the_DLTR_-_Art.14.pdf

[530] https://www.amf-france.org/sites/institutionnel/files/private/2025-04/amf_consob_position-paper-towards-a-more-competitive-european-pilot-regime.pdf

[531] Autorité des marchés financiers (AMF) is the French financial market regulator.

[532] Commissione Nazionale per le Societa e la Borsa (CONSOB) is the Italian financial market regulator.

[533] See for example for energy derivatives, Priem, Randy, Enhancing energy derivatives trading: Assessing the need to update the European DLT Pilot Regime Regulation (March 22, 2025). Available at SSRN: https://ssrn.com/abstract=5189300

that are offered on those infrastructures, provided existing investor protection rules are applied by investment firms that grant access to such products.

DLTPR limits the types of entities that can participate in the Pilot; eligible entities are either licenced MIFID trading venues or CSDs. Each of these entities may under the DLTPR licence provide trading and CSD services where they comply with applicable legislation (CSDR, MIFID, DLTPR). This approach is limitative as there may be other business models that may want to leverage other financial service licences to participate in the DLTPR, beyond a MIFID trading firm licence or a CSD authorisation. Narrow eligibility for the Pilot participation may have deprived the Pilot from other participants that may wish to combine DLT-based trading and CSD services with their existing or prospective licences. Within the DLT ecosystem, new combinations of services are arising, with banks setting up tokenisation platforms for issuance and transfer of securities, and crypto-asset service providers (CASPs) increasingly interested in offering MIFID financial instruments.[534] The latter category of service providers did not exist when the Pilot was established, however, with MiCA[535] now attracting many DLT-native firms to seek a CASP a licence in Europe, not allowing their participation in the Pilot may appear to be a missed opportunity. Crypto exchanges licenced under MiCA operate trading and settlement systems handling crypto assets in scope of MiCA. Since this activity requires infrastructure and business solutions identical or similar to those required for intermediating DLT (tokenised) financial instruments, there may be synergies that CASPs can leverage for the activity of issuing, trading and transferring financial instruments using DLT.

Finally, another significant barrier to deployment of projects under the DLTPR have been the **ambiguities around the long-term viability of the Pilot regime**. These include references in the DLTPR to 'exit strategies' in case of discontinuation of the Pilot, capping DLTPR licences to a period of six years[536] and references to a possible termination of the Pilot in the DLTPR review provisions.[537] Feedback from the SIU consultation, ESMA's 2025 DLTPR Report and statements from certain regulators have all highlighted that the industry perceives these time-caps and limitations as having a cliff effect: businesses are unwilling to make long-term investments under a pilot regime that might be discontinued in the medium term, rendering those investments commercially unviable. This issue has already been raised by ESMA's letter to the Commission and the co-legislators in 2024.[538] The Commission attempted to provide comfort to the market by noting in a published response[539] that the DLTPR does not contain an explicit sunset clause, however, in light of the current wording of the regulation, the market harbours lingering concerns about the long-term viability of the Pilot that stifle participation.

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[534] Kraken and Robinhood, both holders of CASP licences, recently announced the offering of 'tokenised stocks'. While these instruments may not legally qualify as stocks, these market developments demonstrate the appetite for CASPs to provide both MiCA and MIFID instruments to customers. We also observe the opposite trend (MIFID to MiCA product expansion).

[535] Fully in application since 30 December 2024.

[536] Article 8(11) of DLTPR.

[537] See for example Article 14(2) of DLTPR.

[538] https://www.esma.europa.eu/sites/default/files/2024-04/ESMA75-117376770-460_DLT_Pilot_Regime_-_Letter_to_EU_Institutions.pdf

[539] https://www.esma.europa.eu/sites/default/files/2024-05/3056562_030524_Reply_Verena_Ross_on_DLT_Pilot_Regime_Implementation.pdf

4. OBJECTIVES

4.1. GENERAL OBJECTIVE

It is imperative that EU capital markets are attractive for innovators, to support the digital transition and efficiencies it brings, support market competition and maintain EU's competitiveness vis-à-vis other jurisdictions. The regulatory framework and related supervisory practices play an important role in establishing a broader market environment conducive to the uptake of new technologies, such as DLT. The general objective of the proposed reforms is to better support DLT-related innovation in Europe by adjusting the DLTPR requirements while maintaining regulatory standards which effectively capture and address risks of activities undertaken under the Pilot. This objective is in line with the SIU, which specifically refers to role of DLT and tokenisation in enhancing the interoperability, interconnection and efficiency of EU trading and post-trading infrastructures.

4.2. SPECIFIC OBJECTIVES

Linked to the problem drivers discussed above, there are two specific objectives of the proposals put forward to promote market efficiency. They are (i) ensuring that DLTPR lays down proportionate and flexible regulatory requirements for businesses participating in the Pilot and (ii) removing regulatory barriers to achieving scale and scope of projects and activities under the Pilot. The specific objectives are without prejudice to the ultimate constraint of not undermining financial stability, as well as the integrity of markets and the entities that participate therein.

4.2.1. **Proportionate and flexible regulatory requirements for businesses participating in the Pilot**

DLTPR creates flexibility for its participants by providing for certain specified derogations from standard rulebooks (CSDR, MIFID). While this has been helpful in supporting certain DLT-based projects, the mechanism of identifying in a regulation (DLTPR), in advance of experience with concrete projects, targeted provisions in CSDR and MIFID that were deemed to be incompatible or maladapted to DLT, has shown its limitations. These derogations target a limited number of level 1 provisions exclusively (approximately 15 derogations). However, the complete rulebook for trading and CSD services comprises hundreds of provisions set out in level 1 and level 2 rules of the MIFID/CSDR rulebook. Therefore, businesses and regulators applying the rules are given only limited flexibility in complying with MIFID and CSDR via the DLTPR. Given the detailed nature of these rulebooks, it is not possible for regulators and businesses to apply a principles-based approach to complying with CSDR and MIFID general objectives, instead of ensuring that the totality of level 1 and level 2 provisions are complied with, even in cases where they are incompatible or maladapted to small firms relying on DLT. Current DLTPR rules, by derogation from MIFID and CSDR, already enabled setting up business models that under the current rulebooks wouldn't be possible, or difficult and costly

to implement.[540] A principles-based rulebook comprised of more general trading and settlement rules may support the development of further new business models. Finally, a more principles-based approach to achieving the objectives of MIFID and CSDR under Pilot may also be needed on proportionality grounds. Many of the businesses interested in participating in the Pilot are small new entrants that seek to gradually scale up their projects.[541] Ensuring that they can comply with a set of rules that appropriately captures the risk profile of their small-scale operations are key for them. Currently this is not the case. Therefore, to support the general objective in 4.1, the proposed measures should ensure that businesses can benefit from a pilot framework that lays down a proportionate compliance burden, creates sufficient flexibility for businesses looking to innovate with DLT, and avoids diverging national practices within a more principles-based Pilot segment.

4.2.2. Removing regulatory barriers to achieving scale and scope of projects and activities under the Pilot

The DLTPR is currently geared towards new entrants wishing to use DLT to set up trading and settlement infrastructures, which are expected to scale businesses gradually. However, to increase attractiveness and legal certainty, the DLTPR should not focus solely on small operations. The lack of possibility to achieve scale has been repeatedly criticised by the market since it can affect the commercial viability of projects from inception. Importantly, limitations to scale and scope also disincentivise large established financial players to enter the Pilot to develop large scale projects. The DLTPR should therefore allow projects to achieve scale and scope. Current regulatory standards of the Pilot are equivalent to those under the standard rulebooks (CSDR, MIFID) and yet they comprise strict limitations to activity (aggregate and product-specific thresholds). These limitations may have been appropriate, based on the principle of precaution, in the early days of DLT-based financial markets. However, the increased maturity and robustness of DLT market solutions and supervisory expertise, together with growing market interest in using the technology, necessitate a policy approach that allows for robustly managed projects under the Pilot to continue to increase activities in case of market demand, while considering the risk profile of a project. Supporting a wide scope of projects under the Pilot is equally important. The current limitations to the types of assets eligible to be intermediated by Pilot participants should be eased, as DLT merely represents a type of technology for issuing, registering and transferring assets, and technological risks can be mitigated as part of the company's operational risk management. On the other hand, product-related risks should and can be mitigated by a proper application of investor protection rules. Finally, it is important to ensure that projects developed under the Pilot do not face legal uncertainty flowing from doubts about the mid-term prospects of the Pilot framework that

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[540] For example, setting up a trading and settlement infrastructure under one licence is not possible under the regular rulebooks, while it has been a sought-after business model under the DLTPR, which explicitly made it possible.

[541] DLT's open source (in most cases), platform-based ecosystem appears to be attracting many small tech-oriented companies that would benefit from a gradual compliance approach as they progressively scale their financial services. Furthermore, creating a size- and technology-adapted regulatory treatment is in line with the Commission's simplification agenda. One of the drivers behind simplification initiatives is precisely to ensure that small businesses benefit from a proportionate compliance treatment. By supporting innovation and a compliance burden adapted to the size of firms, the EU would support the competitiveness of DLT-based infrastructures in the EU.

specifically supports their business models. Where businesses do not have assurances as to the long-term legal feasibility of their projects, this has a chilling effect on entrepreneurship. The current perceived time-limitations of the Pilot therefore represent a barrier to the market and should be expressly addressed.

5. POLICY OPTIONS AND ASSESSMENT

5.1. SPECIFIC OBJECTIVE 1: ENSURE THAT DLTPR LAYS DOWN PROPORTIONATE AND FLEXIBLE REGULATORY REQUIREMENTS FOR BUSINESSES PARTICIPATING IN THE PILOT

5.1.1. Option 1: Baseline – no policy action

No policy action in this area would mean that the Pilot, which is meant to be a flexible DLT-adapted experimental framework, remains largely modelled after CSDR and MIFID, providing only a certain limited number of derogations from the standard rulebooks. This means that the freedom to specialise in only certain (CSD) services remains curtailed and the compliance burden for small fintech elevated, since most of the rules of the standard rulebook remain in application. CSDR in particular remains a high compliance burden to clear for new entrants to the market that want to specialise in certain DLT-based CSD services only or scale up their businesses gradually. Consequently, Pilot participation would remain limited, favouring those potential applicants that are well-capitalised while maintaining higher barriers to entry for smaller participants. This may result in lost innovation potential in the EU at a time when DLT and asset tokenisation are becoming an increasingly important trend affecting market structure and processes. Furthermore, large international financial groups may deploy their DLT solutions outside of Europe, in jurisdictions with frameworks more conducive to cutting edge innovation. This may further compound the lost innovation potential as know how is developed outside the EU and subsequently imported in the EU as a ready-made service when it reaches maturity.

5.1.2. Option 2: Enhance the proportionality and flexibility of Pilot

This option would **establish a special segment within the DLTPR aimed at small-scale businesses; the 'tier 2' segment**. Tier 2 Pilot participants would benefit from additional regulatory flexibility and compliance proportionality with regards to CSDR. In practice, this would mean disapplying and modifying a significant part of CSDR level 2 provisions and reverting to the more generally phrased level 1 obligations. Furthermore, certain detailed requirements in CSDR that develop more general obligations thereunder may also be disapplied or modified, both to increase proportionality and take into account DLT specificities. The result should be a bespoke simplified rulebook for CSD services applicable to small Pilot applicants. The activities of tier 2 would be capped to an amount close to the current cap in the

DLTPR[542], which has already been established as a size-limitation that ensures any operations under it cannot achieve scales that may affect financial stability. Tier 2 would be implemented in two steps. Firstly, DLTPR would lay down the essential features of the tier 2 framework, such as an activity threshold, eligible participants, rules on transitioning to tier 1.[543] Secondly, a subsequent delegated act would disapply parts of CSDR level 2 requirements and modify non-essential provisions of level 1 to achieve proportionality and greater generality of obligations. Furthermore, a similar approach to tier 2 would be taken for MIFID, with regards to trading venues participating in the Pilot. While the greatest market interest and the need for regulatory flexibility relates to CSD services, it is important to future proof the Pilot in case market circumstances change and there is a demonstrable need for regulatory flexibility and proportionality also with regards to trading services.

The general approach of establishing a more principle-based regulatory approach within the DLTPR was supported by the majority of respondents to the SIU targeted consultation, as opposed to solely relying on fixed derogations from MIFID and CSDR. Evidence from supervisory sandboxes as shown by the OECD[544] indicate that proportionate, principles-based approaches and lighter rulebooks for small firms reduce entry barriers while preserving consumer and market safeguards when combined with active supervision. Such an approach was said to have greater flexibility and adaptability to technological innovation, according to respondents. In general terms, a tiered, risk-based approach that distinguishes between large and small Pilot participants was also supported by ESMA in their 2025 DLTPR Report.

This option would directly deliver on the objective of ensuring proportionality and flexibility of the Pilot for small innovative businesses. Firstly, by disapplying parts of level 2 and some provisions of level 1, NCAs would rely on the principles-based obligations of CSDR to approve and supervise firms wanting to provide CSD services. By doing so, they may be able to better take into account the specific business model of a DLTPR applicant and its risk profile. Secondly, by being less constrained by detailed level 1 and 2 rules, the Pilot applicants would have more freedom in organising their activities in new ways. Well-designed proportionate regimes can accelerate learning for both regulators and firms while preserving financial stability as shown by OECD.

Creating the tier 2 segment adapted for small businesses would have direct benefits for DLT innovation in finance. In the area of tech-driven financial innovation it is often small fintechs that create most innovative solutions and put competitive pressure on larger players to follow suit or acquire new entrants, internalising innovation. Therefore, a Pilot segment adapted to small firms that benefit from close NCA support is expected to boost innovation in DLT-based CSD services. This is important, as DLT solutions may upend how CSD services are provided

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[542] This option is assumed to be implemented in conjunction with increasing or removing the thresholds (see options under S02) for those Pilot participants that would comply with the current DLTPR rulebook, which includes level 2 requirements. These participants operating under an increased thresholds would consequently become 'tier 1' participants.

[543] Tier 1 would imply the DLTPR regulatory treatment that is currently applicable to Pilot applicants, which means CSDR and MIFID and their level 2, with the possibility of derogations foreseen in the current DLTPR.

[544] OECD The role of sandboxes in promoting flexibility and innovation in the digital age https://www.oecd.org/content/dam/oecd/en/publications/reports/2020/06/the-role-of-sandboxes-in-promoting-flexibility-and-innovation-in-the-digital-age_ddcd3d40/cdf5ed45-en.pdf

in the future, and therefore it is the new entrants rather than incumbents that may be most incentivised to deploy the technology. Such flexibility aligns with recommendations from the Bank for International Settlements, which emphasised proportional innovation pathways as key enablers for distributed ledger adoption in regulated markets.[545]

Because the legal framework of tier 2 would be more generally phrased, it may lead to divergent regulatory approaches in Member States. This may undermine the principle of a single EU-wide rulebook and lead to regulatory arbitrage. To mitigate these downsides, ESMA should be closely involved, leveraging supervisory convergence tools to ensure a coherent application of the tier 2 framework across the Union.

5.1.3. Option 3: Extensive overview to maximise flexibility and proportionality of the Pilot

This option would establish tier 2 as in option 2, but would additionally include the **possibility for regulated financial entities to obtain a specific licence under the DLTPR for a single DLT-based CSD service** under the Pilot and comply with the requirements related to that service only, which currently is not possible under CSDR nor DLTPR.[546] This service-specific regulation would allow Pilot participants to set up distributed provision of CSD services across a network of specialised service providers. The requirements applicable to each of the core CSD services would mirror, to the extent possible, the obligations related to a particular service in CSDR. CSD service providers would need to, individually and collectively, ensure the same regulatory outcomes required by CSDR, such as integrity of the issuance, robust safeguarding of assets and orderly settlement. Under such service-specific regulation, an eligible entity could within the Pilot obtain a licence to provide the notary function and register securities on DLT. It could provide that service across Europe. Tokenisation platforms that specialise in creating smart-contract-based (tokenised) securities catering to issuer needs may be interested in this service.

Per-service authorisation for CSD services was supported by the majority of respondents to the public consultation, noting that such an approach could enhance technological neutrality of DLTPR, support competition in the area of DLT-based CSD services and provide more flexibility for new business models.

Service-specific regulation supports the first specific objective. Firstly, businesses benefit from a more proportional compliance burden where they can be subject to only those requirements that are relevant for the CSD service provided. This is important because CSD services differ in risk profile. For example, albeit crucial for ensuring orderly management of a particular securities issuance, the risk profile of a notary service is normally much lower than that associated to the settlement service. The latter service may involve liquidity and credit risks that are not inherent in the notary service. This measure may particularly benefit smaller Pilot applicants that may find it easier to initially focus on a single CSD service and expand their offering as they scale up. Secondly, service-specific regulation may enable participants in the issuance and post-trading value chain to organise the provision of CSD services as a network of interconnected entities, on a DLT platform, and not as single CSD entity providing all CSD

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[545] BIS Wholesale central bank money in the context of technological innovation, https://www.bis.org/publ/othp99.htm

[546] Currently, under CSDs under the CSDR are presumed to perform *at least* two core CSD services: operating a settlement system and one other core CSD service (notary and central maintenance service), while often providing all three services.

services on its systems. Such a regulatory approach may unlock new business models, specialisation among intermediaries and more competition in CSD services. Therefore, it directly supports the objective of increasing the regulatory flexibility of the Pilot. Distribution of CSD roles may lead to increased system resilience, eliminating the single point of failure problem of the current centralised CSD model. However, it may also make supervision more difficult, with CSD services provided by a group of entities. To safeguard orderly markets, comingling certain key post-trading services, such as operating a settlement system, with other financial services may need to be prevented. Recognising the specificities of platform-based service provision on DLT but ensuring that risks are appropriately mitigated, this measure would be in line with the general principle of same activity, same risks, same regulatory outcomes.

Finally, this option would also establish a **mechanism to approve derogations from CSDR or MIFID, on requests initiated by the applicants to the DLT Pilot**. Currently, all the derogations from the standard rulebooks made possible under the Pilot are specified in advance, in the DLTPR, without the possibility for Pilot applicants to apply for derogations outside those enumerated in the regulation. However, provisions that are incompatible with the use of DLT, and therefore act as a barrier to innovation, can in practice be best identified in the process of establishing a concrete innovative business model and applying for its authorisation. It is rather difficult for the law to identify in advance which specific provision may not be adapted to an emerging technology and manifold business models that would like to use it. An application-driven derogation mechanism would address this problem. Upon a reasoned request from a DLTPR applicant, non-essential elements of CSDR or MiFID could be derogated from based on their incompatibility with DLT-based provision of services, provided that the objectives pursued by the rulebook derogated from, and its essential elements and principles, are preserved.

5.2. SPECIFIC OBJECTIVE 2: REMOVE REGULATORY BARRIERS TO ACHIEVING SCALE AND SCOPE OF PROJECTS AND ACTIVITIES UNDER THE PILOT

5.2.1. Option 1: Baseline – no policy action

No policy action means that the Pilot maintains the limitations of its current form. Keeping aggregate thresholds applicable to DLT MIs at EUR 6 bn means that projects under the Pilot wouldn't be able to scale. This amount is the rough equivalent of a few large corporate debt issuances or a single sovereign debt issuance.[547] Therefore DLT MIs operating under such caps wouldn't be able to meaningfully service large issuers, reducing the attractiveness of their offering. The threat of breaching thresholds while trying to grow the business may prove to be challenging if not impossible to manage for existing participants, especially if changes to CSDR or MIFID do not mirror the DLT-adapted provisions of the Pilot framework, making transition into the standard framework difficult. Maintaining limits on the scope of products means DLT MIs wouldn't be able to use DLT for issuance, recording and transfer of more complex and less liquid products, hampering innovation in the market segment that may prove to be most conducive to DLT disruption. Finally, failing to address the time-limitation of the Pilot would further deepen market uncertainty about the commercial viability of projects

[547] https://www.bundesbank.de/resource/blob/959424/68c7d4874923350405af4841f2e45cbb/472B63F073F071307366337C94F8C870/2025-06-06-ausschreibung-download.pdf

deployed under the framework. This may disincentivise prospective participants to complete their licencing process, further depressing Pilot uptake.

5.2.2. Option 2: Comprehensive increase of scope and scale

This option would firstly remove the product-specific thresholds, while significantly increasing the aggregate threshold (currently EUR 6 bn), to e.g. EUR 100 billion, but remain limited unlike option 3. This threshold is proposed based on the market data of European CSDs as reported by the ECB[548], and approximately represents the median size CSD in Europe.[549] The increased thresholds would allow Pilot participants to develop economies of scale, increasing business attractiveness of the Pilot, while still maintaining a limit to the size of Pilot activity and therefore mitigating risks, in particular those related to financial stability. To ensure the Pilot provides a pathway to further scaling, a delegated act empowerment would foresee further increasing of the threshold depending on specified market conditions (demonstrated market demand and evidence of limited financial stability or other risks). The delegated act could also be used to revise the threshold downwards, should there be an unforeseen risk build-up in the activity conducted under the Pilot.

The majority of respondents to the public consultation, proposed adapting or removing the limit on the value of financial instruments traded, while some respondents favoured a flexible limit that can be adapted based on industry development and assessment of risks.

Secondly, the scope of eligible assets, currently limited to certain shares, bonds and UCITS, would be extended to all financial instruments. This change would make the Pilot more attractive to a broader range of market participants, including those that specialise in complex assets and less liquid assets (AIFs, complex debt instruments, structured products), and would allow DLT market infrastructures to bring efficiencies to the issuance, trading and settlement of those assets. Industry reports[550] note that DLT adoption is more likely in markets that are today supported by less robust digital infrastructure, such as illiquid funds, OTC derivatives, rather than in liquid, well-functioning markets, such as blue-chip equities and securities funds. Therefore, the value of assets issued and settled on DLT infrastructure may significantly increase as a result of extending the scope of DLTPR. At the same time, the valuation and risk assessment of structured products and bespoke AIFs on DLT platforms may negatively affect current frameworks, as their complexity, limited transparency, and low liquidity make them harder to price, risk-manage, and integrate into existing market infrastructures creating potential contagion risks. To ensure same regulatory outcomes as with traditional markets, MIFID investor protection and market integrity standards and obligations would be fully maintained.

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[548] https://data.ecb.europa.eu/data/data-categories/payment-statistics/securities-trading-clearing-and-settlements/securities-settlements/securities-held-csd-accounts

[549] The European CSD market is highly concentrated, with a few major international players such as Euroclear and Clearstream holding assets valued in the trillions of euros, while the majority of national CSDs manage much smaller portfolios, typically ranging from a few billion to several hundred billion euros. This creates a highly skewed distribution, where the smallest CSDs hold around EUR 3 billion in assets, the median CSD manages around EUR 80 billion, and the average around 2 trillion caused by the outsized holdings of the largest CSDs, which hold assets over EUR 20 trillion each. The average and median can vary how the missing data is considered for some of the national CSDs and whether the two largest CSDs' national entities (Euroclear and Clearstream) are handled separately or together. The proposed EUR 100 billion threshold corresponds to the median increased by EUR 20 billion to consider expected increase in market volumes.

[550] Impact of Distributed Ledger Technology in Global Capital Markets, BCG, GFMA et al, 2023.

Participants in the public consultation overwhelmingly supported the broadening of the scope of eligible assets, suggesting including categories that range from tokenised physical assets to all types of stocks and all financial instruments under MiFID. In particular, respondents emphasised the inclusion of AIFs, Euro Medium Term Notes and derivatives to increase the attractiveness for institutional and professional investors, as long as investor protection measures from MiFID are maintained.

Thirdly, neither the DLTPR nor the authorisations granted under it would have an expiration date, with the specific objective of providing the market with legal certainty for long-term investments in projects under the Pilot. It would be clarified that DLTPR would continue indefinitely but remain in pilot or sandbox form with certain limitations. As such it would remain a regime that would evolve in light of market developments and needs towards a stable state framework. Once sufficient learnings from participating projects are gathered, it would be supplanted by a stable state framework for the use of DLT in financial services. The future stable state rulebook would make sure that successful pilot projects would be able to continue functioning under it, minimising disruption for existing projects. This combination of elements - the lack of any time-limitation on one hand and the continuation of DLTPR as a pilot framework on the other – would precisely reflect the need to support legal certainty and commercial viability of Pilot projects, while recognising that it is too early to transition the pilot into the standard rulebooks. Once the market reaches maturity (less subject to change) and more information and experience are gathered from concrete projects, a transition would occur into a stable state rulebook without any limitations.

Respondents to the public consultation believed that removing the limited duration of DLTPR licenses would be critical for long-term business planning and investment, as it would reduce regulatory uncertainty and align the EU with international practices.

Finally, the set of eligible participants would be expanded to include CASPs holding a licence to operate a trading venue and credit institutions. However, other financial service providers would not be eligible to use the DLTPR unlike under option 3. The impacts of allowing credit institutions into the Pilot are discussed under option 3. Crypto-asset trading venues are operationally and functionally similar to investment firms operating an MTF, which are currently eligible for the DLTPR. By bringing CASPs licenced to operate trading venues under the scope of the DLT Pilot Regime, the EU would foster innovation in tokenised financial instruments, thereby broadening the DLT ecosystem. As businesses that already heavily leverage DLT, CASPs could use their existing tech stack and operational solutions for issuance, trading and settlement of DLT financial instruments, leading to economies of scope. Their inclusion would enable both retail and institutional investors to access tokenised securities and other financial instruments through familiar crypto platforms, increasing market participation and liquidity. Moreover, the presence of CASPs in the Pilot can drive competition, potentially lowering costs, improving service quality, and accelerating product development in the digital asset space.

At the same time, including CASPs introduces certain risks. The prudential, governance and organisational requirements applicable to CASPs may not be adapted to the more complex business model that could emerge under the Pilot, covering trading and CSD services in financial instruments. MiCA regulation is a relatively new framework, and CASPs authorised under it are relatively new entrants to the EU's financial markets. Furthermore, partly due to insufficient regulation prior to MiCA, crypto-asset markets have been prone to high volatility and operational and governance failures of businesses operating in them. Allowing CASPs to expand their services to financial instruments through the Pilot would likely lead to greater interconnectedness between crypto-asset markets and traditional markets. However, by

comprehensively regulating CASPs and stablecoins, MiCA made sure that connections between CASPs and traditional financial intermediaries are safe and follow a clear rulebook. Furthermore, national authorities may face challenges in ensuring consistent and effective oversight, increasing the risk of regulatory arbitrage. Large CASPs with significant market presence may pose increased risks to financial stability where they, under the Pilot, achieve scale in services related to DLT financial instruments, requiring enhanced scrutiny and coordination among EU supervisors.

The regime's limited scope would continue to enable controlled experimentation with DLT in financial markets, minimising systemic risk. Restricting participation to banks and CASPs, alongside the currently eligible entities, would keep the regime focused and manageable, allowing supervisors to effectively assess risks and benefits before considering broader expansion. Broadening access to a wider range of financial service providers could introduce operational, financial, and cyber risks that are more difficult to monitor and control—especially in a framework that grants exemptions from core EU financial regulations. Limiting eligibility to these well-regulated institutions ensures that systemic and operational risks—such as settlement failures, cyberattacks, or operational disruptions—are managed by entities with proven risk management capabilities. Other financial service providers, such as asset managers, payment institutions, crowdfunding platforms, or fintechs, may have a core activity that would be less relevant for testing DLT infrastructure, and they may lack the necessary infrastructure, experience, or regulatory oversight to safely operate critical market infrastructure at this stage. However, while the cumulation of their core activity and that of operating a DLT MI may have downsides, there may be advantages to allowing a wider set of financial entities, beyond certain CASPs and banks, to provide specific CSD services as discussed in option 2 related to the specific objective 1.

5.2.3. Option 3: Removing limitations and maximising scope of eligible participants

Like in option 2, the scope of assets would be extended to all financial instruments. Like in option 2, option 3 would eliminate the current limited duration of DLTPR authorisations and clarify that there is no expiration date to the Pilot.

Furthermore, this option would entail removing entirely the product-specific[551] and aggregate thresholds[552] applicable to Pilot applicants. This means that DLT market infrastructures could admit to trading or record financial instruments without any limitations on the total value, which is currently limited to EUR 6 billion. By doing so, it would allow for a more flexible and adaptable approach to the development of DLT-based market infrastructures, attracting in particular large financial entities, such as banks and CSDs and enable larger issuances that could better respond to increasing market demand for tokenisation. This would avoid DLT MIs needing to refuse applications for recording or admitting to trading, stunting growth, and also avoid current cliff-effect obligations to pause or wind down operations once their activities reach the legal cap. The elimination of the ceiling would support the commercial viability of large projects, facilitate business development and develop economies of scale that improve

[551] Article 3(1) DLTPR.
[552] Article 3(2) DLTPR.

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efficiency. However, to mitigate payment-related risks limits would be introduced, such as transaction-based limits, on the amount of settlement that can take place in commercial bank money through a regular (non- Title IV[553]) bank and in electronic money tokens. This would help to mitigate potential credit and market risks associated with the use of private money for settlement (especially in stress situations), while still allowing for the benefits of increased settlement efficiency stemming from the use of on-chain money.

Finally, to ensure diversity of participation, scope of eligible participants would be expanded beyond the eligible investment firms and CSDs to include a very wide set of financial service providers, which would undergo a risk-based licencing procedure to expand their service offering into DLT-based trading and CSD services governed by the Pilot. These institutions could for example include CASPs operating a trading venue, credit institutions, asset managers, payments institutions, central counterparties (CCPs) and authorised crowdfunding service providers. These entities would not be required to get any additional financial entity licence to participate in the Pilot, but rather be allowed to expand their service offering into DLT-based trading and CSD services under the condition of complying with the relevant requirements of MIFID and CSDR. This change would increase the diversity of participation in the Pilot and would enable a broader range of entities to combine DLT-based trading and CSD services with their current service offering, unlocking new business models.

Specifically, CASPs that operate a trading venue could leverage their DLT expertise and existing technological solutions applied to (MiCA) crypto-assets to establish DLT-based trading and settlement systems for financial instruments. Adding credit institutions would come with the benefit of bringing significant expertise, capital, and client networks, supporting liquidity and trust in DLT-based market infrastructures. Credit institutions can also integrate DLT-based settlement with traditional banking and payment services, promoting interoperability and smoother transitions for clients. Direct access to DLT infrastructures would allow asset managers to innovate in fund tokenisation and distribution, potentially increasing efficiency and transparency for end investors. DLT would enable payment institutions to move money and assets on the same rails, the DLT platform, and therefore intermediaries on both sides of the rails would be able to provide services of operating a trading venue and CSD services. CCP's participation would allow a more seamless testing of the interoperability of the clearing and the DLT-based settlement infrastructure. It would also comprehensively support clearing and settlement of derivatives. Crowdfunding platforms, currently limited to primary markets, would be able to create secondary markets, further supporting SME access to capital markets and diversifying investor base while leveraging DLT for more transparent, efficient, and cross-border fundraising.

At the same time, large-scale involvement of banks could amplify systemic risks if DLT-based infrastructures experience failures, given banks' central role in the financial system. Crowdfunding platforms and CASPs, subject to substantially simpler and lighter prudential requirements than banks, may struggle with risk management and resilience, especially in volatile markets. Involving asset managers could blur the distinction between infrastructure providers and users, complicating governance, risk management, and regulatory oversight as their core function is investment management not running infrastructures. Including payment institutions could introduce interoperability and coordination challenges when different infrastructures are used for moving money around. CCPs are systemically important and

[553] Special-purpose credit institutions authorised in accordance with Title IV of CSDR to provide banking services to CSDs.

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experimenting with their core functions could introduce systemic vulnerabilities if not carefully controlled.

Accordingly, while the broader scope of participants would expand the scope of innovation on DLT, it could also widen systemic risks if DLT infrastructure experience operational failures, cyberattacks, or other disruptions. However, the latter risks would be mitigated though the application of DORA.[554] The interconnectedness of larger entities may exacerbate contagion effects in the financial system. Ensuring effective oversight of larger, more complex infrastructures may require additional resources and expertise. Expanding the Pilot as set out under this option would broaden the set of financial service combinations participants could engage in, increasing the risk of regulatory arbitrage, conflicts of interests and contagion risks. This would necessitate adequate regulatory mitigants.

Larger DLT infrastructures would face increased compliance and operational costs, including the need to prepare more comprehensive documentation for regulatory approval and ongoing reporting requirements. Investments in technology, cybersecurity, and risk management frameworks would be necessary to handle higher transaction volumes and more complex operation.

5.3. COMPARISON OF POLICY OPTIONS

5.3.1. Specific Objective 1: Proportionate and flexible regulatory requirements

As regards specific objective 1, both option 2 and option 3 would establish a tier 2 segment of the Pilot which would allow small participants to benefit from a proportionate compliance burden and regulatory flexibility under the changed DLTPR, in line with specific objective 1.

Nevertheless, option 3 is notably more effective than option 2 in achieving the specific objective since its service-specific approach to regulating CSD services and application-driven derogations from standard rulebooks would grant additional flexibility for experimenting with new business models and intermediary roles on DLT – not just for small entities but also large ones. It is also more effective than option 2 in supporting compliance proportionality by, in addition to size-based tiering, allowing entities that wish to specialise in a specific CSD service to be subject to requirements tailored to those individual services, rather than being subject to the full set of CSDR requirements.

In terms of efficiency, option 3 would rank somewhat lower than option 2 as it would entail slightly more costs and risks. Indeed, service-specific licencing of CSD services would be novel, with the outcome that these services could be performed by a group of non-CSD entities. This may require NCAs to invest more resources to ensure robust supervision of new business models set up as networks of intermediaries that span multiple jurisdictions. However, incremental supervisory costs would likely be minor and manageable within existing resource frameworks, since most oversight relies on pre-existing supervisory structures and thus the cost benefit ratio of a broader market participation would be favourable. Digitalisation tends to reduce per□transaction oversight costs over time therefore, potential increases in short□term supervisory

[554] Regulation (EU) 2022/2554 on digital operational resilience for the financial sector.

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effort should not be regarded as a barrier to innovation or as a justification to delay the deployment of DLT□based infrastructures in regulated markets.

There may be a need for closer involvement of ESMA in supervising networks of CSD service providers, where post-trading value chains may end up being more distributed and complex, albeit potentially more efficient.[555] However, easier auditability of blockchains – as the technology provides transparent, immutable, and cryptographically verifiable records - compared to non-cryptographically secured ledgers may facilitate supervision. Service-specific licencing may increase operational risks of CSD services where networks of providers rather than a centralised provider (traditional CSD) need to coordinate on DLT to ensure issuance, account and transfer services. The increased operational risks could be somewhat offset by the heightened resilience of a distributed post-trading ecosystem. Conversely, option 2 would entail somewhat less costs and risks as business models (centralised CSD) and associated risks and supervisory procedures remain unchanged, but with more limited benefits for DLT-based innovation.

Option 3 ranks notably higher in terms of coherence than option 2. Both option 2 and 3 are in line with the Commission's Digital Finance Strategy[556] and its explicit support for the deployment of new technologies in financial services. However, option 3 represents a significantly more ambitious adaptation of the existing rulebook to accommodate new technologies, i.e. DLT, as it allows service specialisation in line with the specificities of the technology as well as derogations from the established rulebook upon duly motivated requests by applicants. Furthermore, both option 2 and option 3 support the Commission's simplification agenda by establishing a compliance-proportionate framework for small innovative businesses. By additionally introducing a service-specific licencing for CSD services, option 3 is even more aligned with the simplification agenda as it would enable specialised entities to benefit from risk-based licencing, leading to a more proportionate and ultimately simplified regulatory framework. On the negative side, service-specific licencing of option 3 would be available only to DLTPR applicants, and not under the general CSDR framework, which may lead to regulatory arbitrage, making option 3 rank lower from the perspective of coherence with the general CSDR rulebook. This is somewhat offset by the precise objective of the DLTPR to provide a dedicated pilot framework separate from CSDR to accommodate and enable uptake of DLT, while still ensuring the same regulatory outcome as CSDR.

Based on these considerations the preferred option for the specific objective 1 is option 3.

5.3.2. Specific Objective 2: Remove regulatory barriers to achieving scale and scope of projects and activities under the Pilot

With respect to specific objective 2, both option 2 and 3 are effective as they broaden the asset scope to all financial instruments and remove the expiration of the Pilot, thereby establishing a broader and more stable and forward-looking framework.

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[555] Supervision may also shift to ESMA according to the criteria set out in the Annex on supervision for certain CSD services, such as the settlement service.

[556] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020DC0591

Option 3 is slightly more effective than option 2 in meeting the specific objective. This is because it removes aggregate and product-specific limits applicable to assets intermediated by Pilot participants, making it more effective in allowing DLT market infrastructures to scale without constraints and with a high degree of legal certainty. All this would support the commercial viability of large and diverse projects, encourage participation from major players such as banks and CSDs, and foster innovation and long-term investment. A larger set of eligible participants to the Pilot in option 3 could attract wider variety of projects from broader parts of the financial industry under the Pilot. Nonetheless, option 2 comprises a sufficiently large (around EUR 100 bn) limit that is upwardly revisable via a delegated act, based on market circumstances. This approach may be sufficiently flexible to cater for the observed incremental growth of tokenised markets, making the net effectiveness of option 2 in achieving the specific objective 1 only slightly lower compared to the unbounded version of the Pilot proposed in option 3.

Option 3 is less efficient than option 2, as the removal of thresholds and limits to the scope of eligible participants introduces higher financial and operational risks, increases supervisory complexity, and raises compliance costs for both firms and regulators. Conversely, option 2 with its aggregate thresholds that can be revised in view of market developments and based on concrete Pilot experience, entails less systemic risks, as the amount of activity is limited, and can only be increased after assurances that risks within DLT MIs are well-managed. By allowing a smaller set of eligible entities to participate in the Pilot, option 2 keeps the supervisory costs more limited as the breadth of services and licences that can be cumulated by Pilot participants remains narrower compared to option 3. Stricter Pilot participation rules also limit the risks stemming from comingling certain financial services (e.g. asset management, payments, brokerage) with services in scope of the Pilot. All this makes option 2 significantly more efficient than option 3.

Option 3 of converting the Pilot into a framework with an unlimited thresholds and wide market accessibility would align less well than option 2 with one of the priorities of the Commission Digital Finance Strategy – ensuring that the EU regulatory framework facilitates digital innovation in the interest if consumers and market efficiency.[557] As noted in the Strategy, 'faster, more open and collaborative innovation cycles call for regular examination of and adjustments to EU financial services legislation and supervisory practices, to ensure that they support digital innovation and remain appropriate and relevant in evolving market environments'. Business models and practices related to the use of DLT in financial services are fast-evolving and iterative. For example, parts of the market are keen on using permissioned distributed ledgers (platforms open solely to authorised members) while others build on permissionless distributed ledgers (platforms open to all). Therefore, policymakers need to learn more about the risks and benefits of DLT implemented into financial markets at scale to comprehensively gauge impacts for consumers and markets. In other words, DLT-specific rules should evolve with the maturity and scale of DLT-based financial market infrastructures, which is better reflected in option 2. Relatedly, this option would not be coherent with the objectives of the SIU to support the deployment of new technologies that can enhance market efficiency, as it would turn the Pilot into an unlimited framework at a time when learnings from concrete

[557] See section 4, at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020DC0591

DLT-based projects are still scarce. Conversely, option 2, with its revisable caps for Pilot activity, would be more coherent with one of the core aims of the DLT Pilot - to gather policy learnings, within a controlled framework, for the purpose of developing a more comprehensive and stable rulebook. Finally, option 2 is more coherent with the preferred option under specific objective 1, to increase the proportionality and flexibility of regulatory requirements. These objectives are more easily attainable within a Pilot that is subject to certain overall activity limits as opposed to within an unbounded regime.

Based on these considerations the preferred option for the specific objective 2 is option 2, as it is significantly more efficient than option 3, while being only slightly less effective and much more coherent with other policies pursued by the Commission.

5.3.3. Comparative table

Table 1. Comparison of options

Option	Effectiveness	Efficiency (cost-effectiveness)	Coherence	Overall score
Option 1: Do nothing	0	0	0	0
Specific objective 1				
Option 2 – Tier 2	+	++	+	+
Option 3 – Tier 2 + enhanced flexibility	+++	+	+++	++
Specific objective 2				
Option 1: Do nothing	0	0	0	0
Option 2 – Expanded scope & scale	++	+++	++	++
Option 3 – Unbounded parallel regime	+++	+	0	+

Magnitude of impact as compared with the baseline scenario (the baseline is indicated as 0): +++ very positive, ++ positive; + slightly positive; – – – very negative; – – negative; slightly negative 0 no effect +/- mixed effect;

ANNEX 11: SECTORAL ANNEX ON SUPERVISION

1. INTRODUCTION

This Annex explores a set of targeted policy measures aimed at strengthening the functioning and effectiveness of the European supervisory framework for capital markets, in particular by enhancing the role of the European Securities and Markets Authority ('ESMA'). The document focuses on four key areas that are critical to ensuring a more integrated, resilient, and efficient EU capital markets.

First, it examines options for expanding ESMA's direct supervisory responsibilities in the trading, post-trading and crypto assets space. This includes a more active role in the supervision of critical market infrastructures such as Central Counterparties ('CCPs'), Central Securities Depositories ('CSDs') and certain trading venues, as well as establishing a framework for enhanced supervisory coordination of cross-border asset management groups and of cross-border distribution of investment funds and increasing ESMA's role in the supervision of crypto asset service providers ('CASPs'). These changes aim to address supervisory fragmentation, enhance financial stability, and ensure consistent implementation of EU rules. These sectors, although critical for the integration of capital markets, are not subject to the same degree of harmonisation, legally, but also in terms of single rule book and supervisory convergence. They also differ with regard to relevance, concentration and risks, in particular cross-border. Therefore, the options envisaged for the respective sectors are not uniform but take into account these differences.[558]

Second, the assessment addresses necessary adjustments in governance, linked to the expansion of ESMA's supervisory powers. It considers changes that would ensure efficiency of decision-making, transparency, and operational independence to align the governance with ESMA's strengthened role.

Third, the assessment considers necessary changes to strengthen supervisory convergence, improving the incentives for the use of supervisory convergence tools, addressing current limitations in the available tools and proposing new mechanisms to better coordinate and support national supervisors.

Finally, the document looks at funding options to support these extended responsibilities. The goal is to secure a financing model that is both adequate and sustainable, ensuring that ESMA has the resources needed to fulfil its new mandates without creating undue burdens on national authorities.

The analysis presented here explains why strengthening the European supervisory framework for capital markets is needed to achieve the objectives of the Savings and Investments Union,

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[558] This is also in line with Demarigny F. Thomadakis A., A supervisory efficiency test for EU financial markets: Taking an operational approach to integration and oversight, ECMI Policy Brief no 44 | June 2025, eu_supervisory_efficiency_policy_brief_n_44.pdf.

and then evaluates the potential benefits, risks and costs of the proposed measures. It is backed by broad stakeholder outreach including a dedicated public consultation[559]. It is also supported by research from the landmark reports by Enrico Letta[560] and Mario Draghi[561] on the future of EU capital markets and European competitiveness, respectively, as well as broad agreement in policy papers and academic literature[562], including by Bruegel's Nicolas Veron[563], and CEPS' Fabrice Demarigny and Apostolos Thomadakis[564]. Similar conclusions regarding a more centralised system of capital market supervision in Europe have also been drawn by global economic governance bodies, including the OECD[565] and the IMF.[566]

2. DESCRIPTION OF MARKET / ENVIRONMENT

Harmonised supervision ensures that all financial market participants are treated equally and that supervisory decisions are consistent, no matter where they are taken. This approach eliminates inefficiencies in supervision, reducing costs for investors and boosting their confidence in capital markets. Ultimately, harmonised supervision facilitates market integration which is essential to foster a robust Single Market and ensure the competitiveness of EU capital markets. In his report on the future of European competitiveness, Mario Draghi directly references the lack of a single securities supervisor and the high degree of variation between supervisory practices as the first of three main fault lines to build a unified market for capital in Europe.[567] Similarly, Enrico Letta specifically highlights the need for a robust and standardised supervisory framework to facilitate capital market integration.[568]

With a few exceptions[569], EU capital markets are currently supervised at national level. At EU level, ESMA and others (e.g. ECB, EBA, ESRB) are involved to varying degrees, depending on the specific sector in question. In the current framework, supervisory practices often differ from one Member State to another for a variety of reasons, including local market specificities,

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[559] Targeted consultation on integration of EU capital markets 2025 - European Commission.
[560] https://www.consilium.europa.eu/media/ny3j24sm/much-more-than-a-market-report-by-enrico-letta.pdf.
[561] https://commission.europa.eu/topics/eu-competitiveness/draghi-report_en
[562] See for example Beck, T., B. Bruno and E. Carletti, 2024. Can the Banking Union foster market integration, and what lessons does this hold for Capital Markets Union? Briefing paper for the ECON Committee at the European Parliament; Langenbucher, K. (2024). Rückgang börsennotierter Unternehmen: Gründe und rechtliche Gegenmaßnahmen, Zeitschrift für Unternehmens- und Gesellschaftsrecht forthcoming, Friedrich, J. and M. Thiemann (2017). "Capital Markets Union: the need for common laws and common supervision." Vierteljahrshefte zur Wirtschaftsforschung 86(2): 61-75, https://doi.org/10.3790/vjh.86.2.61. Bebchuk, L. (1992). Federalism and the Corporation: The Desirable Limits on State Competition in Corporate Law. Harvard Law Review 105(7): 1443-1510, https://doi.org/10.2307/1341744.
[563] https://www.bruegel.org/sites/default/files/2025-06/Bruegel%20Blueprint%2035.pdf.
[564] https://cdn.ceps.eu/wp-content/uploads/2025/06/EU-supervisory-efficiency-Policy-Brief-n-44.pdf.
[565] https://www.oecd.org/content/dam/oecd/en/publications/reports/2025/07/oecd-economic-surveys-european-union-and-euro-area-2025_af6b738a/5ec8dcc2-en.pdf.
[566] Euro Area Policies: 2025 Annual Consultation-Press Release; Staff Report; and Statement by the Executive Director for Member Countries.
[567] https://commission.europa.eu/topics/eu-competitiveness/draghi-report_en.
[568] https://www.consilium.europa.eu/media/ny3j24sm/much-more-than-a-market-report-by-enrico-letta.pdf.
[569] Trade repositories, securitisation repositories, credit rating agencies, data reporting service providers, consolidated tape providers, third country benchmarks administrators, and in the future benchmark administrators that endorse non-EU benchmarks are under ESMA's supervision.

level of resources and expertise of national competent authorities ('NCAs'), as well as differing supervisory approaches (e.g. legalistic vs. data-driven or risk-based). While in some instances flexibility and adaptation to local specificities can be beneficial, most of these divergent national supervisory practices result in market fragmentation, an unlevel playing field, operational uncertainty, and increased costs for cross-border activities. Demarigny and Thomadakis' report[570] references these operational issues as hurdles to achieving the necessary continuous innovation of capital markets, noting that the continued reliance on NCAs "has created a fragmented supervisory landscape that undermines the ambitions of the Capital Markets Union and the SIU." At the same time, supervision of cross-border entities by several NCAs could benefit from a greater coordination, transparency and more effective information and data sharing or more centralised supervision, depending on the sector. This would also ensure a more holistic approach to the monitoring of systemic risks.

The input received from stakeholders in the public consultation consistently highlights that the current EU financial market environment is characterised by persistent fragmentation due to divergent national laws and varying supervisory interpretations of EU rules. This fragmentation is reinforced by gold-plating, inconsistent authorisation and enforcement practices[571], and divergent supervisory priorities among NCAs. Several stakeholders point to differing supervisory approaches as barriers to integrated capital markets, which hampers innovation and competition. In addition, they underline that fragmented rule implementation generates operational complexities and increased costs for firms operating cross-border, creating an uneven playing field. Similarly, they stress that national authorities developing their own supervisory practices lead to inconsistent application of the single rulebook, thereby perpetuating market inefficiencies and legal uncertainty for cross-border businesses. Christian Noyer, in his report on "Developing European Capital Markets to Finance the Future"[572] on behalf of the French DG Trésor, specifically references these inefficiencies as maintaining the single market for capital as a theoretical concept, and highlights that "the situation severely limits the benefits that European groups in the financial services sector can reap from the single market". Similarly, the German Council of Economic Experts states in its annual report 2023/24 that fragmentation due to differences in implementation of rules, leads to companies facing increased bureaucratic burdens if they operate in different countries, require legal expertise for each jurisdiction, and may have to adapt their products and services.[573]

Existing coordination mechanisms at EU level have achieved a certain degree of convergence of supervisory practices. They remain however deficient for reasons of design and of missing incentives inherent to the governance set-up of ESMA.[574] Reinforcing the incentives to use supervisory convergence tools and ESMA's powers, like breach of Union law procedure, binding mediation etc, are key measures to achieve more harmonised supervision, while

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[570] https://cdn.ceps.eu/wp-content/uploads/2025/06/EU-supervisory-efficiency-Policy-Brief-n-44.pdf.

[571] ESMA's consolidated sanction report showing striking discrepancies in national enforcement activities. (ESMA43-1527801302-1333 Report on Sanctions and measures imposed under AIFMD, BMR, CSDR, ECSPR, EMIR, MAR, MiCA, MiFID II - MiFIR, PR, SFTR and UCITS in 2023).

[572] Developing European capital markets to finance the future | Direction générale du Trésor.

[573] German Council of Economic Experts, Annual Report 2023/24, Wachstumsschwäche überwinden – In die Zukunft investieren. https://www.sachverstaendigenrat-wirtschaft.de/fileadmin/dateiablage/gutachten/jg202324/JG202324_Gesamtausgabe.pdf" \l "page=246.

[574] ESMA's consensus-driven model led by NCAs creates conflicts of interest and discourages assertive action due to the need to find majorities among NCAs for converging supervisory practices of those same authorities.

maintaining NCAs' strong involvement and proximity to the supervised markets. In some cases, these tools are difficult to use, or their application may be hindered by procedural constraints. To address these shortcomings, a list of potential enhancements has been identified, with a focus on those that are likely to have the maximum impact.

The SIU Communication[575] identifies more harmonised supervision as one of the main objectives of the SIU. Together with a reinforced single rulebook, more harmonised and more efficient supervision can contribute to market integration by eliminating barriers to cross-border activity linked to divergent application of the rules and duplication of requirements, by creating a level playing field for market participants and thereby fostering investor confidence.

3. ASSESSMENT OF PROBLEMS AND NEED TO ACT

3.1. DESCRIPTION OF CURRENT STATE OF PLAY

3.1.1. CSDs

There are 25 CSDs authorised in the EU under the CSD Regulation ('CSDR')[576], each offering services with respect to varying scopes of instruments and currencies with little competition between them up to now, reinforcing the level of fragmentation of EU markets. As a comparison, the US has one CSD, DTCC, for the entire US stock market, serving a single currency. In addition, there are 6 CSDs operated by central banks which offer services related to the national debt issuance of the Member States those CSDs are authorised in. Those CSDs are currently out of the scope of a significant number of the CSDR requirements, including those related to supervision. Additionally, a large number of transactions are settled via settlement internalisers (mainly banks) ('SI'). According to recent data, settlement internalisers have been processing higher volumes and values of transactions in equity instruments compared to CSDs. For this type of securities, internalised settlement volumes were over five times higher than those of CSDs in 2024. At the same time, the picture is considerably different for fixed income instruments, with settlement internalisers processing approx. 60% of CSD volumes and values. EU stakeholders (mainly CSDs) have raised the issue that this creates an unlevel playing field when they provide the same services under less strict rules.[577]

Several integrated post-trade services groups[578] operate in the EU. Three of those groups (Euroclear, Deutsche Börse and Euronext) hold 93% of the EU assets under custody and are responsible for 96% of the EU settlement turnover in CSDs.

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[575] 13085856-09c8-4040-918e-890a1ed7dbf2_en.

[576] Regulation (EU) No 909/2014 of the European Parliament and of the Council of 23 July 2014 on improving securities settlement in the European Union and on central securities depositories and amending Directives 98/26/EC and 2014/65/EU and Regulation (EU) No 236/2012 (OJ L 257, 28.8.2014, p. 1. ELI: http://data.europa.eu/eli/reg/2014/909/oj).

[577] Under the CSDR, settlement internalisers are only required to report to their competent authorities, on a quarterly basis, the aggregate volume and value of all securities transactions that they settle outside of a CSD.

[578] Euroclear (operating an international CSD (ICSD), Euroclear Bank, and national CSDs in Belgium, Finland, France, Ireland (Euroclear Bank is the issuer CSD for Irish securities), Netherlands, Sweden and the UK).

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The supervision of CSDs is currently carried out by NCAs.[579] CSDR Refit[580], which is still in the process of being implemented, introduced a college of supervisors for CSDs of substantial importance in at least two host Member States[581], which is comprised of NCAs, ESMA and of relevant authorities, including the European System of Central Banks ('ESCB').

Lastly, it should be mentioned that T2S, a pan-European central settlement platform operated by the ECB, provides an important service in the settlement layer. It does not constitute a CSD and it is thus not subject to CSDR requirements. It is however subject to oversight by the European Central Bank ('ECB').

3.1.2. CCPs

There are 14 CCPs that have been authorised in the EU under the European Market Infrastructure Regulation ('EMIR').[582] Their supervision is currently carried out by their NCAs[583], which are responsible for day-to-day oversight, including authorisation and extension of services; risk management requirements (e.g. margin models, default funds); operational risk management standards; review of interoperability arrangements. For key decisions (authorisation, risk model changes, annual reviews, stress tests, etc.), NCAs must consult a college of supervisors (CCP college), which includes ESMA, ECB, the relevant central banks of issue, supervisory authorities of major clearing members and linked trading venues/CCPs. The NCAs submit their draft decisions/reports to the CCP college and to ESMA's CCP Supervisory Committee[584] for non-binding opinions[585] before adopting such acts. Regarding the granting of authorisation or extension of the CCPs authorisation, where NCAs opt not to follow those opinions, the NCA must (i) include a fully reasoned explanation of any significant deviation from the college's opinion and (ii) explain to the ESMA Board of Supervisors why they chose to deviate from ESMA's opinion. The NCA also needs to take into account ESMA's

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Euronext (operating national CSDs in Portugal, Denmark, Norway and Italy), Deutsche Börse (operating an ICSD, Clearstream Luxembourg, the national CSDs in Germany and Luxemburg) and Nasdaq (operating the CSDs for Lithuania, Latvia, Estonia and Iceland).

[579] There can be up to three national authorities for some CSDs.

[580] Regulation (EU) 2023/2845 of the European Parliament and of the Council of 13 December 2023 amending Regulation (EU) No 909/2014 as regards settlement discipline, cross-border provision of services, supervisory cooperation, provision of banking-type ancillary services and requirements for third-country central securities depositories and amending Regulation (EU) No 236/2012.

[581] Under the RTS submitted to the Commission by ESMA 7 CSDs in 5 Member States would be required to establish colleges. According to ESMA's simulations on 2024 data set out in the draft RTS, the CSDs that would have to establish colleges are: Euroclear Bank (Belgium), Clearstream Banking AG (Germany), Monte Titoli (Italy); Nasdaq CSD SE (Latvia); Clearstream Banking S.A. (Luxembourg) and Euroclear Sweden. However, this data will have to be collected and calculated again once the obligation to set up colleges under CSDR Refit kicks in. The table which includes the simulation and the data on which MS each CSDs is of substantial importance in can be found at page 84 of the ESMA Final Report ESMA74-2119945925-1951 Final Report on Draft RTS on the Substantial Importance of CSDs.

[582] Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories (OJ L 201, 27.7.2012, p. 1. ELI: http://data.europa.eu/eli/reg/2012/648/oj).

[583] There can be up to three national authorities for some CCPs.

[584] ESMA's CCP Supervisory Committee is composed of three independent members (including the Chair), of the NCAs of all EU CCPs and the Central banks of issue of the currencies of the financial instruments cleared by the EU CCPs (the latter ones are non-voting).

[585] With the exception of the granting/extension of authorisations where a "joint opinion by mutual agreement" of the CCP College would not allow the NCAs to grant/extend the authorisation of the CCP.

opinion before adopting its decision on the approval of the CCP's interoperability arrangements. The only exception to this supervision by the NCAs is the validation of changes to a CCP's risk models or parameters which must be validated by both the CCP's NCA(s) and ESMA.

3.1.3. Trading Venues

The landscape of trading venues in the EU reflects the implementation of MiFID I[586] in 2007 and MiFID II[587] and MiFIR[588] in 2018, which significantly reshaped it by introducing, alongside Regulated Markets (RMs), Multilateral Trading Facilities (MTFs) and Organised Trading Facilities (OTFs). As result, as shown in Figure 1, around 314 trading venues[589] (including 119 regulated markets) currently operate in the EU. Smaller exchanges serve niche markets[590] or regions and some exhibit shallow liquidity, whereas several large trading venues or groups of trading venues are active in various asset classes and/or operate across borders.

Figure 1: Trading venues landscape in the EU

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[586] Directive 2004/39/EC of the European Parliament and of the Council of 21 April 2004 on markets in financial instruments amending Council Directives 85/611/EEC and 93/6/EEC and Directive 2000/12/EC of the European Parliament and of the Council and repealing Council Directive 93/22/EEC (OJ L 145, 30.4.2004, p. 1. ELI: http://data.europa.eu/eli/dir/2004/39/oj).

[587] Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU (recast) (OJ L 173, 12.6.2014, p. 349. ELI: http://data.europa.eu/eli/dir/2014/65/oj).

[588] Regulation (EU) No 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Regulation (EU) No 648/2012 (OJ L 173, 12.6.2014, p. 84. ELI: http://data.europa.eu/eli/reg/2014/600/oj).

[589] Based on MiFID dashboard. Trading venues are identified at segment MIC level, which typically distinguish different trading systems and/or different financial instruments. This means that the same market operator may operate several trading venues using different trading systems and/or specialised in different financial instruments.

[590] Examples comprise venues that specialise on SME financing, commodities derivatives trading or crypto.

Source: ESMA's data

The EU supervisory framework applicable to trading venues is also based on the MiFID II and MiFIR frameworks. MiFID II is transposed in national law, sometimes with important differences. In practice, the rulebook is enforced by national, sometimes regional, supervisors, with the result that each market is being regulated and supervised locally, despite being part of a single market. Schematically, the supervision of trading venues can be broadly distinguished between (i) the supervision of the market operator operating a regulated market, or of the market operator or investment firm operating an MTF or an OTF, and (ii) the supervision of the market itself and the trading activity that takes place therein. The earlier relates to supervisory powers such as the initial authorisation of the trading venue and ongoing supervision to ensure compliance with requirements as regards, for example, the organisation, management and governance of the market operator or investment firm, trading processes, risk management, control and resilience systems (for example, on outsourcing), as well as rules and procedures to ensure fair and orderly trading. The latter links with supervisory powers such as trading halts or the power to limit traders' exposures in certain events (e.g. risks to financial stability and market confidence), as well as powers to detect, investigate and possibly intervene (e.g. via sanctions) in case of threats to market integrity rules as defined in the Market Abuse Regulation ('MAR')[591] (e.g. insider dealings).

The supervision of trading venues in the EU is performed at national level, with NCAs responsible for the supervision of trading venues authorised in their jurisdiction. In general, each Member State designates one NCA. However, in some Member States multiple supervisors co-exist.[592] As a result, the system of supervision in the EU comprises a complex

[591] Regulation (EU) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse (market abuse regulation) and repealing Directive 2003/6/EC of the European Parliament and of the Council and Commission Directives 2003/124/EC, 2003/125/EC and 2004/72/EC (OJ L 173, 12.6.2014, p. 1. ELI: http://data.europa.eu/eli/reg/2014/596/oj).

[592] This is the case for example in Germany, where, due to the federal decentralised system, regional ministries oversee local exchanges, whereas the supervisor at national level is in charge of market surveillance. This is also the case in Italy, where the central bank amongst others is responsible for supervising trading venues that host wholesale trading in sovereign bonds, whereas other exchanges are supervised solely by the NCA.

network of about 35 national or regional supervisors, which may interpret and implement the single rulebook differently.

As a result, trading venues located in jurisdictions with less stringent supervisory approaches might have advantages over those located in more strictly regulated and supervised environments, potentially leading to regulatory arbitrage. Christian Noyer specifically references this in his report on behalf of DG Trésor[593], suggesting that without integrated supervision, financial actors could seek out Member States with more lax supervisory practices, leading to a regulatory race to the bottom by Member States who would want to remain attractive. Furthermore, inefficiencies and in some cases limited resources within some NCAs' internal organisations may also impede effective supervision. Other challenges relate to differences in supervisory methodologies and approaches, as well as the obligation for some trading venues to deal with different contact persons. All these factors can significantly increase operational costs and compliance burdens for trading venues, in particular for cross-border groups facing different supervisors and hence requirements, which hinders economies of scale and associated cost savings.

To address the inconsistent application of trading rules, which is in particular problematic for groups having trading venues in several Member States, supervisory colleges have emerged for the two largest pan-European groups, Euronext and Nasdaq. These colleges, which are not mandated by law but have been established on a voluntary basis, are composed of representatives of the NCAs of the different Member States in which a trading venue of the group is established. However, their mandate is limited to the coordination of policy stances (not supervisory decisions), and those colleges do not involve ESMA.

The Association Europe Finances Régulations' recent paper[594] on European supervision makes the case for more integrated supervision for trading venues, noting notably that the current system of coordination between various supervisors for Euronext and Nasdaq "effectively aligns with the most demanding process of the concerned regulators". The paper suggests that despite recent market consolidation in European trading venues, the lack of integrated supervision limits the benefits they can gain. As a result, trading venues operating in different Member States face an uneven playing field in terms of the supervisory requirements they face.

Currently, while ESMA plays no role in direct supervision of trading venues, it contributes indirectly through its level 2 and 3 policy work.

3.1.4. Asset managers

EU asset managers active in the EU manage more than EUR 19.8 trillion in aggregate assets under management (AuM).[595] The UCITS segment, about 63% of which are held by retail investors, is the largest, representing approx. EUR 12.6 trillion AuM, 30 000 funds and 1 683 asset managers. The EU Alternative Investment Funds ('AIF') segment (mainly institutional) represents approx. EUR 7.2 trillion in AuM, 35 000 funds and approx. 4 459 managers. This compares with fund assets of USD 37 trillion at the end of 2024 in the US.

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[593] Developing European capital markets to finance the future | Direction Générale du Trésor.
[594] Towards an SEC in the European Union: unified supervision or single supervisor? - Issue 7 – December 2024 | Association Europe Finances Régulations | AEFR.
[595] EFAMA 2025 calculations and internal calculations conducted by Commission services based on commercial databases that contain UCITS data.

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There is a complex system of supervision and division of responsibilities between NCAs. Each UCITS must be authorised and supervised by an NCA of the Member State where it is domiciled ('home NCA'). The NCA is responsible for reviewing fund documentation (e.g., prospectus, key investor information), ensuring compliance with UCITS Directive requirements (e.g., eligible assets, risk-spreading, investor protection) and monitoring ongoing operations, risk management, and compliance. The home NCA of the UCITS is responsible for supervising the management company in relation to the UCITS (e.g. constitution, functioning, valuation). The home NCA of the management company is responsible for establishing rules of conduct, prudential requirements, and organisational requirements in line with the principles set out in the UCITS framework. It is also responsible for overseeing compliance with these rules within its jurisdiction. In the case of groups operating through branches, supervision is split: the home NCA of the asset manager supervises organisational requirements, while the host NCA, where the branch is established, is responsible for conduct of business supervision. ESMA has a mandate to ensure supervisory convergence and promote the effective functioning of the EU's asset management market. It is important to stress that, with regard to marketing rules, the host Member States where UCITS are marketed can impose requirements in areas not harmonised at EU level, namely under the UCITS Directive[596] and the CBDF Regulation.[597] Since EU rules on marketing are limited and mostly principle-based (e.g. requiring that marketing communications be fair, clear, and not misleading), many Member States have introduced extensive national rules on marketing, including detailed requirements on marketing documentation.

Under the AIFMD[598], the regulatory focus is on the AIFM rather than on the fund itself. EU-authorised AIFMs are supervised by their home NCA, which is responsible for prudential and organisational oversight—covering areas such as capital adequacy, risk and liquidity management, valuation policies, reporting, delegation arrangements, and remuneration. These EU-authorised AIFMs may, on a cross-border basis, manage AIFs established in other jurisdictions (the "management passport"). Such AIFs are regulated at national level, with the exception of EU AIFs governed by specific regulations, such as ELTIF[599], EuVECA[600], and EuSEF[601] (under their respective regulations). For these EU AIFs, the split of responsibilities

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[596] Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS) (recast) (OJ L 302, 17.11.2009, p. 32. ELI: http://data.europa.eu/eli/dir/2009/65/oj).

[597] Regulation (EU) 2019/1156 of the European Parliament and of the Council of 20 June 2019 on facilitating cross-border distribution of collective investment undertakings and amending Regulations (EU) No 345/2013, (EU) No 346/2013 and (EU) No 1286/2014 (OJ L 188, 12.7.2019, p. 55. ELI: http://data.europa.eu/eli/reg/2019/1156/oj).

[598] Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers and amending Directives 2003/41/EC and 2009/65/EC and Regulations (EC) No 1060/2009 and (EU) No 1095/2010 (OJ L 174, 1.7.2011, p. 1. ELI: http://data.europa.eu/eli/dir/2011/61/oj).

[599] Regulation (EU) 2023/606 of the European Parliament and of the Council of 15 March 2023 amending Regulation (EU) 2015/760 as regards the requirements pertaining to the investment policies and operating conditions of European long-term investment funds and the scope of eligible investment assets, the portfolio composition and diversification requirements and the borrowing of cash and other fund rules (OJ L 80, 20.3.2023, p. 1. ELI: http://data.europa.eu/eli/reg/2023/606/oj).

[600] Regulation (EU) No 345/2013 of the European Parliament and of the Council of 17 April 2013 on European venture capital funds (OJ L 115, 25.4.2013, p. 1 ELI: http://data.europa.eu/eli/reg/2013/345/oj).

[601] Regulation (EU) No 346/2013 of the European Parliament and of the Council of 17 April 2013 on European social entrepreneurship funds (OJ L 115, 25.4.2013, p. 18. ELI: http://data.europa.eu/eli/reg/2013/346/oj).

mirrors the UCITS framework, with the home authority of the AIF responsible for oversight of the fund rules in accordance with the relevant EU regulation.

ESMA supports supervisory convergence across the EU by issuing guidelines facilitating information exchange among NCAs and promoting consistent interpretation and application of the UCITS framework. However, ESMA does not have a day-to-day operational role in intervening in specific cases, nor does it have direct supervisory powers over UCITS funds or management companies. Day-to-day supervision remains the sole responsibility of NCAs in the home and host Member States. ESMA's role is therefore indirect and supportive: it sets the framework for supervisory convergence and consistency, while concrete enforcement and oversight are carried out by NCAs at national level.

In addition, ESMA's binding mediation powers are limited to some cases under UCITS and AIFMD, and do not cover CBDF Regulation. ESMA also lacks the power to open mediation cases on its own initiative and is under no obligation to act even where barriers to cross-border activities are clear.

3.1.5. CASPs

As the Markets in Crypto Assets Regulation (MiCA)[602] entered into application only in December 2024, CASPs are currently in the process of applying for a crypto-asset service provider authorisation. There are currently 69 CASPs authorised by 12 different NCAs in the Member States.[603] There are also around 167 pending applications currently being assessed by the competent authorities of the Member States. It is still unknown how many, out of the approximately 11 000 virtual assets service providers, previously registered under national anti-money laundering (AML) frameworks, will apply for a CASP licence. This figure is, however, inflated by a few jurisdictions that applied very light registration requirements; when looking only at those that underwent substantive AML vetting, the number is closer to 2 500. Many of these entities are unlikely to fulfil the requirements for a CASP license. Nevertheless, ESMA and NCAs currently expect that about 410 to 615 CASPs will receive authorisation during and shortly after the transitional period of maximum 18 months following the entry into application of the MiCA.[604]

The majority of CASPs do not limit their activities to crypto asset services only, but they are active in other areas such as the provision of investment services and some CASPs hold an investment firm or a credit institution license. Their business organisational model may be structured around one entity holding several authorisations from the same jurisdiction, or several authorisations from different jurisdictions, or may be a group of companies holding several authorisations. There are even examples of a CASP-group splitting itself in different entities for the provision of different crypto-asset services under MiCA. Such complex and fragmented structures heighten the risk of forum shopping if supervision remains fragmented, and they underline the need for effective coordination across supervisors at EU level to achieve uniform treatment.

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[602] Regulation (EU) 2023/1114 of the European Parliament and of the Council of 31 May 2023 on markets in crypto-assets, and amending Regulations (EU) No 1093/2010 and (EU) No 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937 (OJ L 150, 9.6.2023, p. 40. ELI: http://data.europa.eu/eli/reg/2023/1114/oj).

[603] Interim ESMA register on authorised CASPs as of 15.10.2025. Authorisations have been granted by the competent authorities in Germany, Malta, the Netherlands, Austria, France, Ireland, Cyprus, Lithuania, Luxembourg, Slovenia, Spain and Finland.

[604] This number is based on estimates that ESMA has asked Member States to provide in a survey. It is a range rather than an exact number and it may overlap with actual authorisations and pending authorisations.

NCAs are primarily responsible for the day-to-day supervision of CASPs and issuers of asset referenced tokens and e-money tokens (also referred to as stablecoins). Their responsibilities include authorisation of CASPs and stablecoins issuers established in their Member State, ongoing supervision of compliance with MiCA requirements related to supervised entities (e.g. governance, capital requirements, conduct of business). NCAs are also in charge of surveillance of market integrity, investigating, identifying and bringing proceedings against market abuse. No supervisory measures have been reported to date, as only a few CASPs have been authorised and there has not been enough time for any supervisory activity to take place. Furthermore, NCAs receive notifications of white papers (disclosure documents) for certain crypto-assets issued under MiCA and can request their modification to bring them into compliance with MiCA. Beyond its regular coordination role, ESMA has a limited role in the supervision of CASPs designated as "significant" (i.e. having at least 15 million active users in the EU). The NCA of a significant CASP is required to annually report to ESMA certain supervisory developments relating to that CASP (authorisation withdrawal, enforcement actions etc). To date, there are no CASPs classified as significant. When it comes to stablecoin issuers, EBA can designate a stablecoin as 'significant' once it reaches a certain size[605], with the consequence that direct supervision shifts from the NCA to EBA.

What makes CASPs unique in the area of supervision, is the fact that it is a new area of activity where firms are in the process of becoming authorised following the entry into application of MiCA. This presents a rare opportunity to formulate a new supervisory approach before legacy issues and divergent supervisory approaches create barriers to the operation of the crypto-market in the EU. In the case of CAPSs, the aim would be to avoid fragmentation from the start, rather than removing existing barriers.

3.2. PROBLEM DEFINITION – FRAGMENTED, LESS EFFICIENT AND INEFFECTIVE SUPERVISION

Despite the legal frameworks in place, several structural and operational shortcomings hinder effective and coherent supervision across the EU financial sector. Supervisory fragmentation, divergent national practices and limited EU-level oversight mechanisms have created a supervisory landscape that is misaligned with the needs of an integrated capital market. These inefficiencies affect all key sectors - CSDs, CCPs, trading venues, asset management and CASPs - via regulatory fragmentation, lack of seamlessly functioning of cross-border operations, and weakened oversight quality. The result is a supervisory regime that is lacking a holistic view of cross-border activities and is insufficiently equipped to ensure consistent outcomes, support cross-border activity, or respond effectively to systemic risks.

Moreover, supervision of financial entities at national level cannot always ensure effectiveness and efficiency, particularly when the activities of supervised entities have cross-border implications. While NCAs are well placed to oversee entities operating primarily in their domestic markets, their mandates and tools are limited when risks, market impacts, or spill-overs extend beyond national borders. Divergent supervisory practices, differences in enforcement intensity, and a lack of coordinated oversight may result in regulatory gaps or overlaps, creating inefficiencies and undermining the level playing field within the internal market. This is especially relevant for entities whose business models or services affect

[605] Based on EBA decision in view of the criteria set out in Article 43 of MiCA, such as number of holders > EUR 10 million, market cap of tokens > EUR 5 million, >2.5 million transaction per day amounting to more than > EUR 500 million daily value, etc.

multiple Member States, where national supervision alone may be insufficient to address the broader systemic or cross-border consequences.

This is also confirmed by some stakeholders in their replies to the consultation. They highlight that market fragmentation in the EU arising from divergent supervisory practices leads to legal uncertainty, higher compliance costs, regulatory arbitrage, and barriers to cross-border activity.

These shortcomings diminish the competitiveness of EU capital markets. Without centralised and effective supervisory powers, which would address supervisory aspects from a single market perspective, the EU cannot match the integrated and responsive frameworks seen in global financial centres like the US or UK. The result is higher operational costs, inconsistent or insufficient supervisory action and a less attractive environment for international capital - undermining the goals of the Single Market and the SIU.

The OECD, in its 2025 Economic Survey of the European Union and Euro Area[606], outlines these supervisory differences and specifically highlights the benefits of a more unified European framework for supervision and includes a suggestion of moving certain supervisory powers to the EU level. The report also raises the example of the tangible benefits that EU banking groups gained in terms of simplified supervision and rules as a result of the move to a unified system of supervision in the post Great Financial Crisis reforms and suggests that the same benefits could be achieved by those active in capital markets.

Stakeholder feedback from the public consultation provides concrete, sector-by-sector examples of these issues in practice, as set out below for CCPs, CSDs, trading venues, asset managers, and CASPs.

3.2.1. CCPs

A major CCP operator reported significant direct and indirect costs related to engagement with supervisors. Directly, supervisory fees vary widely between jurisdictions, placing some EU CCPs at a competitive disadvantage. Indirectly, costs arise from national gold-plating, duplicative reporting requirements, and lengthy, multi-layered EMIR approval procedures. An indefinite, resource-intensive pre-filing phase for new product authorisations or risk model change validations can delay launches by months, reducing responsiveness compared to non-EU peers. Another large CCP group argued that under the pre-EMIR 3 framework, multi-layered approval processes could take up to 2.5 years, undermining the EU's position in the global clearing market.

3.2.2. CSDs

Some CSDs have indicated facing difficulties getting NCAs greenlight when wanting to share resources at group level for certain functions, with the objective of a more integrated approach. They indicated that as each group entity may be looked into somewhat in isolation, and with varying supervisory expectations, from the rest of the group, other group entity resources are seen as no different from any third-party provider, undermining integrated cross-border group strategies, and the opportunity for economies of scale those strategies entail.

One CSD group reported annual supervisory fees totalling around EUR 3.4 million across four jurisdictions, with variations from EUR 572 000 to over EUR 1.1 million per CSD. Another

[606] https://www.oecd.org/content/dam/oecd/en/publications/reports/2025/07/oecd-economic-surveys-european-union-and-euro-area-2025_af6b738a/5ec8dcc2-en.pdf.

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CSD group noted significant discrepancies between the supervisory fees incurred for the different CSDs in the group, and that these differences often bear no clear link to size or complexity of the CSD, and in some countries multiple supervisory fees are charged when oversight is shared between authorities. Such discrepancies risk distorting competition, particularly for smaller CSDs.

A major CSD operator argued that greater centralisation is needed to ensure regulatory consistency, reduce opportunities for arbitrage, enable better monitoring of interconnected risks, and harmonise fee structures, thereby creating a more level playing field across the post-trade sector.

3.2.3. Trading Venues

Operators reported that, even when obligations are harmonised by MiFID II, NCAs apply them differently. Locally tailored requests and, in some cases, duplicative or conflicting instructions from NCAs result in inconsistent and sometimes duplicative supervisory requirements, operational complexity, and higher compliance costs for cross-border operators. As an example, incident reporting may have to be shared with up to eight authorities via separate channels, which multiplies the costs.

One NCA involved in the oversight of a trading venue noted that divergent supervisory procedures, including the actors involved, impose around EUR 60 000 in annual costs for certain processes.

One operator active across several Member States noted that fragmented pre-approval requirements delay product launches for the entire group - because of its harmonised rulebook. And because approval processes can take several months in some Member States, this leads to opportunity costs of low single digit millions of Euros for every new product launched. This does not support innovation and also erodes first-mover advantages. Besides faster product launches, additional benefits from a centralised supervision would include reduced duplications of human resources and improved procedural efficiency. The same group estimated that centralised supervision could yield it savings in the order of tens of millions of euros annually, mainly through reduced compliance and governance costs.

Feedback received also underlined that annual licence fees vary widely: some Member States charge flat amounts, others levy per-instrument fees, and others charge by the hour for supervisory work.

3.2.4. Asset Managers

Unnecessary administrative barriers continue to impose significant costs on EU asset managers. These costs are higher particularly when funds are being marketed on a cross-border basis. The burden arises from persistent regulatory fragmentation, duplicative procedures, divergent local interpretations of EU rules, and the lack of fully harmonised digital processes among NCAs. Launching a UCITS fund still typically requires between EUR 300 000 and EUR 500 000 in upfront costs, which among other costs comprises legal structuring, documentation, registration, and compliance with local marketing rules. The administrative costs of registering a UCITS in one additional EU Member State can range from EUR 20 000 to EUR 60 000, depending on translation, legal, and agent fees. For an EU AIF, these costs can exceed EUR 500 000.

3.2.5. CASPs

Convergent supervision was a prominent topic for CASPs during the consultation. Industry feedback revealed that despite the short period of time the framework applies, supervisory practices and approaches vary between Member States and several stakeholders highlighted

the challenges this presents. For example, one stakeholder noted that NCAs have slightly different understandings of the crypto sector and technical nuances. Another market participant believes that a harmonized application is essential to enable legal clarity for CASPs in the sector, while another one adds that strong leadership at EU-level is needed for supervisory consistency and cross-border scalability, both crucial for a well-functioning digital finance market. One industry respondent argued that differences in supervisory practices sometimes stem from Member States that have not yet prioritized the development of necessary resources and capacities.

Several industry participants supported that a more coordinated EU supervision could offer long-term benefits, especially in improving consistency and reducing regulatory divergence across Member States. While they do not expect immediate cost savings, a single supervisory framework could, over time, streamline licensing and monitoring for CASPs. Most importantly, it could ensure a level playing field and clearer expectations on issues like custody, IT risk, or service expansion.

One NCA stressed that the phenomenon of forum shopping is particularly prevalent in the crypto asset sector and in view of that, the current framework for supervising CASPs needs to be strengthened.

3.3. PROBLEM DRIVERS (WHAT CAUSES THESE PROBLEMS)

3.3.1. Non-aligned supervisory practices and interpretations across Member States

In many cases, supervision is carried out almost exclusively at the national level, which leads to a patchwork of divergent interpretations, standards, and enforcement approaches across the EU.

Inputs received from stakeholders collectively underscore that despite a single rulebook, varied national supervisory interpretations and enforcement undermine the effectiveness of the EU's regulatory framework, posing a significant obstacle to achieving a fully integrated and competitive capital market.

Bruegel's Nicolas Veron[607] showcases the political and competitive aspect of having a multitude of national supervisors, noting that local supervisors "may be more reluctant than a European supervisor to grant authorisations to innovative newcomers in order to protect local incumbents". On the other hand, there may also be incentives for NCAs to be more lenient to attract business. He suggests that such attitudes to supervision reduce the possibility of achieving a truly competitive European capital market, which could be advanced by well-designed supervisory integration.

In the area of **CSDs**, certain requirements of the CSDR are not read consistently by the NCAs. For instance, respondents to the public consultation highlighted that there are significant differences in how authorities identify outsourcing arrangements, in particular staff sharing arrangements, how authorities assess important changes within the CSD, as well as in how authorities handle passporting requests and cross-border provision of services.

In particular, one respondent to the consultation has identified issues with the CSD home/host process, which indicates limitations in its ability to facilitate cross-border cooperation. There

[607] Bruegel Blueprint 35.pdf.

have been instances where host Member State authorities have disapproved the measures proposed by a CSD to comply with local laws. Additionally, the interpretation of specific legal terms and deadlines provided by European regulation has been diverse between home and host authorities, for example with reference to the starting of the effective dates or the relevant calendar to be applied. This creates friction in the regulatory procedures (e.g. passporting process) and can delay or block cross-border service provision. Despite efforts by ESMA to harmonize supervision through questions and answers tool ('Q&As') and guidance, NCAs sometimes interpret and enforce CSDR provisions differently, which undermines the goal of a unified EU market and complicates compliance for CSDs operating in multiple countries.

Respondents also highlighted that there are significant variations in the scope, frequency and formatting of regulatory reporting across jurisdictions. Another example that was evidenced in the context of the move to T+1 in the EU is the inconsistency in how some authorities considered securities financing transactions conducted on trading venues under the mandatory settlement requirement set out in the CSDR.

These inconsistencies become even more pronounced for corporate groups that operate multiple CSDs - such as Euroclear, Deutsche Börse or Euronext - or operate in different markets such as Nasdaq and thus must navigate differing supervisory approaches and interpretations from various competent and relevant authorities. Notably several respondents have highlighted that the CSDR supervisory framework does not sufficiently accommodate group structures. Ignoring the presence of groups with multiple CSDs in supervisory frameworks creates obstacles to efficient and effective consolidation of market infrastructures.

In the area of **CCPs,** despite ESMA's tools to enhance supervisory convergences and the CCP Supervisory Committee's tasks, there are still significant divergences in supervisory depth, interpretation and practices amongst NCAs. For example, one respondent to the consultation pointed out that the CCP requirements are implemented in very different ways, with cases of requirements imposed being "1000-fold higher in a Member State compared to existing practices" elsewhere. Other respondents pointed out that, when it comes to the approval of new services provided by CCPs and the validation of changes brought to CCP risk models, some NCAs are satisfied with a "desk-based review of documents", while some other favour the use of "inspection methods". Some respondents to the public consultation even mentioned the current practice of a "pre-filing phase", where the CCPs are interacting informally with their regulators, before the official application, which contributes to create costs for some EU CCPs and leads to an unlevel playing field. In parallel, respondents to the public consultation were of the view that recent amendments to EMIR brought by Regulation (EU) 2024/2987 ('EMIR 3')[608], which provide an enhanced role for ESMA in CCP colleges, with more ESMA opinions and better information sharing, should ensure greater supervisory convergence and coordination between NCAs and ESMA.

Indeed, since the EMIR 3 implementation, ESMA became the co-chair of the CCP college of each EU CCP. However, in practice the CCP colleges' main purpose is information sharing and preparing non-binding opinions. In addition, the new procedures involving ESMA's CCP Supervisory Committee and the College's opinions, have been extended and now cover all the decisions regarding the EU CCP (for instance the CCP's annual review and any change of the

[608] Regulation (EU) 2024/2987 of the European Parliament and of the Council of 27 November 2024 amending Regulations (EU) No 648/2012, (EU) No 575/2013 and (EU) 2017/1131 as regards measures to mitigate excessive exposures to third-country central counterparties and improve the efficiency of Union clearing markets (OJ L, 2024/2987, 4.12.2024, ELI: http://data.europa.eu/eli/reg/2024/2987/oj).

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CCP's participation requirements), which leads to more comparability and consistency of decisions taken regarding EU CCP's activity. Nevertheless, the changes introduced by EMIR 3 will most likely not resolve the issue of the fragmented supervisory structure. In this respect, one respondent to the public consultation argued that the current supervisory structure is not fit for purpose and gave the example of one of the largest CCPs in Europe whose college includes 22 different authorities.

The impact assessment accompanying the Commission's proposal on EMIR 3 showed that EU CCPs are highly interconnected. This can lead to cross-border risks, i.e. problems in one CCP can propagate to other CCPs. That impact assessment also argued that a supervisory framework relying on cooperation amongst NCAs is inefficient and inadequate to address those risks. A complex and limited framework for the cooperation of national supervisors and relevant authorities leads to supervisory divergence, creates duplicative and burdensome processes and reporting for EU CCPs and ultimately results in an unlevel playing field for those CCPs, as well as potential risks for financial stability. Indeed, the new procedures in EMIR 3 introduced an ambitious timeframe and strict deadlines in order to facilitate EU CCPs bringing new products to the market. Nevertheless, they: i) do not allow for ESMA in its current set-up (with a strong role for NCAs at ESMA's CCP Supervisory Committee's level) to study in detail the CCP's NCA risk assessment and also ii) increase the likelihood that an unsatisfactory application would be rejected and force the CCP to start the full process again. In addition, the CCP's college discussions, now co-lead by ESMA, in practice do not add much and seem duplicative to the discussion that also occur in parallel at ESMA's committee level.

Furthermore, although significant progress has been made in harmonising the EU legislative framework governing **trading venues** in the last decade, the fact that supervision remains entirely in the hands of NCAs hinders the creation of a single market in that area. First, several rules governing the organisation, governance and operations of trading venues in the EU are set out in a directive (MiFID II), meaning that they are subject to transposition in national laws and/or implementation, which often differ. Secondly, even where rules are harmonised at EU level through a regulation, their application often varies in practice due to differing interpretations and supervisory practices[609] among NCAs.

For example, procedures as regards supervisory approval of amendments to exchange rulebooks - which define the rules that govern the operations of an exchange, notably its interaction with participants in the exchange – often differ from one Member State to another. As a result, pre-approval of exchange rule books by the national supervisor in certain jurisdictions can create challenges for trading venues to launch new financial products that require rulebook changes, when in other jurisdictions a notification of the rulebook change is sufficient. This results in delays in listing new products, which represent sizable opportunity costs and a clear competitive disadvantage vis-à-vis trading venues located in Member States that have a more flexible approach. This is exacerbated by additional, local regulatory requirements for listing financial instruments. In practice, approaches of NCAs also differ, such as with respect to requirements on risk management, compliance and market surveillance functions. Pan-European groups of trading venues are particularly affected by the challenges of interacting with various NCAs, each with its own set of rules, practices, contact personnel

[609] For instance, some NCAs adopt a principle-based approach, while others use a risk-based approach. Broadly speaking, a risk-based approach often results in faster authorization processes or a more streamlined approval process for trading venues' rulebooks and related changes. Conversely, a principle-based approach may be more effective in preventing some risks while being less efficient in terms of timelines.

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and level of expertise. The division of supervisory responsibilities across EU Member States may further complicate matters, as these groups might handle interactions with NCAs in one jurisdiction, regional supervisory authorities in another, and possibly central banks elsewhere. This fragmented supervisory landscape adds an extra layer of complexity - and hence delays and costs - for groups operating across borders.

One large European exchange gave several examples as regards differing national requirements in terms of maintaining some functions at local level – e.g. risk, compliance, market monitoring, market abuse - with the result that the group was prevented by several NCAs from outsourcing them to another entity of the group – a notion that is not defined in the current financial framework. One respondent shared an example involving the introduction of already existing and pre-approved IT system and trading engine from one Member State into a newly acquired group subsidiary in another Member State. The "host" NCA required the group to go through an extensive approval process of this intra group outsourcing, even though the system had already been approved and was operational in another Member State. Such duplications and divergences in supervisory approaches prevent pan-European groups from benefitting fully from the economies of scale and cost savings which an EU single market is expected to deliver. The notion of centralised supervision and EU-level authorisation could accommodate integration, however, the concept of "group" does not exist for market operators in the current MiFID II framework. Both, moving to a system of authorization and EU supervision at the level of the consolidated group that would facilitate branchification or EU level supervision of each (nationally) licensed entity would improve the status quo by removing regulatory interactions and limiting supervisory fragmentation. The two policies are not mutually exclusive and can be pursued complementary to each other.

In parallel to groups with presence in multiple Member States, several platforms (in particular MTFs) operating with a single national license reached significant EU wide market shares in terms of trading volume by hosting trading in non-domestic instruments whose most relevant market in terms of liquidity remains outside the MTF's place of establishment (typically, in the jurisdiction where the issuer of the security is established). Such MTFs operate under a single national license with no involvement of the NCAs supervising the securities' most relevant trading venue in terms of liquidity (and typically the issuer issuing such securities). This means that the current situation where supervisory powers remain in the hands of NCAs is also suboptimal to monitor risks appropriately.

Furthermore, resilient markets are crucially important if the broader policy objective is to increasingly finance growth through capital markets. Centralised supervision could contribute to ensuring a high level of operational resilience for trading venues and high standards of risk controls such that the orderly trading conditions are maintained throughout the EU, even in times of market turmoil that involve large volumes or increased volatility. This might, for example, prevent single markets from having to halt trading in the face of unexpected global events while other European markets manage to remain open or that risk controls to deal with stark price movements are applied differently.

In the **asset management** sector, supervision by NCAs is generally viewed as effective within individual jurisdictions. However, differences in supervisory approaches, rules, and systems across Member States can create challenges for asset managers with cross-border operations. Differing national rules, supervisory approaches and IT systems undermine the effective use of the management and marketing passports enshrined in UCITSD and AIFMD. Asset managers must often undergo multiple regulatory interactions, including divergent notification procedures and requirements for marketing. These divergences increase complexity and generate significant compliance costs, particularly for asset managers operating cross-border.

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The lack of alignment across the supervisory framework makes it more difficult for firms to navigate regulatory requirements efficiently. In addition, the absence of a consolidated view of asset management groups operating through multiple subsidiaries can limit supervisory effectiveness and make it harder to identify broader risks or ensure consistent oversight across the group. The larger the asset management group, the more critical a consolidated supervisory perspective becomes, requiring enhanced coordination and cooperation among authorities to ensure a comprehensive understanding and consistent supervisory outcomes.

Currently, cross-border asset management groups work through different mixes of subsidiaries and branches. Each subsidiary is authorised and supervised by the NCA of its home Member State as a free-standing asset manager with no EU-wide structured process of supervisory coordination for cross-border asset management groups, leading to a duplication of functions, such as IT, compliance, or risk management functions, and potentially different supervisory outcomes. This issue is particularly evident in cases where asset managers within the same group share resources (e.g. intra-group delegation). In the public consultation, asset managers provided examples of inconsistent supervisory interpretations, expectations, and processes across Member States. Key supervisory frictions include diverging views on substance and local presence requirements, varying approaches to intra-group delegation, differences in how NCAs assess internal policies, risk frameworks, or compliance arrangements across entities in the same group and limited reliance on group-level assessments.

Another key example is the cross-border marketing of investment funds. Host NCAs, where the fund is marketed, review the relevant documentation independently, which can lead to repeated reviews or the imposition of differing standards. For instance, many stakeholders mentioned that NCAs do not coordinate on their requests regarding marketing documents. Therefore, for the same fund, they have to adapt the documents based on NCA requests, which may diverge. For example, certain jurisdictions require a country supplement to the fund prospectus or country-specific disclosures within the prospectus. Moreover, some host NCAs may impose specific formats for investor notices, different from the home NCA format. Likewise, when a risk is identified in one Member State, this information is not systematically shared with others, preventing timely corrective actions across the EU.

In addition, host NCAs in the Member States where funds are marketed often impose additional marketing rules. As a result, many Member States apply prescriptive marketing requirements—for example, regarding the length or content of marketing materials. Given their limited insight into the broader group structure, these NCAs often request supplementary information in order to supervise fund marketing within their jurisdiction in accordance with their national frameworks. This leads to a situation where information is asymmetric, supervisory interactions are duplicated, interactions between NCAs are mainly bilateral and ad hoc, and trust is low. From the asset manager's standpoint, larger structures and operations mean dealing with more NCAs.

In the case of **CASPs**, the phenomenon of bringing into a regulated framework a previously unregulated industry, has caused intense competition between NCAs in attracting applications from prospective crypto-asset service providers in their jurisdiction. Some NCAs began accepting applications for a CASP license before the entry into application of the Regulation and assessed unofficially the applications. This practice encouraged forum shopping and provided market participants in these Member States a "first mover" advantage compared to market participants in other Member States where NCAs adopted a more literal interpretation of the rules and waited for the Regulation to start applying before accepting any applications. This practise also partly explains why some Member States have already attracted a large

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number of applicants and granted a considerable number of CASP authorisations in comparison to other jurisdictions.

Some competent authorities have reported that it is already challenging to comply with the set deadlines when multiple applications are being processed simultaneously and the quality of many of the initial applications received in general was found to be lacking. CASPs located in jurisdictions with supervisory authorities with a more market driven approach, might have an unfair advantage over those with a strict reading of the rules, potentially leading to regulatory arbitrage. This is already evident in the few months of application of the MiCA Regulation, as the approach of different regulatory authorities to different business models that have presented themselves has not been the same in all situations. Some NCAs are more willing to accept riskier business models (provided there are adequate safeguards) and this may cause friction in cross-border situations with host jurisdictions with a different risk appetite.

There is also growing concern that the crypto-asset services industry, which is dominated by groups of companies established in third countries, will use the fragmented interpretation of EU rules by NCAs to their benefit.

In addition to the ongoing authorisation process, under the MiCA Regulation, Member States have the option of implementing 'transitional measures' (Article 143 of MiCA) that would allow entities or undertakings already providing crypto-asset services under applicable law in their jurisdictions to continue doing so during the transitional phase of MiCA (i.e., the period of 18-months after full application in December 2024, or a shorter period, depending on the Member State decision). This provision resulted in a multitude of transitional periods[610] applicable across the EU, ranging from 6 to 18 months -the maximum allowed. This uneven phasing-in has already caused practical problems: in some Member States, undertakings already providing crypto-asset services under applicable law are allowed to operate until mid-2026, while in others transitional rights ended in mid-2025. This complicates cross-border operations and creates confusion for groups trying to passport services consistently across the Union.[611] This period is still running for some Member States and is meant to allow for the smooth transition of previously registered entities under the anti-money laundering framework into the comprehensive framework for crypto-assets. This is a temporary situation that will phase out with the gradual ending of the different transitional periods.

The regulatory framework for this industry is relatively new and market concentration is still too early to determine, however it is already evident that this is a market that will be dominated by cross-border entities. For some crypto-asset services like the operation of a crypto-asset trading platform, there is increased interest to obtain a CASP authorisation by groups with parent companies in third countries, operating various forms of integrated business models and there is a risk of supervisory fragmentation. For example, where a CASP group operates a shared order book across several EU jurisdictions, NCAs have diverged in their interpretation of whether this constitutes a cross-border service. This has led to conflicting supervisory

[610] 10 Member States opted for an 18-month transitional period (the maximum default), 8 Member States adopted 12 months, 1 Member State opted for 9 months and 6 Member States for 6 months. 2 Member States did not communicate transitional periods.

[611] For instance, while the Netherlands adopted a six-month transitional window ending on 30 June 2025, France and Malta opted for the full 18- month period ending on 1 July 2026. This disparity can create brief gaps in compliance: for example, a CASP authorised in France under the previous national law, may continue operating under transitional rights until mid- 2026, but if it seeks to make use of its registration for the provision of virtual-asset services under the previous regime in the Netherlands after June 2025, it could be operating without proper authorisation there—unless it had already obtained a MiCA licence in France (which also grants a passport right).

expectations and duplicative oversight. In addition, some NCAs consider staking and lending services as falling clearly within MiCA's authorisation perimeter, while others treat them as ancillary activities subject only to AML registration. Similarly, divergent approaches have been observed in the assessment of custody arrangements: certain authorities impose strict segregation of client assets, while others accept commingling practices provided there are disclosure safeguards. These inconsistencies result in uneven supervisory intensity and confusion for cross-border groups.

Currently, apart from building authorisation capacity, the NCAs have not had the time to build capacity for ongoing supervision, i.e. to build-up expertise and dedicate extensive resources to the supervision of these market players. This is particularly evident in ESMA supervisory convergence groups where competent authorities demonstrate a different understanding of the crypto asset sector, the risks it poses and its technical nuances and reality. Given the relatively large number of authorisations already granted, and the applications currently in the pipeline, competent authorities will need resources and skills to supervise a completely new type of industry that does not operate the way financial intermediaries usually do. The capacity to conduct effective supervision of these new market players is therefore paramount and is currently lacking. In addition, the current set-up implies that 27 separate national market abuse teams are monitoring the same crypto-assets traded cross-border, which is inefficient and risks inconsistent enforcement across the Single Market. There are therefore, fewer legacy issues in terms of supervision and crypto-asset service providers are an ideal candidate for centralised supervision under ESMA to ensure uniform rule application, to avoid enforcement asymmetries and to preserve market integrity.

In conclusion, supervisory fragmentation results in an uneven playing field as financial entities operating in different Member States face diverging supervisory requirements. The involvement of multiple supervisors also raises the cost of achieving compliance, both at the level of the industry and for regulators. Finally, the decentralised system of supervision currently in place limits the ability to detect and manage EU-wide risks.

3.3.2. Limited tools and powers at EU level to enforce convergence and ensure effective oversight

While EU authorities like ESMA provide guidance and non-binding opinions, they currently lack the necessary tools and binding powers to ensure uniform application of rules across the Member States. This limitation severely restricts supervisory convergence, as national authorities remain the final decision-makers, also in areas with systemic cross-border implications. Examples presented below illustrate shortcomings in ESMA's use of current supervisory convergence tools and limitations inherent to some of these tools.

CEPS's Demarigny and Thomadakis outline in their report on EU supervisory integration[612] that political resistance from Member States has stalled reform, and the current hybrid system of supervision with limited supranational authority has "hampered consistency, weakened enforcement and exposed the EU to regulatory arbitrage and inefficiencies". Moreover, they have highlighted that this approach is particularly detrimental in areas where an agile, data driven, and forward-looking approach is needed, including in fintech, ESG, and crypto assets.

In the case of **CCPs**, ESMA can only provide non-binding opinions where necessary to promote a consistent and coherent application of a relevant article. As such, ESMA has no binding instrument at its disposal that would ensure similar outcomes of supervisory decisions

[612] https://cdn.ceps.eu/wp-content/uploads/2025/06/EU-supervisory-efficiency-Policy-Brief-n-44.pdf.

(except for the validation of the changes to CCPs' risk models) and therefore cannot ensure a consistent and coherent application of EMIR. There is no ESMA assessment of CCPs' compliance with EMIR or ESMA role in the supervision of EU CCPs, as the input by ESMA is non-binding (except for the validation of the changes to CCPs' risk models). EU supervision of EU CCPs is vital to ensure the stability, not only of the EU CCPs but also of the EU financial system. Indeed, EU CCPs usually have the same clearing members, and such concentration leads to higher systemic risk in case of default of one of them. This was the approach in EMIR 2.2 and EMIR 3, as well as the CCP Recovery and Resolution Regulation[613], which all underlined that all EU CCPs were potentially systemically important given the interconnectedness of the EU financial system, and multiple participations of EU clearing members. An example of this was the energy crisis where market participants were active in the same products in multiple CCPs located in different Member States with different risk management rules. Despite limited time since the implementation of EMIR 3, some stakeholders have reported that supervisory practices still diverge from one NCA to another – for instance gold plating additional requirements or application of a pre-filing phase – which would not occur under a single supervision.

While the **CSDR** Refit introduced supervisory colleges, these act primarily as information-sharing platforms with limited impact on actual supervisory outcomes. Their role is limited to the issuance of non-binding opinions regarding review and evaluation, outsourcing or extension of activities or potential breaches to the CSDR, pertaining to services offered by a CSD in a host Member States. As a consequence, the limited involvement of numerous authorities in many specific areas of the supervision leads to challenges in supervisory cooperation, particularly regarding consistency and efficiency, which in turn places unnecessary administrative burdens on the entities being supervised. In addition, the introduction of colleges is only foreseen for CSDs that are considered to be of substantive importance in at least two Member States. This means that CSDs, for which colleges have not been set up, continue to be subject to the idiosyncratic interpretation and approach of their NCA(s). The above issues have been highlighted by several respondents to the public consultation, as well as in the previous CSDR Impact Assessment[614], and have not been resolved yet.

The scattered division of supervisory tasks among competent and relevant authorities, as well as colleges of supervisors, leads to an insufficient consideration of cross-border aspects and divergent supervisory outcomes for CSDs that operate cross-border. This was highlighted by several respondents to the public consultation, who noted that the current fragmented supervisory framework is not able to respond promptly to market developments and cited numerous examples of divergences between NCAs in several areas, such as reporting obligations, the assessment of passport notifications, the supervisory assessment of important changes within the CSD, diverging views on governance matters.

The involvement of ESMA in the supervision of CSDs is currently limited to resolving disagreements between authorities. ESMA is also neither involved in the authorisation and supervision of links, nor in the passporting of central maintenance and notary services in host

[613] Regulation (EU) 2021/23 of the European Parliament and of the Council of 16 December 2020 on a framework for the recovery and resolution of central counterparties and amending Regulations (EU) No 1095/2010, (EU) No 648/2012, (EU) No 600/2014, (EU) No 806/2014 and (EU) 2015/2365 and Directives 2002/47/EC, 2004/25/EC, 2007/36/EC, 2014/59/EU and (EU) 2017/1132

[614] https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12649-Central-securities-depositories-review-of-EU-rules_en

Member States. Given the potential increase in cross-border CSD-level activity, a more substantial role for ESMA is required.

For **trading venues**, under the MiFID II framework, supervision is enforced by NCAs and ESMA has no supervisory power. Under MiFIR, ESMA was conferred supervisory powers on Approved Reporting Mechanisms (ARMs), Approved Publication Arrangements (APAs) and Consolidated Tape Providers (CTPs). Furthermore, ESMA is empowered to monitor the market for financial instruments which are marketed, distributed or sold in the Union, and can temporarily prohibit or restrict the marketing, distribution, or sale of certain financial instruments or types of financial activities if they pose a threat to investor protection, orderly functioning and integrity of financial markets, or the stability of the whole or part of the financial system in the EU. However, key areas of MiFIR, such as transparency requirements for equity and non-equity instruments, transmission of data, obligation to maintain recordings and report transactions, remain subject to national supervision. Furthermore, the different implementation by Member States has created a highly diverse supervisory landscape with varying regulatory legal requirements as well as regulatory practices.

For example, the recent amendments brought by Regulation (EU) 2024/2809[615], as part of the Listing Act, to MAR introduced the possibility for ESMA to set up a collaboration platform, in order to protect market integrity and prevent the risk of cross border market abuse. However, Regulation (EU) 2024/2809 only allows ESMA to set up a collaboration platform at the request of one or more NCAs and limited to the case of serious concerns about market integrity or the orderly functioning of markets. Allowing ESMA to act on its own initiative to set up and coordinate a collaboration platform, with a possibility to coordinate investigations or inspections with a cross-border effect would have been more effective to protect market integrity and foster cooperation among NCAs. Similarly, a new mechanism to permit the ongoing and timely exchange of order data on shares, bonds or futures is to be set up by NCAs, albeit they can decide to delegate the set up to ESMA. Under the Short Selling Regulation framework, ESMA was conferred intervention powers in exceptional circumstances, notably (i) the power to require the notification to NCAs or public disclosure of net short positions and (ii) the power to prohibit or impose conditions on short sales. However, ESMA can act only if the measures target a threat to the orderly functioning or integrity of financial markets or to financial stability and involve cross-border implications, and if NCAs have not taken adequate action to address the threat. As result, those powers are almost never used (an exception was the COVID-19 crisis, where ESMA used its intervention powers to lower the threshold for the reporting of significant net short positions in shares). In conclusion, ESMA's role is limited to using soft tools such as common supervisory actions, peer reviews, guidelines or Q&As, or by promoting exchange of information, discussions of supervisory cases, and sharing of best practices in the relevant ESMA standing committees or working groups, to which NCAs participate.

A fundamental obstacle to achieving supervisory convergence in the asset management sector lies in the limits of ESMA's mandate. ESMA does not have direct access to case-specific supervisory information held by NCAs, nor any role in coordinating the day-to-day supervision of asset managers or the marketing of investment funds. As a result, it lacks visibility into how rules are applied in practice across the EU and where the barriers to cross-border activities lie.

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[615] Regulation (EU) 2024/2809 of the European Parliament and of the Council of 23 October 2024 amending Regulations (EU) 2017/1129, (EU) No 596/2014 and (EU) No 600/2014 to make public capital markets in the Union more attractive for companies and to facilitate access to capital for small and medium-sized enterprises (OJ L, 2024/2809, 14.11.2024, ELI: http://data.europa.eu/eli/reg/2024/2809/oj).

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In addition, when ESMA detects - or is informed through the complaint mechanism - that persistent barriers to cross-border activities exist, it cannot trigger a structured escalation process to resolve the issue. In practice, ESMA cannot take proportionate actions, from advising NCAs, to initiate a mandatory collaborative platform to foster coordinated case resolution, or, as a last resort, resort to binding mediation. Its mediation powers are in fact limited to specific cases under UCITS and AIFMD, and do not extend to CBDR, and can be used only at NCAs requests.

Existing convergence tools, such as peer reviews or supervisory briefings, have limited impact, as ESMA must rely on ex-post surveys rather than having insight into real supervisory cases. This prevents it from effectively detecting divergences or addressing inconsistent treatment, for example in cross-border fund marketing or intra-group delegation. Moreover, there is no systematic EU-level process for sharing risk-related information between NCAs, further constraining supervisory convergence.

To address these shortcomings, ESMA could be granted new coordination powers that are operational in nature and directly linked to the day-to-day supervision of asset managers and the marketing of investment funds. A prerequisite for such operational cooperation is that NCAs apply the same rules in a consistent manner, which requires reducing national discretion in many areas. Only with a common rulebook and harmonised supervisory approaches can ESMA ensure effective coordination, avoid duplicative processes, and promote close cooperation between NCAs when overseeing cross-border groups and marketing activities. Such an operational coordination role would strengthen the functioning of the single market while respecting the role of NCAs as front-line supervisors.

However, stakeholders in the consultation opposed the idea of a single centralised supervisor, arguing that this would represent a major institutional shift and could add complexity rather than simplifying supervision. They expressed priority to be able to interact with NCAs with knowledge and experience within their jurisdiction and stressed the importance of maintaining close contact with them. According to them, the real issue is not the existence of multiple supervisors but the lack of consistency: NCAs should apply the same supervisory approach and follow the same rules, with ESMA's role in coordinating NCAs' supervisory practices ensuring that this is the case in practice.

In this context, ESMA should be granted the power to take proportionate action vis-à-vis NCAs, included extended binding mediation powers at ESMA's initiative.

In the case of **CASPs**, ESMA is empowered to maintain a number of registers containing information on the number of authorisations granted by NCAs or on non-compliant entities providing crypto-asset services. It can also monitor the market for crypto-assets other than asset referenced tokens and e-money tokens, which are marketed, distributed or sold in the Union. These registers are mainly providing transparency and information but they are not a tool for convergence. ESMA can also temporarily prohibit or restrict the marketing, distribution, or sale of certain types of crypto-assets, if they pose a threat to investor protection, the orderly functioning and integrity of financial markets, or the stability of the whole or part of the financial system in the EU. Product intervention powers are a temporary measure and can be used only in very specific circumstances.

In terms of significant CASPs, i.e. according to MiCA those with more than 15 million active users across the EU, the competent authorities of their home Member States provide an annual update to ESMA on limited supervisory issues, followed by an exchange of views at ESMA's Board of Supervisors. Where appropriate, ESMA may make use of its, limited, powers to fulfil its coordination role and promote a common supervisory culture but is neither involved in the

authorisation and supervision of CASPs, nor the passporting of crypto-asset services to Member States other than the home Member State. ESMA has published supervisory convergence measures to ensure the NCAs adopted similar practices but its supervisory briefing on the procedure for authorisations, which aimed to assist NCAs in the practical application of requirements, so far did not lead to a harmonised approach. Supervisory convergence measures also include forum discussions amongst NCAs on selected applications and best practices but rather than improving the level of harmonisation, they highlight the different approaches of the NCAs and lead to mistrust and home-host tension. Achieving convergent supervisory approaches in a new and versatile area of financial markets like crypto-assets, is proving to be particularly challenging. All these measures, although discussed and decided with the NCAs, are not binding and rarely express the NCAs views in a unanimous way. There is an urgent need for convergence, but current convergence tools fall short.

In the area of enforcement, based on information gathered by ESMA in 2020, between 2015 and 2019 out of the total of 1 474 cross-border financial penalties imposed by NCAs for breaches of EU securities legislation and to be enforced outside their jurisdiction, 335 have not been recovered, to the overall value of approximately EUR 35 million.[616] The cause of this failure appears to be the lack of a mechanism for mutual recognition of administrative sanctions decisions allowing the rapid and efficient cross-border enforcement of a fine. This problem illustrates further the inconsistent and weak enforcement framework used by national authorities, especially in cross-border contexts that are most relevant for the single market.

In short, the challenge lies in ESMA's limited role and absence of direct supervisory responsibilities - preventing a coherent, EU-wide supervisory approach and perpetuating fragmentation in oversight. Several respondents to the consultation highlight that the EU currently lacks sufficient tools and powers at the central level to enforce supervisory convergence and ensure effective oversight. Replies suggest that more robust decision-making processes, binding convergence tools and expanded EU-level powers for ESMA are necessary to ensure consistent and effective supervision across the Single Market.

3.4. OBJECTIVE (WHAT DO WE WANT TO ACHIEVE)

3.4.1. Improve supervision by reducing divergences and ensuring adequate cross-border supervision

The overall goal of the European supervisory framework is to promote effective and efficient supervision of the EU financial system, in particular with regard to cross-border activities and entities, which ensures financial stability, appropriate protection of consumers and investors, and the proper functioning of financial markets in the EU. Fragmented supervision and divergent national practices can lead to regulatory inconsistencies, compliance complexity, and barriers to the free movement of financial services within the Single Market. By fostering greater supervisory convergence and cooperation, and by improving oversight of cross-border entities, as well as entities with cross-border interdependencies, including by transferring supervisory powers to ESMA, the EU can reduce duplication of efforts, lower compliance costs for firms, and enhance investor confidence. As a result, this objective not only strengthens the resilience of the financial system but also contributes to deeper market integration, enabling a

[616] Further examples shared by a few ESMA members confirms that the problem persisted beyond the surveyed period: as a way of example, one NCA reported that between 2020 and 2022 the unrecovered financial penalties imposed upon both physical persons and companies amounted to EUR 1 785 000.

more competitive, innovative, and inclusive European financial sector. Improving supervision by reducing divergences means strengthening the supervisory capacity by increasing its efficiency and effectiveness to detect, assess, and address emerging risks in a timely and proportionate manner, while reducing unnecessary administrative burdens and overlap. This, in turn, enhances the quality and responsiveness of oversight, particularly in increasingly complex and interconnected financial markets. A more efficient and effective supervisory framework directly supports the broader objective of promoting market integration, by creating trust in the well-functioning of capital markets and by reducing costs for cross-border operations. Removing existing divergences and improving supervision supports simplification by streamlining regulatory processes and reducing administrative burdens and cost for financial institutions. This streamlined approach not only makes compliance easier but also ensures that supervision remains focused on key risks and priorities, thereby enhancing clarity and consistency across the financial sector.

Replies to the consultation highlight that achieving a more efficient and integrated internal market requires addressing persistent supervisory divergences that increase compliance costs, create legal uncertainty, and hinder cross-border financial activities. Stakeholders emphasise that fragmented supervision, varying interpretations of EU rules, and inconsistent enforcement by NCAs undermine market efficiency and prevent firms and consumers from fully benefiting from the Single Market. Several advocate for expanding ESMA's direct supervisory powers over systemic and/or cross-border entities to ensure uniform application of rules, reduce regulatory arbitrage, and enhance investor protection. Replies underline that reducing supervisory divergences is key to lowering barriers, reducing costs for cross-border operations, and delivering a more competitive, resilient, and consumer-friendly EU financial market.

To address these challenges, the EU aims to move towards a more harmonised and coordinated supervisory framework, with ESMA playing a greater and more direct role in supervisory activities, where appropriate, differentiating where necessary to take into account different risk profile and risk propagation. Increased involvement of ESMA will help ensure uniform application of rules, improve the quality and consistency of supervision, and facilitate early identification and mitigation of risks. A more coherent supervisory approach will also enable better resource allocation, reduce inefficiencies, and ensure that oversight remains proportionate to the risks involved.

4. POLICY OPTIONS AND ASSESSMENT

1. Policy option	2. Option 1 - Status quo	3. Option 2 – Improved supervisory convergence and an enhanced role for ESMA in supervision	4. Option 3 - ESMA single supervisor for all EU trading venues, post trading, asset managers, and CASPs
1. Trading sector	5. The baseline scenario – no changes in the current powers of ESMA 6.	• ESMA would directly supervise the most significant trading venues in terms of size and cross-border dimension that are currently under national supervision • Making greater use of ESMA's supervisory convergence tools across all trading venues (regardless of their profile)	7. Centralised supervision at Union level of all EU trading venues 8.

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2. Post trade sector	9. The baseline scenario – no changes in the current powers of ESMA 10.	• ESMA would directly supervise the most significant cross-border CSDs and most significant cross-border FMI groups and the largest CCPs that are currently under national supervision • Making greater use of supervisory convergence tools across all the CSDs and CCPs (regardless of their profile)	11. Centralised supervision at Union level of all EU CSDs and CCPs 12.
3. Asset management sector	13. The baseline scenario – no changes in the current powers of ESMA	• ESMA would have enhanced powers to ensure supervisory convergence and a coordinated approach to the oversight of asset managers within large asset management groups • ESMA would coordinate cross-border fund provision by receiving notifications, resolving NCA divergences, notably in collaboration platforms. • Making greater use of supervisory convergence tools across all the asset managers (regardless of their profile)	14. Centralised supervision at Union level of all the EU asset managers 15. 16. ESMA would ensure the effective functioning of the cross-border marketing of investment funds
4. CASP sector	17. The baseline scenario – no changes in the current powers of ESMA	• Centralised supervision at Union level of all EU CASPs	18. Centralised supervision at Union level of all the EU CASPs

4.1. OPTION 1 – NO POLICY ACTION

Current powers in relation to regulatory and supervisory convergence tasks remain unchanged, as well as ESMA's direct supervisory responsibilities (baseline scenario).

Under the baseline scenario of no policy action, the current fragmented and nationally driven supervisory framework across all key financial sectors - CCPs, CSDs, trading venues, asset managers, and CASPs - would persist. Supervision would continue to be conducted primarily by NCAs, with limited and non-binding coordination roles for ESMA. As a result, regulatory and supervisory convergence across the EU would remain slow and uneven, with Member States applying EU rules differently, due to divergent supervisory practices, resources, and interpretations. This fragmentation would perpetuate an uneven playing field, inefficiencies, and increased compliance burdens - especially for cross-border groups - which face duplicative supervision, inconsistent oversight, and greater operational complexity. This situation would also continue to act as a barrier for reaping the benefits of the Single Market and fostering opportunities for entities willing to expand their business in other Member States.

If cross-border supervision does not keep up with the increase in cross-border activities, it might not be effective enough to protect consumers and investors, as well as market integrity and financial stability. While, in some cases, colleges of supervisors help the exchange of

information and should further convergence, their scope and efficiency remain limited, for example in the field of CCP, the colleges are entity specific and thus the emphasis is on information sharing rather than convergence. In the extreme, undetected risks might endanger market integrity or financial stability.

Replies to the consultation caution that if no action is taken to address supervisory divergences and fragmented enforcement, the EU risks perpetuating market inefficiencies, regulatory arbitrage, and an uneven playing field. Some stakeholders warn that continued inconsistencies across national supervisory practices will sustain higher compliance costs for firms, limit cross-border growth, and weaken the EU's global competitiveness. Several responses also highlight that without intervention, investor protection and financial stability oversight may remain inadequate for systemic and/or cross-border entities, leaving the EU exposed to emerging risks. Furthermore, they stress that failure to act would reinforce operational complexities and legal uncertainties, deterring investment and integration within the Single Market. Ultimately, stakeholders argue that inaction would undermine the objectives of the Savings and Investments Union, stalling efforts to mobilise private capital for EU strategic priorities.

Without action, the baseline scenario would evolve towards an unsustainable situation and a worsening of the general problem described in Section 3, i.e., fragmentation due to divergent supervision.

4.1.1. Baseline for CSD

Under the baseline scenario, the supervision of EU CSDs would remain fragmented and primarily conducted by NCAs. While there would likely be some improvement in terms of supervisory convergence for CSDs, for which colleges were introduced under the CSDR Refit, the large majority of the issues identified above would persist, ultimately maintaining the current unlevel playing field for CSDs, as well as leaving the potential risks to the EU's financial stability unaddressed.

4.1.2. Baseline for CCPs

Under the baseline scenario, the supervision of EU CCPs would remain fragmented and primarily conducted by NCAs. While the recent enhancements under EMIR 3 are expected to bring certain improvements in terms of supervisory convergence, in some instances significantly, most of the issues identified above would persist, ultimately maintaining the current unlevel playing field for CCPs and risks to financial stability.

4.1.3. Baseline for trading venues

Under the baseline scenario, the current fragmented supervisory framework for trading venues would persist. Trading venues would continue to operate under divergent interpretations of EU law and different supervisory approaches, leading to an uneven playing field. Cross-border trading groups would remain subject to duplicative and inconsistent supervisory requirements and face multiple NCAs, resulting in operational inefficiencies and high compliance costs. The fragmented supervisory framework would continue to prevent these groups from streamlining operations across the EU and hence prevent economies of scale, synergies and cost savings. Additionally, NCAs would continue to have no or limited visibility over the operations of trading venues that are established in another Member State but may still be relevant in terms of supervision as, for example, they have a high market share in the secondary trading of securities from issuers established in their jurisdiction. Overall, the baseline scenario would perpetuate an unlevel playing field, inefficiencies, unnecessary compliance burdens and costs,

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hence limiting the opportunities which a fully integrated single market should offer, as well as limit the consistency and possibly effectiveness of supervision of trading venues across the EU.

4.1.4. Baseline for asset managers

Supervision of EU asset managers would remain fragmented and nationally based, with each asset manager continuing to be authorised and supervised by its home NCA. The current lack of structured and consistent cross-border supervisory coordination would persist, particularly for large cross-border asset management groups operating through a mix of subsidiaries and branches. NCAs would continue to have limited visibility over the operations of these groups, leading to duplicated requests, inconsistent supervisory outcomes, and low levels of trust and coordination, at the asset managers and investment fund level. They would continue to apply divergent marketing rules, creating barriers and added complexity for the cross-border distribution of investment funds. There would be no expansion of voluntary colleges or introduction of structured EU-level mechanisms to coordinate supervision across jurisdictions. Numerous unstructured and often duplicative bilateral NCA interactions would persist. The heterogeneity of market structures and activities across the sector would continue to hinder the development of a coherent and efficient single market for asset management. Without any regulatory or supervisory change, the potential for supervisory inefficiencies, market fragmentation, and unequal treatment of market participants would remain unaddressed, hampering progress towards deeper financial integration in the EU asset management sector.

4.1.5. Baseline for CASPs

Under the baseline scenario, the current situation, where NCAs are responsible for supervising CASPs, will continue. ESMA will maintain its role in promoting supervisory convergence through guidance, Q&As, statements, supervisory guidance documents and best practices. However, this approach has not led to harmonisation in other sectors and although the crypto-market is still relatively new, it is expected the same scenario will play out in the case of CASPs. The risks of regulatory arbitrage and fragmentation in supervisory practises will persist and likely amplify over time. This may lead to a competitive disadvantage for CASPs operating in jurisdictions with a stricter interpretation of the rules, while those operating in jurisdictions with laxer interpretations in order to attract market participants may enjoy an unfair advantage. There is therefore a danger of a potential race to the bottom in terms of supervisory intensity, resulting in a disproportionate number of CASPs being authorised in a few jurisdictions while serving clients in the entire Union. Divergent supervisory approaches also mean that CASPs may need to adapt to different regulatory requirements and supervisory practices in each jurisdiction, which can be costly and time-consuming. The home-host tensions will continue to persist to the detriment of the single market.

4.2. OPTION 2 - IMPROVED SUPERVISORY CONVERGENCE AND ENHANCED ROLE FOR ESMA IN SUPERVISION

This option is composed of 3 interlinked blocks. Each of them is described below:

- Enhanced supervision
- Supervisory convergence
- Governance of ESMA

4.2.1. Enhanced supervision

This option comprises sector-specific measures by empowering ESMA with direct supervision over specific financial entities, which are already regulated at Union level but are supervised

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at national level. Enrico Letta, in his landmark report on the EU's Single Market[617], showcases the potential benefits of moving to a framework with a strengthened ESMA working in collaboration with NCAs, whereby ESMA takes responsibility for major entities in specific sectors such as "trading venues, issuers, asset managers, and other financial market participants". Similarly, the IMF, in its 2025 Annual Consultation[618] on the euro area, has specifically recommended strengthening ESMA's institutional and governance arrangements for supervision, including by "giving ESMA a wider range of supervisory powers and a sustainable funding framework, before expanding its direct, risk based supervisory mandate".

As discussed in the problem description, supervision of these entities at national level cannot (always) ensure effectiveness and efficiency, in particular with respect to the impacts the respective activities might have in other Member States than the one of the NCA. The following tasks could be transferred to ESMA:

1. Supervision of significant CCPs
2. Supervision of significant CSDs
3. Supervision of significant trading venues
4. Supervision of CASPs
5. Enhanced coordination of supervision of the most significant asset managers groups and of cross-border marketing of investment funds

As a horizontal measure, to strengthen the effectiveness of supervision in the areas that are not centralised, a legal basis for the enforcement of administrative sanctions in cross-border contexts would be introduced in the ESMA Regulation.[619]

The following general impacts are expected:

Centralisation of certain tasks and powers, in particular those related to areas of significance to the EU (CCPs, CSDs, trading venues) and with a high degree of cross-border activities (asset managers' groups, CASPs) within the EU would lead to considerable gains in efficiency and effectiveness of supervision across the EU compared to the baseline scenario. This option would ensure a more coherent and risk-sensitive supervisory response across Member States. Direct supervision of certain financial entities would enable a proportionate and targeted approach for addressing issues related to institutional fragmentation and single jurisdiction-focused supervision. Enhanced supervisory convergence tools would support more consistent rule interpretation, improve enforcement across jurisdictions, and address diverging national practices that currently hinder market integration and investor protection. This option would address the fundamental issues of the baseline scenario while ensuring integrated Union-level supervision for cases where it brings the largest added value. Furthermore, this option would simplify the supervisory framework for those entities in scope, contributing to the overall objective of reducing burden on entities. It would also facilitate their relationship with supervisors.

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[617] Enrico Letta - Much more than a market (April 2024).

[618] Euro Area Policies: 2025 Annual Consultation-Press Release; Staff Report; and Statement by the Executive Director for Member Countries.

[619] Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC (OJ L 331, 15.12.2010, p. 84. ELI: http://data.europa.eu/eli/reg/2010/1095/oj).

Central supervision may not always be the most appropriate tool for small or locally focused entities, where national supervision offers greater flexibility and responsiveness. Therefore, NCAs would remain responsible for supervising locally active entities, where proximity and knowledge of local market conditions are important and potential spill-over effects to other Member States limited. Divergent interpretation and application of rules at national level may still occur, therefore strengthening supervisory convergence tools is critical to ensure consistent outcomes.

Supervision conducted at EU level allows for significant economies of scale and reduces inefficiencies linked to fragmented national supervision by pooling resources, expertise, and infrastructure. Instead of duplicating efforts across different national authorities—e.g. each assigning a fraction of an FTE to supervise a CSD—central supervision enables the creation of specialised teams with deeper knowledge and broader oversight. It would also allow for shared development of SupTech tools, reducing costs and avoiding fragmented IT investment. Centralising supervision of entities with a predominantly cross-border footprint would eliminate unnecessary compliance duplication and inconsistencies, helping to lower compliance and administrative costs for firms and enhancing the EU's competitiveness as a financial centre. These benefits would also indirectly support deeper capital market integration and reinforce investor confidence in the integrity and stability of the EU financial system.

The option is in line with the principles of proportionality (involving sufficient but not excessive powers and resources allocated to EU level) and subsidiarity (considering that national supervisory authorities would remain part of the integrated supervisory system, even in cases where direct supervision is transferred to EU level and such direct EU supervision would only cover entities for which central supervision is more efficient).

There is clear momentum among stakeholders in favour of enhancing ESMA's central supervisory role in targeted areas, notably for systemically important, cross-border entities and emerging digital sectors. In their replies to our consultation, several stakeholders highlighted that centralising supervision under ESMA would enhance consistency, reduce fragmentation, increase efficiency, enable better oversight of cross-border and emerging risks and improve investor protection across the EU. Central supervision in the areas selected above is also seen as a way to simplify the European rulebook, reduce operational complexities, and enhance the EU's global competitiveness in financial services. Respondents emphasise the need to ensure that ESMA focuses on areas where EU-level oversight adds the most value, while national authorities continue to supervise smaller, locally-focused entities. This dual approach aligns with the EU's strategic ambition to build a stronger, more cohesive Savings and Investment Union.

The specific impacts of the proposed changes can be described as follows.

4.2.1.1. Supervision of significant CCPs

Under this option, ESMA would become the supervisor of the largest, most important CCPs in terms of risks. ESMA would also supervise EU CCPs that are part of a market infrastructure group within which other entities are also subject to ESMA supervision. In practice that would mean between [5 and 8 CCPs out of the 14 CCPs] authorised under EMIR.

This option is consistent with the Savings and Investments Union strategy communication[14], which highlights the need to develop a more integrated EU post-trading landscape and states that "harmonised supervision can contribute to integrating markets by eliminating barriers to cross-border activity, creating a level playing field for market participants and fostering investors' confidence". It also states that there are some cases where market participants have a significant cross-border presence, such as "large trading and post-trading infrastructures"

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where a "supervisory perspective that extends beyond the national level can bring useful synergies".

This option is also supported in the Draghi Report[15], according to which ESMA should be entrusted with supervision of CCPs. Finally, it is also consistent with the Letta Report[16], which suggested that ESMA could assume more supervisory responsibilities for the "major entities", identified based on their size, cross-border activities and systemic importance. In addition, amongst the respondents to the public consultation, a couple of them suggested that EU CCPs could be classified by their systemic importance and the most systemic ones would be subject to centralised EU supervision, while the others would remain under the supervision of NCAs.

Under this option, in addition to the direct access to all necessary supervisory information, ESMA would be competent to take all supervisory decisions on the CCPs it supervises. This would allow it to monitor and effectively address cross-border risks, ensuring financial stability. Indeed, due to the concentration of clearing members across CCPs (i.e. CCPs have largely the same clearing members), a default of a clearing member would have an impact on many CCPs. ESMA's power over the most significant CCPs, would help to manage such cases effectively and efficiently as it would avoid the coordination time between the NCAs of the various CCPs and allow for a single, global view of the default management process.

For the CCPs under ESMA's direct supervision, this option would eliminate the problems arising from inefficient supervisory cooperation and ensure full supervisory convergence.

This option would imply significant costs for ESMA: one-off (e.g. setting up procedures and tools to assume the role of the single supervisor and for cooperating, to the extent necessary, with other authorities) and recurrent (significant extension of supervisory capacity in ESMA, operation of the single supervisor), even though some economies of scale could occur since ESMA already has supervisory teams, tools and procedures for the direct supervision of Tier 2 third country CCPs. These costs would be ongoing and could be covered via fees levied on EU CCPs, whereas currently some EU CCPs are subject to substantial supervisory fees by their NCAs, whereas others are not. A few respondents to the public consultation raised a concern regarding these supervisory fees. But those concerns were mainly raised regarding small CCPs, which would not be captured under this option, and for whom the current framework of EMIR 3 will continue to apply. To note that since these 'non-significant' EU CCPs would still be supervised by their local NCAs, additional costs will also occur for supervisory convergence regimes.

4.2.1.2. Supervision of significant CSDs

Under this option, ESMA would become the supervisor of the largest, most significant CSDs and the most significant cross-border groups of CSDs. In principle, ESMA would also supervise CSDs that are part of a market infrastructure group within which other entities are also subject to ESMA supervision. National CSDs which are not of substantial importance would remain under national supervision. In practice that would mean between [10 and 13 CSDs out of the 25] authorised under the CSDR.

ESMA would also have a convergence role with respect to the smaller CSDs that are not subject to direct supervision and an increased cooperation with the relevant central banks of issue.

As in the case of CCP supervision, this option is consistent with the SIU Communication, the Draghi Report and the Letta Report.

For CSDs under ESMA's direct supervision, this option would eliminate the problems arising from authorities' inefficient supervisory cooperation and ensure full supervisory convergence throughout the EU. Furthermore, under this option, ESMA would have direct access to all

necessary supervisory information and would be competent to take all supervisory decisions on these CSDs it supervises.

Many stakeholders consulted so far did not at this stage advocate for centralised ESMA supervision and expressed concerns about it, particularly highlighting the risk of loss of NCA proximity and agility, and the risk of an increase in supervisory costs. However, many stakeholders (including some of those not advocating for integrated supervision) pointed out that a lack of convergence persists in CSD supervisory practices, particularly in relation to cross-border provision of services and outsourcing, as well as on regulatory reporting and supervisory assessments of important changes with the CSDs.

Several relevant stakeholders (and notably CSDs with cross-border and group activities) advocated for stronger convergence and predictability of supervisory practices, including through integrated EU supervision, in order to eliminate inconsistencies, reduce compliance burdens and strengthen the integration of EU capital markets. According to some respondents, single supervision would help in removing several existing barriers to market integration, notably it could facilitate the provision of cross-border services and simplify and accelerate the procedure for outsourcing of CSD services. Other respondents however disagreed with this, noting that single supervision would not be the solution to barriers to market integration.

This option would imply significant costs for ESMA: one-off (e.g. setting up procedures and tools to assume the role of the single supervisor and for cooperating, to the extent necessary, with other authorities) and recurrent (significant extension of supervisory capacity in ESMA, operation of the single supervisor). These costs would be ongoing and could be covered via fees levied on EU CSDs, whereas currently not all EU CSDs are subject to supervisory fees from their NCAs.

This option is considered the most balanced and effective solution to achieve supervisory consistency and efficiency. It would allow for a consistent supervisory approach on cross-border CSD activity and as such facilitate the development of cross-border settlement, while ensuring that risks are appropriately mitigated. It would also provide a harmonised supervisory framework for CSD groups, removing barriers to the full development of cross-border group synergies and to the effective consolidation of market infrastructures. It would ultimately reduce burdens for CSDs and other relevant stakeholders by ensuring alignment, consistency and predictability of supervision. This approach would also ensure proportionality as NCAs would remain the lead supervisors for national CSDs with no significant cross-border activity.

ESMA is considered the most appropriate authority to lead EU supervision of significant CSDs, in light of its experience as a regulator and coordinator of working groups and task forces in the settlement domain and in light of the expertise it acquired through continuous interactions with NCAs, CSDs and market players. This was confirmed by several respondents to the public consultation.

The role of relevant authorities (the authority responsible for the oversight of the security settlement system(s) operated by a CSD, the relevant central banks of issue) under the CSDR would remain, as well as that of the banking supervisors for CSDs with a banking license.

4.2.1.3. Supervision of significant Trading Venues

Under this option, ESMA would become the supervisor of the largest trading venues in the EU that also have a significant cross-border dimension. In addition, if a trading venue is subject to ESMA supervision, all trading venues that are operated within that group would also be subject to ESMA supervision. Trading venues that are less significant in terms of size and cross-border dimension and are not part of such a group would remain under national supervision.

As in the case of CCP and CSD supervision, this option is consistent with the SIU Communication, the Draghi Report and the Letta Report.

Scope of trading venues that would fall under EU-level supervision

Under this option, trading venues that would meet two criteria would fall under EU-level supervision: (i) they are significant (large in size) in terms of market share of total EU trading volume in at least one asset class (taking into consideration the trading volume at group level, where relevant), and (ii) they have a significant cross-border dimension. The latter could be assessed for example by looking at the cross-border dimension of the trading venue itself (for example when the trading venue hosts a significant volume of trading in financial instruments that are issued in other Member States), or the structure of the group to which the trading venue belongs.

Supervisory powers

In terms of supervisory responsibilities to be transferred to EU level, one must distinguish between (i) the supervision of the market operator managing the regulated market or of the market operator/investment firm managing the MTF or OTF, and (ii) the supervision of the market itself (market surveillance). The former notably covers the powers to grant (or withdraw) the authorisation to operate a trading venue, and the powers to check if the market operator/investment firm complies with EU legislative requirements in terms, for example, of organisational requirements, governance, resilience (e.g. requirements as regards the risk, audit and, compliance functions, outsourcing), rules and procedures to provide fair and orderly trading and efficient execution of orders (exchange rulebooks), IT systems and trading processes. The latter relates to the obligation to ensure that market operators/investment firms fulfil their obligations to survey the trading activity on the regulated markets, MTFs and OTFs which they are operating, notably to identify possible disorderly trading conditions (e.g. high volatility events, unaccounted price developments in illiquid securities) and conduct that may be prohibited under the market abuse framework (e.g. insider dealing, market manipulation). Associated to these are powers to suspend trading or remove specific instruments from trading, and powers to investigate and possibly prosecute potential market abuse cases.

The preferred policy option foresees transferring the supervision of the market operator/investment firm operating trading venues to EU level, while keeping market surveillance at national level. At this stage, this option is seen as more proportionate and effective than a transfer to EU level of all supervisory powers because national market surveillance teams typically also serve other NCAs' departments such as those responsible for the supervision of issuers or investment firms and the one in charge of the investigation of possible cases of market abuse, as well as possibly the separate entity in charge of the possible prosecution of such cases (possibly leading to criminal sanctions, which is a national competence). In addition, effective market surveillance, which involves analysing extensive streams of data, requires large teams of expert staff who have developed an in-dept understanding of and proximity with local markets and sizable ICT infrastructures, which so far have been progressively built at national level in some Member States. Therefore, even if the transfer of market surveillance tasks at EU level would be expected to result in a more efficient detection of market abuse cases (in particular when such cases take place in several Member States) and to generate significant synergies and cost savings for NCAs (notably as regards IT systems/software) as well as groups of trading venues operating across borders and now facing different approaches and requirements from national supervisors as regards market surveillance), such a transfer of powers would require a step by step approach, which should start with improved sharing/collection of the relevant data – in particular order book data - at EU level.

Impact

The transfer of supervisory powers to EU level is expected to lead to a more uniform application of MiFID/R requirements for trading venues associated with the 8-11 groups that would be expected to fall in scope of EU-level supervision, i.e. approximately 30-40 market operators , which would represent at least two-thirds of the on-venue trading activity in the main asset classes (shares, bonds, exchange traded funds (ETFs), derivatives) in the EU. The benefits of a uniform supervisory approach across the EU would leverage on the enhanced single rule book for exchanges that is also put forward as part of this SIU legislative package. In fact, combining a transfer of some rules governing regulated markets, MTFs and OTFs from MiFID II to MiFIR (hence avoiding transposition in different national laws) and a unique supervisor will greatly enhance the level playing field for trading venues falling under EU-level supervision. It will also make it easier and less costly to operate cross-border. For groups operating trading venues in several Member States (or regions within some Member States), and thus dealing with different supervisors, this approach would effectively eliminate divergent interpretations of EU law as well as different supervisory practices and requirements.

Even though it was not possible to collect comprehensive estimates of potential cost savings, anecdotal evidence shows that they can be significant – and maximised if associated with the measures envisaged to enhance market integration. One stakeholder operating in several Member States estimated that centralising supervision would yield it savings in tens of millions of euros annually by rationalising its operations, corporate structure and local governance presence in the different Member States in which it operates. These savings would come from eliminating duplications and exploiting synergies notably as regards compliance, market surveillance, risk management as well as support functions for example in the legal, finance and human resources departments. An additional significant benefit would be faster approval of new products launches – compared to the current situation where different pre-approval requirements apply and where approval processes can take several months in some Member States, which delay the launch of new products across the whole group and represent opportunity costs of low single digit millions of euros for every new product launched. Such groups would fully benefit from the costs savings and economies of scale of a truly single market. This would significantly enhance their competitiveness vis-a-vis other EU and non-EU trading venues. It could also facilitate the consolidation of EU trading venues across borders.

For trading venues that would remain outside the scope of EU-level supervision and continue to be supervised at national/local level, it is expected that EU level supervision of significant trading venues will establish a benchmark for supervisory practices across the EU. Consequently, it is expected, to some extent, to also create a more level the playing field for these venues.

This option would imply significant costs for ESMA: one-off (e.g. setting up procedures and tools to assume the role of the single supervisor and for cooperating, to the extent necessary, with other authorities) and recurrent (significant extension of supervisory capacity in ESMA, operation of the single supervisor). These costs would be ongoing and could be covered via fees levied on EU trading venues.

4.2.1.4. Supervision of CASPs

Under this option, ESMA would be responsible for supervising all CASPs. By centralising supervision at the EU level, ESMA can ensure that the risks, associated with CASPs are adequately addressed. The expected impact of this option is enhanced supervision of CASPs, reduced risks of regulatory arbitrage, and improved consistency in supervision.

Under this option, ESMA would be able to determine the best way to allocate resources and intensity of supervision. In this way, ESMA will have the overview of the provision of crypto-asset services in the Union. For example, CASPs with a significant number of active clients, value of assets under custody, providing multiple crypto-asset services and having a considerable cross border activity are likely to be more risky and hence subject to more intense supervision. They could for that purpose be categorised as significant. 20 out of the 36 respondents to the consultation responded that significant CASPs may be subject to different risks than smaller CASPs. The majority of respondents went on to clarify that risks posed by significant CASPs can be addressed at EU level. By rendering ESMA the supervisory authority, the level and intensity of supervision can be targeted to those CASPs that pose the most risks.

Significant CASPs pose financial risks, as well as risks to market integrity and require more consistent and specialised supervision. Significant CASPs usually operate on a (large) cross-border basis, serve large and often retail-dominated client bases, and offer a wide range of services within a single group structure. This multiplies their operational, compliance, and legal risks across jurisdictions. Some may also reach a level of market relevance such that their failure could trigger broader market disruptions through loss of client funds, breakdown of liquidity provision, or adverse effects on confidence in crypto markets more generally. Their centrality in certain token ecosystems can further exacerbate such risks. Due to their scale and visibility, and in particular because they tend to custody crypto-assets that are bearer digital assets existing on a permissionless blockchain infrastructure and therefore can be stolen, they are also more attractive targets for cyberattacks.

A bankruptcy, interruption in service, misconduct, other kinds of incidents at significant CASPs would have much wider ramifications than if these happened at a smaller, non-significant CASP. This could lead to overall public mistrust of the market, a run on CASPs, mistrust among CASPs, leading to a freezing up of business among market participants, among other issues.

ESMA would therefore tailor the intensity of supervision, which could include the organisation of supervisory tasks, in proportion to the degree of risk and significance. While MiCA currently contains a simple approach to measuring significance (15 million active users), further indicators for identifying CASPs that are significant and hence could become subject of more intense supervision could also include assets under custody, degree of cross-border activity and/or type of crypto-asset services provided.

This option would imply significant costs for ESMA: one-off (e.g. setting up procedures and tools to assume the role of the single supervisor and for cooperating, to the extent necessary, with other authorities) and recurrent (significant extension of supervisory capacity in ESMA, operation of the single supervisor). These costs would be ongoing and could be covered via fees levied on EU CASPs.

4.2.1.5. Enhanced coordination of the supervision of large asset management groups and of the cross-border marketing of investment funds

Just as for trading venues, one must distinguish between the supervision of asset managers and funds themselves. The proposed review of asset manager groups' supervision within the EU aims to enhance supervisory convergence and coordination among NCAs in supervising large UCITS management companies and AIF managers. It seeks to reduce unnecessary costs and frictions for asset managers, acknowledging the sector's current regulatory and supervisory set up, complexity and increasing cross-border operations. This option aims to strike a balance between strategic decision-making and a coordinated supervisory approach, helping to avoid duplicative requests and inconsistent requests from one NCA to another.

As explained above, the complexity of today's supervision system for asset managers is further reinforced by the fact that Member States implement differing national rules, limiting the potential for supervisory convergence, as NCAs remain bound by their national frameworks. Therefore, a key enabler of the proposed option is the adoption of measures aimed at removing gold plating and national discretion in the transposition of the UCITS and AIFM directives, to ensure that asset managers and UCITS are subject to harmonised rules across the Union.

Under this option ESMA would be involved in the supervision of large asset manager groups. Large asset manager groups are defined as the top 10 – 15 asset managers with significant cross-border presence.[620] According to available data, each of these asset managers has assets under management exceeding approximately EUR 250 billion. Targeting only the largest cross-border groups ensures that the measure remains proportionate, focusing supervisory coordination where the risks and complexity are greatest. This approach avoids overburdening smaller, domestically active managers while enhancing supervisory consistency, reducing duplication, and improving oversight of entities with significant systemic relevance and investor exposure across the Single Market.

ESMA would ensure a coordinated approach to the oversight of large cross-border asset management groups through a mandate to carry out, together with NCAs, periodical group-wide review of the supervisory approach for asset management companies, which should foster a converged NCA supervision of asset management groups' activities. This could potentially include operations, management, risk monitoring or the corporate structure of the largest asset managers. NCAs would present the information on the entities of the group to have a consolidated view, including on the shared resources and functions (e.g. compliance function). Beyond those periodic reviews of large asset managers groups coordination under ESMA would include monitoring risks on an ongoing basis, using dashboards derived from supervisory data and risk indicators to identify emerging vulnerabilities, and initiate investigations by joint teams, if need be. In order to ensure that the costs incurred by ESMA in carrying out the reviews of large Union groups of management companies would be borne by those entities that benefit from an enhanced supervisory coordination, ESMA would charge those groups proportionate fees. Such fees would cover the reasonable costs related to the preparation, conduct and follow-up of the reviews referred.

This option would significantly enhance supervisory consistency and coordination across the EU. For larger asset managers and investment funds marketed on a cross-border basis, this would mean fewer duplicative information requests, more predictable supervisory outcomes, and smoother cross-border fund distribution. Supervisory decisions would be coherent across jurisdictions, reducing compliance burdens and mitigating the risk of conflicting approaches from different NCAs. This would improve regulatory certainty for both asset managers and investment products operating within the single market.

By establishing a safe environment for sharing confidential information, fostering trust and a shared understanding of large asset manager groups among NCAs, this approach would make it possible to exclude delegations to EU-authorised entities from the scope of the delegation framework. In practice, this means that the NCA responsible for supervising the delegating asset manager would receive all necessary information directly from the NCA supervising the delegate. Consequently, asset managers would no longer need to duplicate reporting efforts or provide the same information to multiple authorities. Furthermore, they would be exempt from

[620] Based on assets under management criteria.

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the costs and administrative burden of overseeing intragroup delegations, as these would no longer be subject to separate supervisory requirements.

At the investment fund level, ESMA's pivotal role in collaboration platforms, would ensure convergence in the supervision of funds provided on a cross-border basis. The design of collaboration platforms in this area would be similar to existing models for collaboration platforms in other areas of the EU financial services acquis but with a stronger role for ESMA in initiating procedures and doing binding mediation, facilitated by the proposed setting up of an ESMA cross border notification marketing data base.

ESMA would be actively involved in the seamless passporting of UCITS funds and AIFs by centralising notifications (see Annex on asset management), operating collaboration platforms, thereby addressing NCAs disagreement or handling stakeholders' complaints. ESMA would exercise binding mediation powers. ESMA would coordinate the single market supervision of UCITS and AIFs through the establishment of collaboration platforms. ESMA would: (i) set the agenda for such collaboration platforms; (ii) host regular collaboration platforms, manage workflows, and share relevant information on a dedicated IT tool (accessible to NCAs) for UCITS funds and AIFs operating in the single market; (iii) initiate ad hoc collaboration platforms based on complaints from NCAs, market participants or consumers; and (iv) facilitate role between NCAs in the collaboration platform. ESMA's Executive Board and Board of Supervisors would have to play important roles in this regard.

4.2.2. Supervisory convergence

Changes in the ESMA Regulation could be introduced to ensure that ESMA can perform its tasks efficiently and effectively. Below is a detailed description how supervisory convergence can be strengthened.

Currently, ESMA is not making full use of its supervisory convergence tools to identify and tackle significantly divergent national practices. Notable inconsistencies in several regulatory domains could be addressed using existing tools.

The majority of respondents to the consultation think that the current supervisory convergence tools are not used to the extent that is possible and that the current governance and decision-making processes within ESMA do not provide sufficient incentives for the use of supervisory convergence tools. Respondents further explain that ESMA's consensus-driven model led by NCAs creates conflicts of interest and discourages assertive action and that ESMA lacks independent executive power and incentives to drive supervisory convergence. In addition, respondents perceived significant shortcomings in supervisory convergence tools such as breach of Union law, no action letters and binding mediation amongst others, which result in a lack of use or minimal use of these tools.

This policy option involves improving the incentives to use supervisory convergence tools, which will be achieved by increasing the accountability, transparency and independence of ESMA's supervisory convergence mandate. This will involve moving supervisory convergence decisions to an Executive Board with decision-making powers for supervisory work.

Decisions in the area of supervisory convergence, i.e. opinions, recommendations, breach of Union law, peer reviews, binding mediation etc., would be transferred to the new Executive Board. These activities would be prepared in the same way as currently through standing committees in which all NCAs are represented. Draft decisions in this area would be adopted by the Executive Board to ensure that the EU perspective is taken into consideration. They would then go to the Board of Supervisors, via non-objection procedure for decisions in

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individual cases (breach of Union law, peer reviews, investigations) or via normal voting procedure for general acts of relevance for supervision (e.g. guidelines, Q&As etc.).

This option will also involve targeted enhancements to existing tools, such as the breach of Union law procedure, binding mediation, no action-letters, increasing transparency and accountability and making them easier to use. For example, improvements in the breach of Union law procedure would involve that any decision by ESMA not to open a breach of law case should be justified and made public, introducing more realistic deadlines for concluding an investigation and granting ESMA the power to issue decisions to NCAs, rather than mere recommendations. Binding mediation would be improved by giving financial actors and relevant stakeholders, and not just NCAs, the possibility to refer a matter to ESMA's binding mediation in the event of a significant divergence of interpretations or supervisory practices between two NCAs.

In addition, new tools that have proven their effectiveness in sector legislation, such as collaboration platforms, would be included in the supervisory toolset. Collaboration platforms with a strong role for ESMA, would facilitate coordination and information exchange between home and host supervisory authorities for significant cross-border activities. In the consultation, respondents reported that certain ESMA tools appear to be "toothless" due to the limited powers to enforce them and proposed to empower ESMA to issue a second opinion or binding advice in cases where national supervision is deemed ineffective, preventing products or entities from accessing the EU market without adequate supervision.

The proposed measures to improve the supervisory convergence framework are expected to have a substantial positive impact on improving consistency and effectiveness of supervision across all sectors. By increasing the accountability and transparency of ESMA's supervisory convergence mandate, and transferring decision-making powers to an Executive Board, ESMA will be better equipped to identify and address significantly divergent national practices. The targeted enhancements to existing tools, such as the breach of Union law procedure and binding mediation, will provide more effective mechanisms for resolving disputes and ensuring compliance with EU rules. Additionally, the introduction of new tools, such as collaboration platforms, will facilitate information exchange and cooperation between national supervisory authorities, leading to more consistent and effective supervision of cross-border activities. Overall, these measures are expected to lead to a more harmonized and effective supervisory framework, reducing the risk of regulatory arbitrage and improving the overall stability and integrity of the EU's financial system.

4.2.3. Governance changes required to ensure greater supervisory convergence and an enhanced role for ESMA in supervision

To ensure that ESMA can carry out the new tasks and competences in an efficient way, changes to its governance structure are needed under this option. The aim of these changes is to establish a lean, efficient and uniform decision-making process around a small executive board of independent members, while building on existing national supervisory capacities.

The new governance framework for supervisory tasks would be built around the following bodies.

- A **new Executive Board** would be composed of ESMA's Chair and 5 independent members, with diverse composition bringing different types of supervisory expertise (e.g. CCPs, CSD, trading venues, asset managers/funds, prudential, central banks, etc.). For entity specific decisions, the home NCA or relevant authorities (for example SSM/ECB and other central banks of issue) would be observers. The Executive Board would be the main decision-making body for direct supervision and supervisory

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convergence measures that target individual entities. The Executive Board would also take over the tasks of the current Management Board.

- The **Board of Supervisors** would be composed of the Chair, the heads of the NCAs and the members of the Executive Board. The Commission would be observer, for decisions relevant for CCPs and CSDs, SSM/ECB and other central banks of issue could attend as observers. The Board of Supervisors would approve or reject supervisory decisions[621] of the Executive Board within 10 days (1-3 days in urgent cases) in the form of a non-objection procedure. In the area of supervisory convergence, decisions in individual cases (breach of Union law, peer reviews, investigations and decisions addressed to NCAs) would go to the Board of Supervisors through the same procedure as for direct supervision via a non-objection procedure. On general acts of relevance for supervisory convergence (e.g. supervisory briefings, supervisory handbook, principles etc.) the Board of Supervisors would decide in a normal voting procedure.

  The Board of Supervisors would continue to adopt regulatory decisions.

- In building up supervisory capacity ESMA will rely on cooperation with NCAs and for day-to-day supervision may set up **joint supervisory teams**.

To avoid overburdening the Executive Board with a significant number of decisions, it would be important to provide it with the possibility to delegate decisions that are not key - such as refusal or withdrawal of authorisation, enforcement measures - to the Chair, one member, ESMA staff or the joint supervisory teams (for operational decisions). It should also be possible for the Executive Board to delegate some tasks/decisions to NCAs, so that only those with the greatest relevance for the Single Market would be taken directly by the Executive Board.

The advantage of the governance changes set out under this option is that they would align the governance arrangements with the new tasks, striking the right balance between efficiency and representation. The proposed changes would:

1. Ensure effective and swift decision-making processes compared to the current decision-making in the Board of Supervisors with 27 NCAs voting. The Executive Board with full-time members would meet more frequently than the current Board of Supervisors and the leaner structure would make it easier to achieve meaningful compromises. The approval or rejection of the Executive Board's decisions by an enlarged Board of Supervisors would be strictly framed to avoid blockages.
2. Ensure independent decision-making and reduce the propensity of inaction as regards supervisory decisions resulting from conflicts of interest faced by voting members. Such conflicts would be corrected by establishing the Executive Board with its independent members as the main decision-making body, subject only to a non-objection procedure by the Board of Supervisors under strict conditions.
3. Improve the incentives to use supervisory convergence powers by clearly allocating this responsibility to the new Executive Board.
4. The proposed set-up would rebalance the EU perspective and national perspectives, including in the Board of Supervisors where the Executive Board members would

[621] The non-objection procedure should be limited to key decisions, e.g. refusal or withdrawal of authorisation, enforcement measures etc.

become voting members while keeping NCAs involved to maintain proximity and market knowledge.

The design of ESMA's governance would thus be improved, providing the decision-making bodies with better incentives to use their powers in the supervisory area and better enable them to address upcoming challenges.

This approach would be in line with feedback received in the consultation where ESMA's governance is seen as too dominated by NCAs and national influences, impeding EU-wide interests. Stakeholders call for governance reforms include establishing an independent executive board to ensure more independent, expert-driven and agile decision-making. They also warn that ESMA supervision is perceived as more expensive compared to NCAs supervision.

4.2.3.1. Changes to the funding system and architecture

To ensure that the changes proposed under this option deliver their intended outcomes, ESMA must be equipped with a sustainable, fair, and adaptable funding framework. As ESMA's mandate expands—particularly through the assumption of new direct supervisory responsibilities—it becomes imperative to align its financial model with the increased scale and complexity of its tasks. A well-designed funding structure is not only essential to guarantee the agency's operational independence and effectiveness, but also to uphold the credibility, continuity, and resilience of EU-level supervision.

A reformed funding system should be guided by clear principles: those who benefit from ESMA's supervisory services should contribute proportionately to their cost; legal and procedural frameworks should be simplified to reduce administrative burdens; and the system must provide sufficient flexibility for ESMA to react to changing market conditions and emerging priorities, including the supervision of innovative or high-risk areas.

The following targeted funding changes are proposed:

- **Direct supervisory mandates should be fully fee-funded.** This ensures that the costs of supervision are borne by the supervised entities themselves, reinforcing the user-pays principle and safeguarding ESMA's financial autonomy. This would be in line with the current direct supervision mandates. At the same time ESMA's accountability will be strengthened with appropriate transparency and monitoring mechanisms. The cost of ESMA's convergence-related tasks linked to these mandates should also be included in the supervisory fee.
- **Fee for a specific service** – in the asset management area ESMA would carry out annual reviews of the largest Union groups of management companies. In order to ensure that the costs incurred by ESMA in carrying out these reviews are borne by those entities that benefit from an enhanced supervisory coordination, ESMA should charge those groups proportionate fees. Such fees should cover the reasonable costs related to the preparation, conduct and follow-up of the reviews referred.
- **Cost-recovery rules should be consolidated under the ESMA Regulation**. The principle of full cost recovery for direct supervision should be enshrined in the ESMA Regulation, replacing the current patchwork of sector-specific fee arrangements. Centralising this principle would empower ESMA with greater budgetary flexibility—allowing risk-based supervision. This would also support a more efficient, risk-based allocation of supervisory resources, ensuring ESMA can

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respond proportionately to supervisory demands. These measures would be accompanied with stronger monitoring and accountability mechanisms.

- **Clarify and streamline the legal architecture for fees**. Currently, sector-specific rules limit ESMA's ability to manage its budget efficiently. The ESMA Regulation should define the main principles of fee collection, including cost coverage, proportionality, transparency, and flexibility. Sector-specific details—such as calculation methods or payment modalities—could be set out in delegated acts on fees, allowing greater agility to adapt to sectoral dynamics without requiring legislative changes.
- **Reconsider the current NCA/EU contribution model**. Given ESMA's increasing role as a central pillar of the SIU, particularly in areas with strong cross-border and systemic implications, the existing 40:60 funding ratio between NCAs and the EU budget should be reassessed. A greater share of EU-level funding would be justified to reflect the pan-European value of ESMA's activities and the public good nature of integrated supervision. This would also support national authorities in managing the transition, as supervisory responsibilities shift to the EU level. This change depends on the outcome of the current negotiations of the next MFF.

Taken together, these changes would ensure that ESMA has the financial stability, flexibility, and responsiveness required to carry out its growing responsibilities efficiently and equitably, while maintaining public trust and accountability in its role.

4.3. OPTION 3 – ESMA SINGLE SUPERVISOR FOR ALL EU TRADING VENUES, POST TRADING, ASSET MANAGERS AND CRYPTO ASSET SERVICE PROVIDERS

Under this option, ESMA would be responsible for supervising all EU CCPs, CSDs, trading venues, asset managers and crypto asset service providers, regardless of size, significance or cross-border nature. NCAs will no longer be involved in authorisation and supervision of these entities. The rationale behind this option is to create a single, EU-wide supervisor, ensuring EU-wide consistency and eliminating the risks of regulatory arbitrage, forum shopping and divergent approaches to supervision. Especially for entities belonging to a group of companies, this option would offer a single point of contact, which can reduce regulatory complexity and costs.

The single supervisor could be organised as strictly central units or partially decentralised with offices or branches in all Member States either serving as contact points for (retail) investors and potential complainants as well as the supervised entities, or (partially) performing the supervision on the spot.

This option would reduce costs of supervision at Member State level considerably because it would no longer be required that competencies for all supervisory tasks in all areas are ensured separately in all Member States and because of a reduction of costs of coordination among competent authorities and with ESMA. It would exploit economies of scale to the full and avoid the duplication of tasks. In terms of effectiveness, this option would fully address the identified problem of limited tools and powers at EU level to enforce convergence and divergent supervisory practices.

4.3.1. Governance changes

In terms of governance, under this option ESMA would assume supervisory responsibilities following the model already in place for areas currently under ESMA's direct supervision. As for option 2 this would entail a significant restructuring of ESMA's institutional setup to

accommodate its expanded mandate as the sole supervisor of trading, post-trading, asset management, and crypto-asset services across the EU. Unlike option 2, day-to-day supervision would be carried out by ESMA staff, leveraging sector-specific expertise and operating under a unified supervisory framework. NCAs would no longer be involved in the day-to-day supervisory activities. A key institutional change would be the creation of a new Executive Board composed of a limited number of full-time members selected for their technical expertise and mandated to act in the interest of the EU as a whole, rather than representing national perspectives. The Executive Board would become the sole decision-making body for all supervisory decisions - including authorisations, sanctions, and enforcement actions – ensuring strategic consistency and operational independence from national influence. The current Board of Supervisors, which comprises representatives from NCAs, would no longer be involved in supervisory or regulatory decisions. However, a centralised body of this nature may face challenges in replicating the breadth of practical, on the ground supervisory expertise currently embedded within NCAs. In particular there is a significant risk that the loss of local knowledge and real-time insight - especially for entities operating in a purely domestic context - could impair the effectiveness of supervision.

4.3.2. Funding

In terms of funding, the model would rely entirely on fees levied on supervised entities, replacing the current national funding mechanisms. These fees would need to cover the full operational costs of supervision, including the significant expansion of ESMA's staffing and infrastructure.

Replies from the consultation reveal that while there is support from some respondents for ESMA's expanded role in specific, systemic or cross-border areas, stakeholders generally reject a blanket centralisation of all trading, post-trading, asset management, and crypto services under ESMA. Stakeholders caution against full centralisation due to risks of losing local market knowledge, increasing costs, and reducing supervisory responsiveness. They emphasise the importance of national expertise and proximity to markets and argue that national supervisors understand local legal frameworks, business models, and market nuances better than a central body could. They highlight that full centralisation might weaken the proportionality of supervision and lead to a "one-size-fits-all" approach, unsuitable for local players.

4.4. ASSESSMENT OF THE IMPACT OF OPTION 2

4.4.1. Effectiveness

Transferring supervisory responsibilities of entities that are large and have a significant cross-border dimension will result in greater integration of the European financial market, because it will streamline the application of EU law and will harmonise supervisory requirements. It will also enhance the competitiveness of the European capital market. Greater supervisory convergence is also likely to make cross-border consolidation of financial market infrastructures more economically attractive, making such entities also more competitive on a global stage. Currently, infrastructure operators might hesitate cross-border activities due to the legal risks evoked by having to engage with a different supervisory authority.

The most significant EU CCPs concerned would benefit from harmonised supervisory processes, for example regarding the authorisation of new services or changes to risk models, which would allow for a level playing field for those CCPs and hence foster greater

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competition. The increased competition amongst CCPs could trigger a virtuous circle with increasing opportunities for clearing members.

A centralised supervisor would have a comprehensive view of the interconnectedness of these CCPs and their participants, enabling it to better identify and manage systemic risks that might otherwise go undetected under fragmented supervision. It would also simplify the processes and allow for more flexibility, without duplication when assessing the CCP's requests. Similarly, for the most significant EU CSDs, a centralised supervisor would be able to monitor the cross-border risks stemming from the increased volumes of cross-border transactions at CSD level in order to better identify and mitigate the financial stability, and systemic risks stemming from the provision of CSD services.

For the most significant EU CSDs, supervision by ESMA would entail harmonised supervisory processes, for example in relation to the intra-group outsourcing of services or to the authorisations of the extension of services offered. This would ensure a level playing field for those CSDs and foster a competitive landscape for securities services.

Furthermore, for the entities in scope, EU-level supervision would ensure that prudential and conduct risks are assessed with a uniform, EU-wide perspective, enabling a more comprehensive and timely supervisory approach. This is particularly true for CCPs, CSDs and trading venues that belong to a group and fall under EU level supervision. This means that ESMA would have full visibility over both the trading and post-trade operations of these entities across Member States, which would enable it to better detect systemic risks, monitor market developments, and ensure consistent application of the Single Rulebook. This is particularly relevant for financial sectors where activities and risks do not stop at national borders, such as post-trade infrastructure providers and trading venues serving cross-border markets, pan-European asset managers and crypto-asset service providers.

Within this preferred policy option, ESMA would have the capacity to develop strong expertise on fast changing technologies and impose the same requirements in that regard on all the entities it is supervising. Through a more agile and data driven supervisory approach, it will also facilitate innovation in fast moving sectors.

In the trading sector, the centralisation of supervisory powers as envisaged in Option 2 will eliminate the fragmentation of supervisory approaches along national lines and hence level the playing field for those trading venues that are in scope of EU-level supervision. It will foster fair competition among them and facilitate cross-border operations by reducing costs and enabling the synergies which a friction-less single market for capital should offer. Because of the significant part of the sector falling in scope [more than two thirds of the trading venues and trading volume in all major asset classes] as well as the enhanced supervisory convergence tools for ESMA foreseen under Option 2, it is also expected to support an improvement in the alignment of supervisory approaches towards those trading venues which, because of their smaller size and national dimension, will remain under national supervision.

In the asset management sector, enhanced cooperation between ESMA and NCAs on the supervision of large asset managers has the potential to improve supervisory consistency and predictability. It can lead to a lower compliance burden and cost savings for individual asset managers, for example, if they no longer have to comply with diverging requests for documents or disclosures from different NCAs for the same product. A consistent sharing of information between ESMA and NCAs would help eliminate the duplicative information requests that today often force large asset managers to submit the same data multiple times to different authorities in varying formats. Furthermore, a regular exchange of views among NCAs on innovative products and strategies, for instance, would promote a consistent interpretation

between home and host NCAs, making it easier for fund managers to market their products across borders. Asset managers would also benefit from a common supervisory approach to eligible assets which could be fostered in the new setup. NCAs would have to make a bigger effort to coordinate and converge under this approach than they currently do. This can, however, at least partially be offset by the additional insights they gain through the enhanced cooperation and the pooling of expertise. Detecting and managing risks would also become easier for them.

For CASPs, centralised supervision by ESMA would provide a level playing field and supervisory consistency from the beginning, in a new area of financial activity not previously regulated. Risks would be monitored and addressed in a comprehensive and consistent manner. Centralised oversight would ensure the consistent application of regulatory standards. It would mitigate supervisory gaps across jurisdictions and address the disproportionate impact their potential failure could have on the EU's crypto-asset ecosystem. Supervision would also be more effective with ESMA being the single supervisory authority for CASPs, instead of many authorities spread across different jurisdictions and relying on complicated cooperation arrangements that are time-consuming. Centralised supervision from the beginning would mean the danger of fragmentation would not materialise and there would be no national barriers to remove as with other sectors. The supervision of CASPs provides a unique opportunity to establish a centralised supervisory model for a new area.

4.4.2. Coherence

This option ensures coherence with the SIU communication and the specific objective of improved supervision by reducing divergences. It does so by balancing national and EU-level roles. It enhances ESMA's oversight where EU-wide supervision adds value, particularly for large or cross-border entities, while NCAs retain control over smaller and/or purely national actors. It reflects some stakeholders' support for targeted, not full, centralisation—preserving national input, while addressing cross-border risks effectively. Governance changes, like the new Executive Board, strengthen ESMA's independence and align decision-making with its expanded role. Stronger convergence tools would promote consistent supervision, supporting the Single Market and the SIU.

Regarding EU CCPs, a single supervisor for significant CCPs would eliminate discrepancies that arise from differences in how national authorities interpret and apply EMIR (such as the current application of additional costs from some NCAs, the current existence of a pre-filing phase from some NCAs or divergent interpretations about which CCP changes should be subject to authorisation/validation). This would create a consistent regulatory landscape, preventing an unlevel playing field between the most significant EU CCPs.

Regarding EU CSDs, a single supervisor for significant CSDs would ensure consistent interpretation of CSDR provisions, notably with respect to the provision of cross-border services by CSDs and outsourcing within CSD groups. This would create a level playing field and ensure regulatory consistency for the most significant EU CSDs.

As regards trading venues, EU-level supervision of the most important trading venues in the EU will support market integration and competitiveness in this sector, hence contributing to the SIU's objectives of facilitating access to funding for EU companies – therefore supporting their competitiveness - and offering attractive investment opportunities on capital markets to investors, including retail investors.

Large asset managers and the cross-border marketing of funds would benefit from a stronger coordination of supervision. Greater supervisory convergence and a shared approach by NCAs would help drive market integration, a key objective of the SIU, and enable firms to create

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bigger funds and attain economies of scale. By making it easier for asset managers to market funds across Member States, closer supervisory coordination will enhance the range of products available to investors, notably retail investors. This will help to channel household savings into investments offering higher returns than deposits, funding the real economy, strengthening competitiveness and supporting the EU in reaching its strategic goals, for example in financing defence capabilities and the green transition.

The centralised supervision of CASPs under ESMA will ensure the consistent interpretation and application of the regulatory framework for crypto players and will reduce drastically forum shopping, especially in situations where there are divergent views whether different business models are compliant with the regulatory framework. In addition, it will eliminate gold-plating in the form of additional obligations being imposed on market players by national authorities.

For cross-border financial services and firms operating EU-wide, as testified by some of the replies to the consultation, this approach is considered a strategic move to enhance regulatory consistency, reduce cross-border barriers, and foster market integration and competitiveness across the EU. The expectation is that this approach would lead to more efficient, predictable, unified financial markets and long-term cost savings.

Overall, this is a coherent, proportionate, and politically viable path to stronger EU supervision.

4.4.3. Efficiency

In terms of efficiency, Option 2 would remove duplication, streamline interactions, and deliver measurable economies of scale for cross-border firms.

The transfer of responsibilities is expected to generate significant cost savings for entities already operating across borders in the EU and to facilitate the expansion for those currently operating in only one Member State, resulting in competitiveness gains across the board. From a cost perspective, Option 2 is expected to remove a substantial share of the recurring costs identified in the problem definition, reflecting the market share and systemic footprint of the significant cross-border entities brought under EU-level supervision, while avoiding the full supervisory resource requirements and transition costs of complete centralisation.

Regarding post-trade infrastructures, this option would target between 5 and 8 CCPs and between 10 and 13 CSDs amongst the 14 EU CCPs authorised under EMIR and the 25 EU CSDs authorised under the CSDR. In terms of efficiency, this would require less coordination efforts between the NCAs and ESMA in relation to supervisory convergence and would allow for the development of common horizontal supervisory poles within ESMA (e.g. for model approval or product authorisation), allowing for a more efficient use of supervisory resources. Targeting these systemic infrastructures could remove large, recurring costs from multiple-fee regimes, duplicative reporting, and lengthy product approvals, while keeping implementation costs proportionate to the reduced scope compared with Option 3.

As regards trading venues, by transferring the supervision of approximately 8-11 groups of trading venues to EU-level, Option 2 is expected to cover at least two-thirds of the on-venue trading activity in the main asset classes in the EU. In terms of costs, Option 2 is expected, in particular for the groups that are operating in different Member States and hence are currently engaging with multiple NCAs and facing different supervisory approaches, to remove the majority of the duplication, conflicting instructions from multiple interlocutors, and procedural delays described in the problem definition. For example, one trading group indicated that the fact that approval processes in some Member States can take several months results in opportunity costs of low single digit millions of Euros for every new product launched. In

addition, migrating a newly acquired trading venue to a group's trading system can result in costs running into the millions of euros because of the requirements for changes to the trading system imposed by the national authority supervising the newly acquired venue, while in another jurisdiction the same migration could be completed without having to do any change to the trading system. The analysis also points to inconsistencies in national rulebook approval procedures and in timelines for pre-trade transparency waiver applications that oblige firms to apply the strictest national standard across all markets. For example, in one Member State the filing timeframe is around one month longer than in others.

Under Option 2, which would result in 8-11 trading groups being under EU-level supervision, a considerable proportion of these potential savings and synergies could be realised, while avoiding the full supervisory resource requirements and transition costs of a complete centralisation as envisaged under Option 3.

As regards operators of trading venues that are established in only one Member State, the benefits of EU-level supervision will not be as immediate, at least in terms of costs. In fact, 24 out of 33 respondents to the consultation which expressed a view on costs indicated that they disagreed with the statement that EU-level supervision could reduce EU trading venues' regulatory costs. This is partly explained by the fact that some of these trading venues are also Data Reporting Service Providers (DRSPs) under MiFIR and saw a significant increase in supervisory fees after their oversight moved from national authorities to ESMA. However, this increase was partly due to initial setup costs spread across a small number of firms, while in the case of option 2, many more entities would fall under EU-level supervision, which is expected to limit per-entity supervisory fees. This reinforces that the targeted approach minimises unnecessary cost increases for purely domestic operators, while focusing resources on the entities where the largest savings and synergies from removing divergence can be achieved.

Regarding the asset management sector, focusing on strengthening supervisory coordination for only the largest 10 to 15 groups is efficient as it leaves the current structures and practises in place for smaller, more domestically oriented players. Large asset managers will benefit from improved supervisory convergence and greater economies of scale, while still being able to interact with the respective NCAs. NCAs in turn will be able to access confidential information provided by their peers, reducing the need for duplicative work, for example in gathering data on individual firms or market developments and emerging risks. Building on this sharing of confidential information among NCAs, asset managers might for example be able to have only one risk management function for the group rather than multiple ones across different Member States as is the case today. These changes would remove a large share of the compliance costs identified in the problem definition, such as duplicative risk management teams and multiple reporting obligations, for the cross-border groups affected, while leaving the cost base for purely domestic managers unchanged. The cost of ESMA's enhanced role for the largest groups would be fee funded.

In the case of CASPs, the NCAs are currently building capacity in the examination and assessment of CASP applications for authorisation. Given the recent entry into application of MiCA, there is very little supervisory activity yet, but the situation is expected to change as most CASPs receiving authorisation expect to grow in size rapidly, due to the passport of their authorisation. Transferring the supervisory powers to ESMA will cause minimum disruption, as the industry is still not well established and there are no legacy issues to overcome in terms of supervision. As regards national administrations, while there may be some temporary overlap and redundancy during the transition to centralised EU-level supervision, in the long term, it is expected to be more efficient and cost-effective than Member State supervision. In

addition, this centralisation would, by lightening their supervisory burden, allow them to focus on other national priorities and entities that are smaller or of purely domestic relevance. The consolidation of supervisory capacity at EU level would also foster specialisation and knowledge-sharing, leading to higher-quality, more risk-based supervision.

As regards the cost-benefit dimension, while ESMA would require increased resources to carry out its new tasks, the costs are expected to be offset by the broader system-wide gains in terms of contribution to the Single Market – with the associated benefits in terms of supporting funding to growth and competitiveness. This corresponds to the views of some stakeholders, who point to the upfront and transitional initial expenses, but the long-term perspective is that harmonisation and reduced fragmentation would bring efficiencies and indirect cost benefits. The targeted scope of Option 2 means that the costs for ESMA are materially lower than under full centralisation, while still covering most of the activity that generates the largest divergence-related costs.

The resources necessary for direct supervision could be financed mainly via levying of fees from directly supervised entities. This would follow the current practice of supervision financing in ESMA, the Single Supervisory Mechanism, where ECB supervision is financed via fees from supervised entities, and the most recent example of AMLA supervision which is financed by supervised obliged entities. National supervisors currently supervising entities which would pass to ESMA for direct supervision would experience some cost saving, but it is not anticipated that they will significantly reduce staff but rather reallocate freed staff for more effective supervision of the entities remaining under national supervision.

This option will entail significant resources and infrastructure development at ESMA but overall, to a lesser extent than option 3 (though for CASPs it is the same). The estimates for the number of full-time equivalents ('FTEs') ESMA requires for direct supervision of significant cross-border financial entities and CASPs, increased role in coordination of supervision of large cross-border asset management groups, as well as enhanced supervisory convergence, are based on ESMA and Commission estimates. The average cost per FTE at ESMA is estimated at around 186 000 EUR[622], based on the Commission's guidelines for average personnel costs (adjusted for Paris).

In the trading sector, the direct supervision of trading venues belonging to around 8-11 groups would require about 90 to 105 FTEs, corresponding to an estimated annual cost of EUR 17 – 19.5 million. In the post-trading sector, supervision of around 5 to 8 CCPs is estimated to require 30–50 FTEs (about EUR 5.5 to 9.5 million), while supervision of approximately 10 to 13 CSDs would require 30–40 FTEs (EUR 5.5 to 7.5 million).

In the asset management sector, ESMA's increased role in the coordination of supervision of around 10 –15 large cross-border asset management groups would require 10-20 FTEs (about EUR 2 to 4 million), with an additional around 10 - 15 FTEs (EUR 2 to 3 million) required for the oversight of cross-border fund distribution.

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[622] The rate of 186k per FTE is based on the 2025 standard rates of the Commission for staff expenses adjusted for inflation of 2% as at 2028, and builds on the current mix at ESMA between temporary agents, contractual agents, and seconded national experts. The rates cover salaries, employer social contribution, office accommodation, IT basic support, etc.

Should ESMA take on the direct supervision of around 410 – 615 CASPs, an additional 65–160 FTEs would be needed, corresponding to an estimated cost of EUR 12 to 30 million per year.

The ongoing cost for direct supervision would be covered by supervisory fees levied on the entities directly supervised by ESMA. In addition to these recurring costs, ESMA would incur temporary setup costs in preparation for its new responsibilities. These are estimated at around 5 - 10 FTEs per sector, amounting to approximately EUR 1–to 2 million per sector, and would be funded through the EU budget. Once the fees are applicable, the costs for these FTEs would be included in the fees.

Further staffing would be required to strengthen supervisory convergence across the relevant sectors—this would require an additional 5 - 10 FTEs, corresponding to an estimated cost of around EUR 1 - 2 million.

In addition to the necessary staffing enhancements, the strategic integration of IT systems is essential to enable ESMA's expanded supervisory responsibilities and support consistent implementation across the Union.

A supervisory data platform covering CCPs, CSDs and trading venues would support ESMA's direct supervisory tasks by consolidating data collection, document exchange and supervisory workflows in a single integrated architecture. Building on ESMA's existing supervisory databases and tools, it would ensure secure and timely access to supervisory information for competent authorities and supervised entities. The estimated cost is EUR 8 million for development and EUR 3.7 million annually for maintenance.

A central register for CASPs market surveillance under MiCA would function as a pan-EU hub for the collection, aggregation and analysis of transaction and order data reported by CASPs. Building on ESMA's work on MIDAS, it would enhance market integrity by detecting potential market abuse and enable timely cooperation between ESMA and national competent authorities, supporting both direct and indirect supervision of crypto markets. The estimated cost is EUR 4.2 million for development and EUR 2.5 million per year for maintenance.

A data platform for cross-border notifications of funds would facilitate home–host supervisory cooperation under the AIFMD and UCITS frameworks. The system would serve as a one-stop-shop for submitting, accessing and exchanging reliable and up-to-date documentation, supported by automated translation services. Ensuring interconnectedness between ESMA and all 27 NCAs, it would provide secure and timely data exchange, user-friendly interfaces and a public portal for transparency. The estimated cost is EUR 1 million for development and EUR 0.2 million annually for maintenance.

A centralised data and analytics capability would contribute to the Union's financial data strategy by enhancing ESMA's central systems and supporting consistent supervisory practices across the EU. It would provide common tools for market analysis and supervision, enable the timely sharing of supervisory insights with competent authorities and facilitate secure, standardised data access and exchange across the EU supervisory framework. The estimated cost is EUR 15 million for development and EUR 4 million annually for maintenance.

Taken together, these IT developments would promote more coordinated supervision across the Union and reduce the need for separate systems. They would also make interactions between authorities and supervised entities more efficient, improving the clarity and consistency of supervisory information. The shared data and analytics capability would further increase efficiency and help ensure consistent supervisory practices across the Union.

To inform this analysis, the Commission collected data[623] from NCAs and from ESMA and ran its own estimates on the cost of supervision in the trading, post-trading, asset management, and crypto-asset sectors, as well as on the average cost per supervisory FTE. These figures vary due to factors such as national labour costs, the size and risk profile of the supervised entities, and the overall size of the financial market. For NCAs in Member States where supervisory tasks could potentially be transferred to the EU level, the average FTE cost ranges from EUR 149 000 to EUR 217 000. Per sector, the average FTE cost ranges are as follows: CCPs EUR 136 000 – EUR 218 000, CSDs: EUR 141 000 to EUR 178 000, Asset Managers EUR 181 000 – EUR 227 000, Trading Venues: EUR 122 000 to EUR 199 000, CASPs: EUR 129 000 to EUR 262 000.

Overall, Option 2 captures most of the savings from removing divergence for the targeted entities, at a fraction of the cost of full centralisation, with lower disruption for NCAs and domestic operators.

4.5. ASSESSMENT OF THE IMPACT OF OPTION 3

4.5.1. Effectiveness

By centralising supervision in ESMA, this option would ensure EU-wide consistency, remove the risks of divergent supervisory practices, and close loopholes for regulatory arbitrage or forum shopping. For large, cross-border, or systemic entities, a single supervisor would improve oversight and provide a single point of contact, reducing regulatory complexity. It would exploit economies of scale and reduce duplication of tasks across Member States, potentially increasing efficiency in the long term.

However, this option would require a long multi-annual transitional period for accommodating the transfer and achieving a greater level of effectiveness and efficiency in supervision than currently available at national level. Considering that the supervision of the majority of entities is performed adequately at national level, and most of the risks most entities pose are related to the specific national context unless they are systemic, the option may raise both proportionality and subsidiarity concerns.

4.5.2. Coherence

The model is coherent with the rationale behind the SSM in banking supervision, following the logic of deepening EU integration in financial markets. It aligns with EU objectives of completing the Capital Markets Union and strengthening financial stability through consistent, centralised oversight.

Coherence may be limited by incomplete harmonisation of regulatory frameworks across sectors (unlike banking under the SSM) where Member States have transposed EU law different, made use of national options and discretions. This means that ESMA could still face legal and operational fragmentation.

4.5.3. Efficiency

The extent and complexity of the full-scale transfer of responsibilities and powers related to direct supervision from national level to the EU level would be unprecedented. To take the example of asset management area, there are around 1 700 UCITS management companies and 4 500 authorised AIFMs. The number of trading venues to be supervised would also be

[623] The data have been provided on a strictly confidential basis.

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considerably higher with approximately 314 trading venues plus a further 167 SIs. The number of CCPs and CSDs in scope however would be almost the same as under option 2 (14 CCPs and 25 CSDs). Based on these figures it is estimated that ESMA would require the following resources:

Sector	FTEs[624]	Budget implication
Trading Venues	340- 580	EUR 63 – 108 mil.
CCPs	50– 55	EUR 9 – 10 mil.
CSDs	40- 50	EUR 7 – 9 mil.
Asset Managers	200- 360	EUR 37 – 67 mil.

Additionally, transition costs would be significant as ESMA would have to build up human capacities. While, due to synergies, the resources located at EU level would not need to approach the sum of resources currently deployed at national level, the increase would go beyond current EU agencies' staffing. ESMA would need to develop a comprehensive fee framework that is sufficiently flexible to account for the wide diversity of entities across sectors and Member States in terms of size, complexity, and risk profile. A uniform or overly centralised fee structure could place an undue financial burden on smaller, local actors, which may already be effectively supervised at the national level and might not benefit proportionately from EU-level oversight. Without a nuanced approach, there is a risk that a "one-size-fits-all" fee model would lack fairness and discourage market participation.

4.5.4. Conclusion

Taking into account the assessment and explanations provided above, the preferred option is Option 2 – a combination of enhancing supervisory convergence via an improved set of tools and direct supervision and oversight of certain financial entities by ESMA. Option 3 is not the preferred approach at this stage. Although it could be considered a long-term goal, immediate efforts should focus on removing national barriers, levelling the playing field, fostering trust and cooperation among Member States, and enhancing ESMA's expertise—objectives more efficiently pursued through Option 2. In this sense, Option 2 can be seen as an intermediary step that would lay the groundwork for potentially moving toward EU-level supervision under Option 3 in a future review, once the necessary legal, operational, and institutional conditions are in place.

	Effectiveness	**Efficiency**	**Coherence**	**Overall score**
Option 1 Baseline scenario	0	0	0	0
Option 2	+	+	+	+

[624] Given that the entities captured in addition to the ones covered in option 2 would be considerably smaller and less complex, it is no appropriate to convert them on an entity-proportional basis. Instead, it is assumed that the number of FTEs needed for these smaller entities is only 5-10% (trading venues, asset manager) and 20-40% (CCPs, CSDs) compared to option 2.

Greater supervisory convergence and enhanced role for ESMA in supervision				
Option 3 ESMA supervision for all entities	++	-	+/-	+/-

Legend: +++ = very positive ++ = positive + = slightly positive +/- = mixed effect 0 = no effect
- = slightly negative -- = negative --- = very negative

5. MONITORING

The ESMA Regulation provides for evaluation of ESMA every three years, starting from the effective start of its operation. In 2022, the Commission has issued a report on the functioning of the ESAs.[625] Going forward, the Commission will continue to monitor the functioning of ESMA and to report accordingly. The Commission's systematic evaluation of ESMA will include extensive consultation.

The specific indicators identified in the impact assessment accompanying the Commission's proposal for setting up ESMA match with the specific objectives and remain valid for the current and future evaluations. These indicators serve to assess the performance of ESMA in fulfilling its tasks. The following table presents the main areas of activity of ESMA and matches them with some relevant indicators.

Objective	**Proposed indicator**	**Source of information**
Common supervisory culture, consistent application of EU rules	Number of colleges with ESMA participation Number of peer reviews conducted Number of obstacles to convergence identified and removed Number of of breach of EU law successfully closed Number of warnings on manifest breach of the EU law	ESMA
Direct supervision of certain financial entities	Number of on-site inspections and dedicated investigations	ESMA

ESMA should collect data on these indicators on an annual basis. In addition, at the beginning of each year ESMA should (where applicable) set targets vis-à-vis indicators. Targets can be

[625] Report from the Commission to the European Parliament and the Council - On the operation of the European Supervisory Authorities (ESAs).

of either numeric (e.g. % increase/decrease) or of qualitative nature (e.g. positive/negative trend) compared to the previous year.

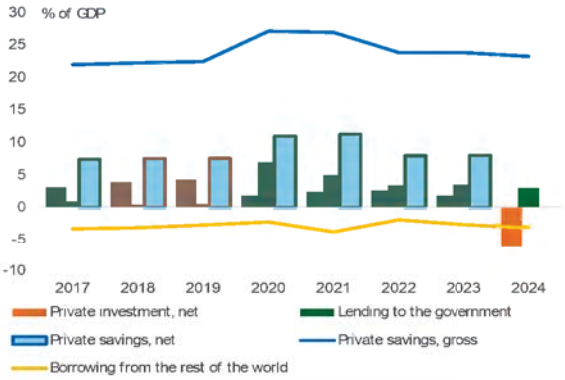
The evaluation should seek to collect input from all relevant stakeholders, but in particular national CAs, EU institutions and fee-paying sectors and entities under the remit of the ESAs. Input will also be required by ESMA. The evaluation will be repeated every 5 years after the application of these amendments.

ANNEX 12: MEMBER-STATE-SPECIFIC EVIDENCE ON MARKET CONTEXT

1.1 Savings-Investments Balance in the EU/EA

The EA invests in the private sector only a relatively small portion of its otherwise high net savings. In the last decade, the private savings ratio, net of fixed capital consumption, persistently fluctuated around its ten-year average of 8.4% of GDP, reaching a maximum of 11.3% in 2021 (see Graph 2.1.1). The net private investment ratio, which measures the net contribution of the private sector to capital accumulation in the country, was significantly more volatile, exhibited a ten-year average of 2.7% of GDP and reached a maximum of 4.4% in 2019. In the last decade, the aggregate government budget balance in the EA showed a persistent deficit that averaged 3% of GDP. Hence, less than a third of net savings in the EA are invested in the private economy. The EA aggregate hides significant national discrepancies (see Table 1.1.2), with the ten-year average net private investment-to-GDP ratios ranging between 9.8% in Ireland to -1.9% in Greece (4.4% in Spain, 3.7% in France, 1.7% in Germany and -0.7% in Italy).

1.1.1 Net savings-investment balance in the EA



Source: AMECO.

Consistent with its regular position of a net lender to the rest of the world, the EA has been improving its net international investment position. As of end-2024, total foreign assets reached 237% of GDP, while liabilities to foreigners stood at 225% of GDP, resulting in a net international investment position (NIIP) equivalent to 12% of GDP (see Table 1.1.2). The accumulated net foreign direct investment, which reached 18% of GDP as of end-2024, has been the main driver behind the dynamics of the NIIP. In terms of portfolio and other investments, as of end-2024 the EA was a net debtor to the rest of the world respectively for 12.1% and 3.6% of its GDP. The stock of official foreign reserves held by the EA countries has been growing and reached the equivalent of 9.2% of GDP. The contraction in the stock of direct and portfolio investment liabilities to the rest of the world suggests that the EA has become less attractive to foreign capital.

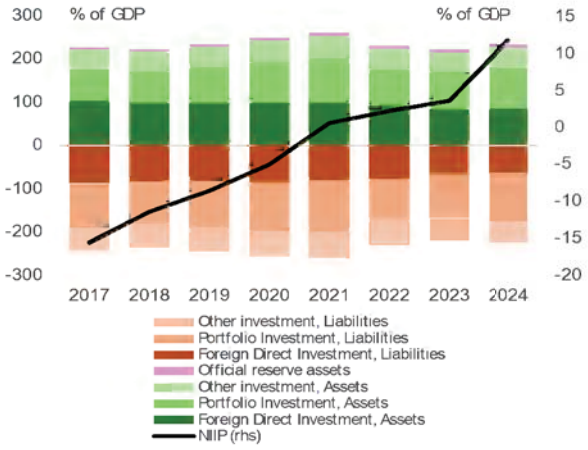
1.1.2 National savings-investments balances in the EU

% of GDP	S, net	I, net	LtG	B from RoW	S, gross
IE	8.4	9.8	0.1	1.5	32.0
MT	15.7	7.1	2.3	-6.3	25.4
EE	9.7	6.8	1.5	-1.4	22.7
SE	10.8	6.4	0.2	-4.3	24.3
LT	9.5	6.1	1.0	-2.4	19.6
PL	9.4	5.8	3.1	-0.5	18.4
HU	10.8	5.2	4.3	-1.3	24.2
CY	*-0.3*	*5.2*	*-0.1*	*5.4*	*9.6*
BG	8.8	5.1	1.4	-2.2	19.6
BE	8.6	5.0	3.5	0.0	25.3
RO	6.6	5.0	5.1	3.5	20.7
ES	11.6	4.4	4.6	-2.6	24.7
AT	*8.6*	*4.2*	*2.7*	*-1.7*	*25.8*
DK	10.6	4.2	-2.2	-8.6	25.1
FI	5.6	4.2	2.2	0.8	21.4
NL	12.8	4.0	0.4	-8.4	25.8
CZ	*6.4*	*4.0*	*1.7*	*-0.7*	*23.8*
LU	2.7	4.0	-0.9	0.4	12.6
SK	4.3	3.9	3.1	2.7	19.6
FR	7.6	3.7	4.6	0.7	21.5
HR	6.8	2.9	1.7	-2.3	19.9
LV	5.5	2.7	2.4	-0.5	19.8
DE	9.2	1.7	1.0	-6.5	25.7
SI	8.2	1.3	2.2	-4.6	23.9
PT	2.6	-0.3	1.7	-1.2	17.8
IT	6.0	-0.7	4.8	-1.9	21.7
GR	-3.6	-1.9	2.2	4.0	7.6

(1) S stands for savings, I for private investments, LtG for lending to the government, B for borrowing, and RoW for rest of the world. 10-year averages covering 2015-2024, except for France (2014-2023). Countries are ordered by height of net private investments.

Source: AMECO.

1.1.3 International investment position of the EA



Source: ECB.

Structure and size of the financial sector in the EU

Capital markets in the EA are driven by debt securities and finance primarily governments and

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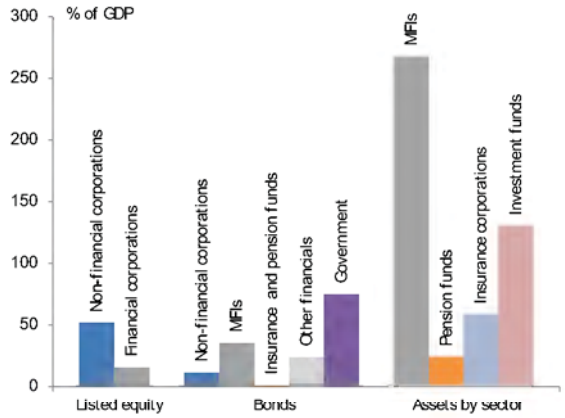
banks. As of end-2024, debt securities issued by EA entities represented 146% of GDP, while listed equity issued by EA companies[626] accounted only for 67% of GDP (see Graph 1.2.1). Government securities represented 51% of the bonds market, with banks (24.2%) and other financial companies (16.2%) being the other two main issuers. Marketable debt issued by non-financial corporations represented only 11.4% of GDP. Luxembourg (27.8%), France (22.9%), the Netherlands (18.4%), Portugal (14.1%) and Finland (12.3%) stand out as the five EA countries where companies' market funding exceeds the EA average.[627] Reflecting the size of their public debts, Italy (116.9% of GDP), France (95.1%), Spain (91.2%) and Belgium (87.7%) are the four jurisdictions where the volume of general government bonds exceeds the EA average.[628] As regards listed equity issued by non-financial corporations, Ireland (226.2% of GDP), France (84%), Finland (66%) and the Netherlands (59%) are the EA countries above the EA average.[629]

1.1.4 *Capital markets and financial intermediaries in the EA*



Source: ECB, EIOPA, AMECO.

The financial sector in the EA is dominated by banks. As of end-2024, the total assets of banks reached 268% of GDP, well ahead those of investment funds (130%), insurance companies (58%) and pension funds (24%).[630] National discrepancies within the EA, and more broadly in the EU, are significant. The banking sectors in the new member states are significantly smaller, with only Estonia (116% of GDP) and Hungary (102%) above the 100 percent mark. On the other hand, Luxembourg (1822%), France (416%) and Ireland (340.2%) stand out above the EA average.[631] In terms of the combined relative size of pension funds and insurance companies, Luxembourg (384% of GDP), the Netherlands (209%), Denmark (160%), Ireland (124%), Sweden (123%) France (106%) and Malta (103%) stand out above the EA average of 82%. When it comes to investment funds, Luxembourg (8538% of GDP), Ireland (872%) and Malta (133%) stand out as the three EA jurisdictions specialised in the domiciliation of funds. Denmark (91%), the Netherlands (82%), Finland (77%), Germany (71%) and France (65%) are the only other countries where the investment funds' sector is above 50% of GDP.

626 This figure is a proxy for the degree of development of the stock market in the EA, given that i) EA companies could be listed abroad and ii) foreign companies could be EA listed.

627 Sweden (23.8%) is a notable non-EA champion.

628 Estonia (13.3%), Denmark (19.7%), Bulgaria (20.7%) and Sweden (21.1%) and the four countries with the lowest volumes of government debt securities.

629 Denmark (138.4%) and Sweden (123% of GDP) are two notable non-EA champions.

630 ECB official statistics presents banks' aggregate assets on a non-consolidated basis. After correcting for inter-bank loans (43.4% of GDP) and debt securities issued and held by banks (9.3% of GDP), banks' total assets are estimated at 214.9% of GDP as of end-2024.

631 Denmark (322.4%) and Sweden (271.2%) are two non-EA examples worthy of mentioning.

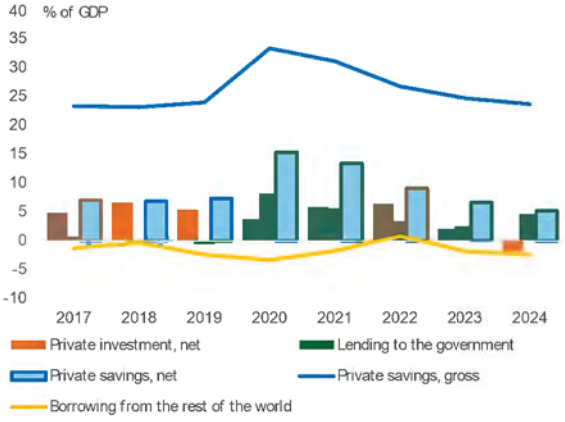
1.2 Member state specific evidence on capital markets

1.3 Austria

Availability and use of domestic savings

The Austrian economy invests the largest part of its net savings domestically. From 2015 until 2024, the private savings ratio, net of fixed capital consumption, stood on average at 8.6% of GDP, reaching a maximum of 15.4% in 2020 (see Graph 2.1.1). The net private investment ratio, which measures the net contribution of the private sector to capital accumulation in the country, was significantly more volatile, exhibited a ten-year average of 4.2% of GDP and reached a maximum of 6.7% in 2018. At the same time, during the same period the government has been running budgetary deficits and a few relatively small surpluses, which during 2015-2024 on average amounted to a budgetary deficit of 2.7%. Regardless of the recurrent general government budgetary deficits, the sustained and high positive difference between net domestic savings and net investment, resulted in structural net lending by Austria to foreign economies that averaged 1.7% of GDP, with a peak of 3.4% in 2020. Thus, most of the net savings in Austria have been invested domestically (to finance private investment or borrowing by the government), while a comparatively smaller share was used to finance projects abroad.

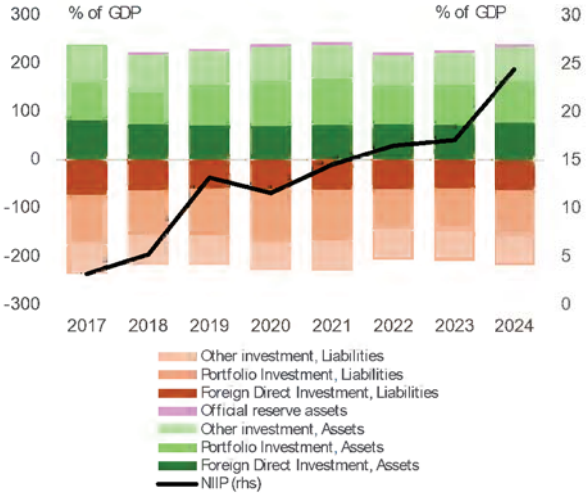
1.3.1 Net savings-investment balance



Source: AMECO.

As a result of its regular position of a net creditor to the rest of the world, the Austrian economy has accumulated significant foreign assets and has been recording a positive net international investment position. As of Q4 2024, total assets on foreigners reached just above 242% of GDP, while liabilities to foreigners stood at 218% of GDP, resulting in a net international investment position (NIIP) equivalent to 24.4% of GDP (see Graph 2.1.2). The accumulated net foreign direct investment (15.6% of GDP as of Q4 2024) accounted for most of the NIIP. The stock of official foreign reserve assets, which amounted to 7.1% of GDP, also contributed positively to the NIIP. The net portfolio investments, which are directly affected by the price volatility of equity valuations, have been negative, at almost -8% of GDP as of Q4 2024. However, they were more than offset by the net stock of other investments, which amounted to just below 10% of GDP at the same time. Thus, while the Austrian economy seems well integrated in international capital flows as a recipient of foreign capital, it remains a net capital exporter, notably in terms of direct investments abroad.

1.3.2 International investment position

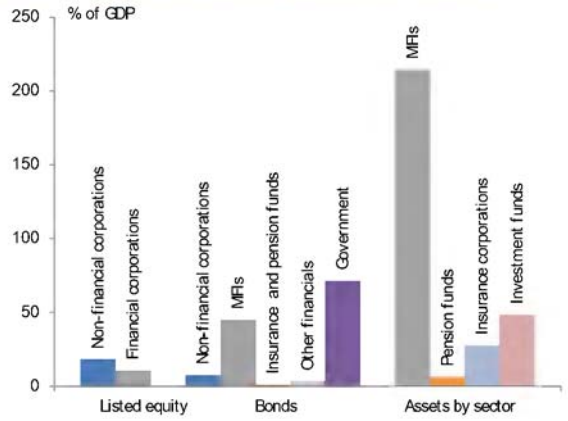


Source: ECB.

Structure of the capital markets and size of the financial sector

The Austrian economy stands out with one of the comparatively smaller domestic capital markets in Europe. The market capitalisation of listed equity stood at 29% of GDP at the end of 2024 (see Graph 2.1.3), which is well below the EU average of 66.8% of GDP. At the same time, non-financial corporations accounted for around 63% of that capitalisation, which implies that the stock market in Austria is to a large extent geared towards funding the non-financial segment of the real economy. The outstanding volume of debt securities reached 127.7% of GDP at end-2024, which is slightly below the EU average (at just below 140% of GDP). Bonds issued by the government and monetary financial institutions (MFIs) accounted for 56% and 35% of the total, respectively. Since 2008, the general stock market in Austria has underperformed as compared to the EU average, while the index of Austrian banks has developed more favourably (see Graph 2.1.4).

1.3.3 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2024.

While the financial sector in Austria remains dominated by banks, non-bank financial intermediaries also play an important role. Starting from 253% of GDP in 2020, the size of the banking sector gradually declined to just above 214% of GDP in 2024, which remains somewhat below the EU average. Austria has several large credit institutions, and the two largest banking groups (Erste Group Bank and Raiffeisen Bank International) have extensive activities in central, eastern and south-eastern Europe. In particular, the exposure of the Austrian banking sector to Russia (manageable from a bank-capital perspective and concentrated in one credit institution) warrants close oversight.[632] In 2024, Austrian banking subsidiaries in Russia amounted to less than 10% of their total assets in central, eastern and south-eastern Europe. Banking concentration appears to be lower than on average in the EU, with the top five MFIs representing less than 38% the sector. The insurance and pension funds sectors, with total assets of around 28% of GDP and 6% of GDP at end-2024, play a lesser role in the non-bank intermediation. By contrast, investment funds, though their total assets dropped by 9 percentage points to almost 49% of GDP between 2021 and 2024, remain significant.

1.3.4 Stock market performance

Source: London Stock Exchange Group[633].

Financing of the economy

Sources of corporate funding

Overall, firms in Austria rely more on funding by banks and less on the capital markets, as compared with their European peers. More specifically, at the end of 2024, bank finance through loans constituted 38.2% of all funding sources for Austrian non-financial corporations (NFCs), while listed shares and bonds accounted for only 13% of funding sources. This compares with 27% and 23.8% on average in the EU. Expressed as a percentage of GDP, the overall level of NFC funding was 167.5% in Austria and, on average, 225.6% in the EU (see Graph 2.1.5).

Austrian companies rely mostly on internal financing, as do their European peers. According to the 2024 EIB Investment Survey[634], 68% of investments needs of Austrian firms are covered by internal funding, just above the EU average of 66%. At the same time, only 12% of Austrian firms believed that their investment activities over the last three years were less than needed, better than the EU average for perceived underinvestment (14%), suggesting that

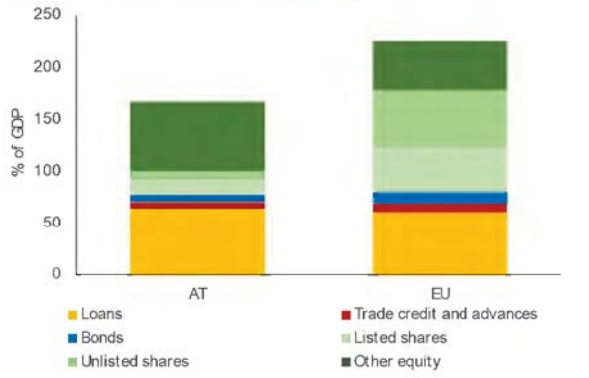
[632] Raiffeisen Bank International (RBI) has highlighted efforts to sell the subsidiary in Russia, while continuing to reduce its business operations in Russia, ahead of the schedule agreed with the ECB. According to media reports, the ECB has required RBI to cut its balance sheet in Russia by 65% by 2026, compared to its level at the end of Q3 2024. RBI's exit approach includes both loan portfolio and deposit reductions in Russia. The bank has implemented a zero-interest policy on customer deposits to encourage their withdrawal, while placing excess liquidity with the Russian Central Bank at 21% interest as required by the ECB during the exit process. RBI's exit plans have been further complicated by legal challenges, including a recent case involving Russia's Rasperia Trading Limited. A Russian appeals court confirmed a first-instance judgment on 25 April 2025, resulting in approximately EUR 1.87 bn being transferred from Raiffeisenbank Russia to Rasperia. The bank has filed an appeal and is pursuing legal action against Rasperia in Austria.

[633] The STOXX Indices are the intellectual property (including registered trademarks) of STOXX Limited, Zug, Switzerland ("STOXX") and/or its licensors ("Licensors"). STOXX has not been involved in any way in the creation of financial instruments or any other products referencing the aforementioned indices. Such products are neither sponsored nor promoted, distributed or in any other manner supported by STOXX and/or its Licensors. STOXX does not give any warranty and excludes any liability whatsoever (whether in negligence or otherwise) – including without limitation for the accuracy, adequateness, correctness, completeness, timeliness, and fitness for any purpose – in relation to any errors, omissions or interruptions in any of STOXX' indices or its data.

[634] See EIB Investment Survey 2024.

there is only a small financing gap relative to investment demand. However, this may not be the case for firms with no or limited capacity for internal funding, such as small and medium-sized enterprises (SMEs) or innovative start-ups.

1.3.5 Composition of NFCs' funding



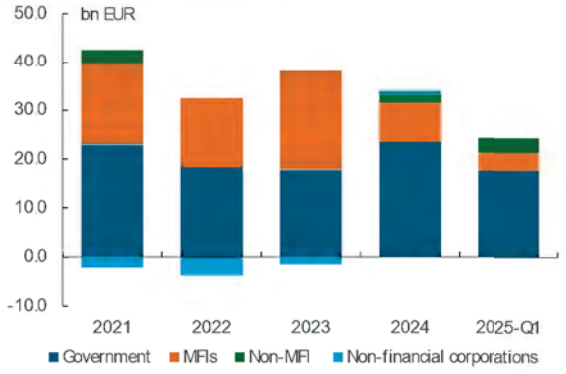
Source: Eurostat. End-2024.

Market finance

Austria's capital markets remain comparatively small. The main stock exchange in Austria is the Vienna Stock Exchange. The equity market is relatively small in terms of capitalisation and volumes traded. The low market capitalisation could be due to the characteristics of the Austrian corporate sector, in particular the small number of large globally operating multinational companies (with annual revenues above EUR 1 billion). So far capital markets have weathered well the global geopolitical turmoil generated by the war in Ukraine, Gaza conflict, the energy crisis and trade policy tensions. Between August 2022 and August 2025, the Austrian Traded Index (ATX) increased by 49.6%. Initial public offerings (IPOs) remain rather limited and small, given the size of the economy. While there are relatively fewer large companies in Austria compared to the EU average, the corporate sector tends to be rather capital intensive and would benefit from a deeper and well-functioning CMU.

The domestic bond market is dominated by Austrian government bonds and debt issuances by financial companies. In the first quarter of 2025, the Austrian government issued EUR 17.7 bn of debt securities, only slightly above the issuance for the entire 2024 (EUR 23.6 bn). Banks issued EUR 3.7 bn of debt securities, which compares favourably to only EUR 7.9 bn for the whole of 2024 (see Graph 2.1.6). The other financial companies issued EUR 3 bn in Q1 2025, well above the 2024 total of EUR 1.6 bn. The net issuance by non-financial corporations turned out negative, at – EUR 0.1 bn in Q1 2025, consistent with the negative totals in 2021-2023. The use of bonds by SMEs is also relatively moderate, as 2% of SMEs indicated in the 2024 SAFE survey that debt securities issuance was relevant for them, compared to an EU average of 3%.[635] Hence, debt market finance appears as a minor source of funding for Austrian non-financial corporations.

1.3.6 Net issuance of bonds



Source: ECB.

Retail participation in capital markets

Austrian households' savings are invested conservatively, as financial instruments form only a small part of their wealth. Main residence ownership represents the most important asset in terms of volume for homeowners. On average, Austrian households have financial portfolio profiles with very low risk. Few households hold assets that are typically classified as higher yield. According to the latest Eurosystem Household Finance and Consumption Survey[636], only 12.3% of households in Austria hold mutual funds, only 6.1% hold stocks and only 2.5% hold bonds. Among the households that held higher-yield assets, these assets accounted for about 40% of the financial portfolio, with this share rather stable across the net wealth distribution.

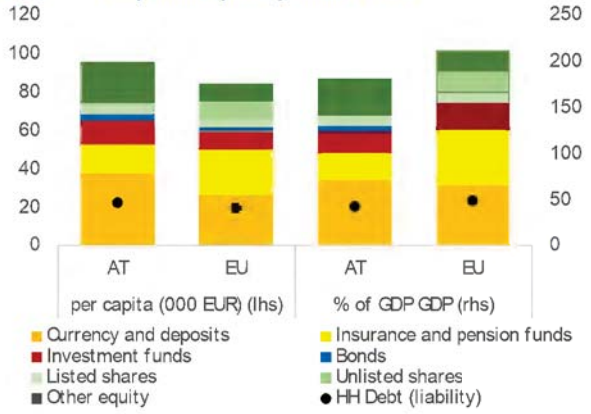
The degree of direct retail investment in Austria's capital markets is low. As of end-2024, households' aggregate financial assets equated to 182% of GDP, which is below the EU average of 212%. Austrian households' investments in insurance and pension funds, relative to GDP, were only half as large as the EU average in 2024 (see Graph 2.1.7). In addition, listed and unlisted share holdings were three times lower than the EU average (10.8% of GDP in Austria

([635]) See Data and surveys - SAFE - European Commission, 2024, Results by country.

([636]) OeNB Report 2023/2: Eurosystem Household Finance and Consumption Survey 2021: first results for Austria

as compared with 32.6% of GDP in the EU). At the same time, in 2024 Austrian households' cash and deposits (72.7% of GDP), other equity (40.5% of GDP) and bonds (7.5% of GDP) were above the EU averages of, respectively, 67.3%, 23.7% and 5.9% of GDP.

1.3.7 Composition of HHs' financial assets



Source: Eurostat. End-2024.

The comparatively strong saving rate of Austrian households in recent years and the high share of cash and deposits in households' assets suggest there is some room to increase the level of direct or indirect retail investments. Encouraging the build-up of universal funded supplementary pension schemes would positively contribute to (i) the sustainability and adequacy of pension benefits; (ii) investment in equity; (iii) access to finance; (iv) growth; and (v) innovation. Moreover, an in-depth assessment of the incentives in place to promote retail participation in financial markets may also be considered, as well as possible steps to increase the availability of low-cost, well-diversified investment products suited to retail investors.

1.4 Belgium

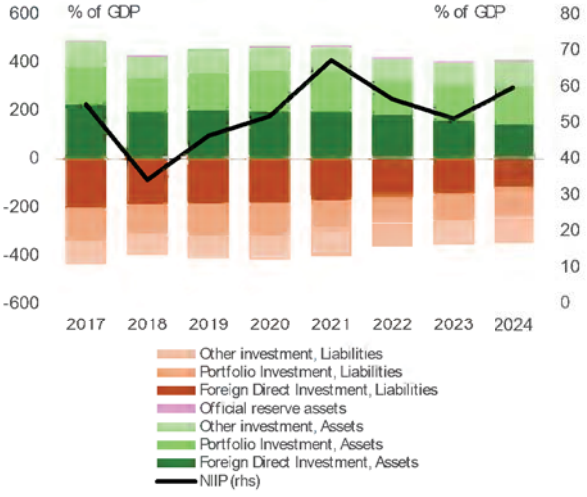
Availability and use of domestic savings

The Belgian economy borrows as much from as it lends to the rest of the world. In the last decade, the private savings ratio, net of fixed capital consumption, exhibited some volatility around its ten-year average of 8.6% of GDP. It steeply increased to 13.4% of GDP in 2020 before progressively receding to 8.0% in 2024 (see Graph 2.2.1). The net private investment ratio, which measures the net contribution of the private sector to capital accumulation in the country, evolved quite differently. It fluctuated around its ten-year average of 5.0% of GDP and reached in 2024 its lowest level (3.5%) since 2013. At the same time, during the same period the government budget was in regular deficit that averaged 3.5% of GDP with a peak at 9.0% of GDP in 2020. Thus, the high positive balance between net domestic savings and net investment was fully offset by government deficits, which resulted in borrowing by Belgium from the rest of the world that averaged 0.0% of GDP, with a peak of 1.5% in 2018 and a trough of -2.1% in 2021.

1.4.1 Net savings-investment balance

Source: AMECO.

1.4.2 International investment position



Source: ECB.

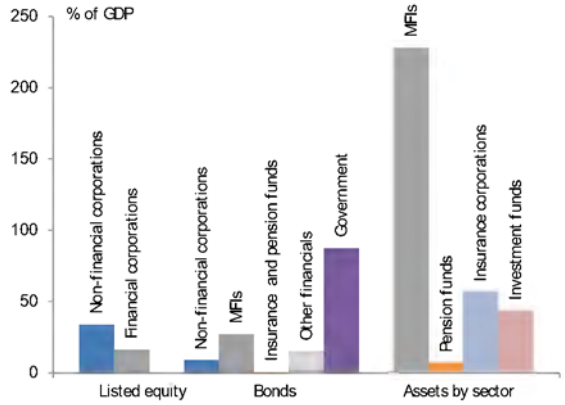
Consistent with its past regular position of a net creditor to the rest of the world, the Belgian economy has accumulated significant foreign assets and exhibits a positive net international investment position. As of Q4-2024, total assets on foreigners reached 411% of GDP, while liabilities to foreigners stood at 351% of GDP, resulting in a net international investment position (NIIP) equivalent to 60% of GDP (see Graph 2.2.2). The net accumulated portfolio investments, which reached 38% of GDP as of Q4-2024, accounted for most of the NIIP. Net foreign direct investment came second with 22% of GDP, while the magnitude of other investments was negligible. As a result, the Belgian economy appears to

be a net capital exporter, notably by means of portfolio investments and direct investments abroad.

Structure of financial sector

The Belgian financial sector is well developed. The market capitalisation of listed equity reached 50% of GDP at end-2024 (vs 67% in the EU) (see Graph 2.2.3). Characteristically, financial corporations accounted for 32% of that capitalisation, which reflects the extent to which the stock market in Belgium is geared towards funding the financial segment of the real economy. Like elsewhere in the EU, the index of Belgian banks has significantly underperformed the general stock market index since the Great Financial Crisis. It has also underperformed vis-à-vis the EU average (see Graph 2.2.4). The outstanding volume of debt securities reached 140% of GDP at end-2023. Bonds issued by the government accounted for 67% of the total. This reflects the high weight of the gross public debt in the bond market.

1.4.3 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2024.

Even though the financial sector in Belgium remains dominated by banks, insurers and investment funds are sizable. Banks' assets represented 228% of GDP in Q4-2024 (vs. 251% in the EU). The insurance sector, with total assets of 55% of GDP at Q4-2024 (see Graph 2.2.3), dominates non-bank intermediation and is in line with the EU average (55% of GDP). The pension funds' assets are much smaller: they only represent 8% of GDP (vs 23% in the EU). Investment funds represent a bigger share of 43% of GDP, above the EU median.

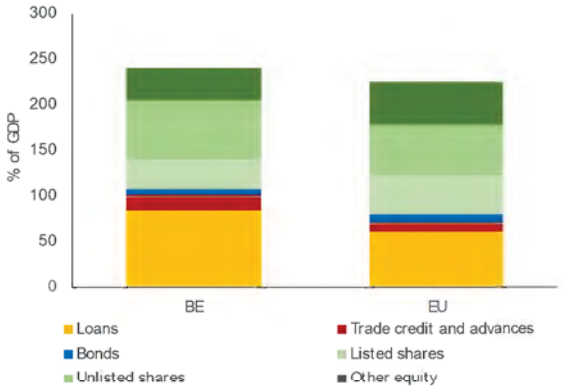
1.4.4 Stock market performance

Source: London Stock Exchange Group[637].

Financing of the economy

Sources of NFC funding

1.4.5 Composition of NFCs' funding



Source: Eurostat. End-2024.

Firms in Belgium rely more than the EU average on funding from banks and less than the EU average on funding from capital markets. More specifically, at the end of 2024 bank finance through loans constituted 35% (vs 27% in the EU) of all funding sources for Belgian non-financial corporations (NFCs), while listed shares and bonds represented only 17% (vs 24% in the EU) of all funding sources. When expressed in terms of GDP, the overall level of NFC funding was higher in Belgium (241% of GDP) than in the EU (226%), see Graph 2.2.5.

[637] The STOXX Indices are the intellectual property (including registered trademarks) of STOXX Limited, Zug, Switzerland ("STOXX") and/or its licensors ("Licensors"). STOXX has not been involved in any way in the creation of financial instruments or any other products referencing the aforementioned indices. Such products are neither sponsored nor promoted, distributed or in any other manner supported by STOXX and/or its Licensors. STOXX does not give any warranty and excludes any liability whatsoever (whether in negligence or otherwise) – including without limitation for the accuracy, adequateness, correctness, completeness, timeliness, and fitness for any purpose – in relation to any errors, omissions or interruptions in any of STOXX' indices or its data.

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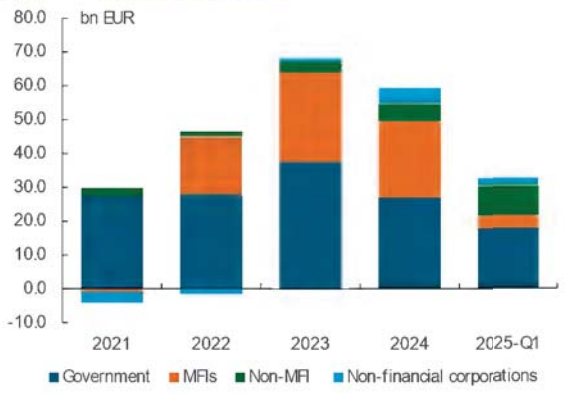
Belgian businesses depend as much on internal financing as their European peers. According to the 2024 EIB Investment Survey, 65% of Belgian firms' investment needs are covered by internal funding, compared with an EU average of 66%. At the same time, 88% of Belgian firms believe that their investment activities over the last three years were about the right amount, better than the EU average (80%), suggesting that there is no material financing gap relative to investment demand in the country. However, this is probably not the case for firms with no or limited capacity for internal funding, such as innovative start-up firms (see further below).

Market finance

The Belgian capital markets are relatively small. The main stock exchange in Belgium is Euronext Brussels. The equity market is relatively modest in terms of capitalisation (equivalent to 51% of GDP vs an EU average of 67% as of end-2024) and volumes traded, even more so when compared with the US (US equity market capitalisation was equivalent to 213% of US GDP in 2024). The market breadth[638] of Belgian bond markets has steadily decreased since 2018 and is now below the EU average (1.2 vs 1.5). The bid-ask spread[639] on Belgian equity markets is lower than the EU average (1.3% vs 1.6%). The use of equity by SMEs in the country is relatively average, as 14% of SMEs indicated in the 2024 SAFE survey that equity was a relevant source of financing for them, compared with an EU average of 12%.[640] There has been no initial public offering (IPO) in Belgium since 2021, while IPOs reached on average 0.08% of GDP in the EU in 2024. The next IPO (by Energyvision) is scheduled on 9 July 2025.

Debt finance continues to be a significant source of market funding for financial companies in Belgium. In 2024, banks issued EUR 23 bn of debt securities, down from EUR 38 bn in 2023 (see Graph 2.2.6), and the issuance observed in Q1-2025 (EUR 4 bn) seems to confirm this declining trend. The other financial companies issued EUR 5 bn in 2024, up from EU 3 bn in 2023, and the strong issuance (EUR 9 bn) in Q1-2025 confirms this rising trend. The net issuance by non-financial corporations steeply increased from EUR 1 bn in 2023 to EUR 5 bn in 2024, with an equally solid issuance of EUR 2 bn in Q1-2025. Hence, debt market finance appears as a minor but increasing source of funding for Belgian non-financial corporations.

1.4.6 Net issuance of bonds

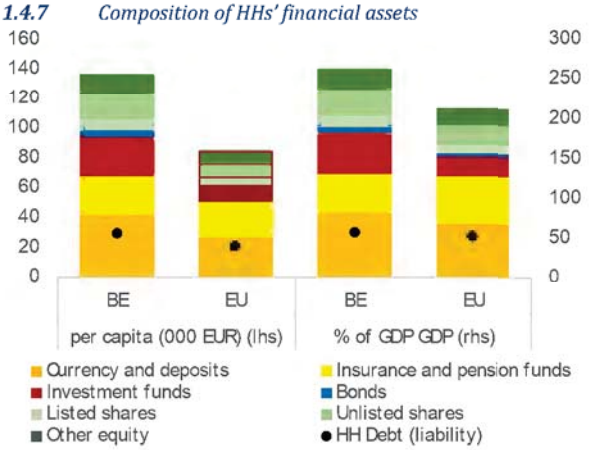


Source: ECB.

Retail participation in capital markets

Like in most Member States, households in Belgium invest relatively little in financial assets and equity. Belgian households' financial assets were equivalent to only 263% of GDP in 2024, more than the EU average (212%), but much less than the US (446%). Assets invested in equity, directly or indirectly through intermediaries like insurers and pension funds, were estimated to be equivalent to only 148% of GDP, above the EU average (91%) but much below the US (291%). Belgian households' asset allocation is broadly similar to that of the average EU household, except that Belgian households invest less in insurance and pension funds, and more in investment funds.

1.4.7 Composition of HHs' financial assets



Source: Eurostat. End-2024.

The design of the overall pension system is not geared towards equity investment and the development of capital markets. The pay-as-you-go nature of the public pension system means that only the supplementary private schemes invest in high-return

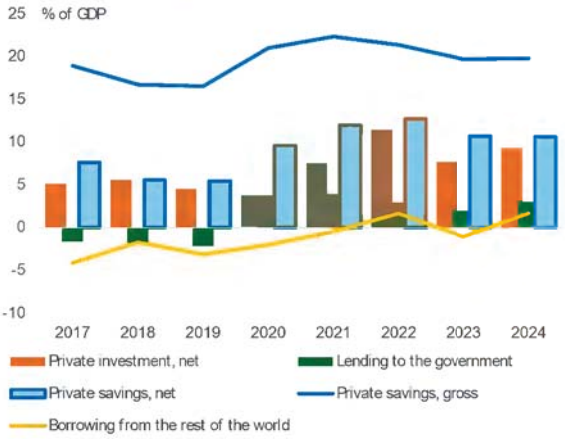
[638] The ratio of bonds outstanding to GDP.
[639] Median of bid-ask spread as a % of the mid-price.
[640] Data and surveys - SAFE - European Commission, 2024, Results by country, T27.

assets like equity. However, the supplementary private schemes are not universal and accumulated rights often remain limited for those covered. As a result, they only contribute to a moderate extent to the total pension income and do not fully foster the development of capital markets. Encouraging the build-up of universal funded supplementary pension schemes would positively contribute to (i) the sustainability and adequacy of pensions benefits; (ii) investment in equity; (iii) access to finance; (iv) growth; and (v) innovation.

1.5 Bulgaria

Availability and use of domestic savings

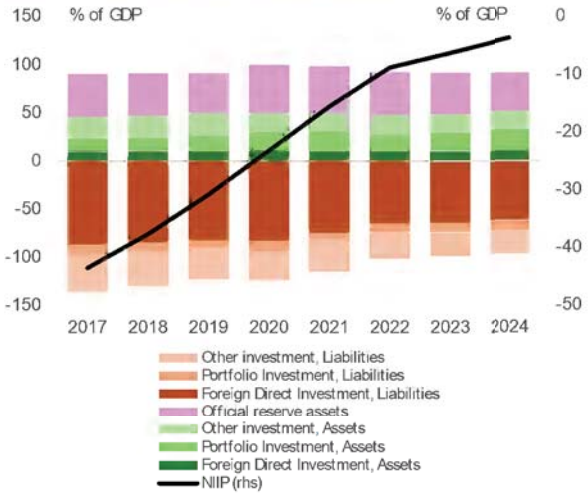
1.5.1 Net savings-investment balance



Source: AMECO.

On average, domestic net private savings in Bulgaria have been exceeding the sum of net private investment and the amount lent to the government over the past ten years, making Bulgaria a lender of capital to the international community. Over the last decade, the gross savings rate of the private sector in Bulgaria has hovered around 20% of its gross domestic product (GDP), which stands below the euro area average of 23.8%. Approximately half of that amount was used in order to finance fixed capital consumption, hence the country's net private savings ratio, on average, was around 10%. The net private investment position has averaged around 6% over the past five years as shown in Graph 2.3.1. This level allows part of the savings either be lent to the government in Bulgaria or the rest of the world. Lending to the government has shown variability, fluctuating between negative and positive values. Domestic capital markets are underdeveloped and not very appealing to locals. As a result, Bulgaria has been a net lender to the international community over this 10-year period, lending every year, on average, around 3% of its GDP to the rest of the world. Only in 2022 and 2024 Bulgaria has been a net borrower from foreign sources.

1.5.2 International investment position



Source: ECB.

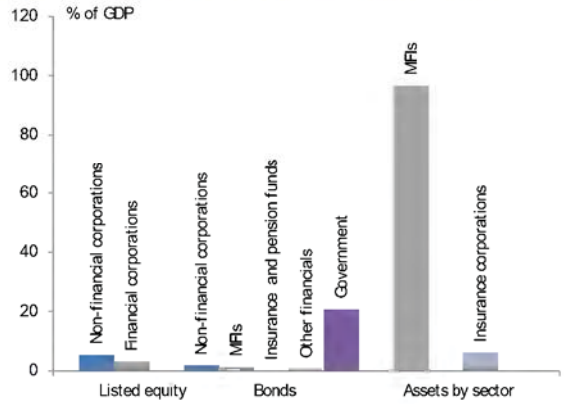
Bulgaria's net international investment position (NIIP) has steadily improved over the past few years. In the past, Bulgaria accumulated significant foreign debt and thus exhibited a material negative NIIP that stood at -43.5% of GDP in 2017. A rather gradual divestment of foreign direct investments (FDI) and other investments in Bulgaria combined with relatively stable Bulgarian assets abroad has led to a more balanced NIIP position, which by December 2024 stood at 3.6% of GDP (see Graph 2.3.2). Overall, the Bulgarian economy is well integrated in international capital flows. Despite being a net lender in recent years, for the moment, Bulgaria's NIIP remains negative, reflecting past reliance on foreign capital, mostly via non-market channels like FDIs. Going forward, the introduction of the euro should facilitate cross border investments and may ceteris paribus lead to an increase of both the asset and liability side of the capital account.

Structure of the capital markets and size of the financial sector

Bulgaria's capital markets are underdeveloped, characterised by low equity market capitalization and a limited domestic bond market relative to GDP. This structural feature has a significant impact on how banks and other financial intermediaries in Bulgaria function. The financial system is heavily reliant on a well-established banking sector, which serves as the primary conduit between savers and borrowers. With few alternatives for raising capital, both firms and households depend predominantly on bank financing. The absence of deep and liquid capital markets constrains financial diversification, and businesses are largely restricted to traditional credit channels. Non-bank financial institutions (NBFIs) are also negatively affected, with limited scope to invest in a narrow range of domestic securities. This restricts

their contribution to economic development and reinforces the dominant role of banks. As a result, the high concentration of financial intermediation within the banking sector amplifies systemic risk. Any shock to banks' balance sheets or lending activity could quickly reduce credit availability and threaten overall financial stability.

1.5.3 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2024.

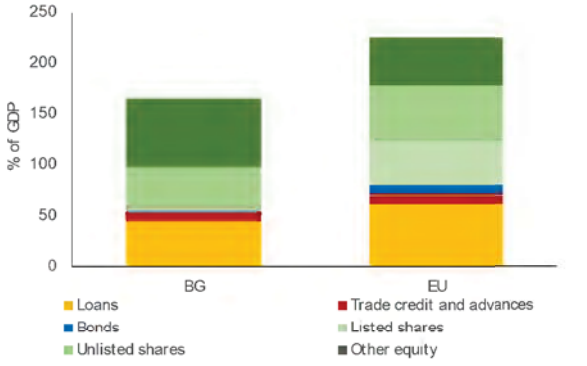
Despite modest growth in the pension and investment funds sectors, Bulgaria's financial intermediation remains heavily skewed toward banking. Bulgaria's banking sector remains the dominant force in the financial system, holding assets equivalent to 92.1% of GDP in December 2024. This level is far surpassing the combined asset base of all non- bank financial institutions (NBFIs) i.e. insurance, pension and investment funds. While NBFIs are actively working to increase their economic influence, they are tied to the underdeveloped domestic capital market. In end-2024, total insurer assets stood at just 6.2% of GDP, a level below the 6.6% recorded in 2018. This level is well below the EU average of 54.8%, a fact that highlights the sector stalled growth and limited role as an economic pillar. At the same time, the total assets managed by all (resident and non-resident) investment funds operating in Bulgaria totalled EUR 6.54 bn, increased by 20.9%, or EUR 1 bn, year-on-year.[641] This amount is equal to 5.9% of Bulgaria's GDP at the end of December 2024. Lastly, pension funds' total assets amounted to EUR 13.55 bn[642] in December 2024 (6.7% of the GDP). A year earlier, the net assets under management by the pension funds amounted to EUR 11.7 bn (and to EUR 9.8 bn in end-2022), clear evidence that the sector is growing. Nevertheless, strict legal restrictions on investment strategies continue to limit their broader impact in capital markets.[643]

The domestic equities and bonds market in Bulgaria are relatively small and shallow. In December 2024, the Bulgarian Stock Exchange (BSE) total equity market capitalization was approximately 8.6% of GDP[644], an increase by 12% compared to the end of 2023. The bond market's total capitalisation was 24.5%, made up of 20.7% government debt, and 3.8% by other institutions' issuances. However, the Bulgarian government primarily conducts issuances on international markets, with approximately 77% of the outstanding amount issued internationally.[645] This has a ripple effect on corporate bond issuance, as investors struggle to establish reliable benchmarks to price corporate bonds, hence the market remains -overall- untapped.

Financing of the economy

Sources of NFC finance

1.5.4 Composition of NFCs' funding



Source: Eurostat. End-2024.

Bulgarian corporates continue to rely primarily on bank lending and internal resources to meet their funding needs, while largely avoiding capital market instruments. The financial structure of NFCs in Bulgaria differs significantly from the EU average, both in terms of composition and overall size. In 2023, total NFC financing in Bulgaria stood at 165.5% of GDP. This level is well below the EU average of 225.6%, reflecting the comparatively smaller size and depth of Bulgaria's financial sector. Bank loans account for approximately 27% of Bulgarian NFCs' total financing, aligning with the EU average in proportional terms. However, in absolute terms, bank

641 See Bulgarian National Bank's Investment Funds Statistics
642 See Bulgaria's Financial Supervision Commission's Preliminary results of the supplementary pension insurance activity for 2024.
643 See OECD's 2024 Survey of Investment Regulation of Pension Providers.
644 See the Bulgarian Stock Exchange's annual report 2024
645 See Central Government Debt and Guarantees Monthly Bulletin for December 2024.

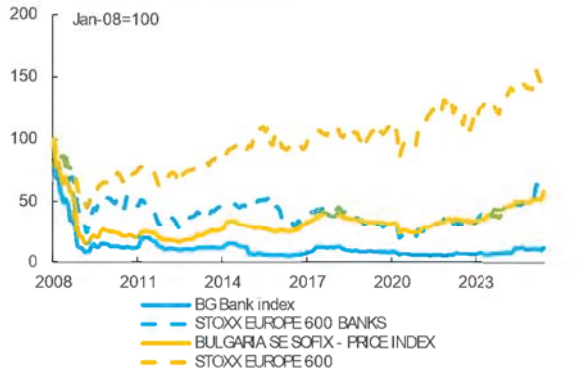
lending remains more limited (44.7% of GDP in Bulgaria vs. 60.9% in the EU), indicating that relative to GDP, bank-based financing remains modest in Bulgaria. Alternative forms of financing, in particularly unlisted shares, retained earnings, and other equity instruments, play a much larger role in Bulgaria, comprising 65.7% of total corporate financing, compared to 45.2% in the EU. This heavy reliance on internal or relationship-based funding partly compensates for the underdevelopment of capital markets. Consequently, market-based financing instruments remain marginal in Bulgaria. Bond issuance accounts for just 1.0% of total corporate finance (or 1.7% of GDP), compared to 4.7% (or 10.7% of GDP) at the EU level. The disparity is even more pronounced for listed equity, which represent just 1.6% of NFC financing in Bulgaria (or 2.6% of GDP) when in the EU they constitute 19.1% of the financing structure, equal to 43.1% of GDP. These figures highlight the limited role of the BSE in providing funding for domestic companies. Overall, the data corroborate that Bulgarian NFCs are dependent on non-market financing sources for covering their financing needs. This limited use of capital markets, constrains their ability to diversify funding sources, scale up investment, and improve resilience to financial shocks.

Market finance

The Bulgarian capital markets remain small and play a limited role in financing domestic firms. The market-funding ratio, which encompasses funds raised through equity markets (stocks), debt markets (bonds) and other market instruments has been steadily declining in recent years. In December 2024, this ratio stood at 10.7% of GDP, down from 10.7% in 2023, 11.3% in 2022 and 12.3% in 2021 and so on. It is one of the three lowest in the EU, significantly behind the EU average of 49.5% (as shown in Table 6).

Bulgaria's equity market is inefficient and underutilised, despite having the necessary infrastructure in place. The Bulgarian Stock Exchange (BSE) plays a critical role in facilitating market transactions through its structured main and alternative markets[646] and has all the necessary infrastructure in place. Nevertheless, the BSE is rarely used by corporates for raising equity capital. Since January 2020, the amount of the capital raised via capital increases amounted to EUR 578 mn ([644]), whereas the amount of the capital raised via initial public offerings (IPOs) was just EUR 38 mn, of which only EUR 2 mn in 2024 and EUR 6 mn in 2023.

1.5.5 Stock market performance



Source: London Stock Exchange Group[647].

Bulgaria's equity market was disproportionately affected by the global financial crisis compared to broader European indices. This sharp impact likely stemmed from Bulgaria's emerging market status, limited resilience of its financial institutions, and a significant investor exit. At the onset of the global financial crisis, the BG Bank Index plummeted from 100% (base) in January 2008 to approximately 11% by early 2009. Similarly, the SOFIX (general market index) dropped from 100% to around 15%, reflecting a severe devaluation of equity prices across sectors. Between 2010 and 2016, a prolonged period of stagnation followed, during which the BG Bank Index remained within a narrow band between 6% and 11%, while the SOFIX fluctuated between 20% and 30%, due to persistently low valuations, limited market activity, and weak investor confidence. In contrast, STOXX Europe 600 rebounded and had fully recovered to pre-crisis levels by 2015. Between 2017 and 2021, the SOFIX rose modestly, but remained at just 35% of its pre-crisis value, while the BG Bank Index hovered at historical lows around 6%. From 2022 onwards, the market gained stronger momentum and by mid-2025, the SOFIX had reached around 57%, and the BG Bank Index nearly doubled to 12%, reflecting improved investor sentiment and stronger performance in the banking sector. Nevertheless, these gains remained modest when compared to the STOXX

[646] See BSE Sofia market segmentation

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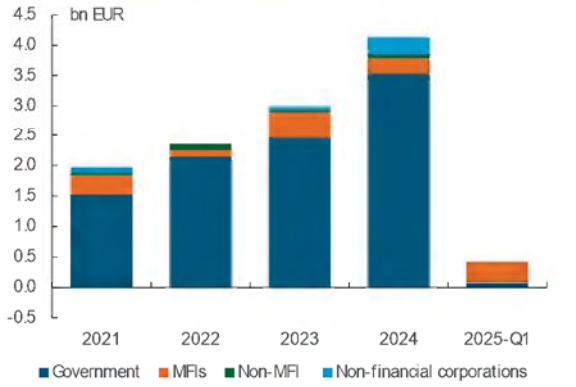
benchmarks. By mid-2025, the STOXX Europe 600 Banks reached approximately 65% of its 2008 levels, while STOXX Europe 600 surpassed its 2008 levels and stood at 150%. In contrast, Bulgarian indices remain well below their pre-crisis peaks, underscoring the structural weaknesses of the Bulgarian capital market, including low liquidity, a limited number of listed companies, and an underdeveloped investor base.

1.5.6 Net issuance of bonds

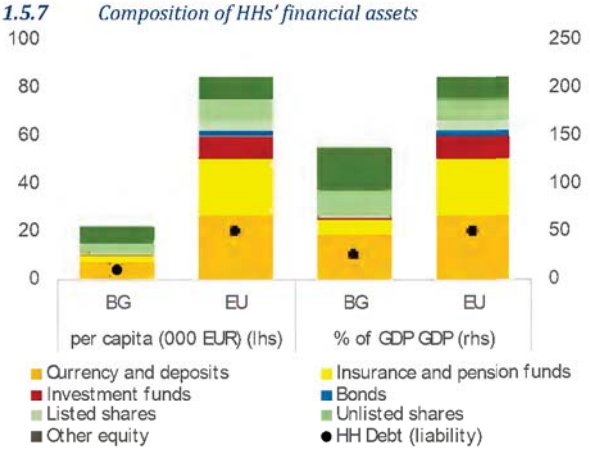


Source: ECB.

Bulgarian corporates face challenges in accessing financing through the domestic debt capital market. Government debt issuance in Bulgaria is primarily conducted on international markets, with only a quarter of the outstanding amount issued domestically.[648] This has a ripple effect on corporate bond issuance in Bulgaria, as investors struggle to establish reliable benchmarks to price corporate bonds. Worldwide, the Bulgarian government and corporates (MFIs, non-MFIs and NFCs) issued EUR 11.7 bn between 2021 and 2024, but only EUR 0.6 bn was raised on the BSE ([644]). Other reasons the Bulgarian companies underutilise corporate bonds include the ease of bank financing, limited knowledge of the bond-issuance process, and relatively high associated costs of bond issuance. Nonetheless, bond issuances have nearly doubled in recent years, suggesting growing momentum for corporate bond financing, albeit from a very low base.

Retail participation in capital markets

1.5.7 Composition of HHs' financial assets



Source: Eurostat. End-2024.

Bulgarians take a conservative approach to managing their financial assets, with a strong preference for deposits. Lower income levels in the country hamper the ability of poorer households to save and invest. The amount of financial assets per capita in Bulgaria is EUR 21 000, which is 25% of the average in the EU-27. As a result, households tend to prioritise liquidity over more complex financial investments. Bulgarian households hold around a third of their financial assets in currency and deposits, similar to the EU average. In contrast, Bulgarians allocate a significantly lower proportion of their financial assets to insurance and pension funds than the EU average (Bulgarians allocate 10% against an EU average of 28%). Furthermore, they have minimal exposure to investment funds, bonds, and listed shares, with a cumulative exposure of just over 3%, compared to 18% in the EU (as shown in Graph 2.3.7). Other factors, such as scarce market offerings, limited financial literacy and lack of trust in the capital markets due to legacy issue with the BSE may also contribute to this investing behaviour.

1.6 Croatia

Availability and use of domestic savings

The Croatian economy invests a significant part of its net savings abroad. In the last decade, the private savings ratio, net of fixed capital consumption, fluctuated around its ten-year average of 6.8% of GDP, reaching a maximum of 8.9% in 2020. The net private investment ratio, which measures the net contribution of the private sector to capital accumulation in the country, exhibited a ten-year average of 2.9% of GDP

[648] See Central Government Debt and Guarantees Monthly Bulletin for November 2024.

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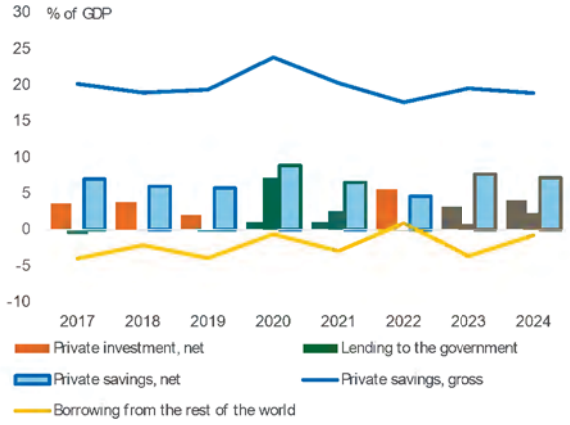
and reached a maximum of 5.7% in 2022. During the same period the government budget, whose balance was somewhat volatile, showed an average deficit equivalent to 1.7% of GDP. Thus, the moderate positive balance between net domestic savings and net investment, together with the rather limited government deficit, resulted in structurally positive net lending by Croatia to foreigners that averaged 2.3% of GDP, with a peak of 3.9% in 2019. Hence, a significant portion of Croatian net savings, i.e. after accounting for the investments that are necessary to merely maintain the existing capital structure of the economy, is used to finance projects abroad (see Graph 2.4.1).

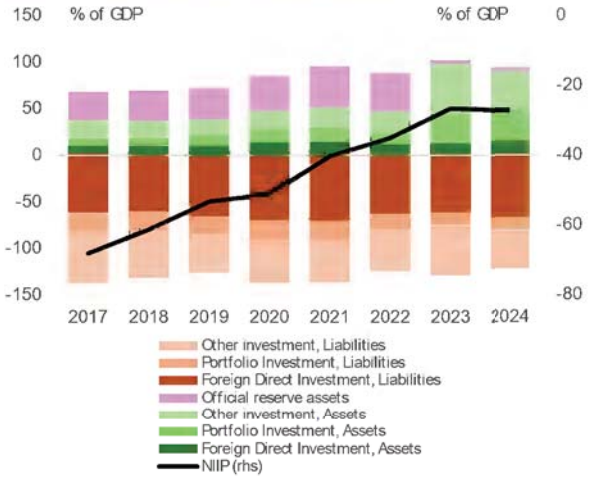
1.6.1 Net savings-investment balance



Source: AMECO.

Consistent with its annual net lending to the rest of the world, the net international investment position (NIIP) of Croatia has been increasing. As of Q4 2024, total assets on foreigners reached 95% of GDP, up from 68% at end-2017, while liabilities to foreigners stood at 122% of GDP, resulting in a negative net international investment position (NIIP) equivalent to -27% of GDP (see Graph 2.4.2). The net stock of foreign direct investment, which has been broadly stable, stood at -53% of GDP as of Q4 2024. This stability confirms the status of Croatia as a destination country for long-term capital investments. Hence, the increase in the NIIP has been driven by the growing net stocks of portfolio investment, which reached 20% of GDP as of Q4 2024, and of other investments, which stood at 2% of GDP. Part of the latter's increase is due to the structural change in the stock of official foreign exchanges reserves, which declined from above 40% of GDP prior to euro adoption to 4% as of Q4 2024. Thus, the Croatian economy appears to be well integrated in international capital flows, notably as a stable recipient of foreign direct investments.

1.6.2 International investment position

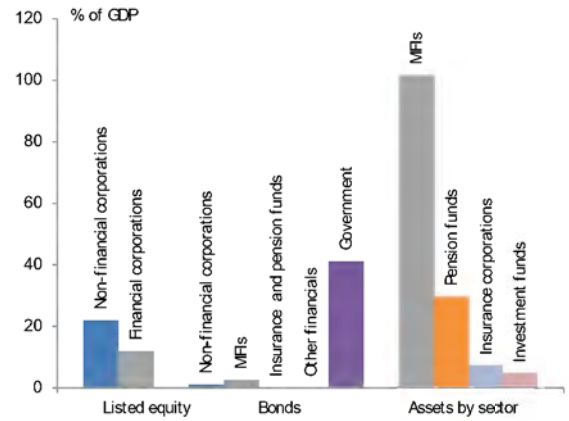


Source: ECB.

Structure of the financial sector

Banks dominate the financial sector in Croatia while there is scope for the future development of all non-bank intermediaries. The banking sector is the largest segment of the financial services, accounting for 101.5% of GDP in 2024, which remains significantly below the EU average of 251.1%. The pension fund assets accounted for 29.5% of GDP in 2024, which makes pension funds the second largest segment of the financial system after the banking sector. The insurance sector assets accounted for only 7.2% of GDP in 2024 (EU average: 54.8%). The total assets of investment funds accounted for 4.7% of GDP in 2024.

1.6.3 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2024.

Capital markets in Croatia are evolving but require further development to broaden access to finance. The market capitalisation of listed equity reached 34% of GDP in 2024 (EU average: 66.8%) (see Graph 2.4.3). Non-financial corporations (NFCs) accounted

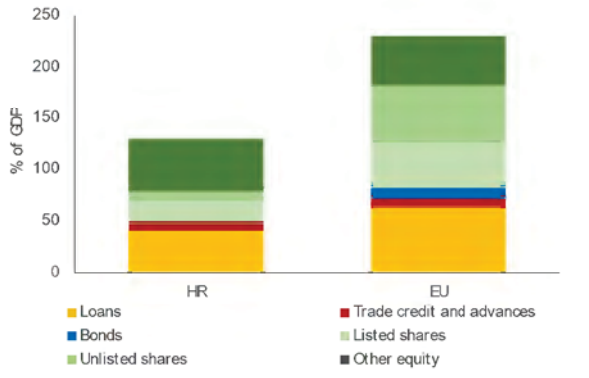
for 65% of that capitalisation at end of 2024. The outstanding volume of debt securities reached 45% of GDP at end 2024. However, marketable debt securities issued by NFCs accounted for only 2.7% of the total. Indeed, the domestic bond market in Croatia is dominated by the government securities, which accounted for 91.3% of the total bonds as of end-2024. Financial institutions, whether banks or not, accounted for the remaining 5.8% of the total debt securities.

Financing of the economy

Sources of NFC funding

Croatian companies rely more on funding from banks and much less on funding from capital markets. As a source of finance for Croatian NFCs, loans were equivalent to 40.3% of GDP as of end-2024, below the EU average of 60.9%. When expressed as a percentage of overall NFCs financing, loans accounted for a large share of all financing, which was above EU average (31.5% versus 27% in the EU at end-2024). On the other hand, Croatian NFCs' use of listed shares and bonds was lower than the EU average, both expressed as a percentage of GDP (21.6% vs 53.8%) and as a percentage of overall NFC financing (17% vs 23.8% in 2024) (see Graph 2.4.4). The overall level of NFC funding in Croatia was equivalent to 125.9% of GDP in 2024, which is substantially lower than the EU average of 225.6% of GDP at end-2024.

1.6.4 Composition of NFCs' funding



Source: Eurostat. End-2024.

Croatian businesses depend more on internal financing than their European peers. According to the 2024 EIB Investment Survey, the investment needs of 70% of Croatian firms re-covered by internal funding, compared to an EU average of 66%.[649] At the same time, 78% of Croatian firms believe that their investment activities over the last three years were about the right amount (close to the EU average of 80%), while 18% of Croatian firms believe that their investment activities were too little (above the EU average of 14%). This suggests that there is no material financing gap relative to investment demand.[650]

Market finance

Croatia's stock market is small but evolving. As mentioned before, the market capitalisation of listed equity reached 34% of GDP in 2024 (EU average: 66.8%). Its total market capitalisation stood at EUR 52.5 billion as of May 2025, of which stocks accounted for 56.5%, bonds 43.4%, and exchange-traded funds (ETFs) 0.2%.[651] The use of equity by SMEs is quite high as 32% of SMEs indicated in the 2024 SAFE survey that equity was relevant for them, compared to an EU average of 12%.[652]

The Croatian stock exchange is trying to become a regional player. The main stock exchange in Croatia is the Zagreb Stock Exchange (ZSE) which was established in 1991. The official stock index for ZSE is **CROBEX** (includes stocks from 15 companies) that recorded a 25.94% growth in 2024 compared to 2023.[653] In terms of stock market performance, the index of the general stock market in Croatia has been way below the EU average since 2008, while the index of Croatian banks was well above the EU average (see Graph 2.4.5). In 2019, the ZSE launched the Progress Market multilateral trading platform, which aimed to encourage SMEs to issue securities with less restrictive listing and reporting requirements. Although this Progress Market MTP started with market capitalisation of EUR 145.3 million in 2019, this figure had dropped to EUR 65.3 million by 2024.[654] Recognising the importance of cross-border trading, the ZSE fully acquired the Ljubljana Stock Exchange in 2015, and partially acquired the North Macedonian Stock Exchange (in 2019 and in 2022). In 2022, the SKDD (the Croatian central securities depository) launched a central counterparty clearing service in the Croatian market (SKDD-CCP) making it the fourteenth clearing entity licenced to provide CCP services in the EU.

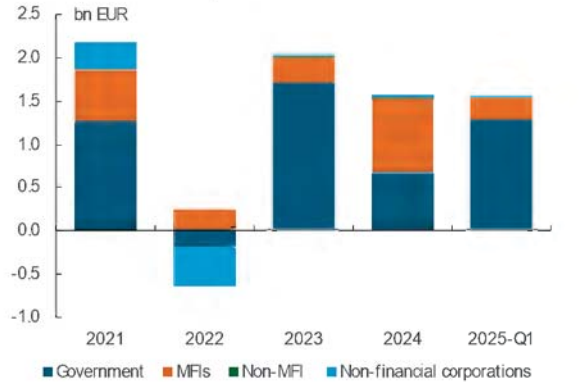
649 EIB, 2024, 2024 EIB Investment Survey, p. 29.
650 Ibid. p. 7.
651 ZSE, 2025. Market Capitalisation.
652 European Commission, 2024, Data and Surveys-SAFE, Results by country, T27.
653 ZSE, 2024. ZSE Annual Report, 2024. p. 22.
654 Progress Market, 2024, Market Capitalisation.

1.6.5 *Stock market performance*

Source: London Stock Exchange Group[655].

Debt finance continues to be a significant source of market funding for the government as well as MFIs in Croatia. In Q1 2025, the government issued EUR 1.3 billion of debt securities, compared to EUR 0.7 billion for the whole of 2024 (43.1% of total issued bonds in 2024). In Q1 2025, MFIs issued EUR 0.3 bn of debt securities, compared to EUR 0.8 billion for the whole of 2024 (53.5% of total issued in 2024) (see Graph 2.4.6). Debt market finance does not appear to be a major source of funding for Croatian non-financial corporations (NFCs) (2.9% of total issued bonds in 2024).

1.6.6 *Net issuance of bonds*



Source: ECB.

The Croatian government has taken measures to further foster the development of the Croatian capital markets. Already in 2023, the CFA Society Croatia, in partnership with the Ministry of Finance, and relevant parties implemented a project aimed at preparing the basis for the Croatian capital market development strategy (published in January 2024).[656] Based on this report, the Croatian Ministry of Finance prepared the Strategic framework for the development of capital market in the Republic of Croatia (2025-2030), and the first action plan (2025-2026), in the cooperation with the Croatian Financial Services Supervisory Agency and other relevant stakeholders (including pension and investment funds, investment firms, banks, ZSE, the SKDD-CCP, CFA Society Croatia and others) with the technical support from the European Bank for Reconstruction and Development. Additionally, the second Action plan is envisaged for 2026 and will cover the period until the end of 2030. The framework sets out five key strategic directions: (i) regional integration and positioning Croatia as a financial hub; (ii) digitalisation of capital markets; (iii) strengthening corporate governance; (iv) boosting market liquidity; and (v) creating new investment products and financing options. In addition to the aforementioned five key strategic directions, a horizontal initiative has also been launched, aimed to reduce excessive regulation (gold-plating) and to ensure that the legal framework of Croatia remains competitive, simple, and aligned with the European Union acquis and relevant EU standards.

Croatia has increasingly supported efforts to develop the Capital Markets Union (CMU) in the EU. At a meeting in May 2024, the finance ministers of Austria, Croatia and Slovenia issued a joint statement calling for further progress on CMU.[657] The statement identified a number of common CMU priorities, including: (i) the need to consider the priorities of all Member States; (ii) debating centralised supervision at a later stage; (iii) a pragmatic approach to the securitisation framework; (iv) harmonising the requirements for companies to be listed on exchanges; (v) eliminating national barriers for institutional investors; (vi) making tax systems more supportive of investments in capital markets; and (vii) expanding financial literacy and market participation among the EU population.

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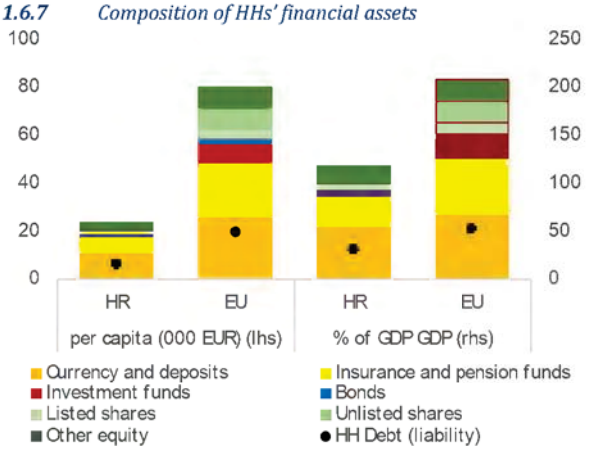
[656] CFA Society Croatia, 2024, Basis for the capital markets development strategy in Croatia.

[657] Common Statement by the Finance Ministers, 28 May 2024.

Retail participation in capital markets

Croatian households have a high share of cash and deposits in households' assets, which implies that there is scope to further increase the level of direct or indirect retail investments. The Croatian savings rate was 11.2% at end-2023 (EU average: 13.3%). At end-2024, Croatian households had a higher-than-average holding of cash and deposits, which represent nearly half (45.4%) of household assets (EU average: 31.7%). Moreover, at end-2024, 39% of households' financial assets were held in pension and investment funds or held directly in financial investment instruments, but this still falls short of the EU average of 46.6%. More specifically, at end-2024, households' direct holdings of investment insurance and pension funds was at 27% (EU average: 27.9%), investment funds at 3.4% (EU average: 11.1%), bonds at 4.8% (EU average: 2.8%), and listed shares at 3.8% (EU average: 4.9%) (see Graph 2.4.7). In Croatia, direct and intermediated retail investment by households was 44% in 2023 (EU average: 56.2%).

1.6.7 Composition of HHs' financial assets



Source: Eurostat. End-2024.

Recent policy initiatives are aimed at boosting the level of retail participation. In 2023, the Croatian government issued its first national bonds and treasury bills aimed primarily at retail investors, in which Croatians invested a total of EUR 2.3 billion.[658] In 2024, the Ministry of Finance continued to turn to households for government financing by issuing national treasury bills.[659] A wider review of the incentives in place to promote retail participation in financial markets may also be warranted. In March 2025, Croatia adopted the Strategic framework for the development of capital market in the Republic of Croatia 2025-2030, marking an important step towards strengthening market infrastructure and broadening access to finance.

1.7 Cyprus

Availability and use of domestic savings

1.7.1 Net savings-investment balance

Source: AMECO.

The Cypriot economy relies on external funding to meet its investment needs, as domestic net private savings are insufficient to finance all investment requirements. In the past decade, Cyprus's private sector gross savings rate has averaged around 10% of GDP, significantly lower than the euro area average of 23.8%. The net private savings ratio has fluctuated significantly, shifting from a net borrowing position in 2014 to a net savings position of 4.4% in 2021, before reverting to a net borrowing position of -4.2% in 2023. On average, the net private savings ratio stands at zero, indicating that private savings are just sufficient to meet the depreciation of existing capital assets without external borrowing. However, private savings are insufficient to finance additional investment through capital markets, either domestically or internationally. The net private investment position has averaged around 7.5% over the past five years, in contrast to the financial crisis years (2012-2014) when the net investment position was negative. The government's borrowing from the private sector has also varied over the past few years, reflecting the interplay between the government's funding needs and the private sector's savings behaviour. Domestic savings have often been insufficient to meet investment needs and sustain capital infrastructure. As a result of the government's irregular net savings position and the private sector's insufficient savings, Cyprus has remained a net borrower from the international community, with an

[658] HANFA, 2024, Annual Report 2023, p. 2

[659] HANFA, 2024, Macroprudential Risk Scanner, p. 10.

average borrowing of around 4.9% of GDP over the past 15 years.

1.7.2 International investment position

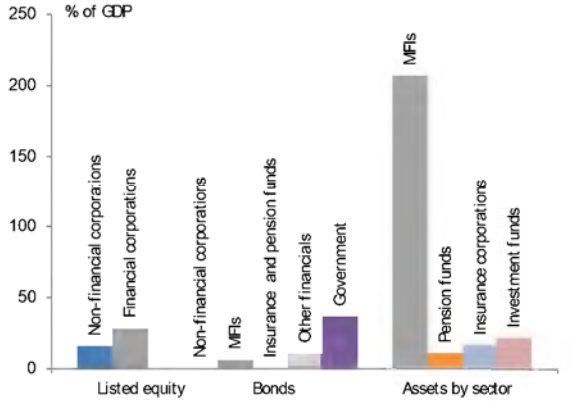
Source: ECB.

The Cypriot economy has a significant amount of external debt, resulting in a negative net international investment position (NIIP) that is, however, showing signs of improvement. In December 2024, Cyprus's NIIP stood at -80% of GDP.[660] Despite the disproportionate high level of accumulated foreign direct investment (FDI) in the economy, both on the assets and the liabilities side[661], the net FDI is a negative position of 5% of GDP in December 2024, thus making only a small negative contribution to the NIIP. Foreign reserve assets, which accounted for less than 6% of GDP, made a positive contribution to the NIIP. The difference between portfolio assets and liabilities, which is affected by the price volatility of equity valuations abroad and in Cyprus, was also a positive contributor in 2024, accounting for around 49% of GDP. However, these positive contributions were more than offset by the net stock of other investments, which stood at -130% of GDP at the same time.[662] Cyprus's NIIP has improved over the years, from -139% in 2017 to -80% in 2024, but remains highly negative. Excluding SPEs[663], the NIIP is less negative, at around -30% of GDP. Overall, while the Cypriot economy is highly connected to global capital markets and is a source of foreign capital, it remains a net capital importer from the rest of the world.

Size of the financial sector and structure of the capital markets

The underdeveloped capital markets in Cyprus, characterized by small market capitalization and a limited bond market fundamentally shape the way banks and other financial intermediaries operate. The Cypriot economy has a well-developed banking sector, which plays a significant role in the country's financial system. Banks serve as the main channel between savers and borrowers, as firms and households have few alternatives for raising or investing funds. The lack of well-developed capital markets constrains financial diversification and stifles innovation by forcing businesses to rely almost exclusively on bank credit. Additionally, the shallow capital markets limit the ability of non-bank financial institutions (NBFIs) to invest in a diverse range of domestic securities, thereby constraining their role in supporting the economy. This concentration of financial flows within the banking sector increases the risk of a systemic crisis, as any disruption in banks' balance sheets or lending capacity can rapidly translate into reduced credit availability and threaten economic stability.

1.7.3 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2024.

The importance of the banking sector for the country's economy is evident by its relative size compared to all other sectors. In December 2024, its

[660] For more detailed analysis, see also In-depth reviews - European Commission, May 2025.

[661] The disproportionate high level of accumulated FDIs, which reached 1 459% of GDP in December 2024, and the equivalent liability of 1 464% of GDP, is attributed to the favourable tax system and the country's role as financial hub, where Cyprus is often selected as an intermediary for routing investments to third countries.

[662] The stock of liabilities in other investments includes the portfolios of non-performing loans that have been transferred from the banks to foreign CACs and amount to approximately 33% of the GDP.

[663] Special purpose Entities (SPEs), mostly ship-owning, contribute significantly to the negative headline NIIP. Ship-owning SPEs are mostly funded by foreign financial institutions or other related non-resident entities and own assets located outside Cyprus and thus NIIP appears inflated because of these SPEs.

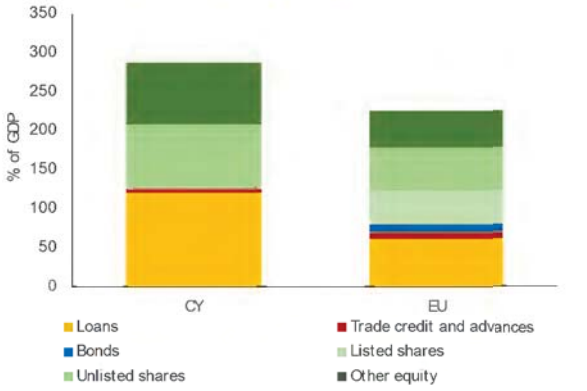
total assets stood at 206.6% of GDP, four times bigger than the combined size of all insurance, pension and investments funds in Cyprus, whose totals assets amounted to 48.9% of GDP. The insurance sector, with total assets amounting to 16.3% of GDP in December 2024, and the investment funds sector, with total assets under management at 21.9% of GDP at the end the year, appear to gain momentum and aim to become important players in the economy. In contrast, the pension funds sector, with total assets of 10.6% of GDP, is considered fragmented and faces administrative challenges. The NBFIs are trying to position themselves as important players in the economy, but their small size relatively to the country's GDP, limits their ability to play a major role in the country's capital markets. In addition, the underdeveloped domestic capital market makes this even more challenging.

The domestic capital market (equities and bonds markets) in Cyprus is small, with a lack of liquidity and a limited number of listed companies or traded bonds. The domestic capital market is primarily composed of the equities market and the bonds market. Although the Cypriot capital markets are open to foreign investors, foreign participation is modest. The limited foreign participation and preference for foreign markets have contributed to the small size of the domestic capital market. Meanwhile, many Cypriot companies opt to list and raise funds on foreign markets. In December 2024, the Cyprus Stock Exchange's (CSE) total equity market capitalization was approximately 16.5% of GDP[664], compared to the outstanding value of Cypriot companies listed in Cyprus and abroad, which amounted to 44.2% of the country's GDP (as shown in Table 6). The bonds market is the primary driver of the domestic stock exchange's market capitalization, with the Cypriot government being the main issuer of sovereign debt, primarily targeting institutional investors, while the corporate bond market remains underdeveloped.

Financing of the economy

Sources of NFC funding

1.7.4 Composition of NFCs' funding



Source: Eurostat. End-2024.

Bank loans are the primary source of financing for NFCs in Cyprus, with corporate bonds and listed shares being underutilised. Specifically, bank loans account for 45% of NFCs' total financing needs, a level significantly higher than the EU average of 27%. In contrast, other forms of financing, such as unlisted equity and participation in quasi-corporations (e.g. partnerships), account for 52% of total financing, exceeding the EU average of 45%. Consequently, the level of financing through capital markets in Cyprus is substantially lower than the EU average. In particular, listed shares account for just over 1% of total financing needs, while NFC bond issuance is virtually non-existent (0.07%), compared to the respective EU averages of 19.1% and 4.7%.

Market finance

Cyprus's capital markets are insufficiently deep and play a limited role in financing domestic firms. Albeit the market-funding has more than doubled over the past decade, however, at 10.9% of GDP, Cyprus's market-funding ratio is one of the lowest in the EU, where the average is close to 50% (see Table 6).

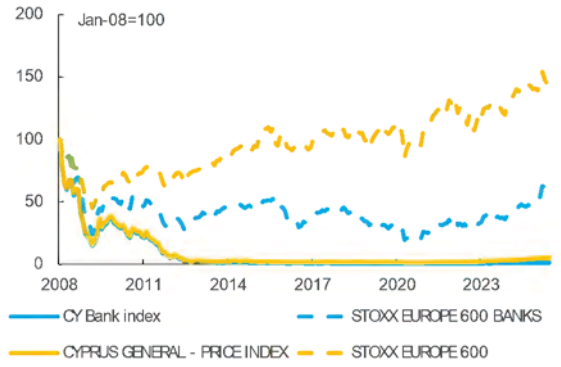
Cyprus's equity market remains inefficient and underutilised as Cypriot firms prefer to access deeper capital pools abroad. The Cyprus Stock Exchange (CSE) is the country's only regulated exchange and facilitates equity and bond transactions through its main and alternative equity markets, the emerging companies' market, and its bonds markets. The CSE operates its own trading, clearing, and settlement systems.[665] Despite having the necessary

[664] See Cyprus Stock Exchange Annual report and Fact book 2023.

[665] See Cyprus Stock Exchange #4 Annual report and Fact book 2023.

infrastructure in place, the equity market is underdeveloped. Nevertheless, in December 2024, the Cyprus Stock Exchange's (CSE) total equity market capitalization was approximately 16.5% of GDP. As at that date, the total outstanding value of all shares issued worldwide by Cypriot resident companies stood at 44.2%. This difference indicates that Cypriot firms prefer to seek access to larger, more liquid international markets. Specifically, Cypriot financial entities listed on the CSE were valued at 46% of the total outstanding value of Cypriot firms listed worldwide (EUR 4.5 bn as compared to the EUR 9.5 bn). For non-financial entities the ratio was even lower at 22% (EUR 1.2 bn over EUR 5.3 bn) These relatively low ratios suggest that Cypriot companies, particularly non-financial ones, tend to list abroad rather than on the domestic exchange. This likely reflects structural limitations of the CSE, including shallow liquidity, a limited investor base, and potentially regulatory or reputational constraints. In this context, the CSE appears to be a less attractive venue, especially for non-financial corporates seeking capital.

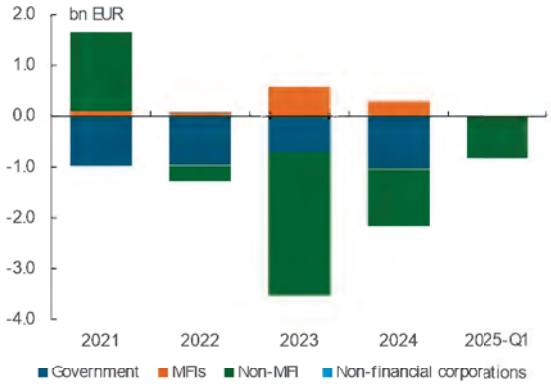
1.7.5 *Stock market performance*



Source: London Stock Exchange Group[666].

The CSE's performance has experienced a dramatic decline since the 2008 crisis, particularly after the 2013 bail-in of ex-Laiki Bank. The bank index went from its base value of 100% in January 2008 to virtually zero in 2013, reflecting the severity of the Cypriot banking crisis. The CSE General Price Index followed a very similar pattern, also falling to bottom, mirroring the collapse of the broader market. In contrast, European banks, as measured by the STOXX Europe 600 Banks index, also declined sharply during 2008-2009, but not to the same extent as in the CSE. The European banks' index bottomed out at around 20% of its 2008 base value before recovering to its current value of 65% in June 2025. Starting in 2021, both the CSE Bank index and the CSE General Index began to show signs of recovery, though from extremely depressed levels. The equities market is not a popular means of raising finance and there have been no material Initial Public Offerings (IPOs) in the main market since 2018. Cypriot equity market inefficiency is also evidenced by high bid-ask spreads, which -albeit – have decreased from 7.6% in 2015 to 3.7% in 2023, still remain significantly above the EU average of 1.6%. A lack of investable assets, shallow market depth, and higher perceived risks associated with traded stocks -partly rooted in legacy issues[667]- are key factors contributing to the inefficiency and underutilisation of the CSE. With its announced privatisation[668], the CSE aims to reposition itself as a significant player in the country's financial landscape.

1.7.6 *Net issuance of bonds*



Source: ECB.

The bond market remains virtually untapped by local NFCs. Corporate bond issuance is rare, with most companies, including large corporates, relying heavily on bank lending. Only banks accounted positive net bond issuances in 2022, 2023 and 2024, mostly to comply with their MREL requirement. All other participants, including the government have net redemptions the past 3 years. While for the government, this behaviour reflects fiscal

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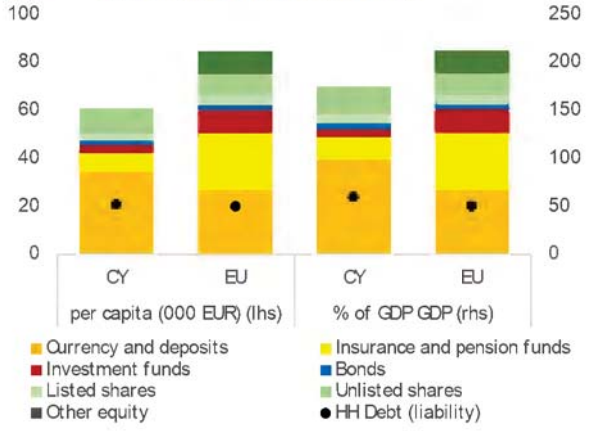
[667] The CSE stock market bubble and crash of 1999–2000, just three years after trading began, severely undermined investors' trust in the exchange, whereas 15 years later, the bail-in of ex-Laiki bank and the near collapse of Bank of Cyprus wiped out all shareholders at the time.

[668] See C3.3R5 of the Cypriot recovery and resilience plan; the reform has already been approved by the Council of Ministers.

consolidation efforts, for the NFCs it is clear evidence that bond market as a means of raising finance is non-existent. This is partly attributed to the economy's structure. Cyprus is a service-oriented economy that requires less capital investment. In addition, large NFCs, are scarce as the backbone of the economy is formed by small and medium enterprises (SMEs), and in particular very small family business that mostly rely on readily available bank loans. Moreover, investor appetite for Cypriot corporate bonds, other than those issued by credit institutions, is uncertain given the absence of credit ratings.

Retail participation in capital markets

1.7.7 Composition of HHs' financial assets



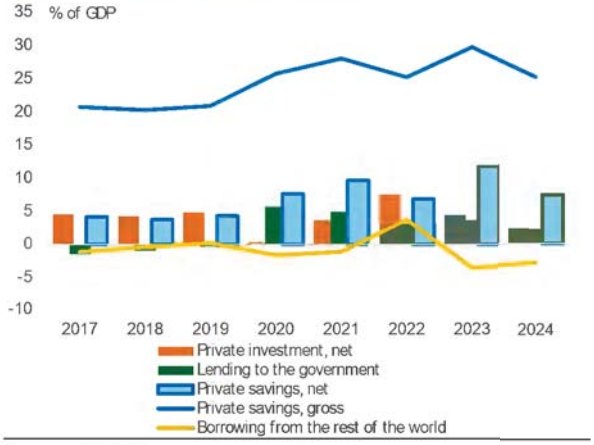
Source: Eurostat. End-2024.

Cypriot households heavily favour holding their financial assets in deposits over other types of investments. On average, they allocate 59% of their financial assets to deposits, significantly higher than the EU average of 32%. Their second largest exposure, around 18%, is in unlisted shares, which indicates a strong culture of private or family-owned businesses. Unlike most EU households, Cypriot households tend to avoid diversified investment products, allocating only 13% of their financial assets to insurance and pension funds, and 3% to investment funds, compared to the EU averages of 28% and 10%, respectively. A key factor contributing to this investment behaviour is the higher private indebtedness of Cypriot households, which results in a lower saving rate and restricts the availability of funds for investment in capital markets.

1.8 Czech Republic

Availability and use of domestic savings

1.8.1 Net savings-investment balance



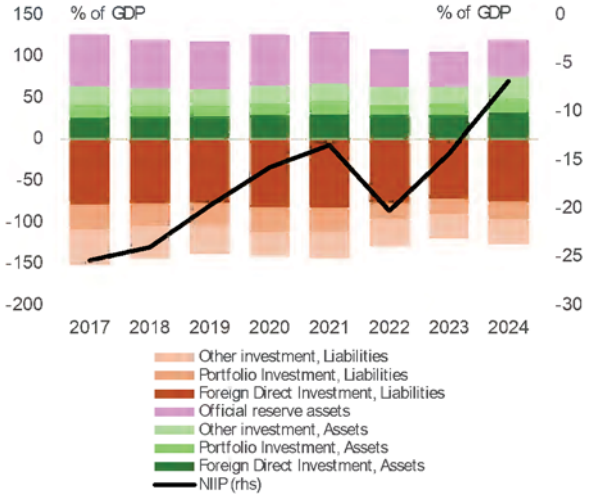
Source: AMECO.

The growing net private savings of the Czech economy have been mostly supporting domestic private investment and public finances. As of end-2023, the private savings ratio, net of fixed capital consumption, which has been on a persistently rising trend, had reached 11.9% of GDP. It normalised at 7.4% in 2024, remaining however above its 10-year average of 6.4% (see Graph 2.6.1). The net private investment ratio, which measures the net contribution of the private sector to capital accumulation in the country, did not exhibit such a growing trend and averaged 4% of GDP, with a maximum of 7.6% in 2022 and reaching only 2.3% of GDP in 2024. Moreover, since 2020 the government budget is no longer balanced, which resulted in an average ten-year deficit equivalent to 1.7% of GDP. Due to these trends, the Czech economy was a creditor to the rest of the world for about 0.7% of its annual GDP during 2015-2024. Thus, while net private savings have been absorbed domestically until recently, their future growth could lead the Czech economy to become a more pronounced lender to foreigners.

The Czech economy has managed to improve its (negative) net international investment position in recent years. As of Q4 2024, total assets on foreigners reached circa 119.6% of GDP, down from 126.2% in 2017, while liabilities to foreigners stood at 126.5% of GDP, down from 151.6% in 2017. As a result, the negative net international investment position (NIIP) came down from -25.4% of GDP in 2017 to -6.9% of GDP as of Q4 2024, showing that the Czech economy remains nevertheless a net borrower from the rest of the world in terms of outstanding net foreign assets (see Graph 2.6.2). The improvement in the NIIP is structural and concerns all forms of investment. During

2017-2024, the net stock of foreign direct investment grew by 9.6 percentage points of GDP, the net stock of portfolio investment increased by 10.1 percentage points of GDP, and the net stock of other investments expanded by 17.4 percentage points of GDP. However, the overall impact in NIIP was more limited, with an increase of only 18.5 percentage points of GDP, because the stock of official foreign reserves declined by 18.6 percentage points down to 44.1% of GDP as of Q4 2024. Thus, lately, the Czech economy has been accumulating more private assets on foreigners, improving its still negative NIIP position.

1.8.2 International investment position

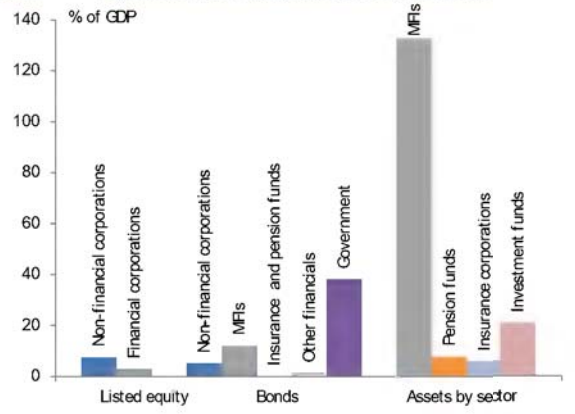


Source: ECB.

Structure of the capital markets and size of the financial sector

The financial sector in Czechia is dominated by banks, while investment funds have gained in importance. After peaking at 141% of GDP in 2021, the size of the banking sector declined to 132.6% of GDP in 2024 but continues to lead the Czech financial sector, representing circa 80% of its assets. The insurance sector, with total assets that declined from 8% of GDP at end-2020 to less than 6% of GDP at end-2024, stays much behind the EU average of 55%. Third pillar pension funds accounted for 7.8% of GDP[669] at end-2024, down from 8.1% of GDP in 2023, albeit their assets were 1.2% up in nominal terms over the period. From all non-bank financial intermediaries, only investment funds have shown significant growth, reaching the equivalent of 20.6% of GDP at end-2024, up from 11.7% at end-2020.

1.8.3 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO, CNB. End-2024.

Capital markets are underdeveloped in Czechia. The market capitalisation of listed equity of Czech firms reached 10.4% of GDP at end-2024[670], which is much lower than the EU average of 66.8% (see Graph 2.6.3). Non-financial corporations accounted for almost three quarters of that capitalisation. The outstanding volume of debt securities reached 56.4% of GDP at end-2024, which is almost three times lower than the EU average (139.9%). General government bonds accounted for two thirds of the outstanding amounts, compared to only 51.2% for the EU average. The remainder was distributed between banks (21.1%), non-financial corporations (9%) and other financial intermediaries (2.3%). Thus, the contribution of capital markets in Czechia to the domestic economy's financing appears limited.

Financing of the economy

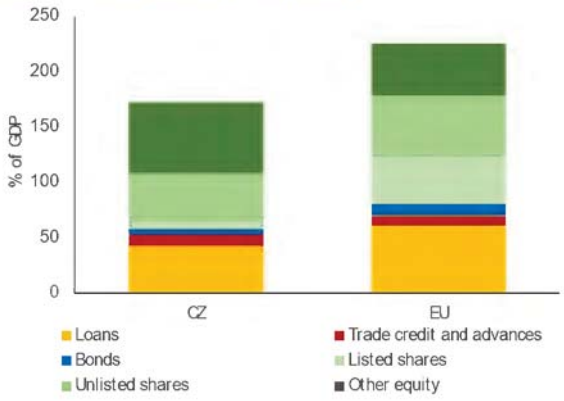
Sources of NFC funding

Firms in Czechia rely much less for their funding on capital markets than the EU average and slightly less on banks. More specifically, at the end of 2024 loans constituted only 24.8% of all funding sources for Czech non-financial corporations (NFCs), while listed shares and bonds represented only 7.1% of funding sources. The equivalent figures for the EU average are 27% and 23.8%. EU firms also have overall funding levels that are substantially higher as a share of GDP than Czech firms (172.3% of GDP for Czech NFCs vs 225.6% of GDP in the EU on average (see Graph 2.6.4)).

669 See data from ČNB ARAD, in conjuction with Annual national accounts | Czech Statistical Office

670 This figure includes all listed shares of Czech companies, irrespective of the stock exchange where they are listed.

1.8.4 *Composition of NFCs' funding*



Source: Eurostat. End-2024.

As a result, Czech businesses depend more on internal financing than their European peers. 75% of Czech firms' investment needs are covered by internal funding, compared with an EU average of 66%.[671] At the same time, 88% of surveyed Czech firms believed that their investment activities over the last three years, i.e. in 2021-2023, were at about the right amount, a level of confidence that was higher than the EU average (80%), suggesting that there is no material financing gap relative to investment demand. However, this high level of overall satisfaction with their funding situation may not be the case for Czech firms with no or limited capacity for internal funding, such as innovative start-up firms (see below).

Market finance

The main stock exchange in Czechia is the Prague Stock Exchange (PSE). Its total capitalisation in 2024 was CZK 21.0 tn but more than 90% of that figure was the capitalisation of the Free Market segment, which mainly contains dual-listed foreign equity titles and has low trading volumes. If we exclude this segment, the market capitalisation of the remaining three market segments was CZK 1.56 tn in 2024 (i.e. circa EUR 63.4 bn and the equivalent of 19.4% of GDP).[672] This figure includes a) the Prime Market, which is for Blue Chips stocks, b) the Standard Market and c) the START growth market for smaller, growing firms. Among the three, the Prime Market is the dominant segment, which corresponds to 97 % of market capitalisation and volume of trades of these segments. In terms of performance (see Graph 2.6.5), the main index of the Prague Stock Exchange (PX index) was up 22.6% in 2024 greatly outperforming the STOXX 600 (up 10.2%), while it continued to exhibit strong growth in the first half of 2025 (up 26.9%).

1.8.5 *Stock market performance*

Source: London Stock Exchange Group[673].

The Czech capital market is relatively small in size, with low volumes and little IPO activity, while over-the-counter transactions dominate. The market breadth of listed shares[674] in Czechia is substantially smaller than the EU average (0.3% vs 2.7%) while the bid-ask spread for listed shares, a sign of liquidity (or lack of) in the market, is also higher (2.9% of the mid-price vs 1.6% for the EU average). The limited liquidity of the Czech stock market is also confirmed by a low and deteriorating trading volume, which fell for the second year in a row, to the lowest value in more than 20 years. It is also important to note that volume of over-the-counter transactions has long been in excess of the one in the Prague Stock Exchange, both for equities and bonds. Unlike 2023, there was no increase in 2024 to the number of the shares listed in the Prague stock exchange (61 shares, all segments)[675], but there were two new listings in H1 2025 (one in the Prime Market and one in the Start Market). The use of equity by SMEs is also very limited, as only 1.7% of Czech

[671] See p.29 of the 2024 EIB Investment Survey.

[672] See CNB's 2024 Financial market supervision report.

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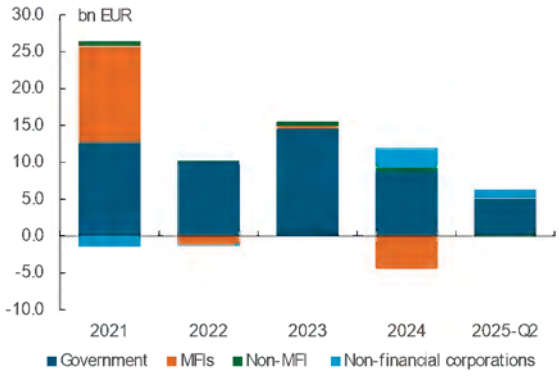
[674] I.e. the number of outstanding shares relative to the number of large firms (employment >249). See List of indicators to monitor progress towards the CMU objectives - European Commission

[675] See Financial Market Development Report 2024 | Ministry of Finance of the Czech Republic, Table 6.4. This suggests that listings were either non-existent or equal to de-listings.

SMEs indicated in the 2024 SAFE survey that equity is relevant for them, compared with an EU average of 11.7%.[676]

Although corporate bonds represent a small share of net bond issuances, they have been growing the last two years. With regards to net bond issuance, it is usually dominated by the issuance of government bonds. However, although the total value of net bond issuances was down by 52% yoy in 2024 (see Graph 2.6.6), the total volume of bonds issued by non-financial corporations increased for the 2nd year in a row, reaching CZK 396.3 bn (i.e. circa EUR 16.1 bn), the highest value since 2020 and an amount equal to 27.7% of NFC loans provided by Czech banks.[677]

1.8.6 Net issuance of bonds



Source: ECB.

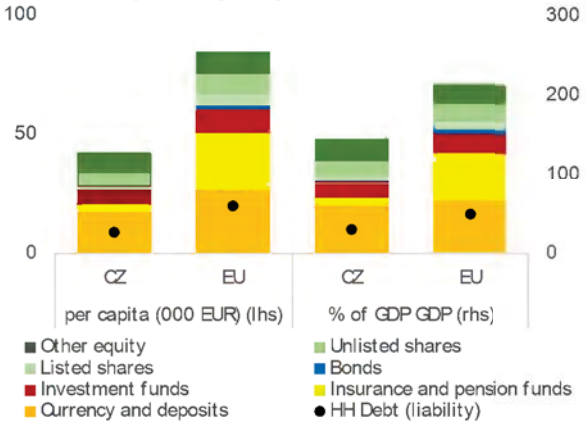
Czechia had a national strategy in place for the development of its capital markets for the period 2019–2023. Certain key measures in this strategy have now been adopted, such as the introduction of a long-term investment product and a new type of alternative participation pension fund. However, these measures have only been recently implemented and need time to reach their full potential. Since 2024, there has not been an updated dedicated strategy to develop Czechia's capital markets. However, the goals of creating better access to financing for companies and individuals and supporting innovation in the field of financial technologies were integrated in the new Economic Strategy of the Czech Republic 2040.[678]

Retail participation in capital markets

Czech households' wealth is invested conservatively, despite a gradual change in investment behaviour over the past 15 years. The overall wealth of Czech households is substantially below the EU average both in per capita and GDP terms (see Graph 2.6.7). However, Czech households' savings' rate is one of the highest in the EU (see also section before). So far this wealth has been invested conservatively, as direct retail investment (i.e. investment by non-professional investors) in the Czech capital markets is low. Nevertheless, the assets of the investment-fund industry continue to grow, and this is reflected in the increasing share of household wealth invested in such funds, which now accounts for 12.3% of household assets, up from only 6% in 2015. More broadly, household financial assets held in pension, insurance and investment funds or directly in financial instruments as a % of total household financial assets rose from 17.8% in 2008 to 24.7% in 2024. However, it is still markedly below the EU average of 46.6%, as the share of wealth invested in insurance and pension funds (7.4%) or listed shares (2.3%) lags significantly behind the EU average (27.9% and 4.9% respectively).

Part of the growth in investment funds may be due to investment flows redirected from other types of long-term savings' products. While investment funds grow as a share of household wealth in Czechia, the amount of wealth invested in insurance and pension funds has actually decreased through time both as a share of GDP (3.6 percentage points lower than 2015) and as a share of household wealth (4.5 percentage points lower than 2015). This suggests that part of the relative growth in the share of investment funds in the overall household wealth in Czechia may have come at the expense e.g. of investments in 3rd pillar pension funds.

1.8.7 Composition of HHs' financial assets



Source: Eurostat. End-2024.

There is still significant scope to increase the level of direct and indirect retail investment in Czechia.

676 Data and surveys - SAFE - European Commission, 2024, Results by country, T27.

677 See Financial Market Development Report 2024 | Ministry of Finance of the Czech Republic.

678 See Economic Strategy of the Czech Republic 2040 | MPO

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This is due to: (i) the stronger-than-average savings rate of Czech households in recent years, with positive median saving rates for all quintiles of the household income distribution; and (ii) the fact that cash and deposits account for a higher share of household assets than the EU average (41.3% vs 31.7%).

Recent policy initiatives in Czechia aim to promote retail participation in the country's capital markets. To boost household investment via the capital markets, a long-term investment savings account has been made available since 2024 (know as the "long-term investment product" or LTIP). It offers an alternative to other government-supported long-term savings products, e.g. pension funds and life insurance products. The new account, which is very flexible in terms of asset allocation and investment strategy, shares the same tax-relief features as these other long-term products, subject to a cumulative cap on tax advantages that applies to all of them. Its take-up has shown encouraging early signs and as of June 2025, 170 thousand persons had made use of the long-term investment savings account, with a total amount invested of CZK 4.5 bn.[679]

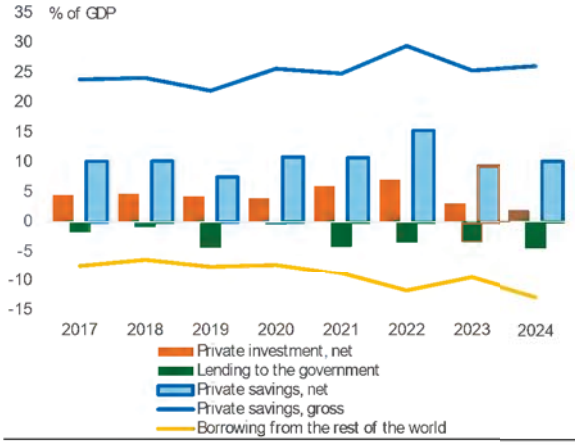
Further policy action may be needed to promote retail investment in Czech capital markets. Apart from the continuous effort required to raise public awareness of the new long-term investment product, its take-up also needs to be monitored closely to assess the product's attractiveness for new savers and its 'additionality' compared to other long-term savings products.[680] A pre-requisite to make such an assessment is the availability of data, which is currently lacking, to allow for an appropriate, data-driven evaluation not only of the LTIP but of the entire framework of long-term savings products, with the aim to identify targeted improvements, where possible, to improve the effectiveness of such products in mobilising new long-term investments. Such an evaluation could also involve other aspects of the LTIP product, including the competitiveness of the fee structures associated with it.[681] It will also be crucial to further strengthen retail investor trust, in part by: (i) maintaining an effective framework of corporate governance and protection of shareholder rights[682]; and (ii) reducing cases of fraud and malpractice.[683]

1.9 Denmark

Availability and use of domestic savings

The Danish economy invests the largest part of its relatively high net savings abroad. In the last decade, the private savings ratio, net of fixed capital consumption, persistently fluctuated around its ten-year average of 10.6% of GDP, reaching a maximum of 15.4% in 2022 (see Graph 2.7.1). The net private investment ratio, was significantly more volatile, exhibited a ten-year average of 4.2% of GDP and reached a maximum of 7.1% in 2022. At the same time, during the same period the government budget was in regular surpluses that averaged 2.2% of GDP. Thus, the high positive balance between net domestic savings and net investment, together with the government surpluses, resulted in structural net lending by Denmark to foreigners that averaged 8.6% of GDP, with a peak of 12.7% in 2024. Thus, most of Danish net savings, i.e. after accounting for the investments that are necessary to merely maintain the existing capital structure of the economy, are used to finance projects abroad.

1.9.1 Net savings-investment balance



Source: AMECO.

Consistent with its regular position of a net creditor to the rest of the world, the Danish economy has accumulated significant net foreign assets. As of end-2024, total foreign assets reached 357% of GDP, while liabilities to foreigners stood at 275% of GDP, resulting in a net international investment position (NIIP) equivalent to 82% of GDP (see Graph 2.7.2).

679 See relevant Press release by AKAT.

680 I.e. the extent to which it is attracting new investment from retail investors rather than diverting existing investment from other government-supported long-term savings products.

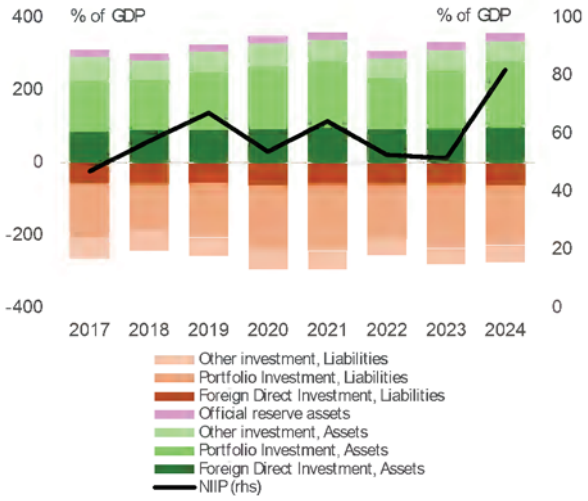
681 Another element e.g. that could be assessed is the inability to transfer the saving period between different LTIP provides in a transfer of an LTIP, which reduces the product's attractiveness.

682 The rights of minority shareholders have been in the spotlight in Czechia since mid-2023 because of the law passed to facilitate the split of the largest listed entity in the PSE, the electric utility CEZ. See Czech parliament gives initial nod to bill on company splits.

683 For examples of past cases of malpractice, see p. 7 in a private survey (in Czech) for unlisted corporate bonds.

The accumulated net foreign direct investment, which reached 32% of GDP as of end-2024, accounted for most of the NIIP. The significant stock of official foreign reserve assets, which amounted to 23% of GDP, reflects the central bank's commitment to maintain the Danish krone within the narrow band of its official peg. The net portfolio investments, which are directly affected by the price volatility of equity valuations abroad (assets) and in Denmark (liabilities), turned positive to the equivalent of 18.5% of GDP, up from -16% of GDP as of end-2023. The net international stock of other investments amounted to 8% of GDP. Thus, while the Danish economy appears to be deeply integrated in international capital flows, including as a major recipient of foreign capital, it remains nevertheless a net capital exporter, notably by means of direct investments abroad.

1.9.2 International investment position

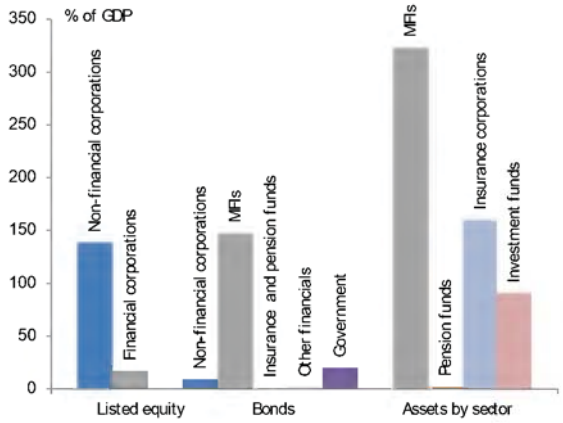


Source: ECB.

Structure and size of the financial sector

The Danish economy stands out with one of the deepest domestic capital markets in Europe. Based on ECB data, the market capitalisation of listed equity issued by Danish companies[684] reached 155% of GDP at end-2024, which is the second highest in the EU after Ireland (see Graph 2.7.3). Characteristically, non-financial corporations accounted for 89% of that capitalisation, which reflects the extent to which equity markets are geared towards funding the non-financial segment of the Danish economy. The outstanding volume of debt securities reached 177% of GDP at end-2024, which is one of the highest national scores in the EU. Bonds issued by the monetary financial institutions (MFIs) accounted for 83% of the total. This reflects the specificity of mortgage lending in Denmark, where most mortgages are funded through marketable covered bonds, which enjoy very high liquidity and strong demand, including from foreigners.[685] As the government has been running budgetary surpluses, the volume of general government bonds declined from 40% of GDP at end-2020 to less than 20% at end-2024.

1.9.3 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO, DNB. End-2023 data for investment funds.

Even though the financial sector in Denmark remains dominated by banks, non-bank financial intermediaries are very much developed as well. After peaking at 402% of GDP in 2020, the size of the banking sector declined to 322% of GDP in 2024, which remains however significantly above the EU average of 251% and places the Danish banking sector third in size[686] in the EU, after Luxembourg (1,822%) and France (416%). Foreign presence is limited and accounts for about 7% in terms of assets. Banking concentration appears to be higher than on average in the EU, with the top five monetary financial institutions (MFIs) controlling 64% of the sector. The insurance sector, with total assets of almost 160% of GDP at end-2024, dominates non-bank intermediation

684 This figure is a proxy for the degree of development of the Danish stock exchange, given that i) Danish companies could be listed abroad and ii) foreign companies could be listed in Denmark as well.

685 In the Danish model, mortgage banks provide exclusively market-funded mortgages for up to 80% of the property value. Commercial banks may step in for up to 15%, remaining after 5% of self-financing. As a result of that, commercial banks' balance sheets do contain some mortgage loans, which does not change the main fact that the bulk of (mortgage) lending in Denmark has no monetary impact.

686 However, if the market-funded mortgage credit institutions are excluded, the size of the remaining commercial banking sector is estimated at about 125% of GDP, after consolidation.

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and is the second largest in the EU (after Luxembourg at 382% of GDP). Its very large size is due to the importance of the asset-backed pension schemes, which are set up as insurance companies under the Solvency II Directive, instead of pension funds under the IORP Directive. Accordingly, the sector of pension funds is reported to have total assets of only 1.4% of GDP at end-2024. Investment funds, though their total assets dropped by 32 percentage points to 91% of GDP between 2021 and 2023, remain nevertheless significant.

Financing of the economy

Market finance

The Danish stock market, which offers one of the highest investment protection environments in the EU[687], experienced high volatility in 2024. As of end-2024, the Nasdaq Copenhagen had a market capitalisation of 156.1% of GDP, i.e. about DKK 4600 bn (EUR 620 bn), down from 174% of GDP the year before.[688] 124 companies are listed on the main stock exchange and 39 on the First North Growth Market.[689] The OMX20 Copenhagen index increased by almost 30% in the first two quarters of 2024, implying an aggregate market capitalisation of more than 204% of GDP as of Q2 2024, before declining by about 36% since then (see Graph 2.7.4). These developments have been driven by the stock price of Novo Nordisk, the capitalisation of which is as large as the next nine companies in the index.[690] In comparison, the Danish bank equity index, which expanded by 47% between end-2023 and mid-2025, appears much more stable. The trading infrastructure in Denmark is an integral part of the Nasdaq Nordic, which provides an integrated trading platform for shares, debt securities, currencies, derivatives, and money-market instruments across Denmark, Finland, Sweden, and Iceland. Overall, today the Danish capital markets still retain some of their traditional characteristics, including the family ownership of many large companies and the control of publicly traded companies by foundations. Lately, insurance corporations and pension funds have been the main issuers, with a market value of DKK 1,700 bn as of June 2024, representing 100% of domestic issuance.

1.9.4 Stock market performance

Source: London Stock Exchange Group[691].

As all mortgages in Denmark are market-funded, the country has become the world's largest private market for covered bonds. As of December 2024, the six Danish mortgage banks have issued the equivalent of EUR 436 bn of covered mortgage bonds (CMBs), accounting for 14.3% of the global issuance of CMBs outside the USA.[692] The DKK 3.3 tn of CMBs represent the equivalent of 113% of GDP or more than 5 times the outstanding amount of central government debt. This highlights the importance of CMBs for investors and asset managers in Denmark. Nykredit Realkredit (45.5%) and Realkredit Danmark (24.5%) are the two largest mortgage banks and issuers of CMBs.[693] Historically, there has been no default on Danish CMBs, which enjoy very high liquidity, also because of their triple-A rating. Foreign demand, which peaked at 24.5% of the outstanding volumes in 2020, declined to 19.2% as of March 2024 before rebounding slightly to 20.6% as of end-2024. Most of the foreign divestment occurred in 2022 against the

687 According to the Overview of CMU Indicators, the investment protection index for Denmark stood at 81 in 2024, versus an EU average of 54.

688 See the data and commentary published by CEIC.

689 See the Nasdaq Copenhagen.

690 As of mid-September 2025, Novo Nordisk represented 47% of the index market capitalisation.

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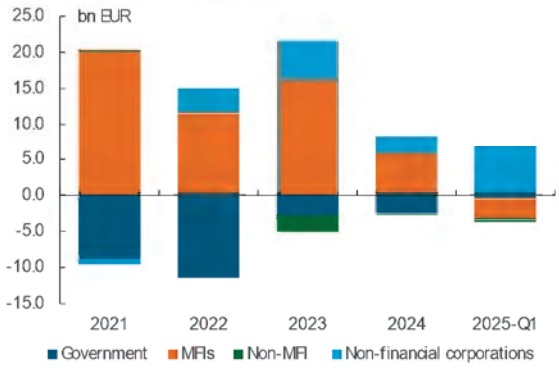
692 See the latest European Covered Bond Factbook published by the European Covered Bond Council (ECBC). In the USA, government-sponsored enterprises, i.e. Freddie Mac, Fannie Mae, and Ginnie Mae, dominate the issuance of mortgage-backed securities, for a total of about USD 10 tn. Unlike MBSs, investors in CMBs have some recourse to the bond issuers.

693 With a share of 0.1%, Totalkredit has discontinued its business. Nordea kredit (12.4%), Jyske Realkredit (11.5%) and DLR Kredit (6.5%) are the three remaining active issuers.

backdrop of central banks' interest rate hikes that improved the attractiveness of other investments elsewhere. At the same time, the outstanding aggregate value of CMBs contracted by 8% from DKK 3,310 bn at end-2021 to DKK 3,054 bn at end-2022, also due to price adjustments. By end-2024, outstanding volumes have recovered and reached DKK 3,346 bn. These developments highlight the inherent riskiness of long-term marketable securities, which remain interest-rate sensitive irrespective of their high liquidity.[694] As of end-2024, the domestic demand was divided between insurance companies and pension funds (28.9%), MFIs (26.6%), investment funds (9.6%), households (1.4%) and others (12.8%).

The Danish covered bonds market, though robust and liquid, remains vulnerable to large-scale divestments due to the very high concentration of investors. Demand is sustained by a very limited number of participants, that include 3 foreign investors, 7 insurance companies and pension funds, 3 investment funds, and 4 banks.[695] Only eight banks play the role of market-makers. While the limited number of market participants increases the risk of disorderly price movements in the event of domestic or international stress, the rather diverse investment profiles and the good historical record of Danish mortgage bonds have been mitigating the high concentration risk so far.

1.9.5 Net issuance of bonds



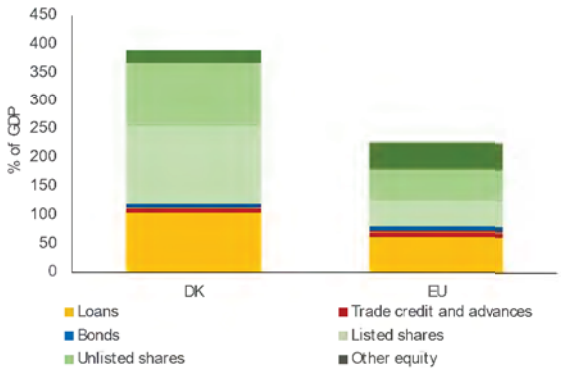
Source: ECB.

As regards net issuance of debt securities, the first quarter of 2025 shows a notable structural change. While in previous years market debt finance has not been a major source of funding for non-financial corporations, this seems to have changed lately, with NFCs having raised the equivalent of EUR 7 bn in Q1 2025 only (see Graph 2.7.5). At the same time, the net issuance by MFIs, which have been the most active issuer of debt in the previous years, went negative in Q1 2025. As a result of persistent budgetary surpluses, the net issuance by the Danish government has been negative consistently over the years.

Companies' funding and households' assets

Even though Danish companies are more indebted than their EU peers on aggregate, they rely comparatively less on debt finance to fund their activities. Financial borrowing by NFCs in Denmark reached 112.4% of GDP in 2024, which is significantly higher than the EU average of 71.6 % (see Graph 2.7.6). However, given the overall much larger size of the aggregate balance sheet of Danish NFCs, which reached 390% of GDP at end-2024 (versus 226% in the EU), the relative share of financial borrowing in their funding structure (28.8%) was lower than the EU average (31.7%). Danish NFCs' funding through listed and unlisted shares significantly exceeds the EU average, with the proportion of financially constrained companies among the lowest in the EU.[696] The prevalence of unlisted equity as a funding source is due to the persistence of some traditional features, i.e. the family ownership of many large companies. Families' reluctance to cede control also gives rise to a marked preference for bank borrowing instead of raising new capital on the market.

1.9.6 Composition of NFCs' funding



Source: Eurostat. End-2024.

Danish households hold the highest relative volume of financial assets in the EU (excluding cash, deposits, and unlisted equity), at approximately 209% of GDP.[697] Danes' total financial wealth

694 On that point, see also the relevant DN Financial stability analyses.
695 On this point, see the relevant DN Analysis.
696 See the EIB Investment Survey 2023.
697 See the AFME 2024 Capital Markets Union Key Performance Indicators.

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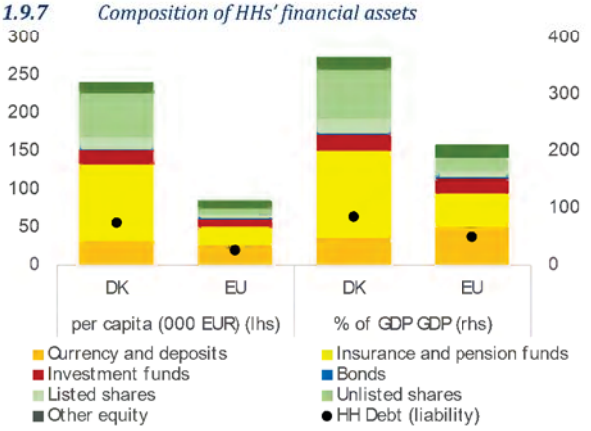
reached 366.3% of GDP at end-2024, versus an EU average of 212.2%. In per capita terms, on average each Dane holds financial assets for EUR 241,200, which is almost three times higher than the EU average of EUR 84,800. Nearly every second Dane owns shares directly, which is also one of the highest rates in Europe, while most Danes hold shares indirectly through the mandatory asset-backed pension schemes or their private holdings in investment funds. As of end-2024, 87% of Danish HHs' financial wealth was invested in non-cash items (see Graph 2.7.7), as opposed to 68% on average in the EU.[698]

1.9.7 Composition of HHs' financial assets



Source: Eurostat. End-2024.

1.10 Estonia

Availability and use of domestic savings

The Estonian economy invests part of its net savings abroad. Over the last decade, the private savings ratio, net of fixed capital consumption, fluctuated around its ten-year average of 10.1% of GDP, reaching a maximum of 13.6% in 2020 (see Graph 2.8.2). The net private investment ratio, which measures the net contribution of the private sector to capital accumulation in the country, exhibited a ten-year average of 7.3% of GDP and reached a maximum of 11.1% in 2022. At the same time, during the same period the government balance was in regular surplus, averaging 0.8% of GDP. Thus, except for the last couple of years, the high positive balance between net domestic savings and net investment, together with the government surpluses, resulted in net lending abroad by Estonia, averaging 0.7% of GDP, with a peak of 5.4% in 2021. Hence, some of Estonia's net savings, i.e. after accounting for the investments that are necessary to merely maintain the existing capital structure of the economy, are used to finance projects abroad, except over the last couple of years.

1.10.1 Net savings-investment balance

Source: AMECO.

The Estonian economy exhibits a negative net international investment position. Between 2009 and 2023 the NIIP has strengthened almost every year, reflecting an improvement in international competitiveness, however remaining in negative territory (see Graph 3.8.2). As of Q4-2024, total assets on foreigners reached 179.5% of GDP, while liabilities to foreigners stood at 189.3% of GDP, resulting in a negative NIIP of 9.8% of GDP. The accumulated net portfolio investment, which reached 41.3% of GDP as of Q4-2024, did not suffice to counterbalance a negative net foreign direct investment balance of -55.2%, together with net other investments of -1%. The stock of official foreign reserve assets amounted to 5.1% of GDP. The Estonian economy thus appears to be a net capital importer, notably mainly by means of foreign direct investments in the country.

[698] See also the Overview of CMU Indicators.

1.10.2 International investment position

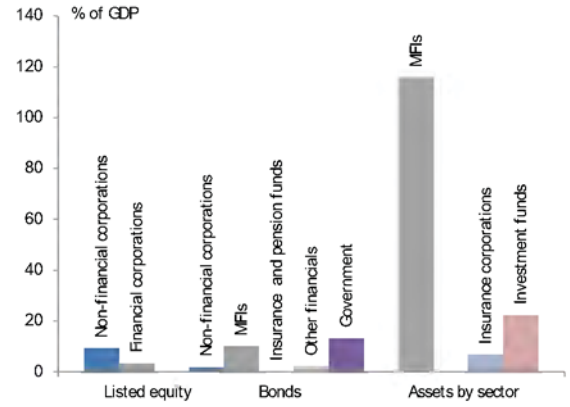
Source: ECB.

Structure of the financial sector

Banks represent the largest share of the Estonian financial sector, accounting for about 70% of the country's financial assets. Nevertheless, the banking system remains relatively small in comparison with euro area peers. At the end of 2024, banks' total assets were equivalent to 115.6% of GDP, significantly below the EU average of 251.1% (see Graph 2.8.4 and Table 2).

The institutional investor base remains modest in size as well. Total assets under the management of pension funds, insurance corporations and investment funds in 2019 stood at 29% of GDP in Estonia, one of the lowest levels in the EU (where the average is equivalent to more than 100% of GDP). Domestic institutional investors place only a small portion of their assets on the domestic market.

1.10.3 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2024.

The market capitalisation of Estonia's stock market expressed as a percentage of GDP is among the lowest in the EU. The equity market is small in terms of capitalisation and volumes traded. Nevertheless, despite the similar economic structure and size, stock exchanges of Estonia have been able to achieve a somewhat higher level of development than its neighbouring countries. Whereas the market capitalisation of listed stocks reached 6.2% in Lithuania and only 0.8% in Latvia, it amounted to 12.7% of GDP in Estonia at the end of 2024. In comparison, the EU average is 66.8% of GDP. State and local government-controlled companies account for slightly more than a third of market capitalisation in Estonia. The capital markets in Estonia have contracted in recent years, partly due to the country's 2021 pension reforms, which enabled savers to withdraw funds from pillar-2 pension schemes. In addition, the start of Russia's war of aggression against Ukraine has led to a decline in investor sentiment, resulting in reduced trading and holding by Estonian investors of international securities. The small size and low liquidity of the equity markets has prompted major index providers to continue to classify Estonia, and also Latvia and Lithuania, as 'frontier' markets despite their sound macro-economic and institutional frameworks and the pan-Baltic region benefitting from a single market classification.

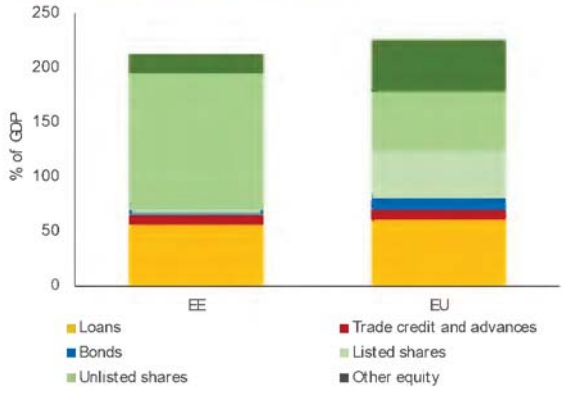
Debt markets remain undersized as well, but the development of the sovereign bond market could aid the extremely small corporate segment. While government debt has risen sharply, it remains the lowest in the OECD, at 19.6% of GDP, resulting in a near inexistent float of sovereign bonds. This could hinder the growth of the corporate segment, as sovereign bonds typically serve as benchmark for pricing debt securities. The corporate bond market is very thin and activity there was very weak even when low interest rates prevailed in financial markets over the previous decade.

Financing of the economy

Sources of NFC funding

At the end of 2024, bank finance through loans accounted for 26.7% of the total corporate funding in Estonia. Listed shares and bonds accounted for only 1.8% of funding. The equivalent figures for the EU average are 27% for bank funding and 19.1% for listed shares and bonds. The small share of listed shares and bonds in the capital structure of firms is compensated for by the high share of unlisted shares in Estonia, which is 58.4% vs. an EU average of 24.2%. At 212.6%, NFC funding as a share of Estonian GDP more or less corresponds to the EU average of 225.6% of GDP.

1.10.4 *Composition of NFCs' funding*



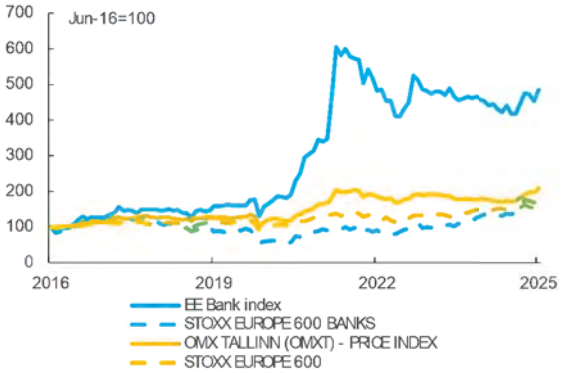
Source: Eurostat. End-2024.

Estonia has a large share of investment funded internally. The primary and most significant source of funds for companies is equity (unlisted shares and other equity), or the internal funds from within that company. These internal funds are primarily current cash flows and financial buffers that were built up by the country's firms in previous years. This favouring of internal funding is due to distribution-based Estonian income tax system. It is also partly because Estonian companies are generally small or medium-sized, and external funding is more expensive for smaller companies than it is for large companies. According to the 2024 EIB Investment Survey[699], 74% of Estonian firms' investment needs are covered by internal funding, compared with an EU average of 66%. Moreover, the country has a high share of finance-constrained firms (16% vs an EU average of 6.9%). The role of non-bank financial intermediation in financing the Estonian economy is still not large in volume or in competition with the supply of loans from banks, but the activities of private and venture capital funds offer serious support for companies in the early stages of development. Estonia stands out among other countries for the good work of its local private and venture capital funds, and also because a lot of investment reaches Estonian startup companies from outside Estonia.

Market finance

The funding of NFCs via the capital markets is very low in comparison with other EU countries. The market-funding ratio stood at 15.8% at the end of 2023, vs 49.6% for the EU on average[700]. Local businesses tend to rely on bank intermediation and own funds rather than attracting investments through stock and bond issues or from alternative sources. As there is a relatively large share of foreign-owned companies in Estonia, some companies can borrow from their parent companies. The small size of the local market also leads large companies to borrow abroad more often and to issue bonds in foreign markets. Furthermore, the level of borrowing by the Estonian general government is low, and so few sovereign bonds are issued. This all results in: (i) few local investment opportunities; (ii) low interest from institutional and retail investors; and thus (iii) few local opportunities to raise share capital. The lack of market activity by institutional investors further weakens demand for corporate stocks and bonds.

1.10.5 *Stock market performance*



Source: London Stock Exchange Group[701].

In addition, most companies (over 95%) in Estonia are SMEs, which find it difficult to gain access to the capital markets and their opportunities. Although Nasdaq's Baltic First North Market offers a trading facility with reduced reporting requirements, targeting primarily smaller cap issuances, SMEs and start-ups seeking to list on Baltic First North face a significant challenge due to the mandatory audit of their financial statements every six months. Moreover, Estonia cannot take advantage of this SME market because there are no established SME growth markets in Estonia, nor in the other Baltic states.

699 EIB Investment Survey 2024 - Estonia.

700 CMU Dashboard indicators.

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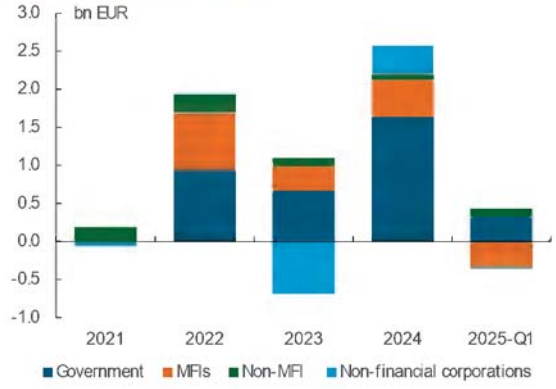
1.10.6 Net issuance of bonds



Source: ECB.

The small size of the domestic capital market, coupled with low liquidity, deters the participation of both domestic and foreign investors. Estonia has established a good market infrastructure, as well as a regulatory framework that meets international standards, ensuring adequate market transparency and investor protection. The Baltic countries have consolidated their stock markets and CSDs which has facilitated cross-border transactions and improved all Baltics markets' visibility. Yet the number of investors, transactions and issued securities remains low. The low number of listed enterprises results in low interest from institutional and retail investors, and thus few local opportunities to raise share capital. As there is a relatively large share of foreign-owned companies in Estonia, some companies can borrow from their parent companies. The small size of the local market also leads large companies to borrow abroad to a significant extent and to issue bonds in foreign markets. Lacking market activity by institutional investors results in weak demand for corporate stocks and bonds. Furthermore, the level of borrowing by the Estonian general government is low, and so few government bonds are issued. In terms of the international market, projects developed in Estonia are relatively low value, which makes them less attractive to international investors. The relative lack of liquidity in the market, which is reflected in the sluggish trading activity and in the relatively large spreads between bid and offer prices, even for the most liquid shares, hampers attractiveness for short-term investors and traders.

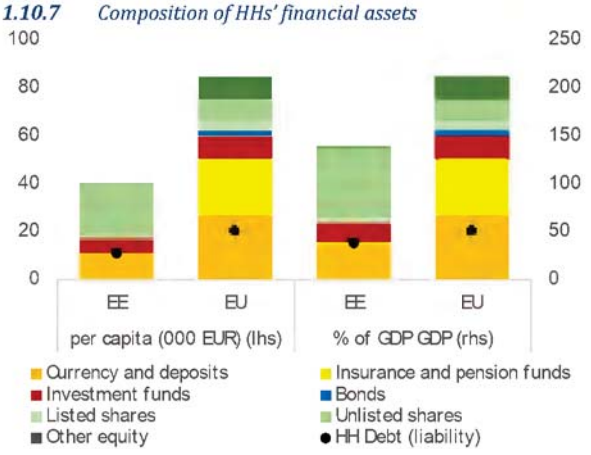
Over the course of 2024, the Minister of Finance put together a strategy for the Estonian capital markets. In this respect, in September 2024, for the first time, the state issued bonds aimed at Estonian retail investors. The offer was oversubscribed more than four times. The bond has been listed on Nasdaq Tallinn where it can be traded on the secondary market. Moreover, the listing of state-owned companies was discussed.

Retail participation in capital markets

Estonian households' financial assets have almost no exposure to bonds, listed shares, pension funds, or insurance funds. The saving rate of Estonian households is relatively low and they hold relatively few financial assets. In particular, they hold very little in investment and pension products. Since the country's 2021 pension reforms, households' financial assets held in pension and insurance funds has fallen from the equivalent of 21% of GDP in 2020 to 1.3% of GDP in 2024 (vs. 59.2% in the EU on average in 2024), according to Eurostat data (Graph 2.8.4). Instead, households' financial assets held in investment funds has increased over the last couple of years to 19.6% of GDP in 2024, (still below the EU average of 23.5% of GDP in 2024). All in all, the share of households' total financial assets held in pension funds, insurance funds or directly in financial investment instruments was equivalent to barely 18.8% in 2024, substantially short of the EU average of 46.6%. Instead, the investment instrument most preferred by Estonian households is private equity (unlisted shares), followed by bank deposits. The government introduced an investment account system in 2011, but this has achieved only moderate success. One reason for this is that certain popular investment vehicles, such as equity crowdfunding, have until recently been excluded from the benefits of this system, including the ability to defer income tax.

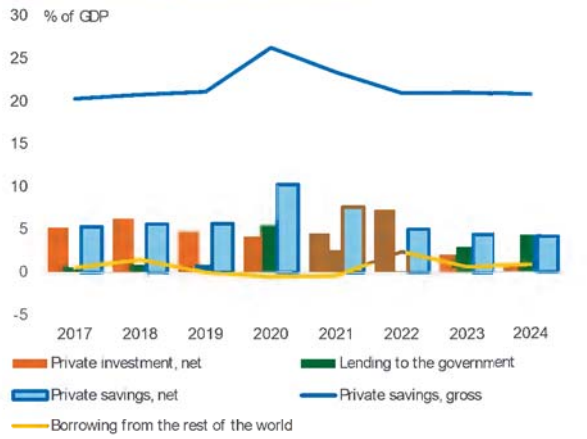
Recent policy initiatives aim to promote the degree of retail participation in Estonian financial markets. In September 2024, the Estonian state issued, for the first time, government bonds to retail investors. These government bonds offer small investors a fixed interest rate and the opportunity to trade those bonds on the Tallinn Stock Exchange. The offer was oversubscribed by more than four times. Encouraging the build-up of universal funded supplementary pension schemes would positively contribute to (i) the sustainability and adequacy of pension benefits; (ii) investment in equity; (iii) access to finance; (iv) growth; and (v) innovation.

1.10.7 Composition of HHs' financial assets



Source: Eurostat. End-2024.

1.11.1 Net savings-investment balance



Source: AMECO.

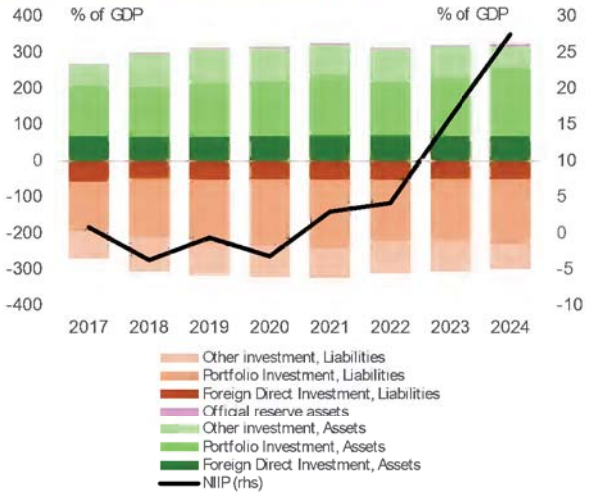
1.11 Finland

Availability and use of domestic savings

Finland's economy channels its net savings predominantly into domestic investments. Over the past decade, the private savings ratio, net of fixed capital consumption, has hovered around its ten-year average of 5.6% of GDP, peaking at 10.3% in 2020 amid pandemic-driven precautionary savings (see Graph 2.9.1). In contrast, the net private investment ratio, reflecting the private sector's role in capital accumulation, has been more volatile, averaging 4.3% of GDP over the last decade and reaching a high of 7.3% in 2022 as businesses ramped up spending in the post-Covid recovery. Lending to the government has fluctuated, averaging 2.1% of GDP but dipping to near zero back in 2023, reflecting tighter fiscal conditions. These dynamics, coupled with a structural current account deficit, have led to consistent, albeit very limited, net borrowing from abroad, averaging some 0.8% of GDP over the period 2014-2024. Finland's net savings are therefore largely absorbed by domestic projects while foreign funds play a minor role in bridging the financing gap.

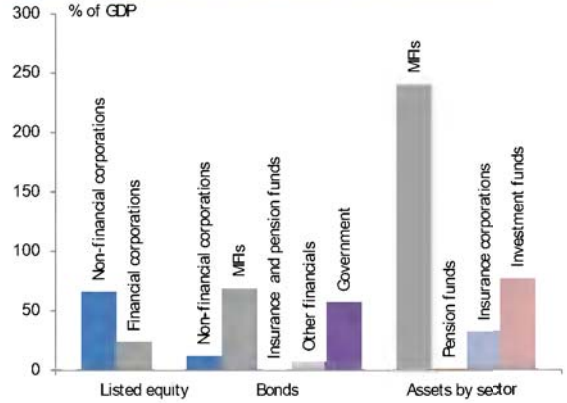
Finland's economy maintains a cautiously balanced stance in its international financial engagements. Finland's net international investment position has remained marginally positive in recent years. As of end-2024, total assets held by foreigners in Finland stood at 297.2% of GDP, while Finnish assets abroad (including reserves) were slightly higher at 324.8% of GDP, resulting in a net international investment position (NIIP) of 27.5% of GDP (see Graph 2.9.2). Finnish foreign direct investment abroad, at 69.9% of GDP, outweighed foreign direct investments into Finland at 49.2% of GDP. Portfolio investments showed a very balanced position highlighting Finland's attractiveness for portfolio investors while indicating, in parallel, that local investors show a strong preference for portfolio allocation abroad. Lastly, other investments, both assets and liabilities, remained relatively balanced over the past years in the brackets between 60-90% of the GDP. This structure highlights the economy's deep integration into the global capital markets. Its net creditor status, albeit narrow, signals a preference of Finnish investors to invest abroad rather than locally, in particular when it comes to direct investments.

1.11.2 International investment position



Source: ECB.

1.11.3 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2024.

Structure of the capital markets and size of the financial sector

The Finnish economy is underpinned by a well-developed domestic capital market. Based on ECB data, the market capitalisation of listed equity issued by Finnish companies[702] reached 89.8% of GDP in 2024 (see Graph 2.9.3), reflecting a strong equity culture driven by investor confidence in local firms. Non-financial corporations account for roughly 74% of this capitalisation, highlighting the market's focus on financing technology, various industries and other non-financial services, which remain central to the country's economic identity. The outstanding volume of debt securities (excluding government securities) stood at 88.5% of GDP in 2024, with monetary financial institutions (MFIs) contributing around 78% of the total. This highlights the banking sector's pivotal role in funding the local economy but also reflects the specificity of Nordic financial markets where covered bonds remain an important source of funding for local credit institutions. General government bonds issuance accounts for approximately 57.3% of the GDP and has increased by a few percentage points over the past decade, in line with the growing indebtedness of Finland.

Finland's financial sector is dominated by banks. By 2024, the banking sector's assets stood at 240.6% of GDP, a few percentage points below the EU average of 251.1%. Foreign presence remains rather limited, below 10% of total assets, but all lenders do have strong ties to other Nordic markets. Non-bank financial intermediaries, particularly investment funds and insurance corporations, are notable, with assets at 64% and 32.6% of GDP respectively in 2024, driven by a strong cultural emphasis on long-term savings amid an aging population. Local pension funds, which managed by end-2024 assets worth EUR 277 bn are not fully accounted for in the international statistics as they are embedded in the pillar 1 of the Finnish national pension system.

1.11.4 Stock market performance

Source: London Stock Exchange Group[703].

[702] This figure is a proxy for the degree of development of the Finnish stock exchange, given that i) Finnish companies could be listed abroad and ii) a number of foreign companies are listed in Finland as well.

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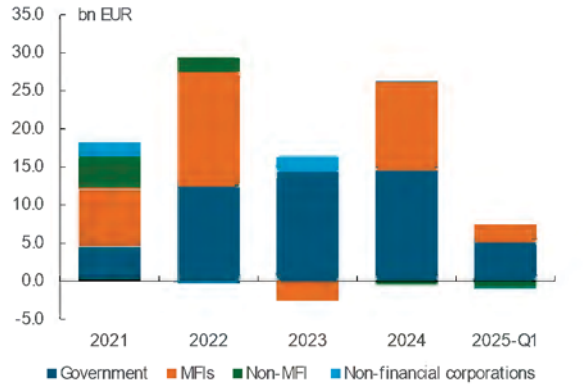
Financing of the economy

Market finance

The capital markets are a vital component of the country's financial system. Despite not being very large, Finland's capital markets are considered to be among the most efficient and well-developed in the EU. The stock market remains dominated by the Nasdaq Helsinki exchange, with a market capitalisation equivalent to 97.1% of GDP in 2024, about 25 percentage points higher than the EU average. The local exchange lists some 188 stocks (end-2024) and has ambitious plans going forward, with several dozen new public debuts to be expected in the coming years. Finnish large and medium firms also make use of fixed-income financing, although the outstanding volume of Finnish corporate bonds is worth about 12.2% of GDP (vs an EU average of 10.8%), substantially lower than the equity financing part of corporate funding.

Debt finance continues to be a significant source of market funding for domestic banks but of minor importance for non-financial corporations. In the first quarter of 2025, banks issued EUR 2.4 bn of debt securities, which aligns with the EUR 11.5 bn issued in 2024 (see Graph 2.9.5). The other financial companies continued to repay their market funding, resulting in negative bond issuance flows both in 2024 (negative EUR 0.6 bn) and early 2025, with negative EUR 0.8 bn. The net issuance by non-financial corporations was barely positive in 2024 (EUR 0.2 bn) and turned out negative, at EUR -0.2 bn in Q1 2025, highlighting the rather minor role of debt market finance as a source of funding for Finnish non-financial corporations.

1.11.5 Net issuance of bonds



Source: ECB.

Long-term interest rates in Finland have followed narrowly the Eurosystem's policy moves. The 10-year sovereign yields remained extremely low between 2014 and 2022 following ECB's loose monetary policy. Yields dropped into slightly negative territory (negative 50 bp) between summer 2019 until end-2021 (see Graph 2.9.6). October 2023 marked a post-Covid high (at 3.5%) for Finnish sovereign yields. Subsequently, the cost of financing sovereign debt started declining and remained in the 2.5-3% bracket since the beginning of 2024. The spread to the German Bund hit a peak of over 60 basis points in early 2022 (the start of Russia's war on Ukraine) and started declining since then, returning to historical average bracket 25-40 basis points.

1.11.6 Long-term interest rates and credit default swaps

Source: London Stock Exchange Group.

Financing is not perceived as a major obstacle to investment decisions. Just 6% of domestic firms reported having issues when seeking a bank loan and 23% claimed that that financing was an issue when pursuing investment plans, compared to an EU average of 45%. More generally, four out of five firms in Finland believe that their investment actions over the past three years were adequate for market requirements, in line with the EU average (EIB Investment Survey 2024). This suggests that there is no material financing gap relative to investment demand and perceived investment needs. However, the proportion of finance-constrained firms in Finland (around 12%) is somewhat higher than the EU average (6.8%).

Bank and equity financing are on par. Finnish corporates rely on a sound mix of internal financing (covering up to 69% of all investment needs (EIB Investment Survey 2024) against an EU average of

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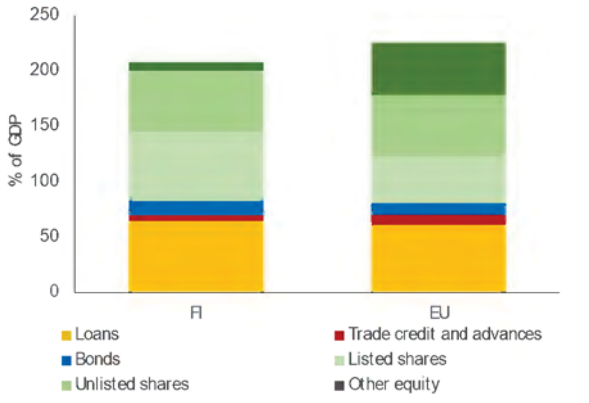
66%), bank loans and capital market instruments for business funding needs. An average Finnish firm relies on bank loans and overdrafts to a slightly higher extent (30% of total funding) than its average EU peer (about 27%). In total, corporate funding in Finland is equivalent to 214% of GDP, about 16 percentage points lower than the EU average of 230% of GDP. Capital market instruments, including shares and bonds, contribute around 68% to the total financing of Finnish firms, on a par with the EU average of 69%. More specifically, listed and unlisted shares are equivalent to 125.5% of GDP in Finland, while the EU average stands at 100.5% of GDP. This reliance on equity-based instruments and, in particular, listed equities highlights the level of development of Finland's capital markets and the fact that Finnish investors are more likely to invest in equity-based instruments than their EU peers.

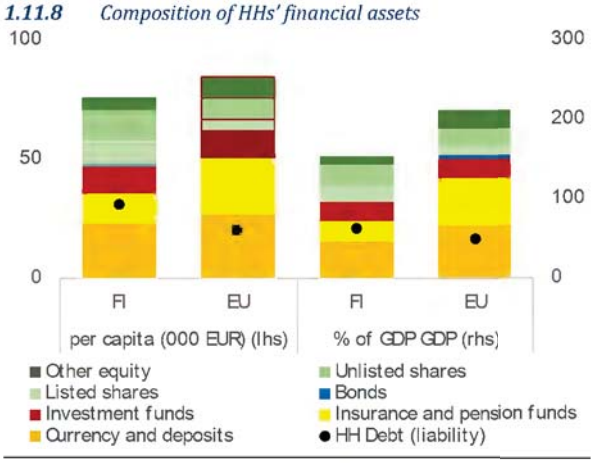
1.11.7 Composition of NFCs' funding



Source: Eurostat. End-2024.

Retail participation in the capital markets is significant as households actively look to diversify their financial holdings. As of end-2024, Finnish households' financial assets surpassed the EUR 420 bn mark, equivalent to 153.9% of GDP (see Graph 2.9.7), with deposits representing 30.5% of the total (vs an EU average of 31.7%). Investments in domestic investment funds reached a record high of EUR 40.6 bn and were predominantly allocated to equity funds (43%), bond funds (28%) and mixed funds (19%). In parallel, households' direct investments in listed and unlisted equity amounted to EUR 102 bn. Finns display a growing appetite for direct stock investments, driven by, among other factors, the popularity of the stock savings accounts. Furthermore, Finnish households have shown considerable interest in foreign investment funds, with holdings exceeding EUR 8 bn in end 2024. The diverse allocation of financial assets across deposits, investment funds and equities highlights the dynamic and engaged nature of retail investors in Finland, and a gradually rising level of financial confidence across the population.

1.11.8 Composition of HHs' financial assets



Source: Eurostat. End-2024.

Venture capital and private equity have been gaining importance. The country has long been present on the global start-up stage. Finland is one of the EU leaders in terms of investments into venture capital and private equity relative to GDP (0.09% and 0.68% of GDP respectively at end-2024) with both domestic and international investors (65% of the invested volume) finding local start-ups worth financing and supporting further. Despite this relative success, the participation of domestic institutional investors, particularly pension funds, remains rather on the conservative side, limiting the availability of local venture and growth capital for start-ups, especially in the later stages of financing.

The authorities have implemented a series of strategic policy measures to make the domestic start-up scene more dynamic. Finnish innovation strategy is heavily focused on supporting start-ups. The strategy is encapsulated in the innovation and skills in Finland 2021-2027 programme, which aims to boost sustainable growth, regional development and societal well-being. This rather comprehensive programme has a budget of over EUR 3.1 bn (two thirds financed from the EU budget), across seven priority areas, including digitalisation, green transition and health technologies. The programme helps start-ups with funding, enables public-private collaboration and assists start-ups to scale up internationally. Recent legislative measures have mostly focused on creating more flexible investment vehicles and introducing some tax incentives to encourage equity investments by institutional investors.

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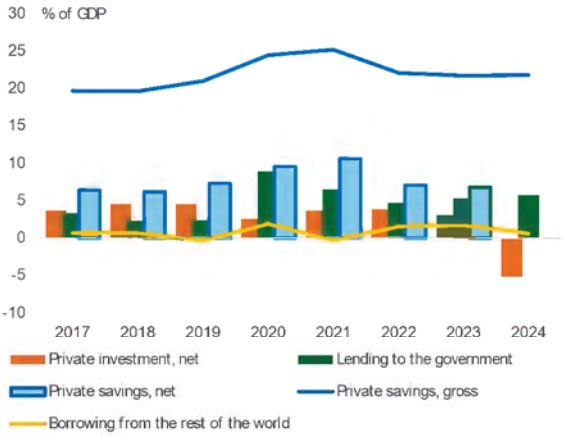
1.12 France

Availability and use of domestic savings

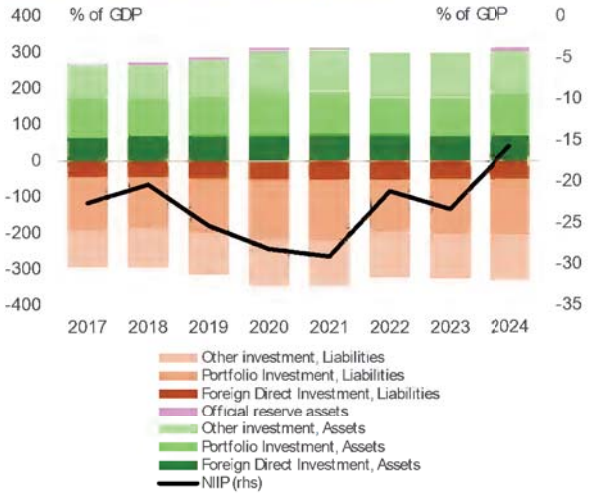
Private savings and investment dropped sharply in 2024. In the last decade, the private savings ratio, net of fixed capital consumption, exhibited some volatility around its ten-year average of 6.9% of GDP. It steeply increased to 10.7% of GDP in 2021 before dropping to 0% in 2024 (see Graph 2.10.1). The net private investment ratio, which measures the net contribution of the private sector to capital accumulation in the country, evolved quite differently. It fluctuated around its ten-year average of 2.9% of GDP, before dropping to -5.2% in 2024. At the same time, during the same period the government budget was in regular deficit that averaged 4.7% of GDP with a peak at 8.9% of GDP in 2020. Thus, the high positive balance between net domestic savings and net investment did not fully offset government deficits, which resulted in structural net borrowing by France from foreigners that averaged 0.7% of GDP, with a peak of 1.9% in 2020.

1.12.1 Net savings-investment balance



Source: AMECO.

1.12.2 International investment position



Source: ECB.

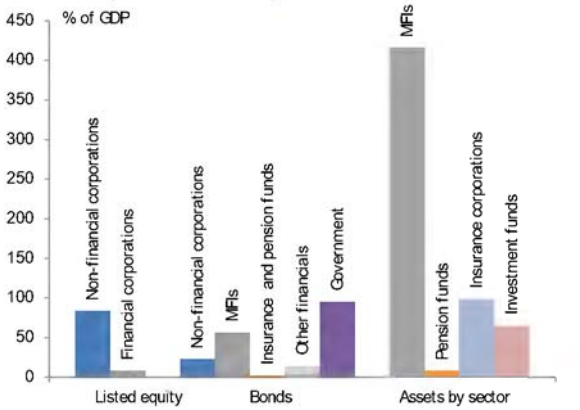
Consistent with its regular position of a net borrower from the rest of the world, the French economy exhibits a negative net international investment position. As of Q4 2024, total assets on foreigners reached 313% of GDP, while liabilities to foreigners stood at 329% of GDP, resulting in a net international investment position (NIIP) equivalent to -16% of GDP (see Graph 2.10.2). The net accumulated portfolio investments, which reached -38% of GDP as of Q4 2024, accounted for most of the (negative) NIIP, while net foreign direct investments, which represented 20% of GDP, helped reduce the NIIP deficit. Thus, while the French economy appears to be deeply integrated in international capital flows, including as a major provider of foreign direct investment, it remains nevertheless a net capital importer, notably by means of portfolio investments at home.

Structure of the financial sector

1.12.3 Stock market performance

Source: London Stock Exchange Group[704].

1.12.4 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2024.

The French financial sector is well developed. The market capitalisation of listed equity reached 92% of GDP at end-2024 (vs 67% in the EU) (see Graph 2.10.3). Characteristically, non-financial corporations accounted for more than 90% of that capitalisation, which reflects the extent to which the stock market in France is geared towards funding the non-financial segment of the real economy. Like elsewhere in the EU, the index of French banks has significantly underperformed the general stock market index since the Great Financial Crisis. However, it has outperformed vis-à-vis the EU average (see Graph 2.10.5). The outstanding volume of debt securities reached 190% of GDP at end-2023, one of the highest in the EU. Bonds issued by the government accounted for half of the total. This reflects the significant weight of the gross public debt in the bond market.

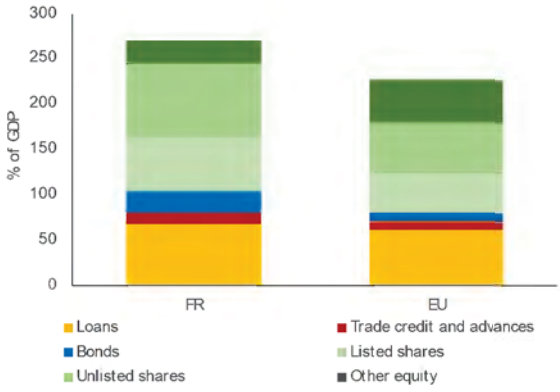
Even though the financial sector in France remains dominated by banks, non-bank financial intermediaries are very much developed as well. Banks' assets represented 416% of GDP in December 2024 (vs 251% in the EU) (see Graph 2.10.4). The insurance sector, with total assets of almost 99% of GDP at end-2024 (vs 55% of GDP in the EU), dominates non-bank intermediation. Its relatively large size is due to the popularity of life insurance in France. The pension funds' assets are much smaller: they only represent 8% of GDP (vs 23% in the EU). Investment funds represent a significant share of 65% of GDP, above the EU median.

Financing of the economy

Sources of NFC funding

Firms in France rely less than the EU average on funding from banks and more than the EU average on funding from capital markets. More specifically, at the end of 2024 bank finance through loans constituted 25% (vs 27% in the EU) of all funding sources for French non-financial corporations (NFCs), while listed shares and bonds represented 30% (vs 24% in the EU) of all funding sources. When expressed in terms of GDP, the overall level of NFC funding was higher in France (270% of GDP) than in the EU (226%), see Graph 2.10.5.

1.12.5 Composition of NFCs' funding



Source: Eurostat. End-2024.

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French businesses depend less on internal financing than their European peers, but also more on intragroup financing. According to the 2024 EIB Investment Survey, 58% of investment needs of French firms are covered by internal funding, compared to an EU average of 66%. At the same time, 79% of French firms believe that their investment activities over the last three years were about the right amount, in line with the EU average (80%). This suggests that there is no material financing gap relative to investment demand. However, this may not be the case for firms with no or limited capacity for internal funding, such as innovative start-up firms (see further below).

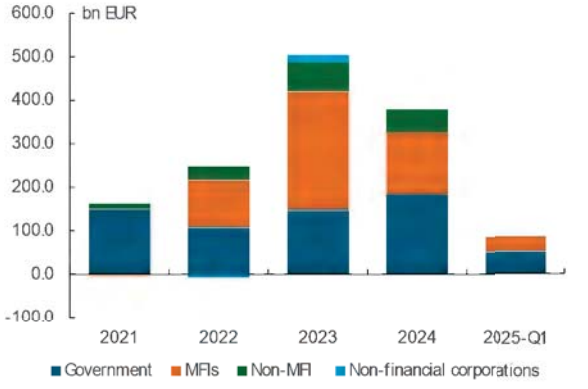
Market finance

French capital markets are well developed. The main stock exchange in France is Euronext Paris. The equity market is relatively large in terms of capitalisation (92% of GDP in 2024) when compared with the EU average (67% of GDP), but much lower than the US (213% of GDP). The market breadth[705] of French bond markets exceeds the EU average (2.1 vs 1.5) and the bid-ask spread[706] on equity markets is lower than the EU average (1.3 vs 1.6). The use of equity by SMEs is relatively high, as 19% of SMEs indicated in the 2024 SAFE survey that equity was relevant for them, compared to an EU average of 12%.[707] Initial public offerings (IPOs) were equivalent to 0.07% of GDP in 2024, broadly in line with the EU average (0.08% of GDP).

France has adopted or plans to adopt several measures to strengthen the attractiveness of its capital markets. These measures should improve innovative firms' access to listing, by introducing multiple-vote share structures, and facilitate the use of capital increase operations. Other measures will digitalise trade finance operations and shareholder meetings.

After a peak in 2023, debt net issuance has receded in 2024. In 2024, banks issued EUR 141 bn of debt securities, down from EUR 274 bn in 2023 (see Graph 2.10.6), and the issuance observed in Q1-2025 (EUR 33 bn) seems to confirm this declining trend. The other financial companies issued EUR 56 bn in 2024, down from EU 65 bn in 2023, and the slightly negative issuance (EUR -0.6 bn) in Q1-2025 seems to confirm this declining trend. The net issuance by non-financial corporations steeply decreased from EUR 19 bn in 2023 to EUR -1 bn in 2024, with a slight better issuance of EUR 2 bn in Q1-2025. Hence, debt market finance appears as a minor, declining source of funding for French non-financial corporations.

1.12.6 Net issuance of bonds

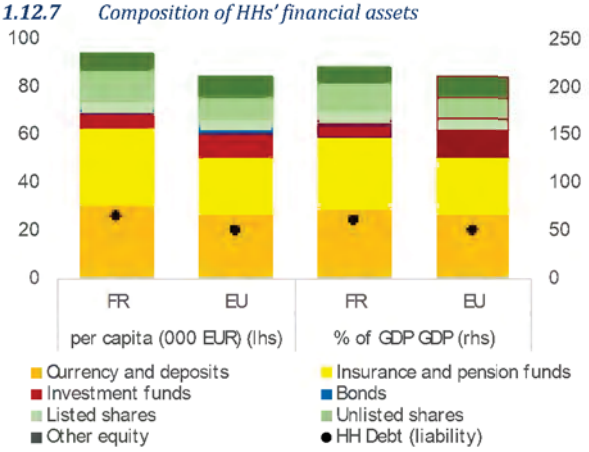


Source: ECB.

Retail participation in capital markets

Like in most Member States, French households do not invest enough in financial assets and, more importantly, equity. French households' financial assets were equivalent to 221% of GDP in 2024, slightly more than the EU average (212%), but much less than the US (446%). Moreover, assets invested in equity were estimated to be equivalent to only 108% of GDP, above the EU average (91%) but almost three times lower than the US (291%). Compared to the average EU household, French households invest relatively little in investment funds, while allocating a significant portion to life insurance. However, the assets in traditional life insurance are mostly bonds, which generate lower returns compared to equity investments.

1.12.7 Composition of HHs' financial assets



Source: Eurostat. End-2024.

[705] The ratio of bonds outstanding to GDP.
[706] Median of bid-ask spread as a % of the mid-price.
[707] Data and surveys - SAFE - European Commission, 2023, Results by country, T27.

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Fostering investment in equity could be attained through supplementary fully-funded pension schemes. The pay-as-you-go nature of the public pension system means that only the supplementary private schemes invest, among others, in high-return assets like equity. However, the supplementary private schemes are not universal and accumulated rights often remain limited for those covered. As a result, they only contribute to a moderate extent to the total pension income and do not fully foster the development of capital markets. Encouraging the build-up of universal funded supplementary pension schemes, in addition to the prevailing pay-as-you go system, would positively contribute to fostering investment in equity while enhancing growth and innovation. The reform of the French retirement savings plan (PER) under the PACTE law in 2019 represented a step in this direction, promoting broader access to funded pension schemes through tax incentives and product simplification, although its scope and uptake could still be strengthened to fully realize its potential.

1.13 Germany

Availability and use of domestic savings

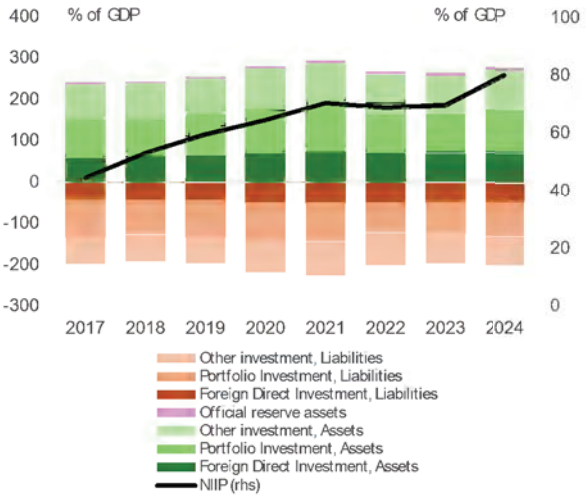
A large part of Germany's net savings are invested abroad. In the past two decades Germany has been saving more than it invests, leading to a structural capital account surplus, which averaged 6.8% of GDP in the years 2014 to 2024, peaking at 8.8% in 2016. From 2014 to 2024, private savings, net of fixed capital consumption, fluctuated around its 11-year average of 9.4 of GDP, reaching a high of 12.2% in 2021 (see Graph 2.11.2). Meanwhile, net private investments, i.e. investments less depreciation, were significantly lower, averaging 1.9%. The government budget has been in deficit since 2020, averaging -3.0% over the last 5 years. The public deficit was thus smaller than the substantial surplus of private savings and investment. Therefore, a significant portion of Germany's savings has been used to finance projects abroad.

1.13.1 Net savings-investment balance

Source: AMECO.

As a net creditor to the rest of the world, Germany has built up substantial foreign assets and maintains a positive net international investment position. As at Q4-2024, Germany's total external assets amounted to 280% of GDP, while its liabilities to foreign investors stood at 200% of GDP, resulting in a net international investment position (NIIP) of 80% of GDP (see Graph 2.11.2). While the stock of official foreign reserve assets (8% of GDP) plays only a minor role, the largest contribution to the positive NIIP comes from net portfolio investments, which reached 25% of GDP. This underlines the high degree of Germany's integration into global capital markets. While Germany is a significant recipient of foreign capital, it remains primarily a net capital exporter.

1.13.2 International investment position



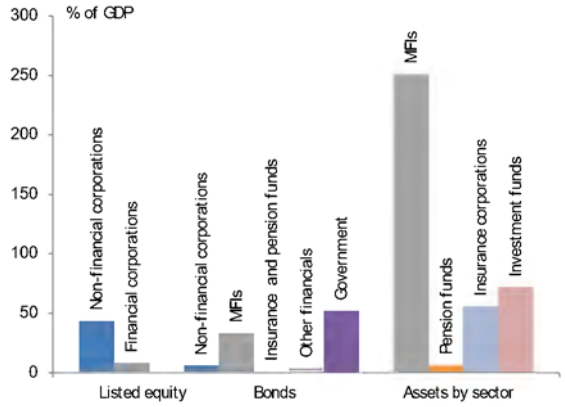
Source: ECB.

Structure of the capital markets and size of the financial sector

The German economy features one of the largest capital markets in Europe in absolute terms, though

its depth relative to GDP remains below the EU average. The market capitalisation of listed equity issued by German corporations reached 44% of GDP at end-2024, significantly lower than in some of the most developed capital markets in the EU. Despite the stock market strength of German corporates, the performance of listed banks has been persistently weak. The German bank index has declined by around 60% since 2008 and has not recovered, unlike the broader DAX index, which has more than doubled in value. This underscores the structural weaknesses and profitability challenges in the German banking sector. In the 1debt market, the outstanding volume of debt securities reached 103% of GDP at end-2024. Government bonds account for the largest share (45%), followed by those issued by banks (32%) and NFCs (22%). The structure has been relatively stable in recent years, with only a modest increase in the share of corporate bonds.

1.13.3 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2024.

While the German financial system remains largely bank-based, non-bank financial intermediation plays a relevant, if still limited, role. The size of the MFI sector stood at 251% of GDP in 2024, below both the EU average (257%) and the euro area average (268%). The system is structurally decentralised as the top five MFIs accounted for only 35% of total assets in 2024, which is the second lowest level of banking concentration in the EU after Luxembourg. This reflects the strong position of savings and cooperative banks. Among non-bank intermediaries, insurance corporations represent the largest share, with assets amounting to 55.5% of GDP. Pension funds remain relatively small, with total assets equivalent to 5.9% of GDP at end-2024. Investment funds held assets of 71% of GDP. Overall, this suggests that non-bank intermediation in Germany is underdeveloped relative to the size of the economy and its high savings rate.

1.13.4 Stock market performance

Source: London Stock Exchange Group[708].

Financing of the economy

Market finance

The German stock market has shown steady growth recently but is facing challenges to expand its number of listed companies and market share within the EU. German companies had outstanding shares with a market capitalisation of about EUR 2,449 billion as at May 2025, representing a 14% year-on-year increase. However, this accounts for only 10% of all outstanding shares issued in the EU, which is significantly below Germany's roughly 25% share of the EU economy. The number of listed companies on German stock exchanges has steadily declined over recent years and despite a minor surge with four new listings in the past year, it remained at 470 listed companies in May 2025, well below the 555 listed companies recorded in 2015, according to FESE figures. Small and medium-sized enterprises rarely use capital markets for financing. Moreover, some well-known German companies, such as Birkenstock, have recently chosen to list abroad, for example in New York. In fact, in July 2025, the Munich-based medical technology company Brainlab planned what would have been the largest IPO of the year in Frankfurt but cancelled at short notice. This followed a similar cancellation one week earlier by the online car parts

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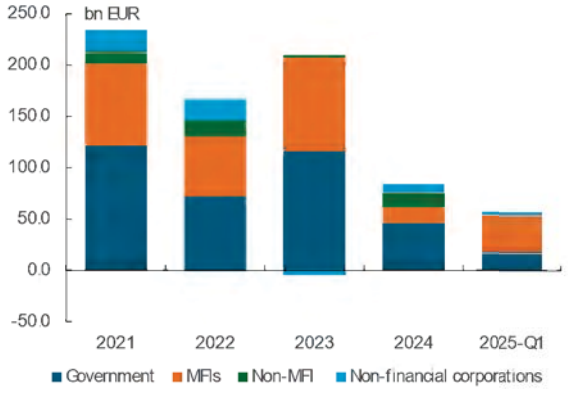
retailer Autodoc24. Both companies cited the uncertain geopolitical situation and its impact on capital markets as reasons for withdrawing.

Germany has seven traditional stock exchanges, the largest of which is the Frankfurt Stock Exchange, owned by Deutsche Börse Group. While Frankfurt maintains a traditional trading floor, approximately 90% of share trading in Germany occurs on Xetra, Deutsche Börse's electronic trading platform. Deutsche Börse is the second-largest stock exchange group in the EU by market capitalisation, at around EUR 2.4 trillion, trailing Euronext's EUR 6.3 trillion, and has remained independent despite consolidation trends among European exchanges. Deutsche Börse also owns Eurex, a leading derivatives marketplace. Outside Frankfurt, six regional stock exchanges support smaller and local companies. The largest regional exchange is the Stuttgart Stock Exchange, known for its electronic trading platform Euwax and for having the highest trading volume in bonds, especially those issued by small and medium-sized enterprises, in its Bond segment. Börse Stuttgart also owns the Nordic Growth Market, Norway's second-largest exchange, BX Swiss in Bern, and the OTC platform Cats, making it the sixth-largest stock exchange group in Europe. Other regional exchanges include those in Berlin, Munich, and the exchanges operated by BÖAG Börse AG in Düsseldorf, Hamburg, and Hannover. Historically, major German companies such as BMW, Allianz, Munich Re, Infineon, and Siemens made their IPOs in Munich.

Debt securities remain an important source of market-based funding for banks and financial institutions in Germany. In Q1 2025, MFIs issued EUR 37.1 billion in debt, already surpassing the full-year 2024 figure of EUR 15.4 billion and well on track to exceed previous years. Other financial corporations (non-MFIs) saw muted activity, with net issuance turning slightly negative at –0.2 billion, following EUR 13.9 billion in 2024. General government issued EUR 16.6 billion in Q1 2025 after a substantial drop in 2024 (EUR 46.2 billion) compared to earlier years. By contrast, NFCs remain marginal players in debt markets. After modest issuance of EUR 8.9 billion in 2024, net issuance stood at just EUR 3.6 billion in Q1 2025, reflecting their continued reliance on other funding sources, mostly banking loans and Schuldscheine, a particular German variant of promissory notes. Overall, the data point to a recovery in debt issuance among banks and government, while issuance by corporates—especially non-financial firms—remains subdued.

One particularly important financing instrument in Germany is the Pfandbrief, a type of covered bond that serves as a cornerstone of the country's financial system. Pfandbriefe provide secure, long-term funding primarily for real estate and public sector loans, supported by a strong legal framework and consistently high credit quality. As one of the largest and most stable covered bond markets in Europe, the Pfandbrief offers investors a safe and reliable investment option. The market demonstrated its resilience and stability throughout 2024 with the total volume of Pfandbriefe eaching EUR 399.5 billion at year-end, virtually unchanged from the robust EUR 400.3 billion recorded in 2023. This steady performance highlights the Pfandbriefe's continued vital role in Germany's funding landscape.

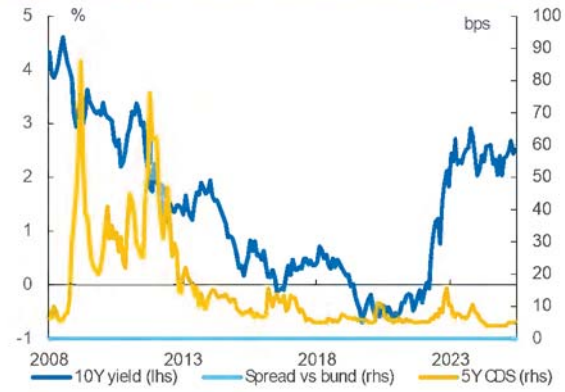
1.13.5 Net issuance of bonds



Source: ECB.

Between 2008 and 2025, Germany's 5-year CDS spreads and 10-year government bond yields have shown significant fluctuations reflecting changing market risk perceptions and economic conditions. In the first half of 2025, 10-year Bund yields averaged around 2.5%, broadly stable compared to late 2024 and significantly above the negative or near-zero rates that prevailed until early 2022. The CDS spreads spiked sharply during the 2008-2009 financial crisis, reaching peaks above 50 basis points, signalling increased credit risk concerns. Over the following years, CDS spreads steadily declined, with CDS spreads dropping below 10 basis points by 2014 and even lower in subsequent years, indicating improved investor confidence. More recently, from 2022 onward, CDS spreads have marginally increased, rising above 15 basis points.

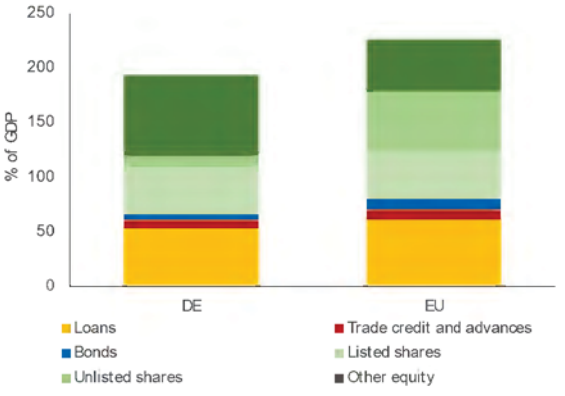
1.13.6 Long-term interest rates and credit default swaps



Source: London Stock Exchange Group.

Even though German companies rely more heavily on debt than some of their EU peers, their overall funding structure reflects a relatively balanced mix of financial instruments. In 2023, loans to NFCs in Germany amounted to 54% of GDP, slightly below the EU average of 62.7%. Similarly, German firms made moderate use of trade credit (7.2% of GDP vs. 8.7% in the EU) and bonds (5.6% vs. 10.8%). German companies also rely significantly on equity to finance their activities, though to a somewhat lesser extent than the EU average. In 2023, total equity-based funding by German NFCs, combining listed shares, unlisted shares, and other equity, amounted to 127% of GDP, compared to 147.7% in the EU. This reflects a robust capital structure supported by strong internal financing, even if German firms make slightly less use of equity overall. Within this, the use of listed shares in Germany (42% of GDP) was broadly in line with the EU average (43.9%).

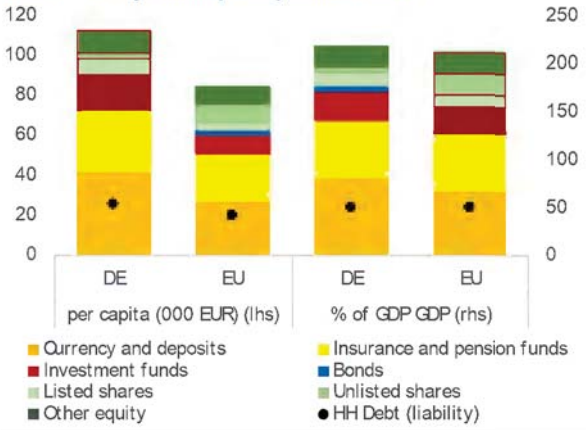
1.13.7 Composition of NFCs' funding



Source: Eurostat. End-2024.

While German households hold substantial financial assets overall, their participation in capital markets is somewhat low compared to the EU average. At the end of 2023, their aggregate financial wealth stood at around 210% of GDP, in line with the EU average. A large portion of this is held in cash and deposits (79% of GDP vs. 68% in the EU), indicating a strong preference for liquid and low-risk savings. Holdings in insurance and pension products (58.1%) match the EU average, while investment fund holdings are slightly higher (25.5% vs. 21.0%). When it comes to listed shares, German households are more engaged than their EU peers, holding assets worth 13% of GDP, compared to 10% in the EU. However, their exposure to unlisted shares is considerably lower (6.0% vs. 22.6%), suggesting limited participation in private companies. Overall, the data reflect a cautious investment profile, with a high reliance on traditional savings and a relatively low share of riskier or less liquid capital market instruments.

1.13.8 Composition of HHs' financial assets



Source: Eurostat. End-2024.

Germany remains one of the largest private equity (PE) and venture capital (VC) markets in the EU, although activity has slowed in recent years due to persistent macroeconomic uncertainty. In 2024, total PE and VC investments declined to EUR 11.3 billion (–13% year-on-year), with buyouts representing the largest segment (EUR 5.5 billion) despite a sharp drop from 2023. However, VC in isolation rebounded to EUR 3.4 billion (+31%), marking the first annual increase since 2021. As of the start of 2025, PE exit value in Germany grew nearly 40% qoq to reach EUR 11 billion even as IPO activity in the country stalled. There were 38 PE exits, the combined value of which marked the highest quarter since Q4 2023, according to PitchBook. Total exit value as of Q1 is already 42% of 2024's full-year total. The main sectors attracting VC funding included AI, defence and climate technology, with several large-scale financing rounds in high-growth companies. Fundraising activity also showed signs of stabilisation: German PE and VC funds raised EUR 6.3 billion in 2024, up from EUR 6.0 billion in 2023. The German market continues to benefit from a strong institutional investor base and recent policy reforms, such as the elimination of VAT on fund management fees, which are expected to strengthen its competitiveness further.

The outlook for 2025 remains cautious, but interest rate cuts and improved economic sentiment could support a gradual recovery, especially in the VC segment.

1.14 Greece

Availability and use of domestic savings

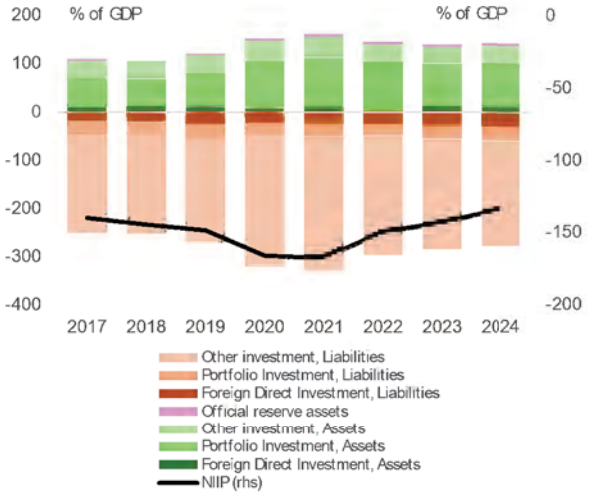
The Greek economy relies on external funding to meet its investment needs. The negative net private savings and investment balance over the last decade (2015-2024), and government deficits between 2020 and 2023 led to increasing borrowing from the rest of the world. In 2024, the private savings ratio, net of fixed capital consumption, remained negative at -5.1% of GDP, and its ten-year average of -3.6% of GDP (see Graph 2.12.1). The net private investment ratio, turned positive in 2022. Over the last decade, net private investment, which was negative from 2011 to 2021, averaged the equivalent of -1.9% of GDP per year. Lending to the government increased sizeably in the Covid crisis but deficit decreased markedly in 2023 and turned into surplus in 2024. Together, the negative balance between net private savings and net investment, and the positive average lending to the government implied that for the last ten years the Greek economy borrowed each year, on average, the equivalent of 4.0% of GDP from the rest of the world.

2.12.1: Net savings-investment balance

Source: AMECO.

The Greek economy improved its (negative) net international investment position, despite a structural net borrowing from abroad. In December 2024, Greece's NIIP stood at -130.4% of GDP[709], an improvement from -167.4% in 2021, driven by nominal GDP growth and favourable valuation effects, more than offsetting the negative impact of the current account deficit. As of Q4 2024, total assets on foreigners reached 144% of GDP, up from 110% in 2017, while liabilities to foreigners stood at 277% of GDP, up from 250% in 2017 (see Graph 2.12.2). The Greek economy remains a major net borrower from the rest of the world. While direct and other investments abroad have been broadly stable relative to GDP, Greeks' gross portfolio investments abroad increased significantly by 33 percentage points of GDP between 2017 and Q3 2024 and reached the equivalent of 92% of GDP. During the same period, the stock of gross foreign direct investments (FDI) in Greece increased by 10 percentage points up to 29% of GDP, while other dues to foreigners (primarily loans) rose by 11 percentage points up to 217% of GDP. Thus, overall, despite a net increase in FDI in the country, and given its negative net savings, the Greek economy remains involved in international capital flows primarily as a significant financial borrower.

2.12.2: International investment position



Source: ECB.

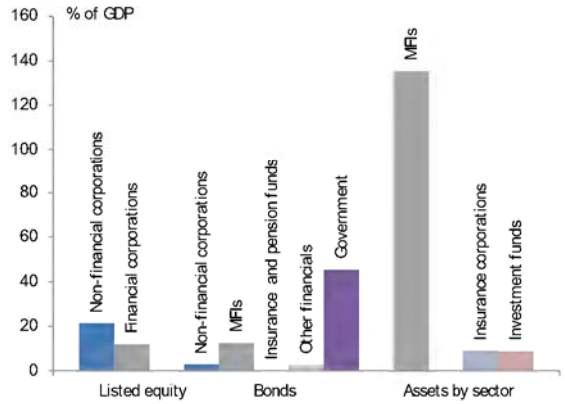
Structure of the financial sector

Capital markets in Greece remain relatively underdeveloped. The market capitalisation of listed equity reached the equivalent of 33.3% of GDP at end-2024, which is much below the EU average of 66.8% (see Graph 2.12.3). Non-financial corporations accounted for 64% of that capitalisation. The outstanding volume of debt securities reached the equivalent of 63.5% of GDP at end-2024, which is also significantly below the EU average of 140% of GDP. General government bonds accounted for 71% of the outstanding amounts of debt securities. The remainder was distributed between banks (20%), non-financial

[709] For more detailed analysis, see also In-depth reviews - European Commission, May 2025.

corporations (5%) and other financial intermediaries (4%). Thus, the contribution of capital markets in Greece to the financing of the domestic economy appears to be rather limited. In April 2025, Greece passed a law incorporating a set of incentives in order to enhance its capital market, including facilitating SME's listings on the stock exchange.

2.12.3: Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2024.

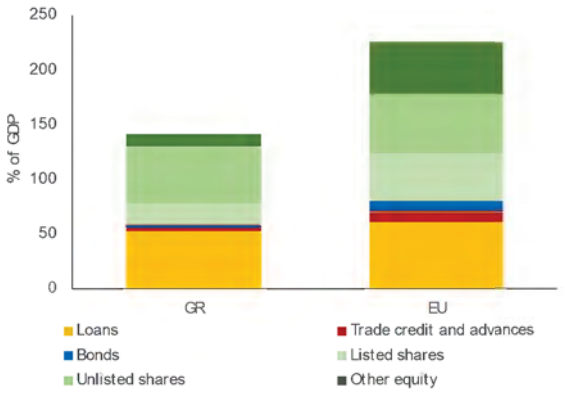
The financial sector in Greece remains dominantly bank-based and non-bank financial intermediation is not developed. The assets of the banking sector reached 135.2% of GDP in 2024, overshadowing other segments. Foreign banks control only about 1.2% of the sector's assets. Insurance corporations held assets equivalent to 8.9% of GDP, and investment funds accounted for 8.6%, pointing to a relatively modest role for institutional investors and suggesting room for growth. Pension funds are practically non-existent.

Financing of the economy

Sources of NFC funding

Greek companies rely more on bank funding and less on capital markets than their EU peers in relative terms. At the end of 2024 bank finance through loans constituted 37.2% of all funding sources for Greek NFCs, while listed shares and bonds represented only 15.7% of funding sources (see Graph 2.12.4). The equivalent figures for the EU average are 27.0% and 23.8%. Expressed as a share of GDP, Greek NFCs also rely less on bank finance than the EU average (bank finance through loans for Greek NFCs is equivalent to 52.5% of GDP against an EU average of 60.9% of GDP) and less on listed shares and bonds than the EU average (listed shares and bonds of Greek NFCs are equivalent to 22.2% of GDP against an EU average of 53.8% of GDP). However, this is because overall levels of funding of NFCs are lower in Greece than the EU average (as the overall level of NFC funding was 141.3% in Greece and 225.6% of GDP for the EU average). Further, a sizeable part of NFCs is effectively excluded from capital markets as their non-performing loans were transferred from banks to credit servicers (EUR 27.9 billion or 35% or of total NPLs in servicers' accounts in June 2025). A recent study[710] found a strong positive correlation between NPLs and the prevalence of "zombie" companies in the Greek economy and revealed that a high concentration of capital in zombie firms hinders investment by healthy firms and prevents the reallocation of capital to more productive uses. As regards Greek SMEs, their use of equity is low, despite 17% of SMEs indicating in the 2024 SAFE survey that equity is relevant for them, compared with an EU average of 11.7%.[711]

2.12.4: Composition of NFCs' funding



Source: Eurostat. End-2023.

Businesses in Greece depend more on internal financing than their European peers. According to the 2024 EIB Investment Survey, 75% of Greek firms' investment needs are covered by internal funding, compared with an EU average of 66%. In this survey, 72% of Greek firms declared that they believed their investment activities over the last three years were at about the right amount (EU average: 80%), while 14% believed they invested too much (EU average: 6%). This suggests that there is no material financing gap relative to investment demand in Greece. However, this may not be the case for firms with no or limited capacity for internal funding, such as innovative start-up firms.

[710] See "Benefits for the Greek economy from resolving bad loans and zombie firms" published on the Economic Bulletin of Bank of Greece, July 2024 (https://www.bankofgreece.gr/Publications/oikodelt202407.pdf)

[711] Data and surveys - SAFE - European Commission, 2024, Results by country, T27.

Market finance

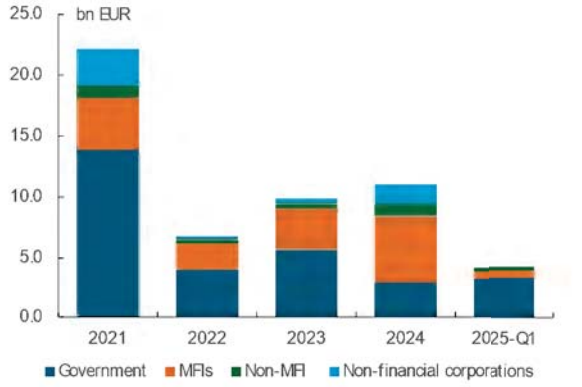
The Greek capital market is underdeveloped and is recovering since the Greek sovereign debt crisis. Sources of alternative non-bank financing remain limited. The market-funding ratio has improved since 2017 but remains at low levels, reaching 28.7% in 2024, significantly lower than the EU average (49.5%, see Table 6). Similarly, stock market capitalization improved, from 22.9% in 2017 to 33.3% in 2024 but remain well below EU average of 66.8%. The market was demoted in 2012 from MSCI Developed Market Status to Emerging Market Status and is still in this category but is likely to return to developed market status in 2026. On the positive side, trading volumes on the Athens Stock Exchange are rapidly rising (+25% growth in 2024). Trade is however concentrated, with the top five most traded stocks accounting for 57.8% of the total trading volume in 2024 (an EU average of 32.7%). In terms of performance, the general stock market index and bank stock index heavily underperformed the relevant Stoxx Europe 600 indices see Graph 2.12.5). This is a direct consequence of Greek government-debt crisis when a lot of equity was wiped-out, particularly in the banking sector.

2.12.5: Stock market performance

Source: London Stock Exchange Group[712].

The bond market remains almost untapped by local firms as debt market finance remains a minor source of funding. Apart from modest government issuances (due to long-term fiscal consolidation efforts), main issuances on the bond market are driven by banks, principally to comply with their MREL requirements. Issuances by NFCs are rare, with most companies relying heavily on bank lending. In the past, this was explained by the lack of market demand for Greek corporate debt, which has recently started to change.

2.12.6: Net issuance of bonds



Source: ECB.

Retail participation in capital markets

Greek households own fewer financial assets than households in other EU Member States, both in absolute and relative terms. As of end-2024, an average Greek household held less than half of financial assets of an average household in the EU. Total financial assets held by households represented the equivalent of 143% of GDP, versus an EU average of 212% (see Graph 2.12.7). Greek households heavily favour holding their financial assets in cash and deposits (72.2% of GDP, compared to 67.3% of GDP in the EU) over other types of investments. This outcome reflects a conservative approach to managing wealth, with a strong preference for more liquid and safer assets.

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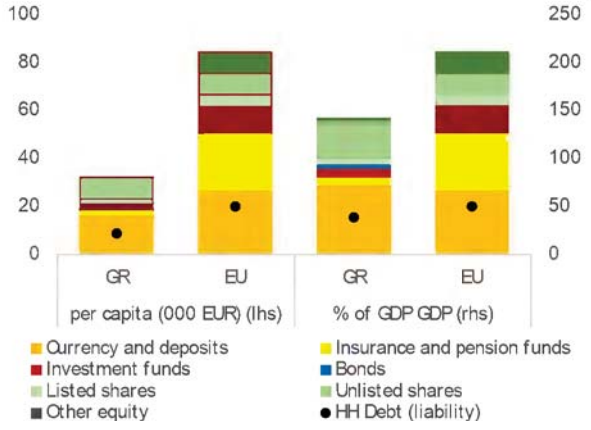
2.12.7: Composition of HHs' financial assets



Source: Eurostat. End-2023.

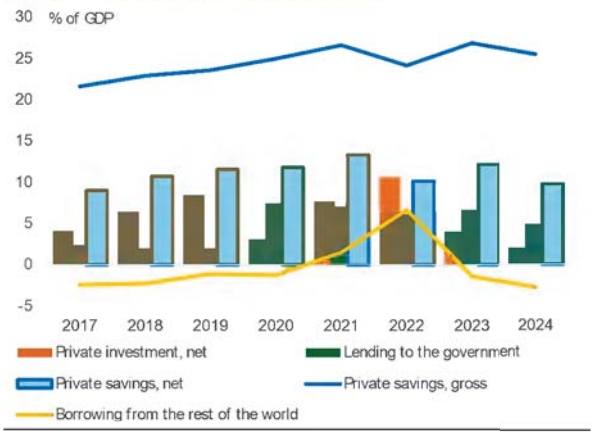
There is some scope to increase the level of direct or indirect retail investment in Greek capital markets. Greek households had negative saving rates over the last decade, a direct consequence of the Greek government-debt crisis and the subsequent reduction in household disposable income. For many Greeks, household income over the past decade was barely sufficient for basic needs and debt repayments. More advanced financial products are available on the Greek market for retail investors. However, only a small part of the population shows an interest, including because of the severe impact of the Greek crisis on the retail investors. Regaining clients' trust is therefore challenging, and general interest in retail investment remains low.

1.15 Hungary

Availability and use of domestic savings

The growing net private savings of the Hungarian economy have helped to mitigate vulnerabilities related to external financing. Throughout 2014 to 2023, the private savings ratio fluctuated around its ten-year average of 10.7% of GDP, rising to 11.7% in 2023. The net private investment ratio, which measures the private sector's net contribution to capital accumulation in the country, averaged 5.1% of GDP over the decade but dropped to 3.1% in 2023. During this period, lending to the government showed an average deficit equivalent to 4.1% of GDP. The substantial positive balance between net domestic savings and net investment, coupled with a significant government deficit, led to net lending of, on average, 1.5% of GDP to the rest of the world between 2014 and 2023.

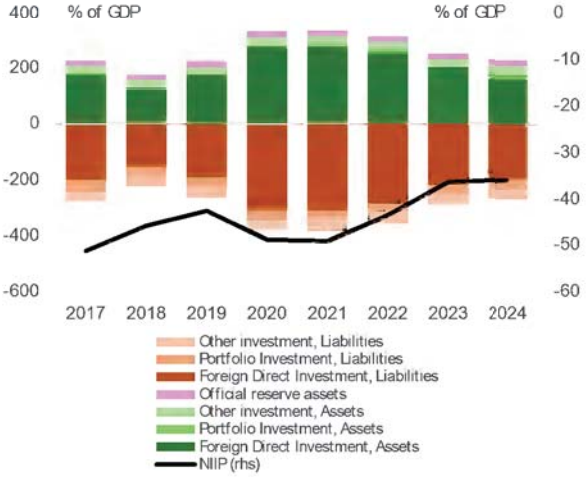
1.15.1 *Net savings-investment balance*



Source: AMECO.

Net external liabilities declined to circa 32% of GDP, suggesting that Hungary remains a net capital importer. As of Q3 2024, Hungary's net international investment position (NIIP) was equivalent to -31.8% of GDP. Net foreign direct investment stock, which reached -32% of GDP as of Q3 2024, accounted for most of the NIIP. The significant stock of foreign reserves, which amounted to 22.4% of GDP, decreases net external liabilities. The net portfolio investments, which are directly affected by the price volatility of equity valuations abroad (assets) and in Hungary (liabilities), were negative to the tune of -20.7% of GDP as of Q3 2024. They were in line with the net stock of other investments, which amounted to -1.5% of GDP at the same time.

1.15.2 *International investment position*



Source: ECB.

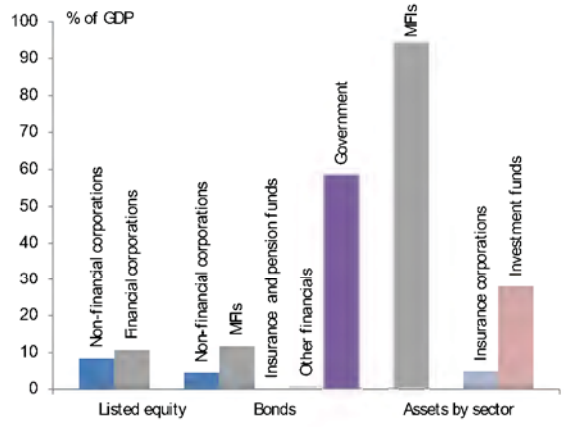
Structure of the financial sector

Banks dominate the financial sector in Hungary and there is scope for the future development of all non-bank intermediaries. The banking sector is the largest segment of the financial services, total assets of

banks accounting for 94.4% of GDP in 2024, which remains however significantly below the EU average of 251.1%. The total assets of investment funds accounted for 28% of GDP in 2024. The insurance sector assets accounted for only 4.8% of GDP in 2024 (EU average: 54.8%). The OECD reported the total assets of Hungary's pension funds equate to around 4.5% of GDP at end-2023.[713]

Capital markets in Hungary remain underdeveloped. The market capitalisation of listed equity reached 19% of GDP at end-2024 (EU average: 66.8%) (see Graph 2.13.3). Non-financial corporations (NFCs) accounted for 44% of that capitalisation, while financial corporations accounted for 56% of that capitalisation. The outstanding volume of debt securities reached 83.9% of GDP at end-2024. However, marketable debt securities issued by NFCs accounted for only 5.2% of the total bonds. Indeed, the domestic bond market in Hungary is dominated by government securities, which accounted for 69.5% of the total bonds as of end-2024. Financial institutions, whether banks or not, accounted for 13.8% of the total debt securities.

1.15.3 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2024.

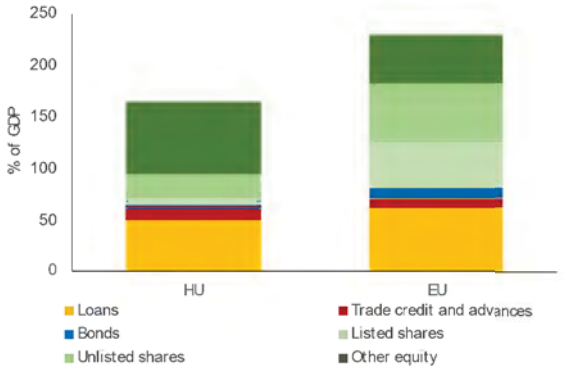
Financing of the economy

Sources of NFC funding

Hungarian companies rely a lot more on funding from banks and much less on funding from capital markets. As a source of finance for Hungarian NFCs, loans were equivalent to 51.3% of GDP as of end-2024, below the EU average of 60.9%. When expressed as a percentage of overall NFCs financing, loans accounted for 30.1% of share of all financing (EU average: 27%). On the other hand, Hungarian NFCs' use of listed shares and bonds was much lower than the EU average, both expressed as a percentage of GDP (12% vs 53.8%) and as a percentage of overall NFC financing (7% vs 23.8%) at end-2024. The overall level of non-financial corporation (NFC) funding in Hungary was equivalent to 170.2% of GDP, which is substantially lower than the EU average of 225.6% of GDP at end-2024 (see Graph 2.13.4).

Hungarian firms rely mostly on internal financing like their European peers. According to the 2024 EIB Investment Survey, the investment needs of 67% of Hungarian firms are covered by internal funding, close to the EU average of 66%.[714] At the same time, 73% of Hungarian firms believe that their investment activities over the last three years were about the right amount (below the EU average of 80%), while 18% of Hungarian firms believe that their investment activities were too little (above the EU average of 14%). Overall, this suggests that most Hungarian firms do not perceive major investment gaps.[715]

1.15.4 Composition of NFCs' funding



Source: Eurostat. End-2024.

Market finance

Hungarian capital markets remain under-developed. As mentioned earlier, market capitalisation of listed equity accounted for only 19% of GDP at end-2024 (EU average: 66.8%). The use of equity by SMEs is very low, as only 3% of SMEs indicated in the 2024

[713] OECD, 2024, Pension Markets in Focus-2024, p. 11. This suggests a possible financing gap for early-stage innovative firms in need of capital with high risk tolerance, throughout their life-cycle.
[714] EIB, 2024, 2024 EIB Investment Survey, p. 29.
[715] Ibid., p. 7.

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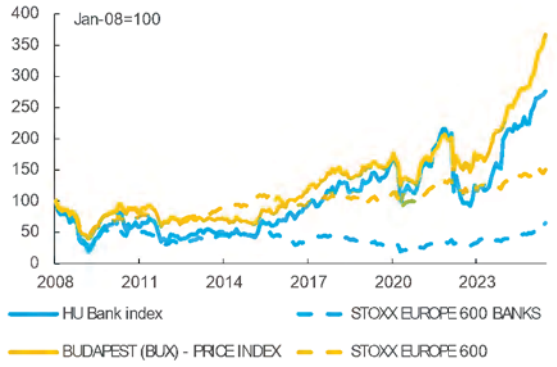
SAFE survey that equity was relevant to them, compared to an EU average of 12%.[716]

The main stock exchange in Hungary is the Budapest Stock Exchange (BSE), which is home to around 155 listed companies.[717] The MNB has the controlling ownership of the BSE. The BSE total annual revenue for 2024 decreased by 14% compared to 2023[718], while the net profit remained stable. The official index for BSE is the **Budapest Index (BUX).** Both the index of the general stock market and the index of Hungarian banks outperformed the EU average over last years (see Graph 2.13.5). The equity market is the most important segment of the BSE, accounting for around 90% of trading revenue in 2024, while the second largest trading revenue is generated by derivatives.[719] The BSE also operates a multilateral trading facility (MTF) for SMEs called BSE Xtend; and a new market segment for secondary bond trading called BSE Xbond. KELER, the central depository, was founded in 1993 by the Hungarian National Bank (MNB), the Budapest Stock Exchange (BSE) and the Budapest Stock Exchange and is currently owned by the MNB (53.33%) and the BSE (46.67%).[720]

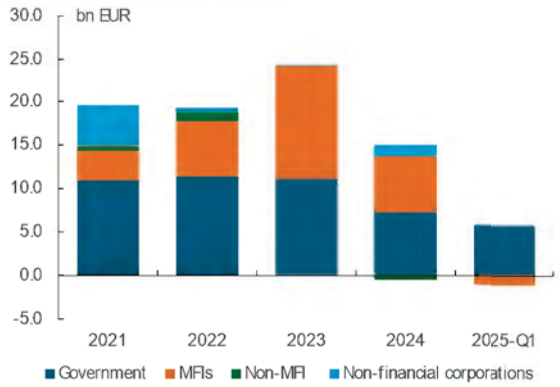
1.15.5 Stock market performance



Source: London Stock Exchange Group[721].

Debt finance continues to be a significant source of market funding for the government in Hungary. In Q1 2025, the government issued EUR 5.7 billion of debt securities, compared to EUR 7.3 billion for the whole of 2024 (around 50% of total issued bonds in 2024). In Q1 2025, MFI net issuance was negative at EUR -1 bn of debt securities, compared to EUR 6.4 billion for the whole of 2024 (44.1% of total issued bonds in 2024, see Graph 2.13.6). The net issuance by NFCs was at EUR 31 million in Q1 2025, compared to EUR 1.3 billion in 2024 (9.2% of total issued bonds in 2024). Hence, debt market finance does not appear to be a source of funding for Hungarian non-financial corporations (NFCs).

1.15.6 Net issuance of bonds



Source: ECB.

While there is no comprehensive government strategy on promoting capital markets, some sector-specific strategies were introduced by important national players in the financial sector. Building on the former 2016-2020 strategy[722], the BSE developed a new strategy for 2021-2025 to further increase the role of capital markets (e.g. promoting the ESG aspect in both equity and bond asset classes, exploring cooperation opportunities in the CEE region, and improving IT innovation and security).[723] In 2018, the MNB adopted a seven-point strategy report to promote the insurance sector in Hungary. The seven points and targets are: (i) widespread self-care (e.g. increasing coverage of life insurance and voluntary pension fund contracts, the number of contracts); (ii) converting market size (e.g. penetration of gross written premium/GDP); (iii) increasing the competitive market; (iv) efficient sales (e.g. use of innovative

716 European Commission, 2024, Data and Surveys-SAFE, Results by country, T27.
717 BSE, 2025, Annual Report 2024, p. 7.
718 BSE, 2025, Annual Report 2024, p. 8.
719 BSE, 2025, Annual Report 2024, p. 10
720 BSE, 2025, Annual Report 2024, p. 32.
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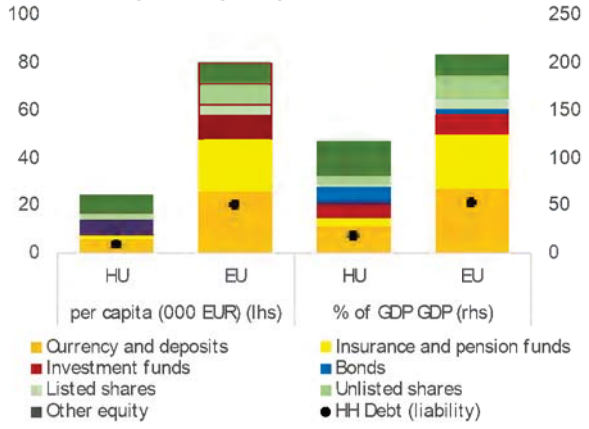
722 BSE, 2015, BSE Strategy 2016-2020.
723 BSE, 2020. BSE Strategy 2021-2025.

channels through online sales); (v) economies of scale; (vi) fair and competitive profitability; and (vii) well-capitalised insurers.[724] The MNB carefully monitors the development of these seven targets on an annual basis.

Retail participation in capital markets

Hungarian households have a high savings rate, with the majority of their financial assets held in government bonds and investment funds, but more can be done. At end 2024, Hungarian households had a lower-than-average holding of cash and deposits, representing nearly a quarter (23.6%) of household assets (EU average: 31.7%). Part of the deposits seem to be replaced by domestic government bonds. At end 2024, 38% of households' financial assets were held in pension and investment funds or held directly in financial investment instruments (EU average of 46.6%). More specifically, households' direct holdings of investment insurance and pension funds was at 6.3% of all household financial assets (EU average: 27.9%), investment funds at 13.2% (EU average: 11.1%), bonds at 15.2% (EU average: 2.8%), and listed shares at 3.1% (EU average: 4.9%) (see Graph 2.13.7). In Hungary, direct and intermediated retail investment by households was 52% in 2022 (EU average: 56.2%), which is rather high.

1.15.7 Composition of HHs' financial assets



Source: Eurostat. End-2024.

1.16 Ireland

Availability and use of domestic savings

Ireland has been a net exporter of capital since 2021. Ireland's saving and investment balance, which

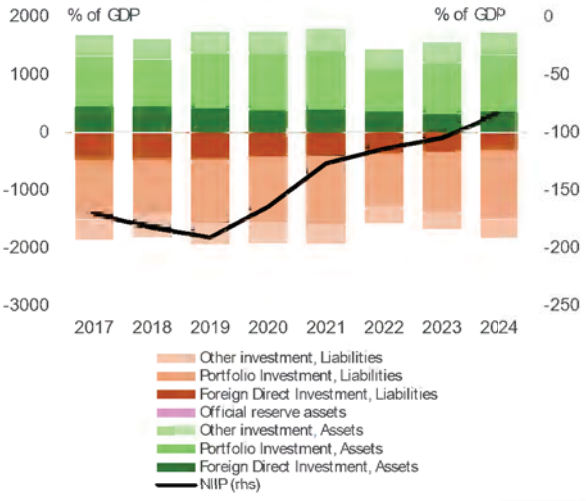
1.16.1 Net savings-investment balance

Source: AMECO.

is equal to the current account, stood at 13.6% of GDP in 2024, showing that Ireland's aggregate savings exceeded domestic investment needs and the surplus had to be invested overseas. While Ireland's aggregate gross private savings rate averaged 32% relative to GDP in the last decade, the net savings rate after deducting capital depreciation, stood at 8.4% of GDP in the same time period. Private investment was exceptionally strong in 2019 thanks to a temporary spike in investments of intellectual property, but it fell sharply thereafter as the pandemic curtailed construction activity and severely impacted the aircraft leasing business, which is very important for Ireland. Private investment has fallen below capital depreciation in 2021, 2022 and 2023. Government finances delivered a surplus over the most recent years contributing positively to total national savings.

Despite recent improvements, Ireland maintains an overall negative net international investment position (NIIP). Due to strong investment inflows in

1.16.2 International investment position



Source: ECB.

[724] MNB, 2018, The 10-year vision of the insurance sector in 7 points; also MNB, 2024, Report on Insurance, funds, capital market risks and consumer protection, p. 19.

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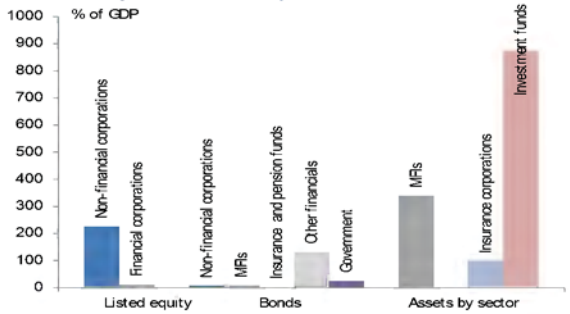
the past, Ireland accumulated a deeply negative NIIP, hitting 190.6% of GDP in 2019. Since then, the NIIP has improved significantly to 82.5% in 2024, thanks to the current account surpluses in the most recent years. Most of the foreign investment in Ireland comes as portfolio investment with an outstanding balance of 11 times GDP. The country's NIIP is heavily influenced by the activities and balance sheets of multinational companies and the country's position as a major financial centre. Most of the constituent entities have limited links to Ireland's domestic economy, which in turn reduces domestic exposure and vulnerabilities. The stock of official foreign exchange reserves contributed 6 percentage points of GDP to the aggregate positive NIIP.

Structure of the capital markets and size of the financial sector

Ireland functions as a significant international financial centre especially for investment banks, investment funds and money market funds. Ireland's market-based finance sector has grown rapidly over the past years, reaching an asset volume of roughly EUR 6.8 trillion in assets in March 2025. Many of the Ireland-based financial institutions have only limited exposures to the Irish economy. Their assets and liabilities are located outside Ireland, and they offer services outside Ireland. The sector is composed of a diverse set of institutions: the most important are investment funds with total assets of EUR 4.7 trillion, money market funds with assets worth EUR 903 billion as at March 2025. Another large group are special purpose entities with assets worth EUR 1.8 trillion. These can be divided into securitisation and non-securitisation vehicles. There are also other financial institutions, which are mainly treasuries of non-financial corporations.

1.16.3 Capital markets and financial intermediaries

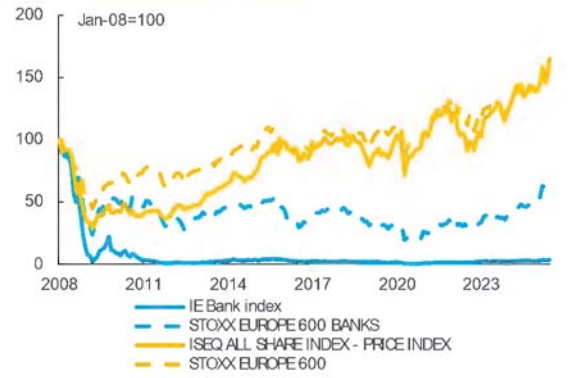


Source: ECB, EIOPA, AMECO. End-2024.

Multinational companies choose Ireland as legal headquarters inflating listed stocks statistics. The market capitalisation of listed shares issued by Irish NFCs stood at 226% of GDP at end-2024 (see Graph 2.14.3), which is the highest in the EU, but the total market capitalisation of financial corporations is at the lower end with 11.2%. The high figure of Irish listed shares is inflated by redomiciled plc, these are overseas companies, in particular from the US, that move their legal headquarters to Ireland for regulatory reasons. Examples are *Medtronic, Eaton Corp, Jazz Pharmaceuticals, Alikerms, STERIS, Actavis, Willis Towers Watson, Aoin, and Cimpress*. These companies are structured as holding companies with US operations but count as Irish companies in the statistics even though their footprint in the country is quite limited, and they list their shares on US stock exchanges. These redomiciled PLCs significantly inflate figures for Irish foreign direct investment, listed equity, and even GDP-related metrics. The outstanding volume of debt securities reached 198% of GDP at end-2023, which is also among the highest national scores in the EU. In this context it is important to note that a lot of Irish companies choose to list overseas, specifically in London or in New York. The ISEQ All Share Index captures the performance of all Irish companies that are listed in Dublin. Since 2016 the performance has been in line with the Stoxx Europe 600.

Amidst the oversized financial sector, the banking sector itself is small relative to the size of the economy. At the end of 2023, the ratio of total assets of monetary financial institutions (MFI) to GDP stood at 316.1%, above the EU average (256.9%) but this is chiefly due to the presence of money market funds. Looking at banks only, their total assets are actually below EU average compared to the size of the economy.

1.16.4 Stock market performance



Source: London Stock Exchange Group[725].

Financing of the economy

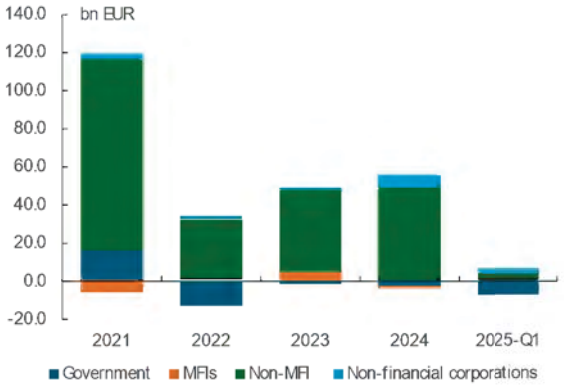
Sources of NFC Funding

Many multinational non-financial corporations (NFCs) use Ireland as their European base. Many non-European companies have chosen Ireland as their European headquarters, benefiting from: (i) a business-friendly environment and corporate tax code; (ii) use of the English language; and (iii) a skilled work force. This explains the outsized balance sheet of the NFC sector of 4.5 times GDP, and the large share of unlisted equity (34%) on the liability side of the aggregate balance sheet compared with an EU average of 24%, as multinational enterprises hold ownership rights of their subsidiaries in the form of unlisted equity. Loans also play a significant role in corporate funding, but less so than at EU level, with loans accounting for 19% of Irish firms' balance sheets, vs an EU average of 27%. Listed shares accounted for 38% of funding sources in 2023, compared with an EU average of 19%. Ireland's high market-funding ratio of 87.4% masks a sharp distinction between multinational corporations, which can easily source financing in capital markets, and indigenous companies, predominantly SMEs, that rely almost exclusively on bank loans. Large Irish companies have easy access to international capital markets. Irish companies had EUR 79.8 bn in debt securities outstanding. Insurance companies are an important source of investments for the Irish economy. EEA insurance companies have invested EUR 15.8 bn in Ireland, at the end of 2024. EEA insurance companies have EUR 11.8 bn in Irish equity and 2.7 bn in property, but also EUR 2.9 bn in mortgages and loans.

Market finance

Euronext Dublin, formerly known as the Irish Stock Exchange, has only a small number of stock listings, but is an important trading venue for debt securities and investment funds. The Dublin Stock exchange became part of the Euronext group in 2018. Euronext Dublin has established itself as the largest listing venue for bond and fund listings in the world. Its stock market itself is quite small. The number of companies listed has been declining over recent years and only 29 companies had their equity listed on Euronext Dublin in March 2025. Many Irish companies have chosen to list abroad, in many cases in third countries in the expectation that this would facilitate market access. The outstanding listed equity – domestically or abroad - of Ireland's non-financial corporations amounted to 192.2% of GDP in 2023.

1.16.5 Net issuance of bonds



Source: ECB.

Debt finance continues to be a significant source of market funding for banks and financial companies in Ireland. In the first quarter of 2025, monetary financial institutions issued net EUR 0.9 bn of debt securities, after negative net issuance of EUR -1.4 bn in 2024 (see Graph 2.14.5). The other financial corporations issued EUR 27.1 bn in Q1 2025, compared to the 2024 total of EUR 51.2 bn.[726] These debt securities were issued by securitisation vehicles, financial auxiliaries, captive financial institutions and

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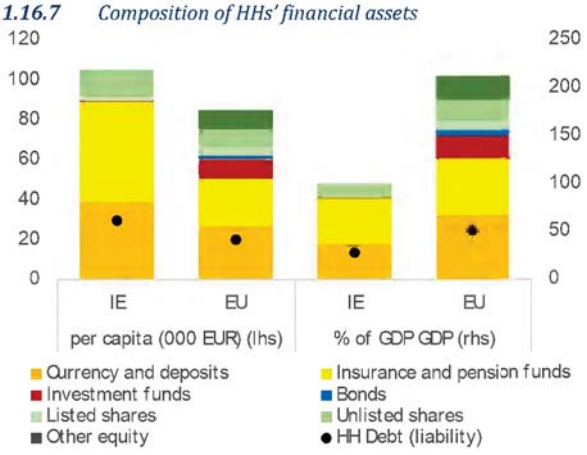
[726] Other financial corporations include on-money market investment funds (S.124), other financial intermediaries (S.125), financial auxiliaries (S.126), captive financial institutions and money lenders (S.127) , insurance companies (S.128) and pension funds (S.129).

money lenders. The net issuance by non-financial corporations amounted to only EUR 2.3 bn in Q1 2025, after a 2024 total of EUR 6.6 bn.

Given the presence of large multinational enterprises in Ireland, the corporate sector's balance sheet is relatively big compared to the size to the economy. Irish multinational companies are often funded by unlisted shares held by their foreign parent. Outstanding debt liabilities of non-financial corporations (NFCs) in Ireland reached more than 123% of GDP in 2024, which is significantly higher than the EU average of about 81% (see Graph 2.14.6). However, given the overall much larger size of the aggregate balance sheet of Irish NFCs, which reached 437% of GDP at end-2024 (versus an EU average of 226%), the relative share of financial loans in their funding structure (28.1%) is slightly lower than the EU average (35.6%).

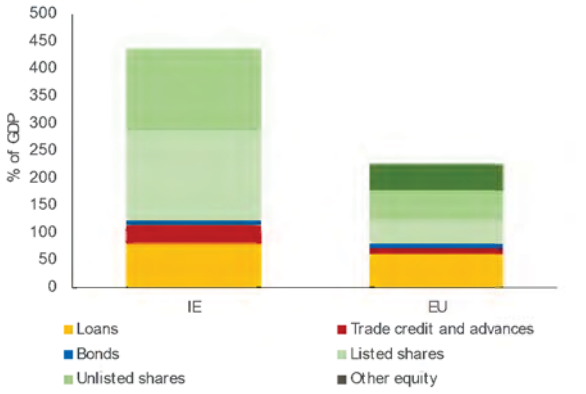
Surveys suggest that Irish companies are content with their access to external finance. According to the 2024 EIB Investment Survey, 80% of investments by companies in Ireland was financed internally or from intra-group sources, compared with an EU average of 75%. At the same time, 80% of Ireland's firms believed that their investment over the previous three years were at about the right amount, a view shared by 80% of EU firms on average. Only 17% of Irish firms said they had invested too little over this period, although this exceeded the EU average of 14%, suggesting that there could be a financing gap relative to investment demand in Ireland. According to the same survey, the share of finance-constrained firms is around 10% and thus above the EU average of around 7%. The most important reason cited by these firms for being finance-constrained is receiving smaller loan amounts than they had applied for. For SMEs specifically, in the last SAFE Access to Finance Survey, the share of Irish SMEs reporting that access to finance was a constraint for them was 6%, which is in line with the EU average.

1.16.7 Composition of HHs' financial assets



(1) For Ireland "other equity" is included in "unlisted shares"
Source: Eurostat. End-2024.

1.16.6 Composition of NFCs' funding



Source: Eurostat. End-2024.

Irish households' participation in financial markets is dominated by insurance products. Average financial household wealth in Ireland is estimated at EUR 98 000 and thus above the EU average of EUR 80 300. Households' largest holdings are deposits, insurance funds and pension funds. Although households have higher debt levels than in the EU on average, this is matched by their larger cash holdings. The share of their wealth that Irish households hold in financial instruments, namely investment funds, listed equities and bonds, is only 3.8%, falling far below the EU average of 23.2%. Despite Ireland's outstanding role as a fund centre, Irish households' holdings of investment funds are unusually low, accounting for less than 1% of the aggregate household balance sheet, compared with an EU average of 10.0%.

The availability of growth capital in Ireland falls slightly short of the EU average. In 2023, the value of private-equity investments in the country was equivalent to 0.2% of GDP, below the EU average of 0.4%, and it has been below the EU average for most of the past 10 years. Similarly for venture-capital investments, Ireland had VC investments equivalent to

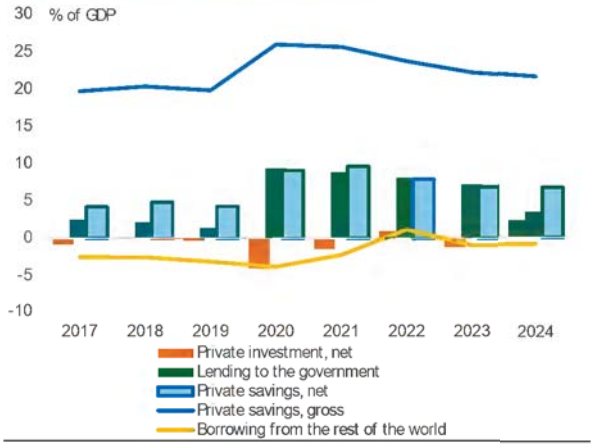
0.4% of GDP in 2023, just below the EU average of 0.5%, but achieving higher values in previous years.

To support young innovative businesses, Ireland offers attractive start-up support programmes. Enterprise Ireland is a government agency responsible for helping Irish businesses to start, grow, and expand into international markets. It provides support through several programmes, such as the Competitive Start Fund (CSF) and the High Potential Start-Up Fund. The CSF provides up to EUR 50 000 in equity funding to early-stage start-ups and is designed to support start-ups that have the potential to scale internationally. The CSF funding is typically used to support the development of a start-up's product or service, as well as its business plan and marketing strategy. The High Potential Start-Up Fund provides funding and support to start-ups that have the potential to scale quickly and become major players in their markets. The fund typically provides funding of between EUR 500 000 and EUR 5 million and is designed to support start-ups that are developing innovative products or services, and that have strong potential for export growth. In addition, Enterprise Ireland's Seed and Venture Capital Scheme aims to leverage private-sector investment by co-funding venture-capital projects, thereby easing financial barriers for start-ups. By August 2024, Enterprise Ireland had invested over EUR 700 million in the scheme, which has leveraged funds totalling EUR 3.3 billion. Further, the Ireland Strategic Investment Fund, managed and controlled by the National Treasury Management Agency (NTMA), has a mandate to support economic activity and employment in Ireland. Its main investment areas are climate, housing and regional investments, indigenous businesses, and food and agriculture.

1.17 Italy

Availability and use of domestic savings

1.17.1 Net savings-investment balance



Source: AMECO.

Italy's private sector saves comparatively little in net terms, despite a pick-up in pace since 2020, and does not invest enough in the domestic economy. In the last decade (2015-2024), the private savings ratio, net of fixed capital consumption, averaged 6% of GDP, albeit with a marked increase since 2020 and particularly in the period 2020-2022 (see Graph 2.15.1). The net private investment ratio, which measures the net direct contribution of the private sector to capital accumulation in the country, fluctuated around zero and averaged -0.7% of GDP, contributing to a shrinking capital structure of the economy. There was an improvement in 2024, with net private investment turning positive at 2.4% of GDP, similar to the EU average and expected to stay close to these levels for 2025-2026. However, it still falls short of the net savings ratio, suggesting that domestic savings are not mainly invested in the domestic private sector. At the same time, the rather sizeable borrowing by the government, which averaged 4.8% of GDP over the last decade, absorbed the equivalent of 81% of net private savings. The remaining average net positive balance of 1.9% of GDP resulted in regular net lending to foreigners, with the notable exception of 2022. Thus, overall, in the last decade the net Italian private savings, i.e. after accounting for the investments that are necessary to maintain the existing capital structure of the economy, were channelled towards government and foreign projects, rather than domestic private investments.

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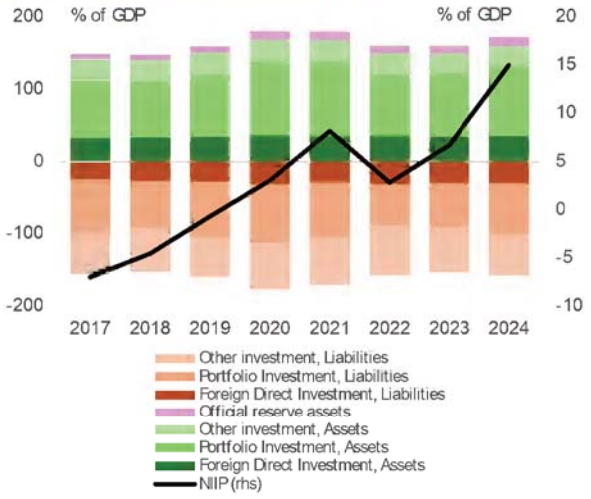
1.17.2 International investment position



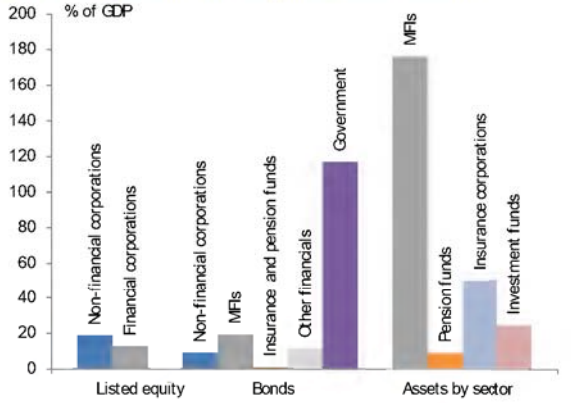
Source: ECB.

Consistent with Italy's annual positive lending to the rest of the world, its net international investment position (NIIP) has been increasing. As of end-2024, total assets on foreigners reached 172% of GDP, up from 148% at end-2017, while liabilities to foreigners were only marginally up, from 155.3% to 157% of GDP over the same period, resulting in a positive net international investment position (NIIP) equivalent to 15% of GDP (see Graph 2.15.2). The net stock of foreign direct investment has been broadly stable, declining from 6% of GDP at end-2017 to 5% as of end-2024. Hence, the increase of the NII was driven primarily by the net stock of portfolio investments, which increased by 20.5 percentage points of GDP, and by the stock of official foreign exchange reserves, which expanded by 5.5 percentage points of GDP. Meanwhile, the net liability of Italy in terms of other investments increased by 3.1 percentage points of GDP. Thus, the Italian economy appears to be well integrated in international capital flows and has managed lately to accumulate more private assets on foreigners

Structure of the capital markets and size of the financial sector

Banks dominate the financial sector in Italy and there is scope for the future development of all non-bank intermediaries. After peaking at 230% of GDP in 2020, the size of the banking sector declined to 176% of GDP in 2024. Insurance companies, with total assets equivalent to 50% of GDP at end-2024, are the most developed non-bank financial intermediaries in Italy, though their size remains below the EU average of circa 55%. Total assets of investment funds were equivalent to 24.5% of GDP at end-2024, while occupational pension funds equalled 8.9% of GDP.

1.17.3 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2024.

Capital markets in Italy remain underdeveloped and insufficiently deep. The market capitalisation of listed equity of Italian companies as a share of GDP[727] is small by EU standards, at 31.3% of GDP vs an EU average of 66.8% as of end-2024 (see Graph 2.15.3). Non-financial corporations accounted for about 60% of that capitalisation. The outstanding volume of debt securities reached 155.6% of GDP at end-2024, which is one of the highest national scores in the EU. However, marketable debt securities issued by non-financial corporations (NFCs) accounted for less than 6% of the total. Indeed, the domestic bond market in Italy is entirely dominated by government securities, which accounted for almost 74% of the total as of end-2024. Financial institutions, whether banks or not, accounted for the remaining 20% of debt securities.

Financing of the economy

Sources of NFC funding

Italian companies rely less on capital markets and more on own profitability as a source of funding than their EU peers, alongside bank lending. As a source of finance for Italian NFCs, loans were equivalent to 47% of GDP as of end-2024, below the EU average of 60.9% (see Graph 2.15.4). Nevertheless, expressed as a percentage of overall NFCs financing, loans accounted for only a slightly smaller share of all financing sources (26.6% versus 27% in the EU). In the meantime, Italian NFCs' use of listed shares and bonds was also lower than the EU average, both expressed as a percentage of GDP (23.9% vs 53.8%) and as a

[727] This figure includes all listed shares of Italian companies, irrespective of the stock exchange where they are listed.

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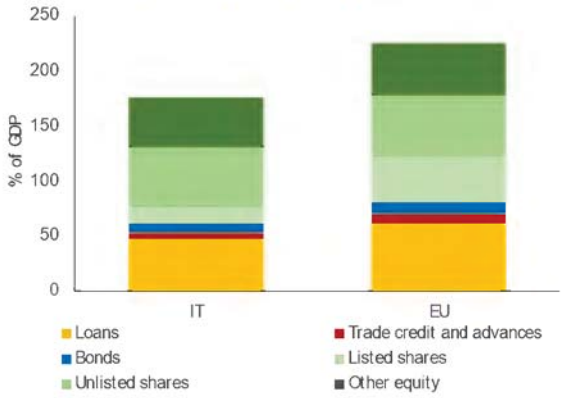
percentage of overall NFC financing (13.5% vs 23.8%). This is largely due to the small proportion of listed shares in the funding mix (8.5% of funding sources vs 19.1% for the EU). This suggests that own profitability plays a somewhat larger role as a source of funding for Italian firms relative to their EU peers.

1.17.4 Composition of NFCs' funding



Source: Eurostat. End-2024.

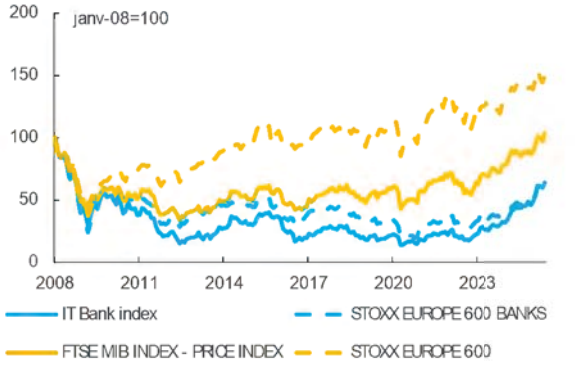
However, the role of internal funding is not excessive compared to EU average, and firms do not appear to suffer from a lack of funding. According to the 2024 EIB Investment Survey, 62% of Italian firms responded that their investment needs are covered by internal funding, close to the EU average of 66%. Moreover, 92% of Italian firms believe that their investment activities over the last three years were about the right amount, higher than the EU average (80%), suggesting that there is no material financing gap relative to investment demand. However, this may not be the case for firms with no or limited capacity for internal funding, such as innovative start-up firms (see further below). Overall, Italy's business sector invests less as a share of GDP (11.4%) than the EU average (13%).

Market finance

The Italian stock exchange is small relative to large EU peers. The Italian stock exchange (Borsa Italiana) forms part of Euronext, a pan-European market infrastructure. Borsa Italiana is substantially smaller both as an absolute figure and as a share of GDP than the stock exchanges in Paris, Amsterdam or Frankfurt.[728] In terms of performance, the general stock market index in Italy and, even more so, the index of Italian bank stocks heavily underperformed the relevant Stoxx 600 indices the first years since the 2008 global financial crisis but have recovered part of the lost ground since end-2015 (see Graph 2.15.5).

New listings were limited in the main market in recent years, with more vibrant activity in the SME growth market. In 2024, 23 Italian companies were admitted to trading on Borsa Italiana, of which only two on the main market (Euronext Milan) and 21 on the growth market (Euronext Growth Milan). In the same period, 29 companies exited the market, 15 from the main market and 14 from the growth market. Overall, from 2018, there have been 50 listings and 84 delistings from the main market, while in the growth market there have been 204 listings and 91 delistings.[729]

1.17.5 Stock market performance



Source: London Stock Exchange Group[730].

Net bond issuance continues to be dominated by government debt. Government debt steadily represents 80% or more of net bond issuance every year in the Italian market (see Graph 2.15.6). With regards to non-financial corporations, their debt issuance activity can vary significantly from one year to the next. It was subdued in 2024 (-74% down compared to 2023) but showed signs of recovery in the first quarter of 2025 with net bond issuance of EUR 6.9 bn, higher than during the whole of 2024. Nonetheless, non-financial corporations' marketable debt represents but

728 E.g. according to Euronext's Investor toolbox, as of April 2025 the market capitalisation of Borsa Italiana was EUR 906 bn vis-à-vis EUR 3044 bn for Paris and EUR 1454 bn for Amsterdam stock exchanges.

729 Relazione annuale 2024 CONSOB

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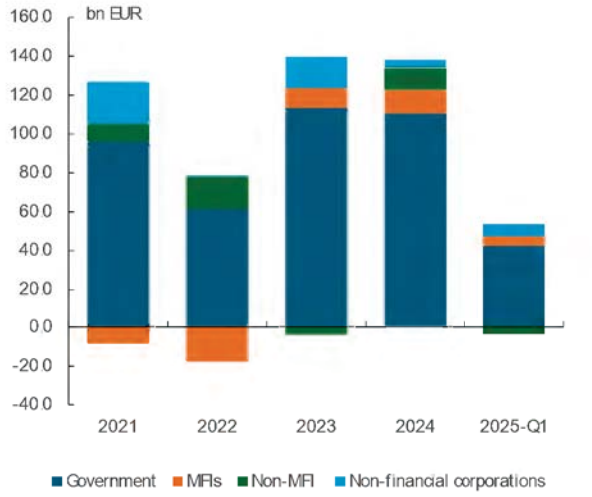
a small fraction of the total outstanding stock of Italian debt securities (see previous section).

1.17.6 Net issuance of bonds



Source: ECB.

There have been numerous national measures taken to foster non-bank finance in Italy. These included a) the creation of a mini-bond market[731] since 2012, which allows smaller firms to tap into the bond market, b) the introduction of Special Purpose Acquisition Companies (SPACs)[732], c) changes in the threshold to be exempt from the obligation to publish a prospectus, d) the National Fund for Innovation to boost venture capital, e) the set-up of PIR (individual savings plans through collective investment schemes), which offer tax incentives to investors who direct savings into Italian or EEA companies with a permanent establishment in Italy, f) the expansion of the crowdfunding legal framework since 2019 to include shares and bonds by SMEs, g) the introduction in 2019 of the SIS (Società di Investimento Semplice), a vehicle company that can invest in unlisted SMEs at early stage, h) the creation in 2018 of the National Observatory on Sustainable Finance and the Financial Centre for Sustainability and i) the establishment by Banca d'Italia in 2021 of a regulatory sandbox to foster FinTech development.

Further capital market reforms are being implemented or are planned in the near future. Building on past progress, the OECD prepared a capital market review for Italy in 2020, under an EU-funded technical support project. This was followed by a green paper on the competitiveness of Italian financial markets in support of growth, published by the Italian Ministry of Economy and Finance in March 2022. These initiatives led to the adoption of the Capital Markets bill (Decreto Capitali, Law 21/2024) in February 2024. This Law widens the definition of SMEs and aims to stimulate the Italian IPO market and incentivise investment in companies listed in Italy, while at the same time making changes to the corporate governance framework and promoting financial literacy. A further reform of the Testo Unico della Finanza (TUF) is underway, although it was recently postponed by a maximum of one year.[733]

Retail participation in capital markets

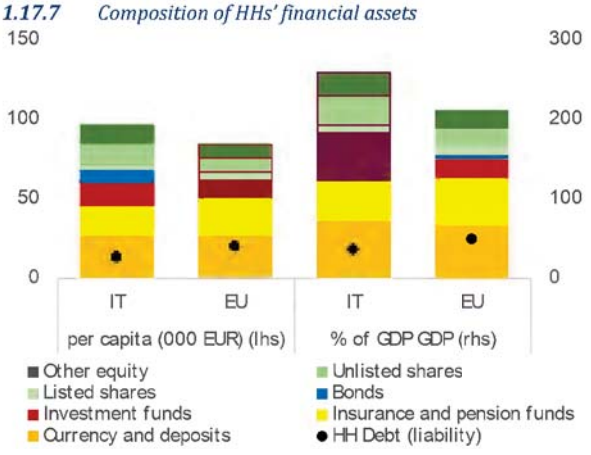
Italian households tend to invest their above-average wealth in a similar way to EU peers but are more risk-averse to direct exposure to shares. Italian households have a higher amount of financial assets than the EU average both in per capita terms and as a share of GDP (see Graph 2.15.7). The share of households' financial assets held in pension and investment funds or directly in financial investment instruments is only slightly below the EU average (45.7% vs 46.6% as of end-2024). Compared to the EU average, Italian households have a higher share of financial assets invested in bonds (8.6% vs 2.8%) and investment funds (14.9% vs 11.1%) and a lower share of financial assets invested in listed shares (3% vs 4.9%) and insurance and pension funds (21.9% vs 31.4%). Domestic government debt in particular is a popular investment for Italian households, which hold 13% of the total outstanding general government debt of Italy as of June 2024.

[731] Mini-bonds are emissions from joint-stock non-financial companies or cooperatives, normally SMEs, for an amount less than EUR 50 mn, not open to retail investors and typically listed on Borsa Italiana ExtraMOT Pro. Based on data by the mini-bond observatory, since 2013 there have been 1,977 minibond issues with a nominal value of EUR 12.6 bn.

[732] SPACs are cash shell companies, listed on financial markets, the purpose of which is to carry out a merger with an operating company, which then becomes listed on a regulated market or a multilateral trading facility. The SPAC process is an alternative to the standard IPO.

[733] The TUF —the Consolidated Law on Finance—regulates non-banking financial intermediation. A review, which aims at simplifying this framework, was envisaged under a delegation granted in 2024's Capital Markets bill, allowing the Ministry of Economy and Finance to issue one or more legislative decrees within twelve months of the entry into force of the Capital Markets bill, i.e. by March 2025. Moreover, within 18 months of the adoption of these legislative decrees, the Government may issue one or more legislative decrees supplementing them. However, in March 2025, a 12-month extension was granted to the initial period for the issuance of the legislative decrees.

1.17.7 Composition of HHs' financial assets



Source: Eurostat. End-2024.

Further measures to boost retail participation in capital markets are underway. The take-up of past initiatives to boost the level of retail participation, such as the creation of individual savings plans (PIR), has waned since 2019.[734] However, a comprehensive reform of financial legislation planned for the first half of 2025 may include: i) using the option under EU legislation[735] for a registration system (instead of authorisation) for alternative investment funds, and ii) allowing retail investors to invest in registered alternative funds, thus facilitating investment in private equity and venture capital funds.

1.18 Latvia

Availability and use of domestic savings

In 2021, Latvia switched from a net foreign lender to a net borrower. Over the last decade, the private savings ratio, net of fixed capital consumption, fluctuated around its ten-year average of 6.2% of GDP, reaching a maximum of 10% in 2021 (Graph 2.16.1). The net private investment ratio, which measures the net contribution of the private sector to capital accumulation in the country, exhibited a ten-year average of 3.0% of GDP and reached a maximum of 5.4% in 2021. At the same time, during the same period the government balance was in regular surplus, averaging 0.8% of GDP. Until 2020, the balance between net domestic savings, net investment, and the structural government deficits was positive, resulting in net lending by Latvia averaging 0.8% of GDP, with a peak of 4.8% in 2020. Hence, some of Latvian net savings, i.e. after accounting for the investments that are necessary to merely maintain the existing capital structure of the economy, were used to finance projects abroad until 2020. In 2021 Latvia became a net borrower from the rest of the world.

1.18.1 Net savings-investment balance

Source: AMECO.

The Latvian economy exhibits a negative net international investment position. Between 2009 and 2023, the NIIP strengthened almost every year, reflecting an improvement in competitiveness, however remaining in negative territory. As of Q4-2024, total assets on foreigners reached 137.8% of GDP, while liabilities to foreigners stood at 158.3% of GDP, resulting in a NIIP equivalent to -20.5% of GDP (Graph 2.16.2). The accumulated net portfolio investment, which reached 26.6% of GDP as of Q4-2024 and the stock of official foreign reserve assets amounting to 12.3% of GDP did not suffice to counterbalance a negative accumulated net foreign direct investment balance of -49.3%, together with net other investments of -10.2%. Thus, Latvia has systematically been a net capital importer, notably mainly by means of foreign direct investments into the country.

[734] PIRs offer tax incentives to invest savings into Italian or EEA companies permanently established in Italy. As of end-2024, only 1.5% of the assets under management of open-ended and closed-ended funds in Italy were in the form of original PIRs and only 0.2% in alternative PIRs. See PIR Observatory, May 2025, Assogestioni.

[735] Directive 2011/61/EU (AIFMD).

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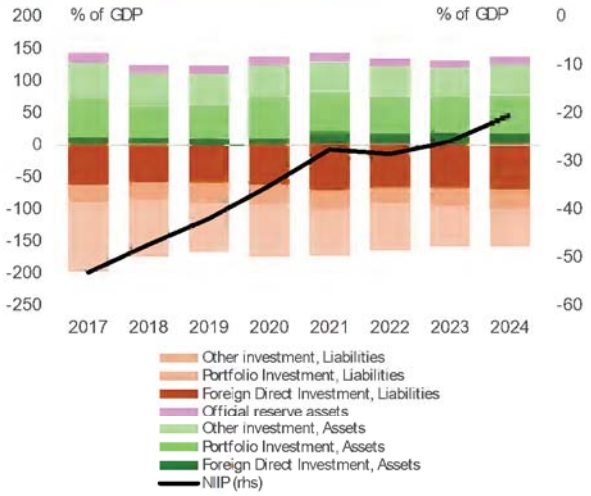
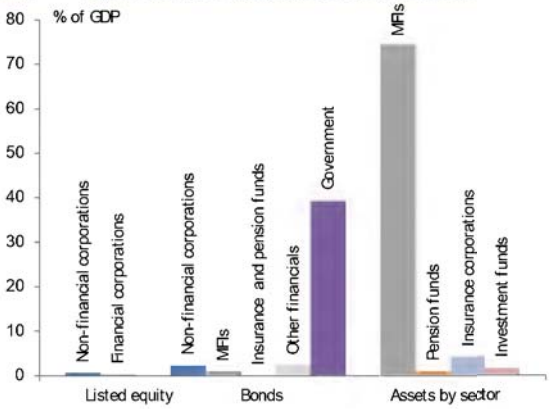
1.18.2 International investment position



Source: ECB.

1.18.3 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2024.

Structure of the financial sector

In terms of capital market development, Latvia lags behind the rest of the EU, and also neighbouring countries. Despite a similar economic structure and size, stock exchanges of Estonia and Lithuania have been able to achieve a higher level of development. Whereas the market capitalisation of listed stocks in Estonia reached 12.7% at the end of 2024, and 6.2% in Lithuania, it was only 0.8% of GDP in Latvia, among the smallest percentages in the EU. In comparison, the EU average is 66.8% of GDP. Whereas state and local government-controlled companies account for slightly more than a third of market capitalisation Lithuania and Estonia, Latvia has only listed bonds for three state-owned enterprises. The situation is similar in the debt securities market: the corporate bond market is very thin and activity there was very weak.

Financing of the economy

Sources of NFC funding

Firms in Latvia rely less than the EU average on funding from bank lending and capital markets. The relative significance of bank credit to businesses continues to decline, with companies in Latvia utilising bank loans less than any other EU country. At the end of 2023, MFI credit accounted for merely 15% of the total corporate debt portfolio, down from 34% in 2010, and among the lowest in the EU. Listed shares and bonds represented only 1.3% of all funding sources for Latvian non-financial corporations. The equivalent figures for the EU average are 27.2% and 23.8%, with the overall levels also substantially higher as a share of GDP (as the overall level of non-financial corporations funding was 137% in Latvia and 230% of GDP for the EU average, see Graph 2.16.3). The market funding ratio[736] as of end 2023 was 21.2%, compared to an EU average of 49.6%.

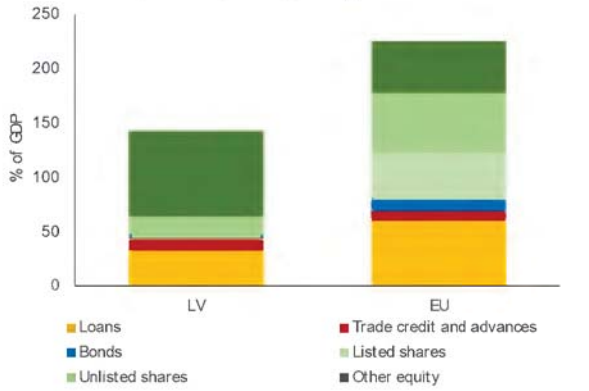
Internal financing accounted for the largest share of finance for firms in Latvia in 2024. Non-financial corporations tend to rely on their own funds as well as other alternatives (other equity). Limited access to finance is reflected in the 2024 SAFE survey results. In that survey 30% of Latvian SMEs indicate that bank loans are relevant for them, compared to an EU average of 45%, and 29% of SME's indicated that equity (other than shares) is relevant for them vs. an EU average of 12%.[737] Alternative financial service providers are competing and often outcompeting the traditional ones at high speed. Conducted empirical analysis shows that the most available financing sources in Latvia, apart from banking products, are friends and family, venture capital, business angels, as well as diverse state support

[736] i.e. the volume of corporate bonds and listed shares of NFCs relative to the volume of those two and bank loans to NFCs.

[737] Data and surveys - SAFE - European Commission, 2024, Results by country, T23, T27.

programmes (including EU grants, Altum). However, Altum's loan portfolio is relatively small against the total value of outstanding loans (a mere 2.5% as of mid-2023).

1.18.4 Composition of NFCs' funding

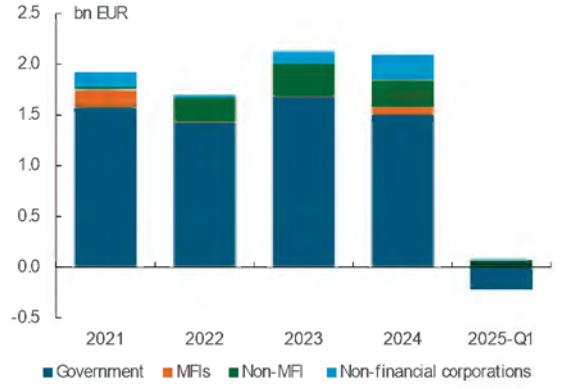


Source: Eurostat. End-2024.

Market finance

Latvian SMEs find it difficult to access and take advantage of Latvia's capital markets. In the 2024 SAFE survey 41% of SMEs indicated that internal funds (retained earnings or sale of assets) are relevant for them, compared to an EU average of 30%.[738] Moreover, Latvia cannot take advantage of this SME market because there are no established SME growth markets in Lithuania, nor in the other Baltic states. Recently, work started on setting up an SME Initial Public Offering Fund in the Baltics, with the help from ALTUM for Latvia and ILTE for Lithuania.

1.18.5 Net issuance of bonds



Source:

The prospects for capital market development are limited by the low number of listed enterprises. Latvia has established a good market infrastructure, as well as a regulatory framework that meets international standards, ensuring adequate market transparency and investor protection. The Baltic countries have consolidated their stock markets and CSDs which has facilitated cross-border transactions and improved all Baltics markets' visibility. Yet the number of investors, transactions and issued securities remains low. Local businesses tend to rely for external funding on bank intermediation rather than attracting investments through stock and bond issues or from alternative sources. This results in low interest from institutional and retail investors, and thus few local opportunities to raise share capital. The lacking market activity by institutional investors lowers demand for corporate stocks and bonds. In terms of the international market, projects developed in Latvia are relatively low value, which makes them less attractive to international investors. For the local capital markets to come onto their radars, they would first need to reach a sufficient level of capitalisation. Listing of large state-owned enterprises and facilitating greater exposure of pension funds to domestic securities could help attract investors and raise access to finance. It is also important to note that the outstanding deposits at banks significantly exceed the outstanding loans from banks, which may point to untapped potential since those savings could be redirected towards capital markets.

The government is currently reviewing its strategy for activating capital markets. Several lines of action aim at meeting the ambitious target of stock market capitalization of 9% of GDP by 2027. This initiative is part of a broader strategy to leverage over EUR 10 bn in household savings across Latvia, directing these funds towards vital investments that can spur sustainable economic growth. Government decisions made earlier in 2021 and 2022 foresee specific instruments to increase the capitalisation of the stock market and promote capital attraction and the entry of new issuers into the stock exchange. From the 10-step programme, concrete action plans were derived and included in the National Financial sector Development Plan for 2021-2023. In May 2023 the government of Latvia approved the initiative "On further development of the Latvian capital market" to meet the target of stock market capitalization of 9% of GDP by 2027. Since then, progress has been made, but clearly there is potential for further improvement. More work is needed to open possibilities for domestic and foreign capital flows to fund business investment, to provide investors with an opportunity to invest in the development of the Latvian economy. In February 2025 Latvijas Banka updated the 10-step programme

[738] Data and surveys - SAFE - European Commission, 2024, Results by country, T20.

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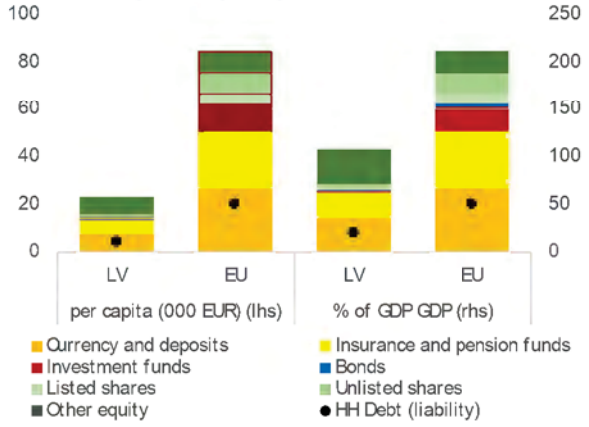
stating that measures should be taken to promote the entry of large state-owned or municipalities-owned companies into the capital market, notably by including shares in the market.

Retail participation in capital markets

The relatively low levels of income and savings of Latvian households reduce the availability of credit for enterprise investments and suggests that the economy relies more on foreign savings. The Latvian households' portfolio is tilted towards currency and deposits (33.2%) and more than one third of their portfolio is held in "other equity"[739], which is high compared to other EU countries where the average is 11.2%. Latvian households have relatively few financial assets, in particular related to investment, insurance and pension funds. The share of households' financial assets held in pension and insurance funds or directly in financial investment instruments in total financial assets has risen to 28.7% in 2024 but still falls short of the EU average of 46.6%. Most investments are in pension funds, mainly due to the larger mandatory contribution to the 2nd pension pillar. In Latvia, most of households' investments are in life insurance, and other investment opportunities are used significantly less. Little by little, households are gradually starting to invest their funds in higher-risk assets. In recent years, deposits in securities and investment funds grew most rapidly.

1.18.6 Composition of HHs' financial assets



Source: Eurostat. End-2024.

1.19 Lithuania

Availability and use of domestic savings

The Lithuanian economy invests a part of its relatively high net savings abroad. In the last decade, the private savings ratio, net of fixed capital consumption, fluctuated around its ten-year average of 9.7% of GDP, reaching a maximum of 15.3% in 2020 (see Graph 2.17.4). The net private investment ratio, which measures the net contribution of the private sector to capital accumulation in the country, was a bit more volatile, exhibited a ten-year average of 6.1% of GDP and reached a maximum of 13.2% in 2022. At the same time, during the same period the government budget was in regular deficit that averaged 1% of GDP. Thus, the positive balance between net domestic savings and net investment, together with low government deficits, resulted in net lending by Lithuania to the rest of the world that averaged 2.6% of GDP, with a peak of 8.9% in 2020. The swing in 2022 to net borrowing from the rest of the world is expected to be temporary, as it was driven by a massive increase in net energy imports and elevated energy prices. Lithuania experienced strong capital inflows during 2022 which largely occurred through accelerated FDI and portfolio investments.

1.19.1 Net savings-investment balance

Source: AMECO.

The net international investment position turned positive in 2024. Between 2009 and 2023, the net international investment position (NIIP) has strengthened almost every year, reflecting an improvement in international competitiveness. As of Q4-2024, total assets on foreigners reached 124.6% of GDP, while liabilities to foreigners stood at 124.2% of

[739] Other equity comprises all forms of equity other than those classified in sub-categories listed shares (AF.511) and unlisted shares (AF.512). In Latvia, the largest part of households' financial assets during the last year was made up by funds invested in business activity (e.g. the equity capital of limited liability companies and individual merchants).

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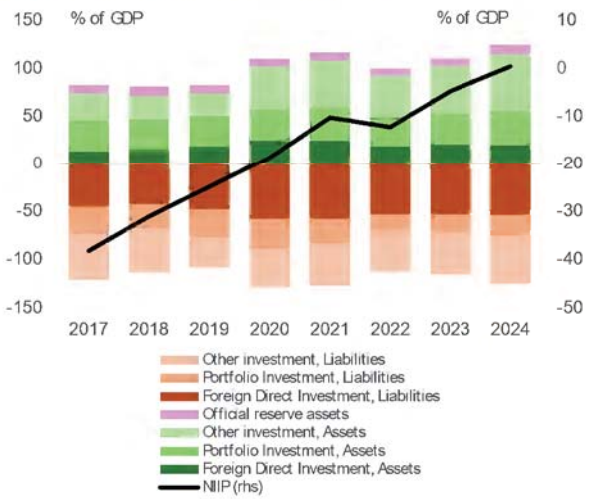
GDP, resulting in a NIIP equivalent to 0.4% of GDP (see Graph 2.17.5). The accumulated net portfolio investment, which reached 14.1% of GDP as of Q4-2024, together with net other investments of 10.9% and accumulated foreign reserves of 9.1% of GDP counterbalanced a negative accumulated net foreign direct investment balance of 33.7%.

1.19.2 International investment position

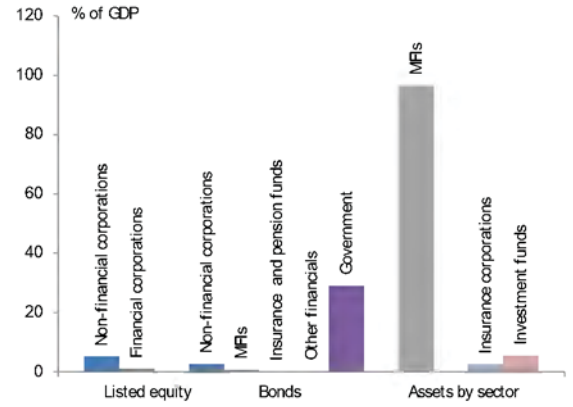


Source: ECB.

Structure and size of the financial sector

Lithuania's monetary financial sector is very small compared with the EU average and concentration is high. At the end of 2024, banks' total assets were equivalent to 96.4% of GDP, significantly below the EU average of 251.1%. Nevertheless, banks and other monetary financial institutions continue to account for the largest share (76%) of the Lithuanian financial market, a share that has remained largely stable over the last years (Graph 2.17.6).

1.19.3 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2024.

The role of the non-bank financial sector in the economy is still considerably less important as compared to other euro area countries. Total assets of pension funds amounted to 12.2% of GDP at the end of 2024, vs. an EU average of 23.7 % of GDP. The share of public pension spending in GDP (6.2%) is currently one of the lowest in the EU. The Lithuanian insurance sector is also very small, with a share of total assets in GDP of 2.6% as of end-2024 (vs. 54.8% for the EU on average). In 2023, assets of all types of non-bank financial institutions increased, especially of pension and investment funds. Assets managed by pension funds grew by 27%. The insurance market experienced a 17.7% growth in 2023, but slowed down in 2024, with a growth of 9.1%. This increase was driven by favourable conditions on the financial markets. Although the number of registered crypto-asset companies in Lithuania is relatively high compared to European peers, only few of them are profitable.

Lithuanian capital markets remain relatively shallow, inactive and illiquid. At the end of 2024, the market capitalisation of Nasdaq Vilnius Stock Exchange (consisting of 44 listed companies) was just about 6.2% of GDP (compared to 30% before the 2009 crisis), which is extremely small compared to other EU countries (EU average of 66.8% as of end 2024). The liquidity of securities traded on Nasdaq Vilnius, AB is limited while the debt markets in Lithuania are dominated by government securities. The prospects for capital market development are limited by the low number of listed enterprises. This results in few local investment opportunities, low interest from institutional and retail investors, and thus few local opportunities to raise share capital. In terms of the international market, projects developed in Lithuania are of relatively small size, which makes them less attractive to international investors.

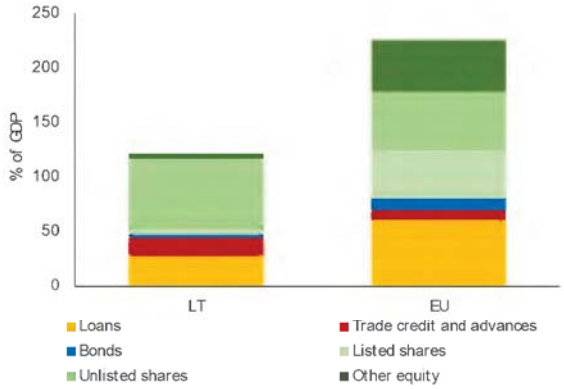
Financing of the economy

Sources of NFC funding

Firms in Lithuania rely less than the EU average on funding from banks or capital markets. At the end of 2023, bank finance through loans constituted only 22.3% of all funding sources for Lithuanian non-financial corporations, while listed shares and bonds represented only 6.0% of funding sources. The equivalent figures for the EU average are 27.3% and 23.8%, with the overall levels for Lithuania also substantially lower as a share of GDP (as the overall level of NFC funding was 121.6% in Lithuania and 229.9% of GDP for the EU average, see Graph 2.17.4).

The market funding ratio[740] as of end 2023 was only 31.5%, compared to an EU average of 49.6%.

1.19.4 Composition of NFCs' funding



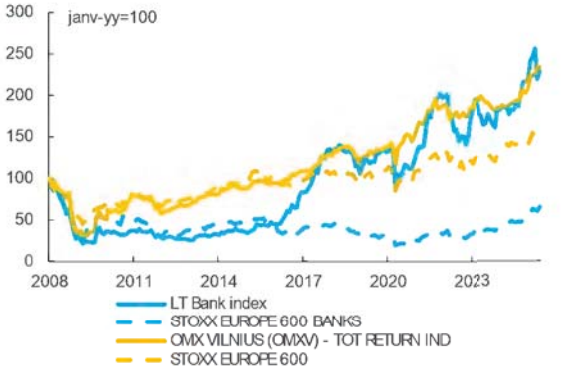
Source: Eurostat. End-2024.

There may be a financing gap relative to investment demand, especially for SMEs. According to the 2024 EIB Investment Survey, 69% of investment needs of Lithuanian firms are covered by internal funding, compared to an EU average of 66%. Only 54% of all Lithuanian firms use external finance that rely on bank finance, the lowest share in the EU (with the EU average at 81%. Moreover, the country has a high share of finance-constrained firms (13.7%). At the same time, 26% of all Lithuanian firms believed that their investment activities over the last three years were not sufficient. This is – together with the other two Baltic countries – one of the highest levels of underinvestment in the EU (EU average of 14%), suggesting that there is a financing gap relative to investment demand, especially for SMEs.

Market finance

So far, Lithuanian capital markets experienced positive developments, and investors continue to be optimistic about the future. Between December 2022 and June 2025, the Vilnius Exchange Index (OMX) increased by 26% (see Graph 2.17.5). However, local businesses tend to rely for external funding on bank intermediation rather than attracting funding through stock and bond issues or from alternative sources. The limited market activity by institutional investors reduces demand for corporate stocks and bonds. At the same time, risks exist, and both the interconnectedness of markets and the increased trading of crypto assets warrant cautiousness.

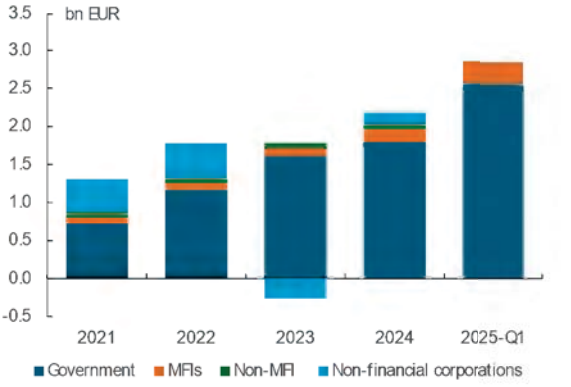
1.19.5 Stock market performance



Source: London Stock Exchange Group[741].

The commercial bond market remains significantly underdeveloped. Markets in Lithuania are dominated by government securities. In the first quarter of 2025, the government issued EUR 2.6 bn of debt securities, which compares to only EUR 0.7 bn in 2021 (see Graph 2.17.6). Banks issued EUR 0.3 bn in Q1 2025, almost double the 2024 total of EUR 0.16 bn. Issuance of pension funds, investment funds and insurance companies are also not significant. The net issuance by non-financial corporations turned out negative in 2023, at EUR –0.26 bn. Hence, debt market finance appears as a minor source of funding for Lithuanian non-financial corporations.

1.19.6 Net issuance of bonds



Source: ECB.

[740] i.e. the volume of corporate bonds and listed shares of NFCs relative to the volume of those two and bank loans to NFCs.

[741] The STOXX Indices are the intellectual property (including registered trademarks) of STOXX Limited, Zug, Switzerland ("STOXX") and/or its licensors ("Licensors"). STOXX has not been involved in any way in the creation of financial instruments or any other products referencing the aforementioned indices. Such products are neither sponsored nor promoted, distributed or in any other manner supported by STOXX and/or its Licensors. STOXX does not give any warranty and excludes any liability whatsoever (whether in negligence or otherwise) – including without limitation for the accuracy, adequateness, correctness, completeness, timeliness, and fitness for any purpose – in relation to any errors, omissions or interruptions in any of STOXX' indices or its data.

In May 2022 the Bank of Lithuania set out capital market development action guidelines to help the capital markets to grow. They set out concrete measures and recommendations that aim to make the capital markets more attractive for domestic and foreign investors, and to encourage businesses to obtain alternative financing by issuing securities and allowing more securities to be listed on the stock exchange. There is also a need to tap into the unused potential of pension funds (currently 90% of assets are invested abroad), e.g. by providing a wider range of financial market instruments traded on the capital markets. Certain key measures have already been adopted but not all have fully matured yet. The Capital Market Council, set up in January 2023, seeks to combine market and public sector efforts to advance capital market growth.

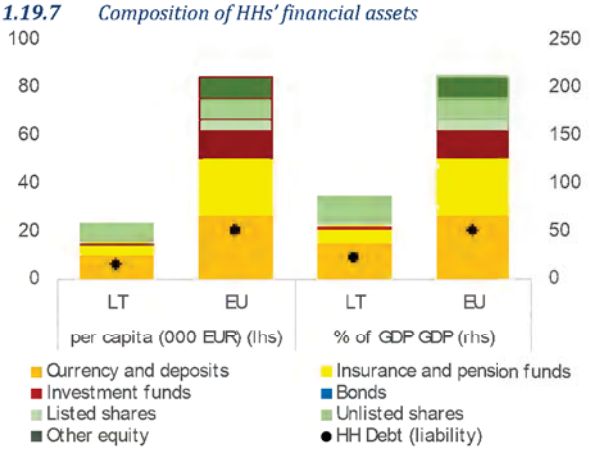
SMEs find it difficult to access and take advantage of Lithuania's capital markets. In the 2024 SAFE survey, 38% of SMEs indicated that internal funds (retained earnings or sale of assets) were relevant for them, compared to an EU average of 30%.[742] Moreover, Lithuania cannot take advantage of this SME market because there are no established SME growth markets in Lithuania, nor in the other Baltic states. Work recently started on setting up an SME initial public offering (IPO) fund in the Baltic states, with the help of ALTUM in Latvia and ILTE in Lithuania.

Retail participation in capital markets

The persistently low saving rate of Lithuanian households reduces the availability of credit for enterprise investments. Two-thirds of the population's savings are held in demand deposit bank accounts. Lithuanian households have relatively few financial assets, in particular regarding investment, insurance and pension funds. By contrast, they hold more unlisted shares compared to other EU countries. The share of households' financial assets held in pension and insurance funds or directly in financial investment instruments in total financial assets has risen from 13.5% in 2015 to 19.3% in 2023 but still falls substantially short of the EU average of 45.4%. By contrast, they have more unlisted shares[743] compared to other EU countries. These investments offer the chance to participate in companies before they go public (pre-IPO), potentially at lower valuations than they might later achieve on the stock market. However, unlisted shares also carry significant risks, including lower liquidity and limited information, requiring careful consideration and a long-term investment horizon.

The recently decided pension reform allowing opt-outs and withdrawals from private funds is likely to reduce the level of savings in Lithuania. Under the changes, proposed by the Lithuanian Ministry of Social Security and Labour, automatic enrolment in the second-pillar pension accumulation system will be eliminated, thus moving towards an 'opt-in' model, and enabling far-reaching withdrawal options with loose conditions (individuals will be allowed to fully exit the system or make a one-time withdrawal of 25% of their savings). At present, the Lithuanian second-pillar funds have accumulated around EUR 9.1 billion (11.6% of GDP) in savings, around EUR 1 billion of which is invested in the national market. An 'opt-in' model combined with a withdrawal option is likely to reduce the level of savings in Lithuania, further undermining capital market development and complicating access to finance.

1.19.7 Composition of HHs' financial assets



Source: Eurostat. End-2024.

Recent policy initiatives are aimed at promoting the level of retail participation. The Ministry of Finance recently approved a financial education plan (2024-2028) with particular attention dedicated to challenges for consumers and retail investors and also covering SMEs. Moreover, in an effort to boost household investment in capital markets, a long-term investment product has been operational since the beginning of this year that offers an alternative to other tax-supported long-term savings products (i.e. pension funds and life

[742] Data and surveys - SAFE - European Commission, 2024, Results by country, T20.

[743] Unlisted shares in Lithuania, also known as private limited company shares (UAB) or public limited company shares (AB) that are not traded on a stock exchange, can be bought and sold, but not through traditional exchanges. These transactions typically occur through over-the-counter (OTC) markets or private placements, often facilitated by intermediaries or investment platforms

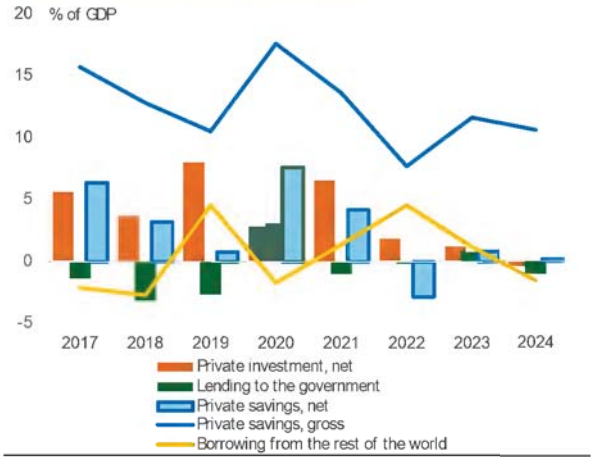
insurance products). This investment and savings account allows Lithuanian residents to invest more conveniently in different financial products that will be subject to tax only on the profits withdrawn, rather than on all the investment income intended for reinvestment. The initiatives also provide for a gradual phase-out of tax incentives related to long-term life insurance and third-pillar pension contributions, which will be applied over the next 10 years, and to contracts concluded by the end of 2024. Encouraging the build-up of universal funded supplementary pension schemes would positively contribute to (i) the sustainability and adequacy of pension benefits; (ii) investment in equity; (iii) access to finance; (iv) growth; and (v) innovation.

1.20 Luxembourg

Availability and use of domestic savings

The economy of Luxembourg displays a moderate net private savings ratio, with considerable fluctuations over the past decade. Net of fixed capital consumption, private savings averaged 3.7% of GDP between 2014 and 2023, peaking at 9.7% in 2014 and dropping to –2.9% in 2022. In contrast, the net private investment ratio was somewhat higher on average (4.8% of GDP), but also volatile, ranging from –0.4% in 2024 to 8.0% in 2019. The government budget balance over the same period showed a small average deficit of 0.9% of GDP, with notable surpluses in some years (e.g. 2020) and larger deficits in others (e.g. 2018). This combination of relatively modest net savings and relatively high investment means that Luxembourg has often been a net borrower from the rest of the world. On average, net borrowing stood at 0.2% of GDP between 2014 and 2023, although in some years the country was a net lender. Gross private savings remain structurally high, averaging 13.4% of GDP.

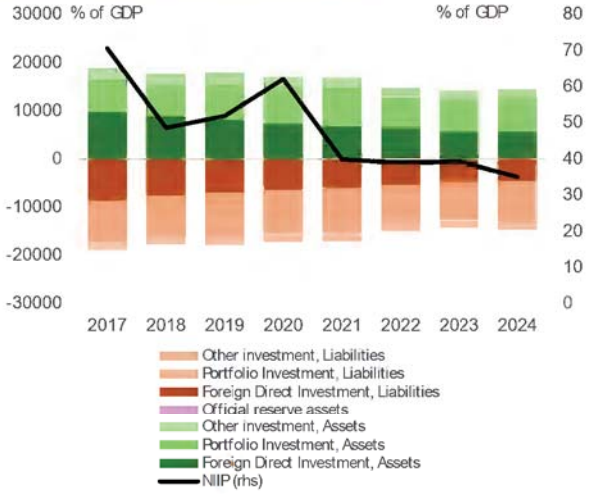
1.20.1 Net savings-investment balance



Source: AMECO.

Consistent with its status as a leading international investment funds hub, the Luxembourg economy has accumulated substantial foreign assets and maintains a positive net international investment position (NIIP). As of Q4 2024, total foreign assets amounted to approximately 14 600% of GDP, while liabilities to foreigners stood at about 14 100% of GDP, resulting in a net international investment position of roughly 500% of GDP. The accumulated net foreign direct investment assets reached around 1 204% of GDP. The portfolio investment balance remains a net liability due to the higher value of foreign portfolio investment liabilities compared to Luxembourg's portfolio assets, with net liabilities of approximately 1 473% of GDP. The stock of official foreign reserve assets is negligible in this context. Hence, while Luxembourg is deeply integrated in international capital flows and acts as a significant hub for foreign capital, it remains a strong net capital exporter, especially through direct and portfolio investments abroad.

1.20.2 International investment position



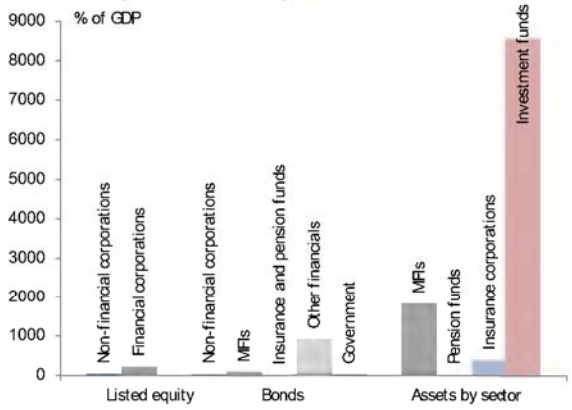
Source: ECB, Eurostat

Structure of the capital markets and size of the financial sector

Luxembourg's small economy is dominated by its financial sector, which is therefore larger in terms of employees and share in value added than in other countries. The value of shares issued by financial corporations listed in Luxembourg is extremely high relative to GDP at 213.7% versus EU average of 15.3%. On the other hand, the non-financial corporate sector is smaller, compared to other countries, with outstanding shares worth 34.3% of GDP, compared to EU average of 51.1%. The dominance of the financial sector is also reflected in the outstanding value of debt securities. While non-financial corporations issued bonds valuated at 27.8 of GDP at end-2024, this is dwarfed by bonds issued by other financial intermediaries. These other financial intermediaries comprise Special Purpose Entities (SPEs), leasing companies, securities dealers financial holdings , Venture Capital corporations.[744]

Luxembourg is a major European hub for investment funds and money market funds. It is the largest domicile for investment funds in the EU with EUR 7.3 trillion of assets (85-times the size of the economy). Luxembourg is the second largest domicile for MMFs in the EU, after Ireland. Luxembourg's MMFs hold EUR 608 billion in total assets. Its banking sector with assets worth EUR 960 billion, is the 8th largest by assets but huge relative to the size of the economy. The MFI sector, that is banks and money market funds together, have assets of 18 times the size of the economy.

1.20.3 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2024.

Luxembourg is also a hub for the European life insurance business. Insurance corporations domiciled in Luxembourg held assets equivalent to 382.3% of GDP at end-2024, dominated by life insurers that work across Europe, far exceeding the EU average of 55% of GDP. Luxembourg's pension funds sector is small and domestically focussed, with total assets of only 2.3% of GDP at end-2024 (see Graph 2.18.3).

Financing of the economy

Sources of NFC funding

Luxembourg's NFC sector has an unusually large balance sheet driven by the use of its financial centre for global financing. Large NFCs take advantage of Luxembourg's financial centre by establishing subsidiaries that issue debt or obtain bank loans in Luxembourg for their global operations. This explains the NFC sector's large balance sheet amounting to the equivalent of 468% of GDP in 2024, exceeding by more than double the EU average of about 225%. Moreover, Luxembourg NFCs show a relatively high share of financial loans in their funding structure (51%), nearly twice the EU average (27.2%). In fact, to finance their investments, Luxembourg companies rely less on internal resources than their EU peers, which is also confirmed by their relatively high

[744] The ECB defines Other Financial Intermediaries (OFIs) as a corporation or quasi-corporation other than an insurance corporation and pension fund that is engaged mainly in financial intermediation by incurring liabilities in forms other than currency, deposits and/or close substitutes for deposits from institutional entities other than MFIs, in particular those engaged primarily in long-term financing, such as corporations engaged in financial leasing, financial vehicle corporations created to be holders of securitised assets, financial holding corporations, dealers in securities and derivatives (when dealing for their own account), venture capital corporations and development capital companies. (see ECB.europa.eu)

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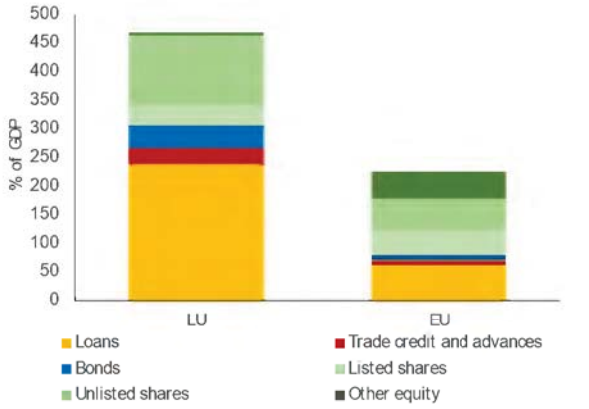
aggregate reliance on bonds, trade credit, and advances.

1.20.4 Composition of NFCs' funding



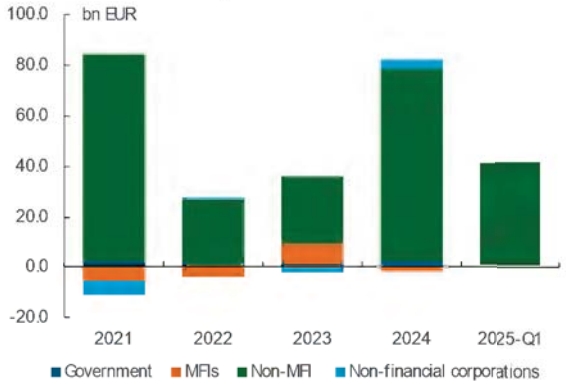
Source: Eurostat. End-2024.

Market finance

The Luxembourg Stock Exchange (LuxSE) is one of the world's leading exchanges for listing international debt securities. In addition to its prominent investment fund industry, Luxembourg boasts one of the largest secondary bond markets globally, having established itself as the preferred listing venue for bonds issued by Public International Bodies, sovereigns, and public agencies. By contrast, Luxembourg's equity market is relatively small by EU standards, with only 18 companies listed, making it the 8th largest stock exchange in the EU by market capitalization. LuxSE operates two distinct markets: the regulated European market known as the Bourse de Luxembourg (Bourse), and the Euro MTF (MTF), a multilateral trading facility. In September 2016, LuxSE became the first stock exchange worldwide to launch a platform dedicated exclusively to green financial instruments — the Luxembourg Green Exchange (LGX). LGX features issuers who allocate 100% of their raised funds to green investments and requires green securities to meet strict eligibility criteria. As of 2024, there are over 2 100 green, social sustainability and sustainability-linked bonds listed on on LGX worth € 1.2 trn.

Debt finance continues to be a significant source of market funding for companies in Luxembourg. In the first quarter of 2025 alone, NFCs issued EUR 41 bn of debt securities, which is more than half of the total amount issued in total over 2024. The increased momentum for bond financing may be related to the generally lower level of interest rates. In contrast, MFIs issued a negligible amount of debt in Q1 2025, suggesting that debt issuance plays a very limited role in the funding structure of banks, as opposed to deposits form other financial institutions and other funding means. The issuance of debt by the government was marginal over the last years, but is expected to pick up given that the general government balance is projected to turn to a deficit of 0.4% of GDP this year.

1.20.5 Net issuance of bonds

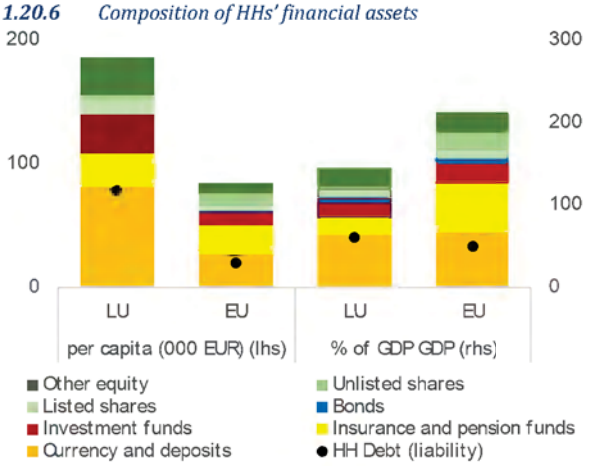


Source: ECB.

Retail participation in capital markets

Luxembourg households are among the wealthiest in the EU and they favour direct market investments over insurance and pension funds. Average financial household wealth in Luxembourg is estimated at EUR 186 100, making it one of the highest in the EU. Although Luxembourg households carry high debt levels (61% of GDP), these are offset in aggregate by equally large cash holdings (63.7% of GDP). In fact, most of households' gross wealth is held in deposits. Households show less interest in insurance and pension funds, which account for only 21.2% of their financial assets compared to an EU average of 59.2%. This suggests a preference for direct participation in financial markets rather than relying on intermediaries such as pension providers and insurance companies.

1.20.6 Composition of HHs' financial assets



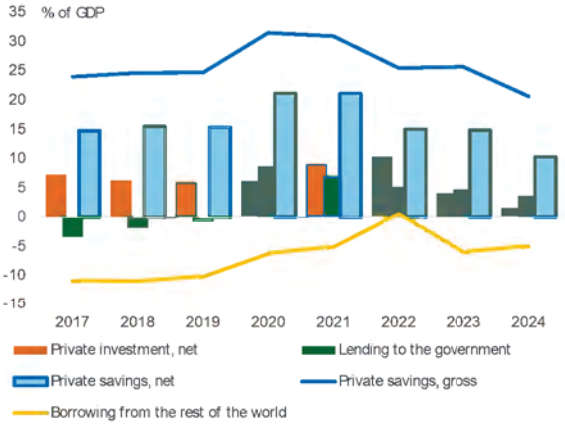
Source: Eurostat. End-2024.

1.21 Malta

Availability and use of domestic savings

The Maltese economy maintains its comparatively high net private savings and positive net external lending position. As of end-2024, the private savings ratio, net of fixed capital consumption, which has been historically very high, reached 10.3% of GDP, below its ten-year average of 15.7% of GDP (see Graph 2.19.1). The net private investment ratio, which measures the net contribution of the private sector to capital accumulation in the country, fell to 3.7% of GDP as of end-2024, significantly below its ten-year average of 7.1%. Since 2020 the government has started running deficits again, thereby absorbing private savings that averaged the equivalent of 2.3% of GDP in the period 2015-2024. As a result of these trends and structural changes, the Maltese economy has been a net creditor to the rest of the world for the equivalent of 6.3% of GDP per year over the last decade, with the notable exception of 2020, when it borrowed about 0.6% of GDP from abroad.

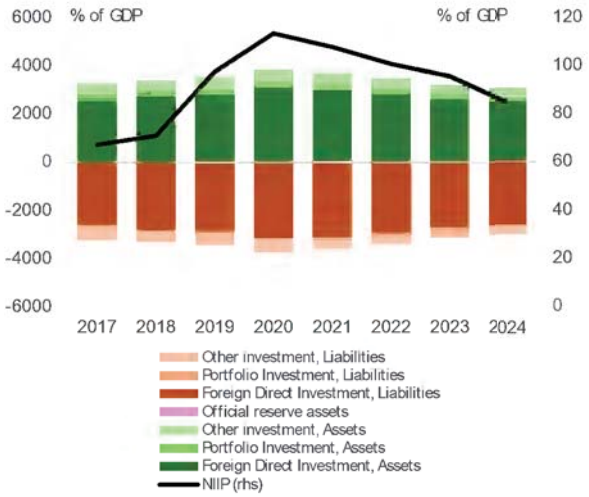
2.19.1: Net savings-investment balance



Source: AMECO.

Consistent with Malta's annual positive lending to the rest of the world, Malta maintained its position of a net annual creditor to the rest of the world. Malta's net international investment position (NIIP) increased from 67.3% in 2017 to 84.6% of GDP as of Q4 2024. NIIP peaked in 2020 at 113.6% of GDP and since then is gradually decreasing. Malta has an established international reputation as a jurisdiction that provides legal protection for establishing businesses and rerouting investments. Due to that national particularity, as of Q4 2024, total assets on foreigners reached the equivalent of 3100% of GDP, down from 3268% in 2017, while liabilities to foreigners stood at 3016% of GDP, down from 3201% in 2017 (see Graph 2.19.2). Though lately gross outstanding volumes of foreign assets and foreign liabilities declined, the Maltese economy remained exceptionally well-integrated in international capital flow, successfully increasing its net foreign wealth.

2.19.2: International investment position

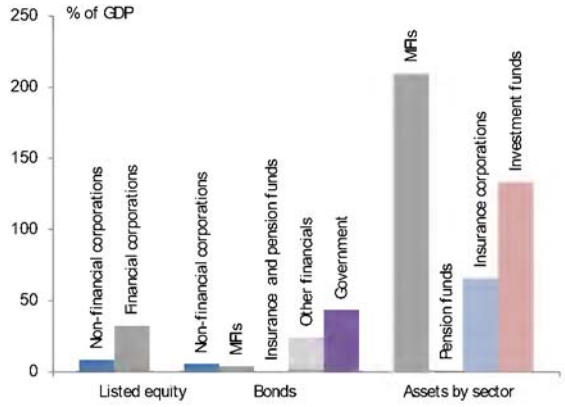


Source: ECB.

Structure of the financial sector

The capital markets in Malta appear as relatively underdeveloped, characterized by small market capitalization and a limited bond market. The market capitalisation of listed equity reached 40.8% of GDP at end-2024 (see Graph 2.19.3). Banks dominate in the share of market capitalization, as non-financial corporations accounted for only 21%, a sign of the high degree of financialisation of the Maltese economy. The domestic capital market is primarily composed of the equities market and the bonds market. The outstanding volume of debt securities reached 76.9% of GDP at end-2024. General government bonds accounted for 56% of the outstanding amounts. The remainder was distributed between banks (4%), non-financial corporations (7%) and other financial intermediaries (32%). Thus, the contribution of capital markets in Malta to the financing of the domestic economy, and especially of the private non-financial sector, appears to be very limited.

2.19.3: Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2024.

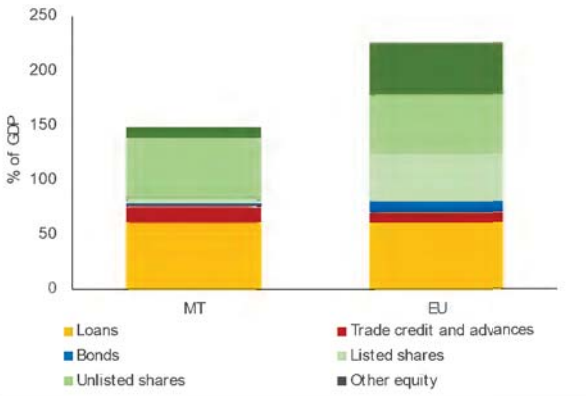
Banks continue to dominate the financial sector in Malta, but non-bank financial intermediaries have significant size as well. As of end-2023, banks' total assets, stood at of 209.5% of GDP, much lower than their 2020 size of 281% of GDP. Foreign banks, which were attracted by the special jurisdictional status of Malta but do not operate locally, significantly reduced their presence from 81% of total assets in 2020 to 58% as of end-2024. The insurance sector remains well developed with its total assets at the equivalent of 65.6% of GDP at end-2024. Investment funds are also very prominent in Malta, with total assets equivalent to 133% of GDP in 2024. However, most of the non-bank financial intermediaries use Malta as a registration jurisdiction and do not have local business ties.

Financing of the economy

Sources of NFC funding

Firms in Malta rely more on funding from banks and less on funding from capital markets than the EU peers. At the end of 2024, bank finance through loans constituted 41.7% of all funding sources for Maltese non-financial corporations (NFCs), while listed shares and bonds represented only 5.4% of the aggregate funding sources. The equivalent figures for the EU average are 27.0% and 23.8%, with the overall levels also substantially higher as a percentage of GDP (as the overall level of NFC funding was 148.3% of GDP in Malta and 225.6% of GDP for the EU average, see 2.19.4).

2.19.4: Composition of NFCs' funding



Source: Eurostat. End-2023.

Businesses in Malta depend more on internal financing than their European peers. According to the 2024 EIB Investment Survey, 79% of Maltese firms reported that their investment needs are covered by internal funding, compared to an EU average of 66%. At the same time, 83% of Maltese firms believed that their investment activities over the last three years were about the right amount, higher than the EU average of 80%, suggesting that there is no material financing gap relative to investment demand. However, this may not be the case for firms with no or limited capacity for internal funding, such as innovative start-up firms.

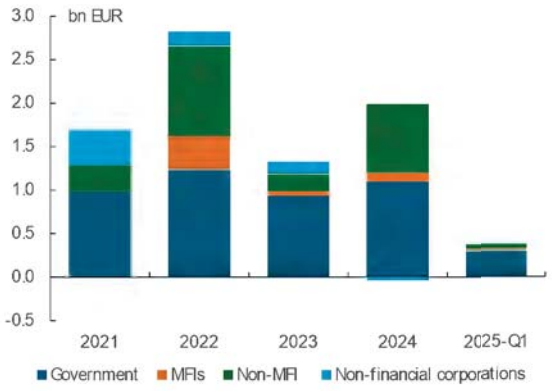
Market finance

Malta's capital markets are insufficiently deep and play a limited role in financing domestic firms. The Malta Stock Exchange (MSE) is the country's only regulated exchange and facilitates equity and bond trading and also provides clearing, settlement, depository and other security-related services. Traded volumes at the MSE are very low, at EUR 368 mn in 2024, including bonds, equity, exchange-traded funds (ETFs) and treasury bills, with trade in government bonds representing about half of the turnover. In terms of performance, the general stock market index in Malta heavily underperformed the Stoxx Europe 600 index, in particular after 2020 (see Graph 2.19.5). On the other hand, Maltese bank index kept the pace with relevant Stoxx Europe bank index.

2.19.5: Stock market performance

Source: London Stock Exchange Group[745].

2.19.6: Net issuance of bonds



Source: ECB.

Maltese companies are using capital markets less than their EU peers. Maltese NFCs have a higher share of unlisted equity compared to their euro area peers, which suggests that a large portion of corporate ownership remains private and that many businesses do not need or want to access capital by going public. Bond issuances are used more commonly as an instrument for raising funds than initial public offerings (IPOs) or stock listings. Over 2020-2023, Malta had the highest rate among all EU countries of NFC bond issuances as a percentage of total NFC financing, due to few large bond issuances.[746] In addition, Malta is a less capital-intensive economy than the EU average, which, when combined with the predominantly small size of its companies, creates less demand for capital market instruments. The use of equity by small and medium-sized enterprises (SMEs) is low, despite 13% of SMEs having indicated in the 2024 SAFE survey that equity was relevant for them, compared to an EU average of 11.7%.[747]

Retail participation in capital markets

Maltese households favour holding their financial assets in deposits and bonds. Compared to the EU average, Maltese households keep a much larger share of their assets in currency and deposits as well as bonds (see Graph 2.19.7) than EU average, which suggests a conservative approach to managing wealth. Also, their second largest exposure, around 20%, is in unlisted shares, which indicates presence of private or family-owned businesses. Maltese also keep a smaller part of their financial assets, in comparison to other EU countries, in insurance and pension funds. Two factors explain this outcome. First, despite a large insurance sector, given Malta's special jurisdictional status, the part of it that is relevant for residents is small. Second, the country does not have second-pilar pension scheme and about 85% of the members of third pillar pension funds are non-residents at the end of 2023, even though the number of domestic participants has risen rapidly since 2019.

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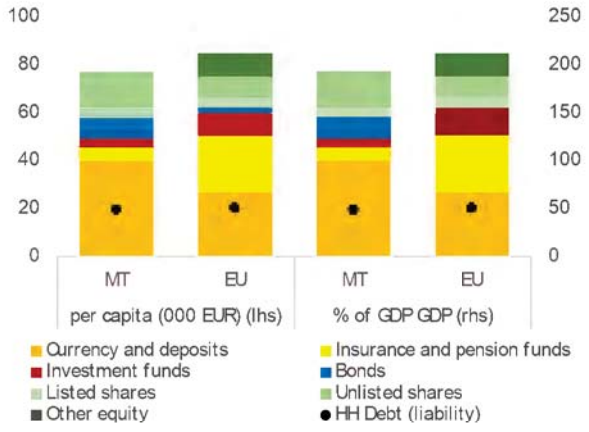
[746] AFME, CMU Key Performance Indicators, 2023.

[747] Data and surveys - SAFE - European Commission, 2024, Results by country, T27.

2.19.7: Composition of HHs' financial assets



Source: Eurostat. End-2023.

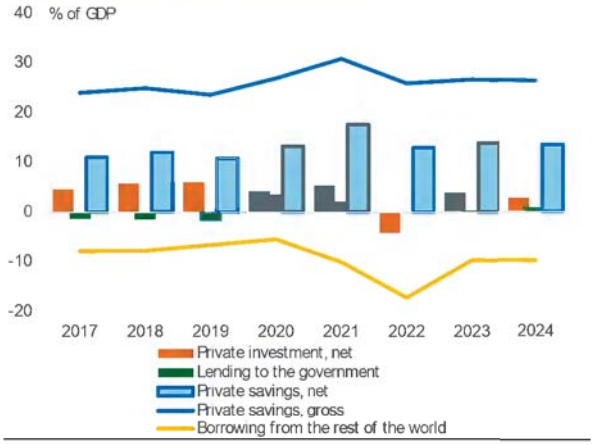
There is significant scope to increase the level of direct or indirect retail investment in Malta. Cash and deposits represent a much higher share of households' assets compared to the EU average (51.9% vs 31.7%), which gives an opportunity to develop and use other types of saving and investment options that may bring higher yield.

1.22 Netherlands

Availability and use of domestic savings

The Dutch economy invests the largest part of its relatively high net savings abroad. In the last decade, the private savings ratio, net of fixed capital consumption, persistently fluctuated around its ten-year average of 12.8% of GDP, reaching a maximum of 17.6% in 2021 (see Graph 2.20.1). The net private investment ratio, which measures the net contribution of the private sector to capital accumulation in the country, was significantly more volatile, exhibited a ten-year average of 4.0% of GDP and reached a maximum of 8.3% in 2015. In the last decade, the government budget balance, which showed quite some volatility, resulted in a comparatively low average deficit of 0.4% of GDP. Thus, the high positive balance between net domestic savings and net investment, together with the low government deficit, led to a structurally high net lending by the Dutch economy to foreigners that averaged 8.4% of GDP, with an exceptional peak of 17.2% in 2022, due to a capital account inflow triggered by the sale of intellectual property rights for about EUR 90 bn. Hence, most of Dutch net savings, i.e. after accounting for the investments that are necessary to merely maintain the existing capital stock in the economy, are used to finance projects abroad.

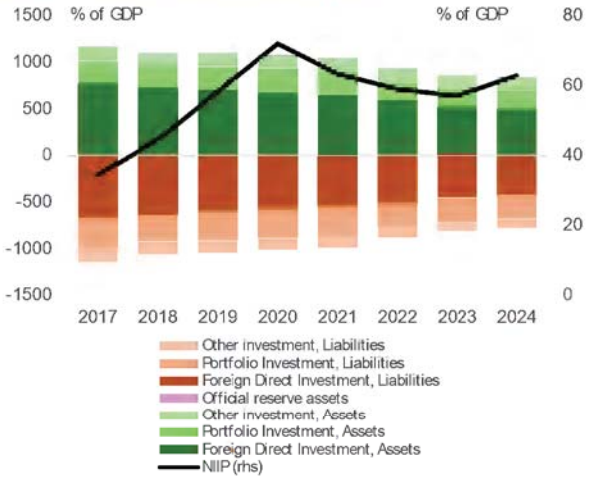
1.22.1 Net savings-investment balance



Source: AMECO.

Consistent with its regular position of a net creditor to the rest of the world, the Dutch economy has accumulated significant foreign assets and shows a positive net international investment position. As of end-2024, total assets on foreigners equated to 840% of GDP, while liabilities to foreigners stood at 777% of GDP, resulting in a net international investment position (NIIP) equivalent to 63% of GDP (see Graph 2.20.2). At the same time, the accumulated net foreign direct investment reached 70% of GDP, while the net stock of other investments rose to 35% of GDP. Due to the higher value of foreigners' investments in the Dutch capital markets than Dutch portfolio investments abroad, the portfolio balance showed a net liability equivalent to 49% of GDP as of end-2024. The stock of official foreign exchange reserves contributed almost 7 percentage points of GDP to the aggregate positive NIIP. Thus, while the Dutch economy appears to be deeply integrated in international capital flows, including as a major recipient of foreign capital, it remains nevertheless a net capital exporter, notably by means of direct and other investments abroad.

1.22.2 International investment position



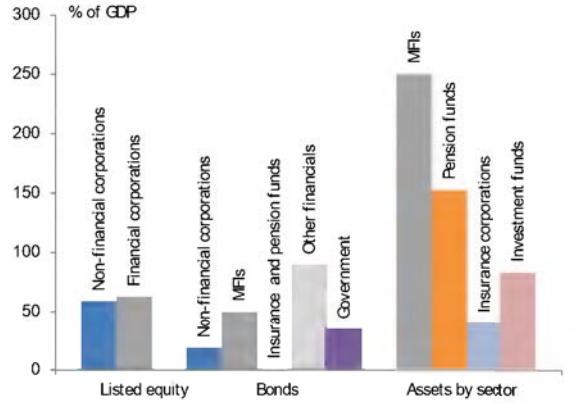
Source: ECB.

Structure and size of the financial sector

The Dutch economy stands out with one of the deepest domestic capital markets in Europe. Based on ECB data, the market capitalisation of listed equity issued by Dutch companies[748] reached 122% of GDP at end-2024 (see Graph 2.20.3), which is the fourth highest among member states, after Ireland, Denmark and Sweden. Characteristically, the total market capitalisation is split almost equally between non-financial and financial corporations, which reflects the strong role that finance plays in the Dutch economy. Interestingly, while the general stock market index in the Netherlands surpassed the EU average, the index of Dutch banks plummeted and never recovered from the post-GFC crash (see Graph 2.20.4). The Netherlands are also home to the ICE Endex, which is a leading energy exchange in continental Europe, including for TTF derivatives and EU emission allowances.[749]

The outstanding volume of debt securities reached 193% of GDP at end-2024, which is also among the most sizable national debt markets in the EU. Bonds issued by other financial institutions that are neither banks nor pension funds or insurance corporations represented the highest share with 47% of the total, followed by debt securities issued by banks (26%) and by the government (18%). The structure of the debt securities market in the Netherlands has been relatively stable over the last years, except for bonds issued by non-financial corporations, the share of which increased from 8% to 10% of the total.

1.22.3 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2023.

Even though the financial sector in the Netherlands remains dominated by banks, non-bank financial intermediation is very much developed along all segments. After peaking at 311% of GDP in 2020, the size of the banking sector decreased to 250% of GDP as of end-2024, which is in line with the EU average of 251% and slightly below the EA average of 268%. Foreign presence is limited and accounts for about 10% in terms of assets. With the top five MFIs representing 81% of the sector, banking concentration appears to be significantly higher than the EU average of 51%, which is also reflected in significantly lower inter-bank lending in the Netherlands than elsewhere in the EU. The pension funds sector, with total assets of 152% of GDP at end-2024, dominates non-bank intermediation and, together with Denmark, is among the largest[750] in the EU (see Graph 2.20.3). Investment funds, though their total assets dropped by almost 50 percentage points to 82% of GDP between 2020 and 2024, remain significant. Insurance corporations, whose assets were equivalent to 40% of GDP as of end-2024, are relevant as well, even if they appear less developed than the EU average of 55% of GDP.

[748] This figure is a proxy for the degree of development of the Dutch stock exchange, given that i) Dutch companies could be listed abroad and ii) foreign companies could be listed in the Netherlands as well.

[749] Fore further details, consult the ICE Endex institutional website.

[750] The Dutch pension funds sector, where occupational pension providers are set up under the IORP Directive, unlike in Denmark where they are set up under the Solvency II Directive, is sometimes reported as the fifth largest in the world. Such a country comparison is, however, highly inaccurate because of important structural differences in contributors' ownership rights across national regimes.

1.22.4 Stock market performance

Source: London Stock Exchange Group[751].

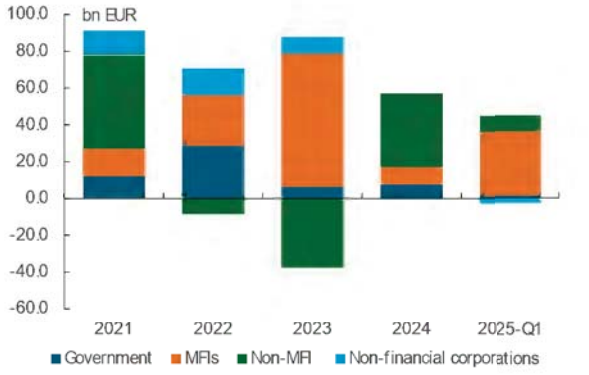
Financing of the economy

Market finance

Dutch capital markets, which offer a high investment protection environment[752], experienced positive developments, and investors continue to be optimistic about the future. Between December 2022 and mid-September 2025, the Amsterdam Exchange Index (AEX) increased by 32.8%, mainly thanks to improved valuations of technology companies[753] and high AI expectations. So far capital markets have weathered well the global geopolitical turmoil generated by the Gaza conflict and the energy crisis. However, risks still exist, and both the interconnectedness of markets and the increased trading of crypto assets warrant cautiousness.

Debt finance continues to be a significant source of market funding for banks and financial companies in the Netherlands. In the first quarter of 2025, banks issued almost EUR 35 bn of debt securities, which compares favourably to only EUR 8 bn for the whole of 2024 (see Graph 2.20.5). The other financial companies issued EUR 7.3 bn in Q1 2025, in line with the 2024 total of EUR 38 bn. The net issuance by non-financial corporations turned out negative, at – EUR 1.7 bn in Q1 2025, consistent with the 2024 negative total and the relatively low positive volumes from previous years. Hence, debt market finance appears as a minor source of funding for Dutch non-financial corporations.

1.22.5 Net issuance of bonds



Source: ECB.

Companies' funding and households' assets

Even though Dutch companies are more indebted than their EU peers on average, they rely relatively moderately on debt finance to fund their activities. Financial borrowing by non-financial corporations (NFCs) in the Netherlands reached 108.6% of GDP in 2024, which is significantly higher than the EU average of 71.6% (see Graph 2.20.6). However, given the overall much larger size of the aggregate balance sheet of Dutch NFCs, which reached 352.6% of GDP at end-2024 (versus an EU average of 225.6%), the relative share of financial loans in their funding structure (30.8%) is slightly lower than the EU average (31.7%).

To fund their investments, Dutch companies rely on internal resources more than their EU peers, which is also confirmed by the high aggregate reliance on unlisted equity. In 2023, Dutch NFCs financed almost four fifths (78%) of their investments with internal resources, well above the two thirds (66%) equivalent share of the average EU company. At the same time, only 8% of companies in the Netherlands believe they invested too little in the last three years, as opposed to 14% in the EU.[754] This suggests that there is a low overall investment gap. However, this may not be the

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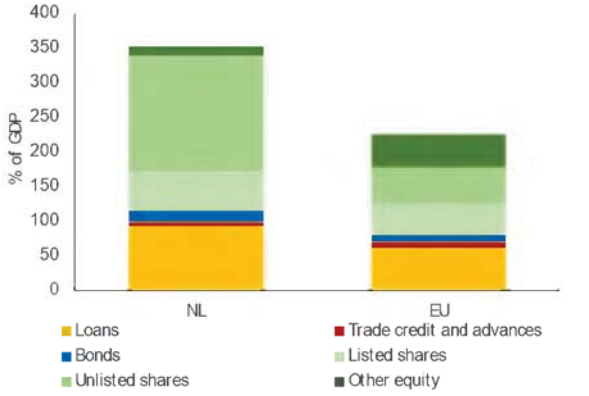
[752] According to the Overview of CMU Indicators, the investment protection index for the Netherlands stood at 68 in 2024, versus an EU average of 54.

[753] The Amsterdam stock market is home to several tech companies, specialised in semi-conductors and science materials, e.g. ASML Holding, BE Semiconductor Industries, and ASM International. Techs account for about one third of the total market capitalisation of the 25 companies that compose the AEX.

[754] For further details, see the 2024 EIB Investment Survey.

case for all firms, especially for the 4% of companies that consider themselves financially constrained.

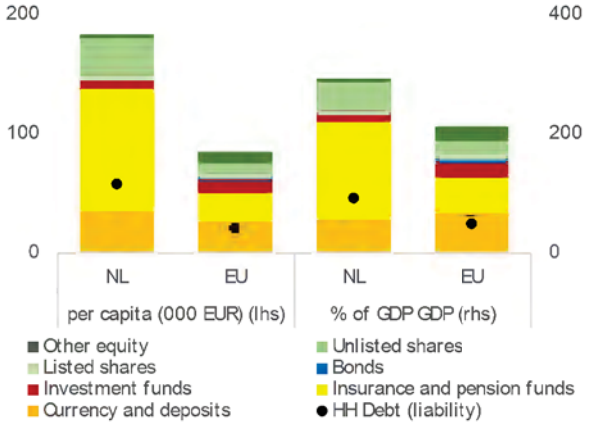
1.22.6 Composition of NFCs' funding



Source: Eurostat. End-2024.

Thanks to their large and mandatory contributions to asset-backed pension schemes, Dutch households hold high volumes of financial assets. As of end-2024, households' aggregate financial assets equated to 293% of GDP, which is above the EU average of 212%, but significantly behind the US average of 437%. Investments in insurance and pension funds (164% of GDP) are almost three times larger than the EU average (59% of GDP). However, direct holdings of bonds and equity are significantly lower, both in nominal amounts per capita and relative to GDP (see Graph 2.20.7). As of end-2024, Dutch households held less than 20% of their financial wealth in cash and bank deposits, as opposed to 32% on average in the EU.

1.22.7 Composition of HHs' financial assets



Source: Eurostat. End-2024.

1.23 Poland

Availability and use of domestic savings

Poland's economy channels a growing share of its net savings into domestic investment. The private savings ratio, net of fixed capital consumption, has steadily climbed over the past decade, averaging 9.3% of GDP from 2014 to 2024, with a peak of 14.2% in 2020 amid pandemic-induced caution (see Graph 2.21.1). The net private investment ratio, more volatile, averaged 5.8% of GDP over the same period and stood at 3.8% in 2024 as EU recovery and resilience funds spurred infrastructure spending. The 2025 and 2026 forecast points to a further rebound towards 3.5% and 4% respectively. As mentioned, government budget deficits have been on the rise, consequently the private sector's net lending to the government reached 6.6% of GDP in 2024. It is forecast to continue at a pace above 6% of GDP in both 2025 and 2026. Borrowing from the rest of the world remained slightly negative over the past decade at -0.3%. This points to a slowly changing positive net savings-investment balance which fuels some lending abroad.

1.23.1 Net savings-investment balance

Source: AMECO.

Between 2017 and 2024 the economy halved its position as a net debtor to the global market. As of end-2024, total assets held by Polish residents abroad reached 60% of GDP, while liabilities to foreigners were equivalent to 90% of GDP, yielding a net international investment position (NIIP) of -30% of GDP (see Graph 2.21.2). Foreign direct investment liabilities, standing at 46.6% of GDP, dwarf direct investment assets at 12% of GDP, underscoring the country's heavy reliance on foreign capital inflows. Portfolio investment liabilities, kept on decreasing over the years and stood at 18.4% of GDP in 2024, down from over 30% in 2017. Polish portfolio assets stood at 8.2% of GDP in 2024, contributing to the negative balance in Poland's NIIP. Official reserve assets remained at 25.3% of GDP in 2024, offering a safety buffer against external shocks. Other investment liabilities, at 25.1% of GDP, outweigh assets (14.5%),

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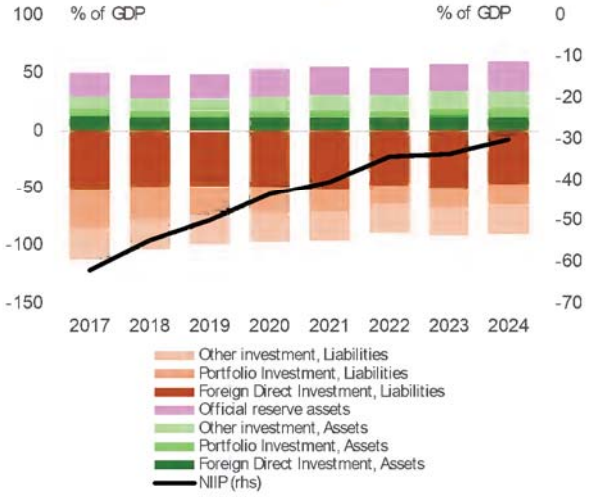
further deepening the NIIP deficit. This configuration highlights the economy's deep integration into international capital flows, predominantly as a recipient of foreign direct investment, supporting domestic growth while keeping Poland's persistent net debtor status.

1.23.2 International investment position

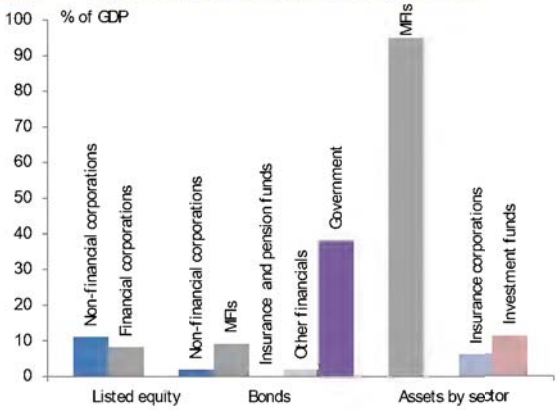


Source: ECB.

Structure of the capital markets and size of the financial sector

The domestic capital market is relatively modest in European comparison. The Warsaw Stock Exchange (WSE) is the primary platform for equity trading in Poland. The market capitalisation remained fairly stable in 2023 and 2024 at 19.2% of the GDP (see Graph 2.21.3), around a third of the European average of 68% the GDP. Non-financial corporations (NFC) account for approximately 57% of the capitalisation, underscoring the stock market's role in supporting mostly some of the largest Polish NFC. The outstanding volume of private sector debt securities stood at 12.7% of GDP in 2024, with monetary financial institutions (MFIs) contributing around 72% of this total, driven by a banking sector that plays a central role in providing financing for local households and corporate clients. General government bonds dwarf the rest of the bond market and account for 38.1% of GDP in 2024, influenced by increased public borrowing to fund infrastructure projects, energy transition initiatives and investments into defence amid geopolitical tensions.

1.23.3 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2024.

Poland's financial sector remains predominantly bank-driven with non-bank financial intermediaries gradually expanding their footprint. By end-2024 the banking sector's assets reached 95.1% of GDP, far below the EU average of 253.2% but well above any other part of the Polish financial system. The banking system is moderately concentrated with the top five lenders owning 58.5% of total assets. 58.6% of the sector is domestically owned with a large share (49.6%) of state-owned banks in the system. The insurance sector, with assets below 6.1% of GDP in 2024 is relatively small but it is a rapidly growing market segment of the domestic financial market. Pension funds are a mix between second pillar legacy funds (known as OFE) and third-pillar employee capital plans (PPK), which are slowly getting traction. Altogether pension assets represent about 6% of the GDP, whereas local asset managers have under management assets worth about 11.2% of the GDP.

1.23.4 Stock market performance

Source: London Stock Exchange Group[755].

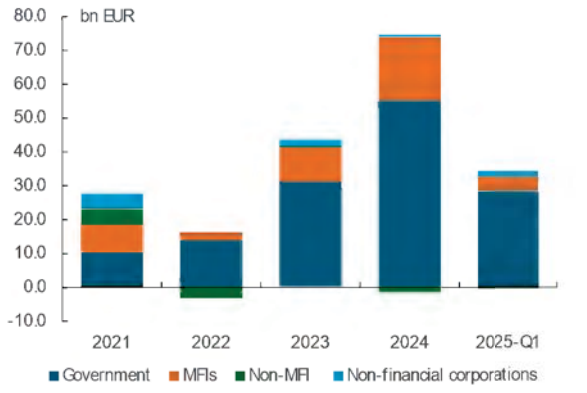
Financing of the economy

Market finance

Poland's capital market continues to draw substantial foreign interest. International investors account for about 65% of the equity turnover on the main market in 2023-2024. Domestic institutional players generated an aggregate 19% of turnover whereas retail investors share stood at 16%. The main market is dominated by blue-chip firms in banking, energy, and retail. The Initial Public Offerings (IPO) activity of the WSE remains overall rather subdued, with only a handful of companies listing on the main market in the years 2023 and 2024. 2024 saw in total nine listings on the main market totalling about EUR 1.53 bn in value, largely driven by the high-profile debut of convenience store giant Zabka Group at EUR 1.5 bn, alongside eight transfers from the NewConnect segment. The much smaller NewConnect (the SME market) is more dynamic but small and highly illiquid. The Polish government has launched several measures to bolster the capital market. The main one was the 2019 Capital Market Development Strategy, developed jointly with the EBRD and financed largely from EU funds. The strategy covered the period 2019-2023 and aimed to increase market liquidity and the role of capital market instruments in financing local NFCs. Overall, the equity market is underutilised in Poland and is hardly an alternative to bank loans. It mainly serves a handful of bluechip companies.

Poland's debt market is predominantly funding the public sector. The general government net issuance surged to EUR 55 bn in 2024, equivalent to 6.5% of GDP amid fiscal expansion to finance defence and social spending. 2025 will see most probably a record high level debt issuance by the government with EUR 28.4 bn in the first quarter of 2025 alone. Financial corporations, including MFIs issued in total some EUR 17.3 bn net in 2024, with non-MFI financials recording a negative net issuance of EUR -1.6 bn in 2024. NFC posted modest positive net issuance of EUR 0.8 bn in 2024 but rising to EUR 1.9 bn in Q1 2025, hinting at a nascent revival in corporate bond activity as benchmark interest rates started a descending trend. However, at the current juncture, Poland's debt market can be hardly perceived as a true alternative to banks loans. The debt market's depth lags EU averages and policymakers are eyeing some reforms to boost liquidity and green bond issuance.

1.23.5 Net issuance of bonds



Source: ECB.

Polish firms are heavily reliant on internal funding. According to the 2024 EIB Investment Survey, 72% of Polish firms' investment needs are covered through internal financing, against an EU average of 66%. This reliance on internal funds highlights on the one hand a rather cautious approach towards external funding overall, on the other hand it points out to some possible difficulties that the relatively small Polish firms (the vast majority being microenterprises) might have in accessing external financing. Notwithstanding these figures, 85% of Polish entrepreneurs believe that they

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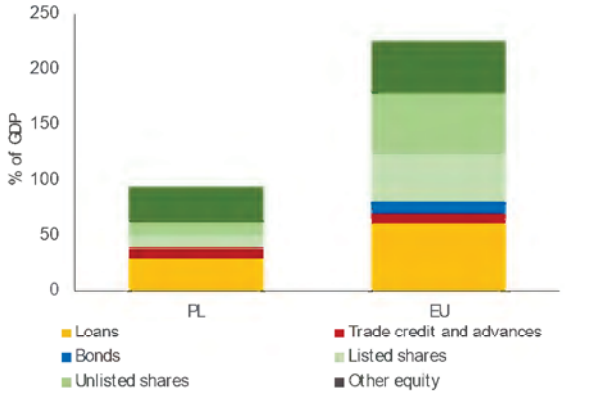
have made adequate investments to meet market needs over the past three years[756], compared to the EU average of 80%.

External NFC funding is mostly synonym of owners' equity and loans. The overall external NFC funding in Poland stood at 93.6% of the GDP in 2024 (see Graph 2.21.6), way less than the EU average of 225.6% the GDP. Not surprisingly, given the small size of Polish NFCs, firms' owners' equity remains the most significant item in the funding mix with over 33.7% of total external funding. This is followed closely by bank loans, the second main source of external financing representing 31.3% of the funding mix, a few percentage points above the EU's average of 27%. Market equity financing, through listed shares and bonds, represented a modest 12.5% of the funding mix, significantly lower than the EU's average of 23.8%. This pattern underscores the strong reliance of firms in Poland on traditional bank financing over capital market related funding, which given the small size of local firms is not surprising.

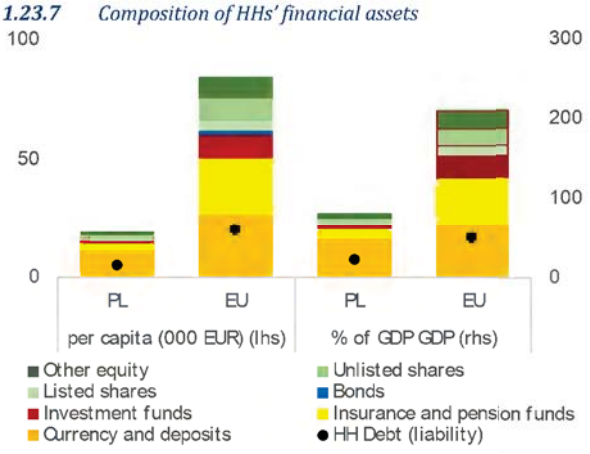
1.23.6 Composition of NFCs' funding



Source: Eurostat. End-2024.

Polish households are conservative when managing their financial assets. About 59% of the households' financial assets are held on current accounts and bank deposits, almost twice as the European average of ca. 32% (see Graph 2.21.7). The capital market participation of households trails other EU Member States. Polish households have about a quarter of their financial wealth invested in listed stocks, bonds, pension and investment funds. That figure is low when compared to the EU average of around 46.6% and reflects on the one hand the cautious behaviour of local households and, on the other hand their relatively low financial wealth compared to the EU average. In aggregate, Polish households have financial assets equivalent to 83.3% of the Polish GDP, whereas the EU average stands at 212.2% of the GDP. In 2023, the average monthly available income per capita in Poland stood at PLN 2917 (about EUR 677) and remains quite modest by European standards, whereas the savings rate in 2023 stood at 13.5%, similar level as the EU average according to Eurostat.

1.23.7 Composition of HHs' financial assets



Source: Eurostat. End-2024.

1.24 Portugal

Availability and use of domestic savings

Since 2017, Portugal's private sector maintained high gross savings but low net savings and modest net investment, reflecting subdued capital accumulation and a continued focus on deleveraging. Over the past decade, the gross private savings rate remained high and stable, averaging around 17.7% of GDP between 2014 and 2023, with a temporary increase above 20% in 2020–2021 and a moderate rise again in 2024 (18.6% of GDP). In contrast, net private savings were considerably lower, averaging just 2.6% of GDP over the same period. In a similar vein, private net investment, which measures the net contribution of the private sector to capital accumulation in the country, remained subdued but positive in most years since 2018, with a notable dip during the pandemic. It averaged just 0.9% of GDP between 2014 and 2023, indicating limited net capital accumulation by the private sector, partly reflecting a focus on deleveraging.

Since 2012, Portugal has maintained a positive net external lending position. The difference between private net savings and investment, combined with consistent public sector fiscal surpluses in recent years except during the pandemic years, helps explain why

[756] 2024 EIB Investment Survey

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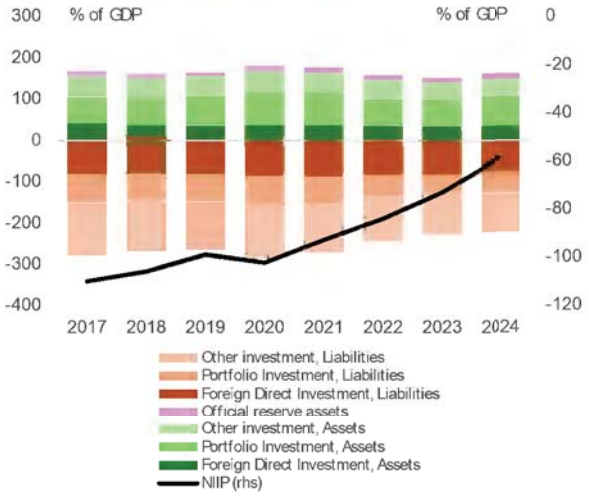
Portugal has remained a net external lender since 2012. This surplus ranged from 0.1 percent of GDP in 2020 to 2.9 percent in 2024.

1.24.1 Net savings-investment balance

Source: AMECO.

Consistent with its regular role of a net creditor to the rest of the world, the Portuguese net international investment position (NIIP) has steadily improved, although it remains in negative territory. Following Portugal's entry into the Economic and Monetary Union (EMU) in 1999, Portugal's NIIP deteriorated sharply driven by a domestic demand boom financed through external borrowing, particularly by financial institutions channelling funds into housing and consumption. The adjustment started taking place during the sovereign debt crisis when debt servicing costs reached 4% of GDP. Between end-2017 and end-2024, the NIIP further improved from –110% to –59% of GDP, a remarkable adjustment reflecting consistent current account surpluses since 2013. In particular, foreign direct investment liabilities have remained stable at around –80% of GDP, while assets declined slightly from 42.4% in 2017 to 35.0% in 2024. As a result, Portugal's net FDI position deteriorated modestly over the period. And in the category of "Other investment liabilities", the gross stock of liabilities fell sharply from –126.7% of GDP in 2017 to –94.2% in 2024, while assets also declined slightly, leading to a gradual improvement in the net position. Consequently, by end-2024, Portugal's NIIP stood at –58.8% of GDP, a notable improvement despite still being a net debtor economy in global financial flows.

1.24.2 International investment position

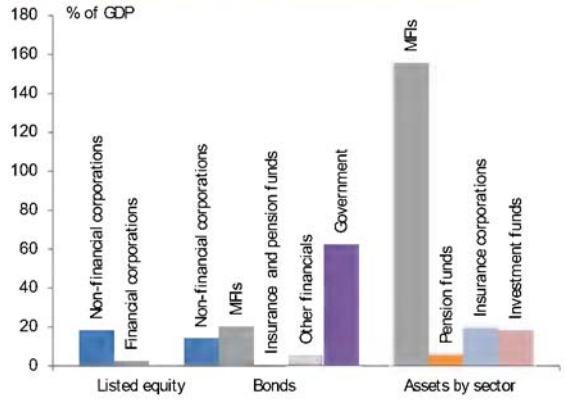


Source: ECB.

Structure and size of the financial sector

Portugal's domestic capital markets are moderately developed within the European context. The market capitalisation of listed equity reached 20.7% of GDP at the end of 2024. Of this, non-financial corporations accounted for 18.2%, while financial corporations represented only 2.5%. This relative underdevelopment places Portugal's equity market among the smaller ones in the European Union. In contrast, the debt securities market plays a more prominent role, with an outstanding volume of 102.8% of GDP. Government-issued bonds dominate the market, accounting for 62.4% of GDP, followed by bonds issued by banks with 20.4% and by non-financial corporations with 14.1%. The remaining 5.4% consists of debt securities issued by other financial intermediaries. This structure underlines the importance of public debt in Portugal, with corporate and bank debt playing a secondary role. The financial sector in Portugal remains predominantly bank-based. The assets of the banking sector reached 155.6% of GDP in 2024, well above those of other segments. Insurance corporations held assets equivalent to 19.5% of GDP, and pension funds accounted for just 5.7%, pointing to a relatively modest role for institutional investors and suggesting room for growth in long-term investment. By contrast, investment funds have gained traction, with total assets reaching 18.3% of GDP by the end of 2024, reflecting increased investor interest in capital markets.

1.24.3 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2024.

Financing of the economy

Market finance

Portugal's stock market is small and shrinking, with few listed companies and limited use of equity financing by firms. Portugal's only regulated market, the Lisbon stock exchange (LSE), is owned and operated by Euronext, the largest stock exchange operator in the EU. The LSE is relatively small and currently lists only 47 companies (53 in 2024). In fact, most Portuguese firms do not rely on capital markets to cover their financing needs. This explains why Portugal has one of the lowest share of SMEs indicating "equity" as a relevant mean of financing their business activity (in the ECB's "Survey on Access to Finance"). As a matter of fact, the Lisbon stock exchange had only 1 IPO in 2024 (one REIT). More importantly, Portugal has lost two-thirds of its listed companies over the last two decades.

The performance of Portugal's stock market has lagged behind broader European benchmarks such as the Eurostoxx Price Index. The PSI-20 Index, Portugal's main stock index, has shown some resilience since the euro area crisis, but its recovery remains incomplete, as it has not yet returned to levels seen before the global financial crisis. The index continues to be affected by market volatility and broader macroeconomic uncertainty. The Portuguese banking sector index has also faced persistent difficulties. It declined sharply during the financial crisis and has yet to regain pre-crisis levels, despite having almost tripled its value since June 2023 Structural challenges such as legacy non-performing loans continue to weigh on the sector.

1.24.4 Stock market performance

Source: London Stock Exchange Group[757].

Companies' funding and households' assets

Debt financing remains a modest but stable source of market funding for Portuguese banks and, to a lesser extent, for companies. In the first quarter of 2025, monetary financial institutions (MFIs) reported net debt issuance of negative EUR 0.5 bn, a reversal from the EUR 2.5 bn issued in 2024, suggesting a slowdown in market-based funding. Other financial corporations (non-MFIs) also showed negative issuance of negative EUR 0.3 bn in Q1 2025, compared to a modest EUR 0.6 bn in 2024. In contrast, non-financial corporations continued to make moderate use of market debt, issuing EUR 1.2 bn in Q1 2025, following a total of EUR 3.2 bn in 2024. These modest figures confirm the limited role of bond markets in corporate financing in Portugal. Meanwhile, government debt issuance remained significant, with EUR 6 bn in net issuance in Q1 2025, following EUR 11.8 bn in 2024, confirming the public sector's dominant role in the domestic debt market.

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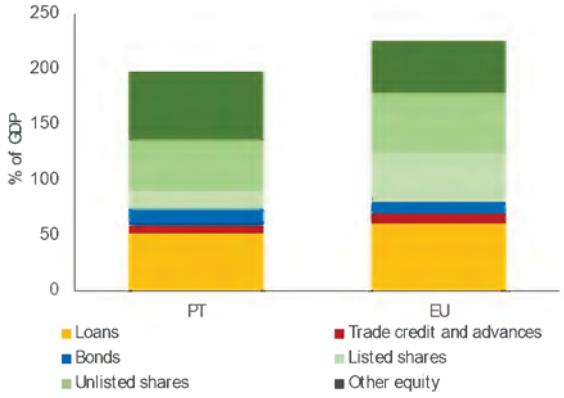
1.24.5 Net issuance of bonds

Source: ECB.

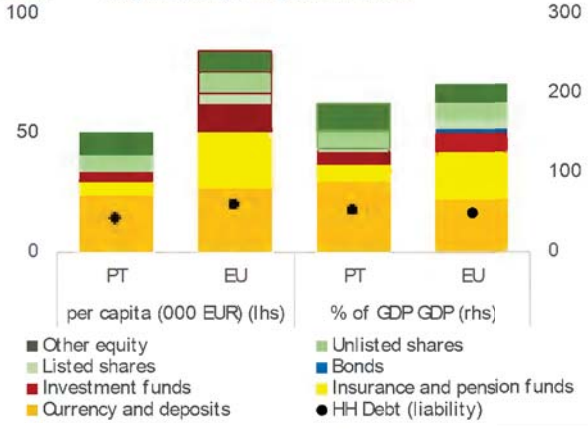
1.24.6 Composition of NFCs' funding



Source: Eurostat. End-2024.

Portuguese households strongly favor liquidity, with currency and deposits well above the EU average while their investments in capital markets, including insurance, pension funds, bonds, and listed shares, remain significantly below EU averages. Portuguese households exhibit a strong preference for liquidity, with their holdings in currency and deposits reaching 90.7% of GDP, well above the EU average of 67.6%. This contrasts sharply with their limited exposure to capital markets. Household investments in insurance and pension funds amount to 21.3% of GDP, less than half the EU average of 58.3%. Direct holdings of bonds (2.3% of GDP) and listed shares (3.0% of GDP) also fall significantly short of EU averages (5.6% and 10.0%, respectively). Similarly, investment fund allocations (12.5% of GDP) lag behind the EU (21.0%), while unlisted shares (22.7% of GDP) align closely with the EU average (22.6%). In per capita terms, Portuguese households allocate significantly less money to financial assets than the EU average, which is a natural consequence of the lower average savings rate and average disposable income.

1.24.7 Composition of HHs' financial assets



Source: Eurostat. End-2024.

1.25 Romania

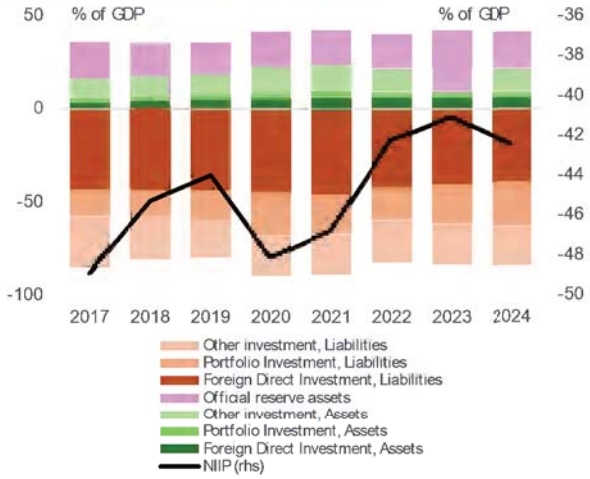
Availability and use of domestic savings

The Romanian economy invests its net savings domestically and also sources funding from abroad. From 2015 until 2024, the private savings ratio, net of fixed capital consumption, stood on average at 6.6% of GDP, peaking at 11.7% in 2023 and 2024 (see Graph 2.23.1). The net private investment ratio, which denotes the net contribution of the private sector to capital accumulation in the economy, recorded an average of 5% of GDP during the reference ten-year period and reached 10.2% in 2023. At the same time, during the same period the government has been running very sizable budgetary deficits, which during 2015-2024 on average amounted to a budgetary deficit of 5.1%. These recurrent and large general government budgetary deficits, combined with only a small positive difference between net domestic savings and net investment, resulted in structural net borrowing by Romania from foreign economies that averaged 3.5% of GDP, with a peak of 7.5% in 2022. Thus, the net savings in Romania have been invested domestically (to finance private investment or borrowing by the government), while they were also complemented by a substantial share of financing from abroad.

1.25.1 Net savings-investment balance

Source: AMECO.

1.25.2 International investment position



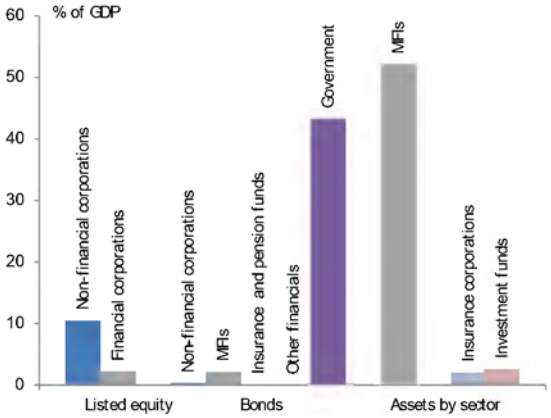
Source: ECB.

As a net borrower from the rest of the world, the Romanian economy has been recording a persistently negative net international investment position. As of Q4 2024, total assets on foreigners stood at around 42% of GDP, while liabilities to foreigners amounted to just above 84% of GDP, resulting in a net international investment position (NIIP) equivalent to 42.4% of GDP (see Graph 2.23.2). The only factor with a net positive contribution to the NIIP was the significant stock of official foreign reserve assets (at 19.9% of GDP), which reflects the central bank's focus on a relatively steady exchange rate of the leu, particularly against the euro. The incoming net foreign direct investment (-33.8% of GDP as of Q4 2024) accounted for most of the NIIP. The net portfolio investments, which are directly affected by the price volatility of equity valuations, have also been negative (at -19.8% of GDP as of Q4 2024), similarly to the net stock of other investments (at almost -9% of GDP). Thus, the Romanian economy seems well integrated in international capital flows as a recipient of foreign capital, remaining a net capital importer, notably in terms of direct investments.

Structure of the capital markets and size of the financial sector

The Romanian economy stands out with one of the most underdeveloped domestic capital markets in the EU. The market capitalisation of listed equity reached 12.7% of GDP at the end of 2024 (see Graph 2.23.3), which is well below the EU average of 66.8% of GDP. At the same time, non-financial corporations (NFCs) accounted for 83% of that capitalisation, which implies that the stock market in Romania is predominantly geared towards funding the non-financial segment of the real economy. The outstanding volume of debt securities reached almost 46% of GDP at end-2024, which is significantly below the EU average. Bonds issued by the government accounted for 95% of the total.

1.25.3 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2024.

Romania has the smallest banking sector in the EU. Starting from 56% of GDP in 2020, the size of the banking sector declined to 52% of GDP in 2024 (with

the EU average at 251%), which constituted the lowest ratio in the EU. The overall low degree of financial intermediation in Romania could be explained by:

(i) the large share of non-bankable NFCs that continue to have significant capitalisation weaknesses, and therefore have less access to finance;

(ii) weak payment discipline in the economy;

(iii) companies' reliance mainly on loans from suppliers and shareholders, rather than loans from financial institutions;

(iv) low rates of bank account ownership, with low-income individuals and adults outside the labour force among those least likely to have a bank account; and

(v) the modest degree of financial literacy.

While the financial sector in Romania remains dominated by banks, non-bank financial intermediaries also play an important role. Foreign presence is predominant and accounts for almost 63% in terms of bank assets. The consolidation in the banking sector has been ongoing in recent years through the acquisition of smaller, less profitable banks with weaker capital positions by larger credit institutions. Currently, banking concentration appears to be slightly higher than on average in the EU, with the top five MFIs representing around 63% of total bank assets. The insurance and pension funds sectors, as well as investment funds (with total assets of almost 2.1% of GDP and 2.5% of GDP at end-2024), play a very limited role in the financial intermediation.

1.25.4 Stock market performance

Source: London Stock Exchange Group[758].

Financing of the economy

Sources of corporate funding

The Romanian corporate sector is heavily reliant on internal financing. According to the 2024 EIB Investment Survey[759], for firms in Romania internal sources accounted for the largest share of investment finance (73%), followed by external finance (26%), with the remainder (1%) coming from intra-group financing. On average, in the EU, internal financing accounted for 66% of investment finance, followed by external finance (25%) and intra-group financing (9%). According to the 2024 EIB Investment Survey, many Romanian firms (66%) were satisfied with their overall level of investment over the last three years, but 30% reported investment gaps, twice as many as EU firms (14%). Romanian firms continue to focus their investments on replacement rather than capacity expansion, a focus that intensified in recent years.

Romanian companies rely relatively moderately on debt finance to fund their activities. Borrowing by non-financial corporations (NFCs) in Romania (including bank loans, trade credit and bonds) reached just 37% of GDP in 2024, which is significantly below the EU average of about 81% (see Graph 2.23.4). In particular, as a percentage of GDP bank loans and bond issuances by companies in Romania were considerably lower than for the average EU company. However, given the overall much smaller size of the aggregate balance sheet of Romanian NFCs, which reached only 61.3% of GDP at end-2024 (versus an EU average of 225.6%), the relative share of borrowing in their funding structure (41.9%) is slightly higher than the

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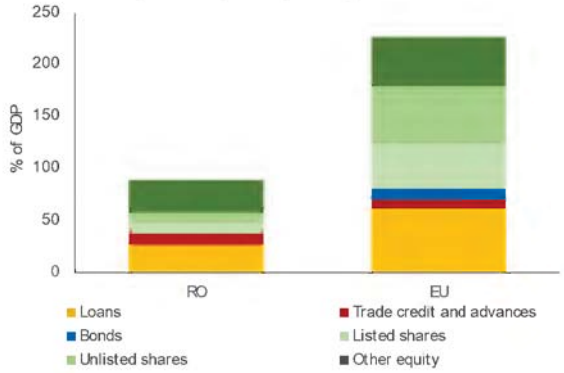
[759] See EIB Investment Survey 2024.

EU average (35.7%). Trade credit and advances represent an important part of non-financial sector liabilities (almost 11% of NFC funding in Romania, as compared with just under 4% on average in the EU), which creates liability interlinkages between companies and exposure to the risk of non-payment by customers. One of the reasons behind this type of financing is the large share of NFCs that have significant capitalisation weaknesses, and therefore have only limited access to external finance. Payment discipline in the economy remains weak.

1.25.5 Composition of NFCs' funding

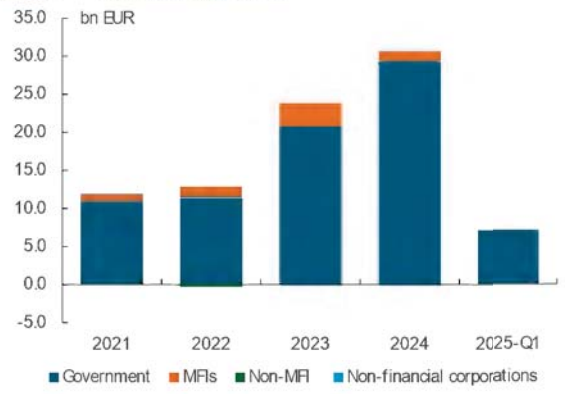


Source: Eurostat. End-2024.

Market finance

Romania's capital markets have significant room for growth. The Romanian stock market – the Bucharest Stock Exchange (BVB) – is characterised by a lack of dynamism, low capitalisation and low levels of liquidity, driven by a large number of inactive shares and low levels of companies' free-float.[760] Moreover, Romania does not yet have its own fully operational domestic central clearing counterparty (CCP). The underdeveloped stock market is partly a reflection of the Romanian corporate sector, with many companies showing low financial strength and negative equity. Despite these structural weaknesses, the trend in recent years has been very positive. Bucharest's BET stock index was among the world's best performers in 2024. This was mainly driven by the successful initial public offering (IPO) of Hidroelectrica in 2023, which revived the interest of domestic and foreign investors in the stock exchange. This IPO could be followed by the listing of other state-owned companies.

1.25.6 Net issuance of bonds



Source: ECB.

The corporate bond market remains underdeveloped. Although the domestic equities market is somewhat more advanced and active, the corporate bond market is among the least liquid in the region, with a relatively small number of outstanding bond issues (see Graph 2.23.6). This underperformance has not only significantly limited access to financing for large segments of the Romanian corporate sector, it has also increased institutional investors' reliance on Romanian government securities.

Romania has developed a comprehensive strategy to boost its capital markets: the national strategy for the development of the capital markets 2023-2026. This strategy sets out a series of recommendations that focus on improving the institutional, legal and regulatory framework, to enhance opportunities to develop the domestic market.[761] Certain key measures in this strategy have been adopted but not all have fully matured yet.

Retail participation in capital markets

One of the main obstacles to the expansion of Romania's capital markets is the limited levels of household savings and their low allocation to capital products. Retail investment remains relatively modest compared to other EU countries, partly due to limited disposable income and a cultural preference for traditional savings methods, such as bank deposits. As of end-2024, Romanian households almost 44% of their financial wealth in cash and bank deposits, as opposed to 32% on average in the EU (see Graph 2.23.7). Households' aggregate financial assets stood at 63% of GDP, which is below the EU average of 212%. Romanian households' investments across all categories are significantly below the EU average. For

[760] See Capital Market Review of Romania: Towards a National Strategy, 2022, OECD.

[761] See Decision No. 506/2023 approving the National Strategy for the Development of the Romanian Capital Market for the period 2023-2026, Official Journal, Part I, No. 478, 30 May 2023.

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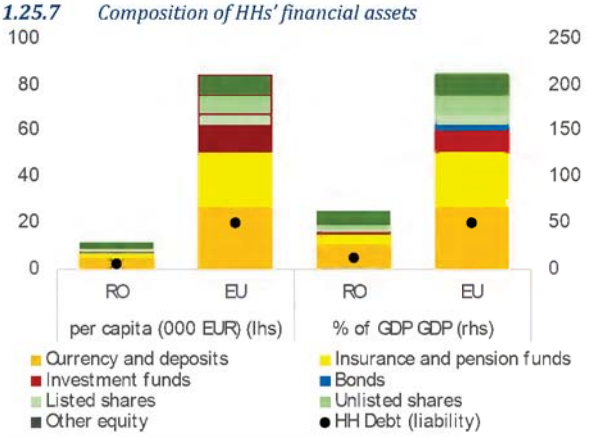
example, investments in insurance and pension funds, relative to GDP, are almost six times smaller than the EU average. Direct holdings of bonds and listed equity are also significantly lower, both in nominal amounts per capita and relative to GDP. One of the objectives of the national strategy for the development of the capital markets 2023-2026 is to increase the participation of individual investors in capital markets. Financial inclusion in Romania is still lagging behind EU peers.

1.25.7 Composition of HHs' financial assets



Source: Eurostat. End-2024.

1.26 Slovakia

Availability and use of domestic savings

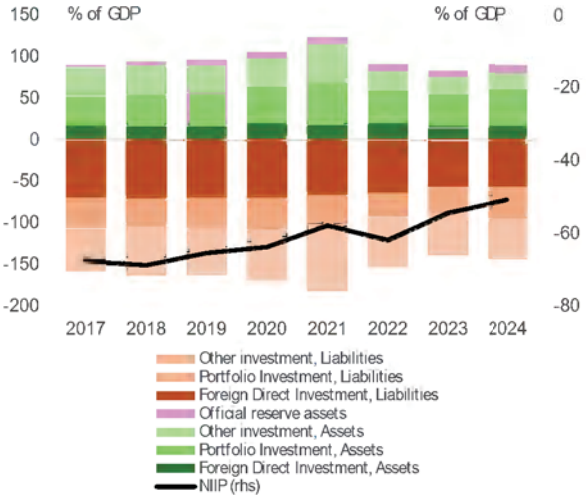
The growing net private savings of the Slovak economy have been supporting domestic private investment and public finances. In the last decade, the private savings ratio, net of fixed capital consumption, fluctuated around its ten-year average of 4.3% of GDP, reaching a maximum of 8.1% in 2024 (see Graph 2.24.1). The net private investment ratio, which measures the net contribution of the private sector to capital accumulation in the country, exhibited a ten-year average of 3.9% of GDP and reached a maximum of 5.8% in 2016. During the same period, lending to the government showed an average deficit equivalent to 3.1% of GDP. Thus, the slightly positive balance between net domestic savings and net investment, together with the substantial government deficit, resulted in net borrowing by Slovakia from foreign economies that averaged 2.7% of GDP, with a peak of 9.7% in 2022. Hence, Slovak private investment and public spending are partially financed by foreign savings.

1.26.1 Net savings-investment balance

Source: AMECO.

Slovakia has a negative net international investment position (NIIP) despite some rebalancing throughout the last years. As of Q4 2024, total foreign assets reached 92.2% of GDP, while liabilities to foreigners stood at 142.8% of GDP, resulting in a net international investment position (NIIP) equivalent to -50.6% of GDP (see Graph 2.24.2). This is a reduction compared to previous three years, owing to strong nominal GDP growth. At the same time, the net stock of foreign direct investment (FDI) stood at -40.8% of GDP as of Q4 2024. The net portfolio investments turned positive to 8.8% of GDP as of Q4 2024. The net stock of other investments amounted to -29.2% of GDP. The stock of official foreign reserve assets increased to 10.6% of GDP at the end of 2024, compared to 3.6% of GDP at the end of 2017. Thus, the Slovak economy appears to be well integrated in international capital flows, notably as a stable recipient of FDI and other investments.

1.26.2 International investment position

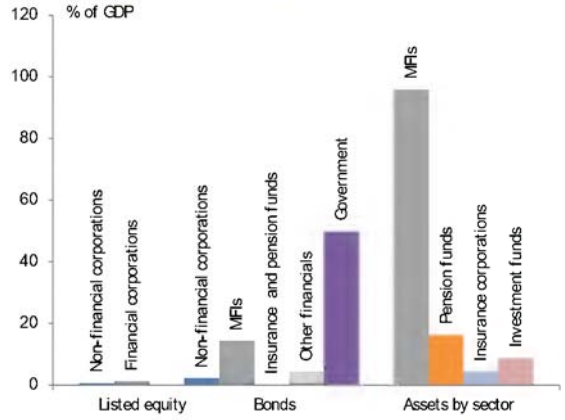


Source: ECB.

Structure of the financial sector

Banks dominate the financial sector in Slovakia and there is scope for the future development of all non-bank intermediaries. The banking sector is the largest segment of the financial services, accounting for 95.8% of GDP in 2024, which remains however significantly below the EU average of 251.1%. The assets of Slovak pension funds equated to 16.2% of GDP in 2024, which makes pension funds the second largest segment of the financial system after the banking sector. The total assets of investment funds accounted for 8.6% of GDP in 2024. The insurance sector assets accounted for only 4.2% of GDP in 2024 (EU average: 54.8%).

1.26.3 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2024.

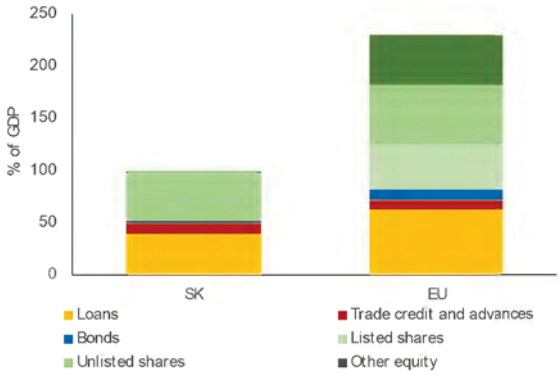
Capital markets in Slovakia remain underdeveloped. The market capitalisation of listed equity as a share of GDP is very small by EU standards, at 1.7% of GDP as of end-2024 (EU average: 66.8%) (see Graph 2.24.3). Non-financial corporations (NFCs) accounted for only 35.3% of that capitalisation. The outstanding volume of debt securities reached 70.4% of GDP at end-2024. However, marketable debt securities issued by NFCs accounted for only 3.1% of the total. Indeed, the domestic bond market in Slovakia is dominated by government securities, which accounted for almost 70.6% of the total bonds as of end-2024. Financial institutions, whether banks or not, accounted for the remaining 20.2% of the total debt securities.

Financing of the economy

Sources of NFC funding

Slovak companies rely a lot more than on average in the EU on funding from banks and much less on funding from capital markets. As a source of finance for Slovak NFCs, loans were equivalent to 39% of GDP as of end-2024, below the EU average of 60.9%. When expressed as a percentage of overall NFCs financing, loans accounted for a large share of all financing (40% versus the EU average of 27% at end-2024). On the other hand, Slovak NFCs' use of listed shares and bonds was much lower than the EU average, both expressed as a percentage of GDP (2.6 vs 53.8%) and as a percentage of overall NFC financing (2.4% vs 23.8%) at end-2024. The overall level of non-financial corporation (NFC) funding in Slovakia was equivalent to 93.5% of GDP, which is substantially lower than the EU average of 225.6% of GDP at end-2024 (see Graph 2.24.4).

1.26.4 Composition of NFCs' funding



Source: Eurostat. End-2024.

Slovak businesses also rely on internal financing, as do their peers in the EU. According to the 2024 EIB Investment Survey, the investment needs of 66% of Slovak firms are covered by internal funding, equivalent to the EU average of 66%.[762] At the same time, 82% of Slovak firms believe that their investment activities over the last three years were sufficient (close to the EU average of 80%), suggesting that there is no material financing gap relative to investment demand.[763] However, this may not be the case for firms with no or limited capacity for internal funding, such as innovative start-up firms (see further below).

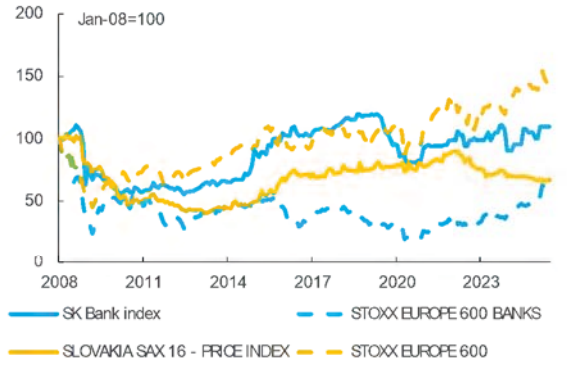
[762] EIB, 2024, 2024 EIB Investment Survey, p.29.
[763] Ibid, p.7.

Market finance

Slovakia's stock market remains under-developed. As mentioned before, the market capitalisation of listed equity was only 1.7% of GDP in 2024 (EU average: 66.8%). When looking at the stock market capitalisation of both shares and bonds, bonds accounted for 97.2% of market funding at the end of 2024.[764]

The main stock exchange in Slovakia is the Bratislava Stock Exchange (BSSE), that was established in 1991 and started trading in 1993.[765] The BSSE operates as a regulated marketplace where investors can trade a variety of financial instruments, including stocks, bonds, investment funds, and other securities. The official stock index for the Bratislava Stock Exchange is the **SAX** (***Slovenský akciový index***).[766] In terms of stock market performance, the index of the general stock market in Slovakia was below the EU average, while the index of Slovak banks was above the EU average (see Graph 2.24.5). Since 1992, the BSSE owns and operates the central securities depository CDCP-SR (*Centrálny depozitár cenných papierov Slovenskej republiky)*.

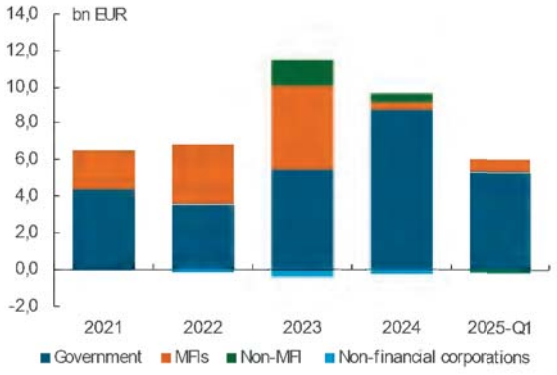
1.26.5 Stock market performance



Source: London Stock Exchange Group[767].

Net bond issuance continues to be dominated by government debt. In Q1 2025, the government issued EUR 5.3 bn of debt securities (91% of total net bonds issuance), compared to EUR 8.7 bn for the whole of 2024 (92% of total issued bonds). In Q1 2025, banks issued EUR 0.7 bn of debt securities (12.4% of total net bonds issuance), compared to EUR 0.4 bn for the whole of 2024 (see Graph 2.24.6). The net issuance of other financial companies was negative at EUR -0.2 bn in Q1 2025, compared to EUR 0.6 bn in 2024. Hence, debt market finance does not appear to be a major source of funding for Slovak non-financial corporations (NFCs).

1.26.6 Net issuance of bonds



Source: ECB.

In the past, Slovakia prepared a concept report on the development of capital markets, but this has not been updated. In April 2014, the Ministry of Finance, together with the Ministry of Economy, the NBS, the BSSE and the Central Securities Depository of the Slovak Republic (CDCP), developed a concept report for the development of the capital markets[768], which put forward a number of measures to modernise the capital market infrastructure. Moreover, in 2023 the Slovak Business Association prepared an analysis on how to promote alternative forms of raising capital for SMEs.[769]

Retail participation in capital markets

Slovak households hold about half of their financial assets in cash and deposits. Slovak households have a low savings rate (5.9% vs EU average: 14.4% in 2024), with a high share of cash and deposits in households'

764 NBS, 2024. Financial sector analytical data.

765 BSSE, 2024. 2024 Factbook.

766 BSSE, 2024. 2024 Factbook, Basket 31/12/24: Biotika (10.22%), Tatry mountain resorts (21.29%), Tatra bank (19.54%), Vipo (8.83%), Gevorkyan (20.86%), Dolkam Suja (19.26%).

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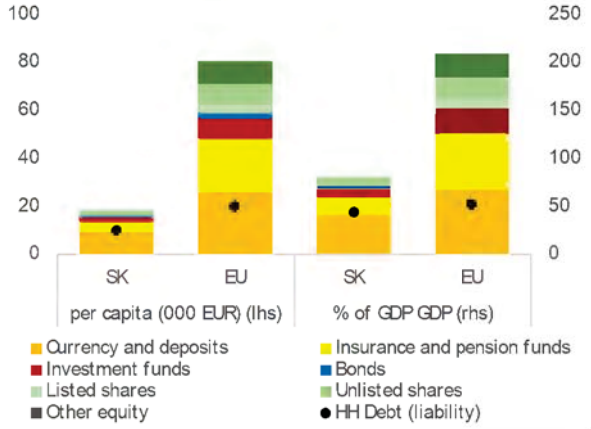
768 Ministry of Finance of the Slovak Republic, 2014, Concept for the development of capital market.

769 BSA, 2023, Alternative forms of raising capital for SMEs through the capital markets.

assets (49.6% vs EU average of 31.7% at end-2024). At end-2024, 40.8% of households' financial assets were held in pension and investment funds or held directly in financial investment instruments, but this still falls short of the EU average of 46.6%. More specifically, at end-2024, household's' direct holdings of investment insurance and pension funds was at 23.4% (EU average: 27.9%), investment funds at 12.5% (EU average: 11.1%), bonds at 4.1% (EU average: 4.9%), and listed shares at 0.8% (EU average: 4.9%) (see Graph 2.24.7). In Slovakia, direct and intermediated retail investment by households was 41.9% in 2023 (EU average: 56.2%).[770]

1.26.7 Composition of HHs' financial assets



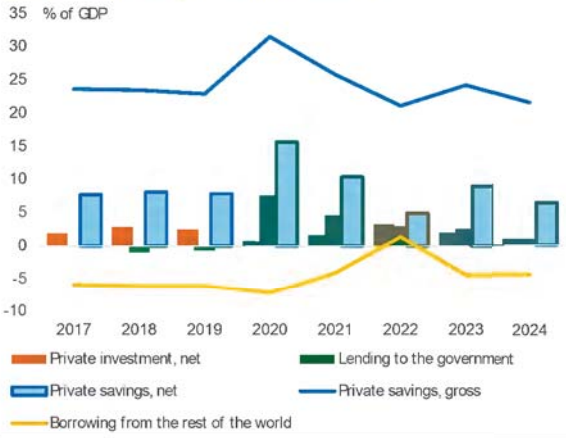
Source: Eurostat. End-2024.

1.27 Slovenia

Availability and use of domestic savings

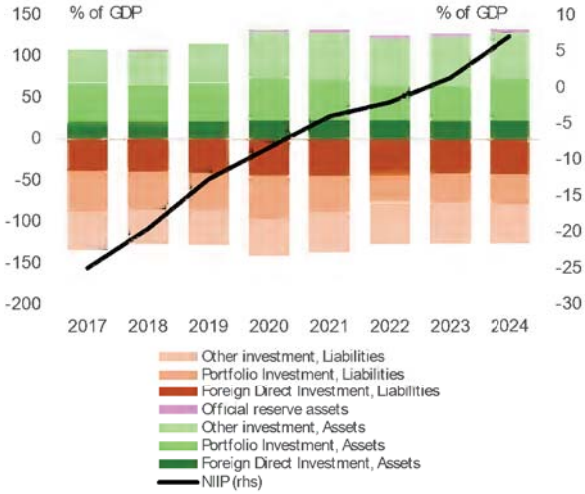
The Slovenian economy is a net creditor to the rest of the world. In the last decade, the private savings ratio, net of fixed capital consumption, persistently fluctuated around its ten-year average of 8.2% of GDP, reaching a maximum of 15.7% in 2020 (see Graph 2.25.1). The net private investment ratio, which measures the net contribution of the private sector to capital accumulation in the country, evolved quite differently. It exhibited a ten-year average of 1.3% of GDP, with a phase of negative investment from 2011 to 2016 followed by a phase of positive investment until now. During the same period the government budget was in regular deficit (except in 2017-2019) that averaged 2.2% of GDP with a peak at 11.2% of GDP in 2013 (banks' bail-out). Thus, the high positive balance between net domestic savings and net investment, together with the moderate government deficits, resulted in structural net lending by Slovenia to foreigners (except in 2022) that averaged 4.6% of GDP, with a peak of 7.2% of GDP in 2020.

1.27.1 Net savings-investment balance



Source: AMECO.

1.27.2 International investment position



Source: ECB.

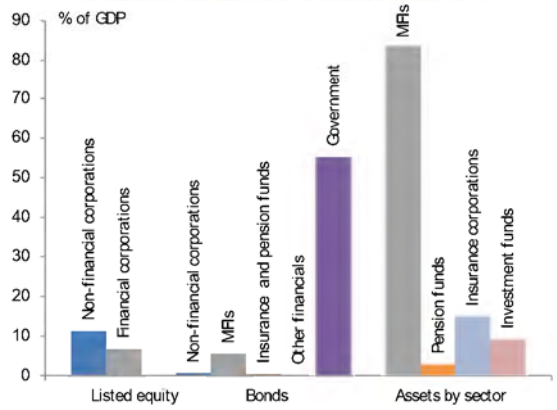
Consistent with its regular position of a net creditor to the rest of the world, the Slovenian economy has exhibited a positive and steadily improving net international investment position since 2023. As of Q4-2024, total assets on foreigners reached 133% of GDP, while liabilities to foreigners stood at 126% of GDP, resulting in a net international investment position (NIIP) equivalent to 7% of GDP (see Graph 2.25.2). While significantly negative in 2017 (-25%), the NIIP has steadily improved and it became positive for the first time in 2023. The accumulated net portfolio investments and other investments, which respectively

[770] European Commission, 2024, Overview of CMU Indicators – 2024 Update, Indicator 22.

reached 13% and 10% of GDP as of Q4-2024, accounted for most of the positive NIIP. In contrast, net foreign direct investments were significantly negative (-19% of GDP). Thus, while the Slovenian economy is a major recipient of foreign direct investment, it has recently become a net capital exporter, notably by means of portfolio and other investments abroad.

Structure of the capital markets and size of the financial sector

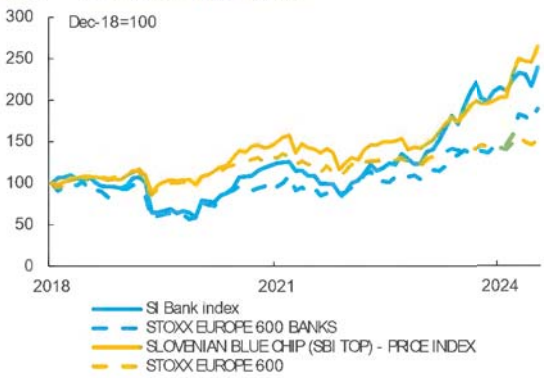
1.27.3 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2024.

The Slovenian domestic capital market lacks depth. The market capitalisation of listed equity is quite modest and reached only 18% of GDP at end-2024 (vs 67% in the EU) (see Graph 2.25.3). The index of Slovenian banks and the general stock market have both performed well since 2008, and significantly better than their European counterparts (see Graph 2.25.4). The outstanding volume of debt securities is very low as well and reached 62% of GDP at end-2024. Bonds issued by the government accounted for 89% of the total. This reflects the very high weight of the gross public debt in the Slovenian bond market.

1.27.4 Stock market performance



Source: London Stock Exchange Group[771].

All financial intermediaries, and in particular banks, are small in terms of GDP. Banks' assets represented 84% of GDP in Q4-2024 (vs. 251% in the EU), one of the lowest in the EU, sharply down from 150% in 2012. The insurance sector, with total assets of 15% of GDP at Q4-2024, dominates non-bank intermediation but much below the EU average (55% of GDP). The pension funds' assets are much smaller: they only represent 3% of GDP (vs 23% in the EU). Investment funds represent a relatively small share of 9% of GDP, below the EU median.

Financing of the economy

Sources of NFC funding

Firms in Slovenia rely on funding from banks rather than on funding from capital markets. More specifically, at the end of 2024, bank finance through loans constituted 26% (vs 27% in the EU) of all funding sources for Slovenian non-financial corporations (NFCs), while listed shares and bonds represented only 9% (vs 24% in the EU) of funding sources. When expressed in terms of GDP, the overall level of NFC funding was lower in Slovenia (124% of GDP) than in the EU (226%), see Graph 2.25.5.

As a result, Slovenian businesses depend more on internal financing than their European peers. According to the 2024 EIB Investment Survey, 74% of investment needs of Slovenian firms are covered by internal funding, compared to an EU average of 66%. At the same time, 81% of Slovenian firms believe that their investment activities over the last three years were about the right amount, in line with the EU average

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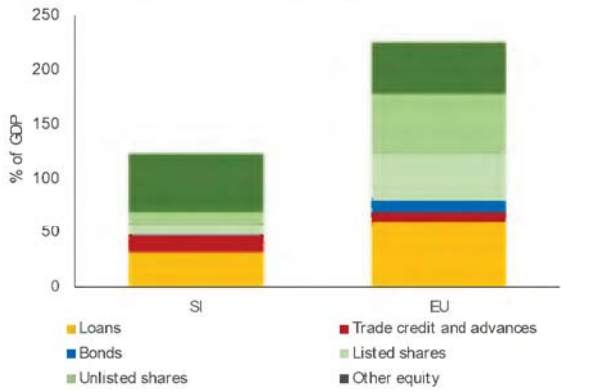
(80%), suggesting that there is no material financing gap relative to investment demand. However, this may not be the case for firms with no or limited capacity for internal funding, such as innovative start-up firms (see further below).

1.27.5 Composition of NFCs' funding



Source: Eurostat. End-2024.

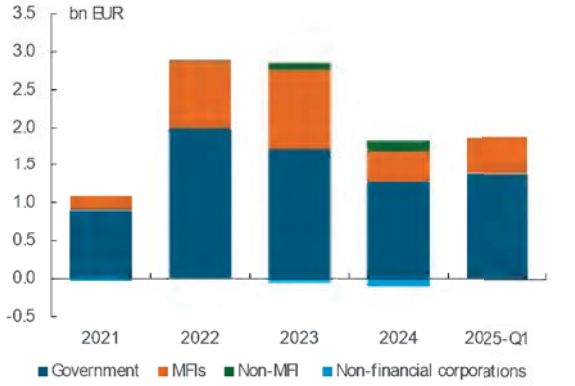
Market finance

Slovenia's capital markets are under-developed. The main stock exchange in Slovenia is the Ljubljana Stock Exchange. The equity market is very small in terms of capitalisation (17.9% of GDP vs an EU average of 67% as of end-2024) and volumes traded, and even more so when compared with the US (213%). The market breadth of bond markets has steadily decreased since 2018 and is largely below the EU average (0.6 vs 1.5). The bid-ask spread on equity markets is much higher than the EU average (12.6 vs 1.6). The use of equity by SMEs is relatively high, as 23% of SMEs indicated in the 2023 SAFE survey that equity was relevant for them, compared to an EU average of 12%.[772]

Some reforms are underway. The recovery and resilience plan included two reforms aimed at strengthening capital markets in Slovenia, namely (i) the adoption of a new act on forms of alternative investment funds and (ii) the implementation of a new strategy for Slovenian capital markets, setting out specific measures for further development.

Debt finance is a minor but increasing source of funding for financial companies in Slovenia. In 2024, banks issued EUR 0.4 bn of debt securities, down from EUR 1 bn in 2023 (see Graph 2.25.6), but the issuance observed in Q1-2025 (EUR 0.5 bn) seems to reverse this declining trend. The other financial companies issued EUR 0.14 bn in 2024, up from EU 0.09 bn in 2023, but no issuance yet in Q1-2025. The (negative) net issuance by non-financial corporations steeply decreased from EUR -0.05 bn in 2023 to EUR -0.10 bn in 2024, with no substantial issuance in Q1-2025. Hence, debt market finance appears as a minor and decreasing source of funding for Slovenian non-financial corporations.

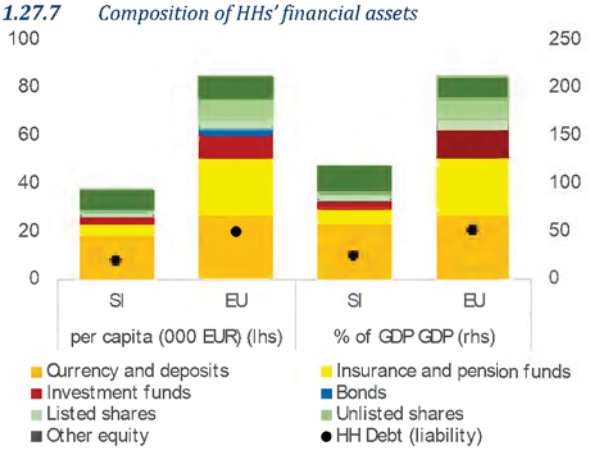
1.27.6 Net issuance of bonds



Source: ECB.

Retail participation

1.27.7 Composition of HHs' financial assets



Source: Eurostat. End-2024.

Slovenian households do not invest enough in financial assets and, more importantly, equity. Slovenian households' financial assets equated to 119% of GDP in 2024, less than the EU average (212%) and much less than the US (446%). Worse, assets invested in equity equated to only 52% of GDP, below the EU average (91%) and almost six times below the US (291%). Slovenian households invest relatively little in investment funds, bonds, shares and insurance and pension funds, while allocating a

[772] Data and surveys - SAFE - European Commission, 2023, Results by country, T27.

significant portion to deposits, which generate much lower returns than equity.

The design of the overall pension system is not geared towards equity investment and the development of capital markets. The pay-as-you-go nature of the public pension system means that only the supplementary private schemes invest in high-return assets like equity. However, the supplementary private schemes are not universal and accumulated rights often remain limited for those covered. As a result, they only contribute to a moderate extent to the total pension income and do not fully foster the development of capital markets. Encouraging the build-up of universal funded supplementary pension schemes would positively contribute to (i) the sustainability and adequacy of pensions benefits; (ii) investment in equity; (iii) access to finance; (iv) growth; and (v) innovation.

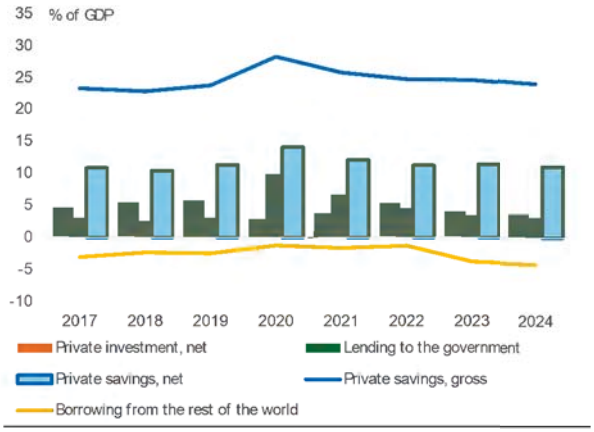
Slovenia's new individual investment account discriminates against foreign financial instruments. On 27 May 2025, Slovenia adopted a law introducing individual investment accounts aimed at promoting retail investment in financial instruments. In order to benefit from the preferential scheme, investors may invest up to EUR 5,000 per year, with an additional EUR 5,000 permitted if invested in Slovenian securities. The total outstanding amount on the account is capped at EUR 150,000. This distinction between domestic and foreign financial products effectively incentivizes investment in Slovenian-issued instruments and puts foreign companies at a disadvantage. It raises concerns about the measure's compatibility with the EU single market's fundamental freedoms—particularly the free movement of capital. Consequently, a pilot letter has been sent to Slovenia regarding this issue.

1.28 Spain

Availability and use of domestic savings

The Spanish economy invests the bulk of its net savings domestically. From 2015 until 2024, the private savings ratio, net of fixed capital consumption, stood on average at 11.6% of GDP, reaching a maximum of 14% in 2020 (see Graph 2.26.1). The net private investment ratio, which denotes the net contribution of the private sector to capital accumulation in the economy, recorded an average of 4.4% of GDP during the reference ten-year period and reached 5.8% in 2019. At the same time, during the same period the government has been running recurrent and sizable budgetary deficits, which during 2015-2024 on average amounted to a budgetary deficit of 4.6%. Regardless of these general government budgetary deficits, the sustained and positive difference between net domestic savings and net investment, resulted in structural net lending by Spain to foreign economies that averaged 2.6% of GDP during 2015-2024, with a peak of 3.7% in 2023. Thus, most of the net savings in Spain have been invested domestically (to finance private investment or borrowing by the government), while a comparatively smaller share was used to finance projects abroad.

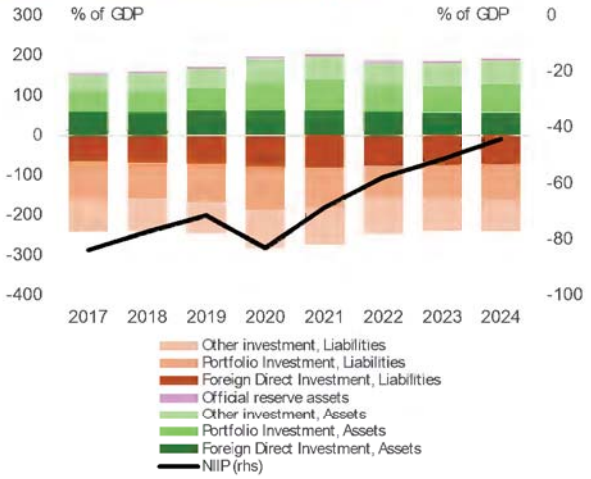
1.28.1 Net savings-investment balance



Source: AMECO.

While the Spanish economy has accumulated significant foreign assets, the even more sizable investments from abroad have resulted in a negative net international investment position (NIIP). In 2024, total assets abroad reached 194% of GDP, while liabilities stood at almost 239% of GDP, resulting in a NIIP equivalent to -44.2% of GDP (see Graph 2.26.2). The stock of official foreign reserve assets, which amounted to 6.5% of GDP, was the only factor that contributed positively to the NIIP. All investment categories contributed to a similar extent to the negative NIIP. The net portfolio investments, which are directly affected by the price volatility of equity valuations, stood at almost -16% of GDP in 2024, while net foreign direct investment was at 15%. The net stock of other investments amounted to -21% of GDP. While the Spanish economy seems well integrated in international capital flows as a source of foreign capital, it remains a net capital importer across all investment categories.

1.28.2 International investment position



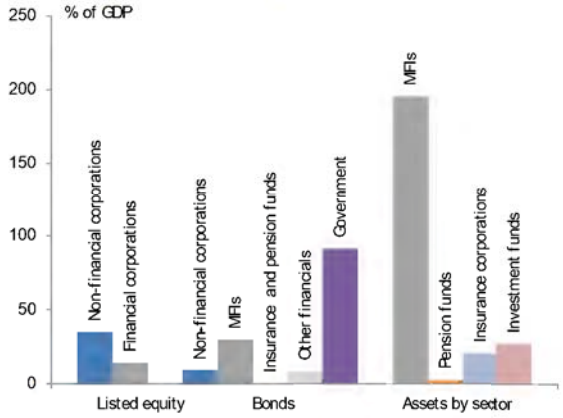
Source: ECB.

Structure of the capital markets and size of the financial sector

The Spanish economy stands out with one of the domestic capital markets with potential for further growth in the EU. The market capitalisation of listed equity reached 49% of GDP at the end of 2024 (see Graph 2.26.3), which is well below the EU average. At the same time, non-financial corporations accounted for 71% of that capitalisation, which implies that the stock market in Spain is to a large extent geared towards funding the non-financial segment of the real economy. The outstanding volume of debt securities reached 138% of GDP at end-2024, which is in line with the EU average. Bonds issued by the government and monetary financial institutions (MFIs) accounted for almost 66% and 21% of the total, respectively.

While the financial sector in Spain remains dominated by banks, non-bank financial intermediaries also play an important role. Starting from 256% of GDP in 2020, the size of the banking sector steadily declined to 196% of GDP in 2024, which remains below the EU average of 251%. Several large Spanish banking groups (in particular Santander and Banco Bilbao Vizcaya Argentaria) have substantial international operations, notably in Latin America, United Kingdom and Türkiye. The Spanish banking sector is predominantly domestically owned, with the top five lenders owning almost 68% of total banking sector assets. The insurance and pension funds sectors, with total assets of almost 21% of GDP and 11% of GDP at end-2024, play a lesser role in the non-bank intermediation (see Graph 2.26.3). Investment funds also play a role, even though their total assets dropped by around 2 percentage points to almost 28% of GDP between 2021 and 2024.

1.28.3 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2024.

Financing of the economy

Market finance

1.28.4 Stock market performance

Source: London Stock Exchange Group[773].

Over the past fifteen years, Spanish companies have gradually moved towards a more balanced financing structure. In 2008, their aggregate funding was composed of 63% debt and 37% equity. By 2024, the split had become nearly even—53% debt and 47% equity—largely driven by "other equity" such as

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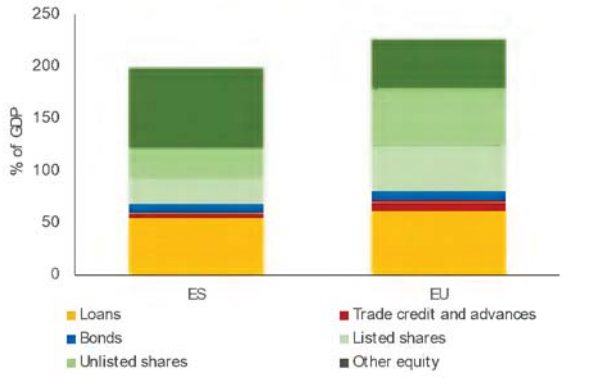
limited liability shares. Despite a slowdown in revenue growth in 2024, Spanish firms continued to improve their financial and balance sheet positions. However, this favourable financial standing did not translate into a significant pickup in investment. Business investment grew by 3.6% compared to the previous year, falling short of nominal GDP growth (6.2%). As of 2024, Spanish non-financial corporations (NFCs) relied slightly less on loans (57.9% of total liabilities) than the EU average (62.7%) and significantly less on market-based instruments such as listed shares (22.0% vs. 43.9%) and bonds (8.2% vs. 10.8%). Trade credit and advances also accounted for a smaller share in Spain (4.9% vs. 8.7%). In contrast, Spanish firms made greater use of other equity (76.4% vs. 47.8%), possibly reflecting the specific legal form of own funds in Spanish SMEs. Overall, this points to a more bank-oriented and less capital market-intensive funding model for Spanish NFCs compared to their EU peers.

Corporate funding and households' assets

In 2024, Spanish companies continued to rely primarily on debt issuance to obtain financing from financial markets. Notably, an increasing number of smaller firms accessed alternative markets for the first time to raise funding, both through debt and equity instruments. However, overall private debt issuance by Spanish entities declined in 2024 in gross terms compared to 2023. This decrease was largely driven by the financial sector, whose issuance fell by 16.1% over the year, totalling EUR 151.8 bn. The non-financial sector also saw a reduction, issuing EUR 40.7 bn — 7% less than in the previous year.

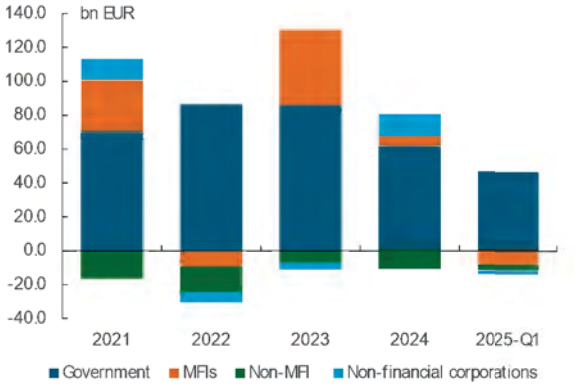
1.28.5 Composition of NFCs' funding



Source: Eurostat. End-2024.

At the end of 2024, the number of companies listed on Spanish stock exchanges stood at 129, one more than in 2023, yet remaining at its lowest level in the past 25 years. Notably, the Spanish company Puig Brands led the IPO activity by size in Europe in 2024The market capitalization of Spanish stock exchanges increased by 11.8% in 2024, driven by market revaluation, reaching nearly EUR 768 bn, its highest level since 2007. For the second consecutive year, the textile sector recorded the largest market capitalization growth, thanks largely to the revaluation of Inditex, followed by the banking sector. Market concentration continued to rise, surpassing 2023 levels. Only five stocks accounted for more than half of the total market capitalization, repeating the list of the largest stocks seen in previous years. The top three companies increased their share further, representing nearly 40% of the market. Capital market financing by companies recovered compared to the previous two years, with 66 operations amounting to EUR 7.93 bn, though below the average levels over the last decade.

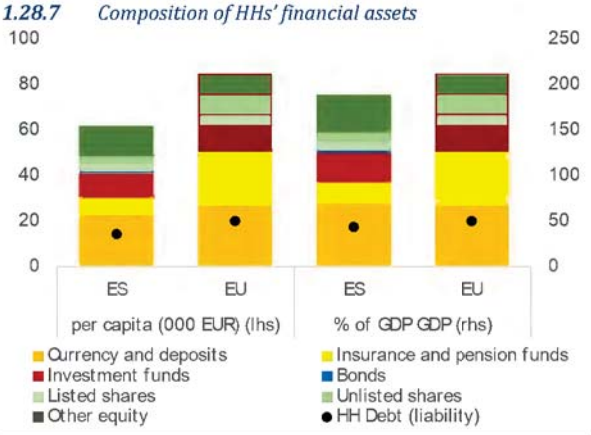
1.28.6 Net issuance of bonds



Source: ECB.

In 2023, the financial asset portfolio of Spanish households remained notably distinct from the EU average, reflecting both structural and institutional specificities. Spanish households had significantly lower exposure to insurance and pension funds (EUR 7,500 vs. EUR 22,400 per capita, or 24.2% vs. 58.3% of GDP), underscoring the relatively modest development of long-term savings instruments in Spain. Conversely, Spanish households allocated a greater share of their wealth to investment funds than the EU average, both per capita (EUR 9,100 vs. EUR 8,100) and as a share of GDP (29.3% vs. 21.0%). They also had higher holdings in "other equity"—often reflecting stakes in SMEs or family-owned businesses at 40.5% of GDP, well above the EU average of 24.1%. Overall, Spanish households show a more conservative and cash-oriented financial profile, with lower reliance on pension funds.

1.28.7 Composition of HHs' financial assets



Source: Eurostat. End-2024.

1.29.1 Net savings-investment balance

Source: AMECO.

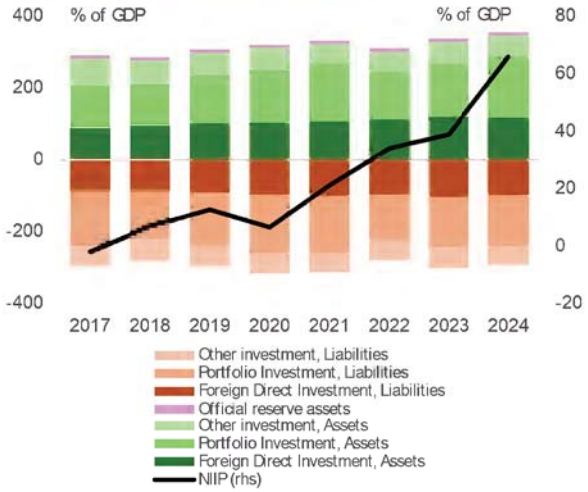
1.29 Sweden

Availability and use of domestic savings

The Swedish economy invests the largest part of its relatively high net savings abroad. In the last decade, the private savings ratio, net of fixed capital consumption, persistently fluctuated around its ten-year average of 10.6% of GDP, reaching a maximum of 14.2% in 2020 (see Graph 2.27.1). The net private investment ratio, which measures the net contribution of the private sector to capital accumulation in the country, significantly more volatile, exhibited a ten-year average of 6.6% of GDP and reached a maximum of 7.7% in 2022. At the same time, during the same period the government budget was in regular deficit, averaging 0.2% of GDP. Thus, the high positive balance between net domestic savings and net investment, together with the government deficits, resulted in structural net lending by Sweden to foreigners, averaging 3.9% of GDP, with a peak of 6.6% in 2021. Hence, most of Swedish net savings, i.e. after accounting for the investments that are necessary to merely maintain the existing capital structure of the economy, are used to finance projects abroad.

Consistent with its position as a net creditor to the rest of the world, the Swedish economy has accumulated significant foreign assets and exhibits a positive net international investment position. As of end-2024, total assets on foreigners reached 357.2% of GDP, while liabilities to foreigners stood at 291.3% of GDP, resulting in a net international investment position (NIIP) equivalent to 65.9% of GDP (see Graph 2.27.2). The accumulated portfolio investment and net foreign direct investment, which reached respectively 29.7% of GDP and 21.6% of GDP as of end-2024, accounted for most of the NIIP. The net portfolio investments, which are also affected by the price volatility of equity valuations abroad (assets) and in Sweden (liabilities), were negative until 2020, but turned positive afterwards (caused by an increase in equity and investment fund shares and long-term debt securities). Non-bank financial institutions hold the bulk of net foreign assets, while banks and NFCs are the main net external debtors. Sweden's foreign currency assets are almost three times as high as its foreign currency liabilities, providing a hedge against currency valuation changes. Despite being a floating exchange rate regime, it is important to maintain adequate foreign reserves in view of the high dependence of commercial banks on wholesale funding in foreign currency, and potential disruptions in such funding during global financial distress. Although rollovers of external debt (which include banks' covered bonds) pose some vulnerability, risks are moderated by banks' ample liquidity and large capital buffers (see below).

1.29.2 International investment position



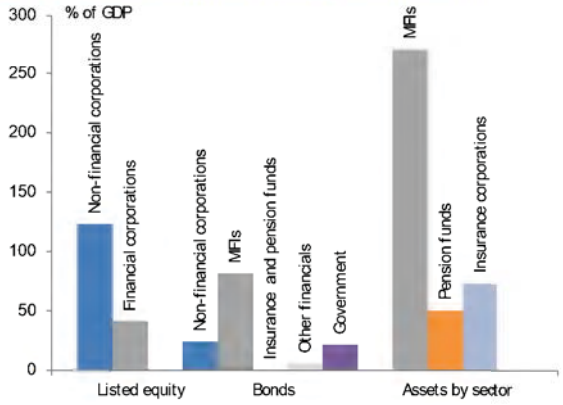
Source: ECB.

Structure of the financial sector

Sweden's capital markets rank thirteenth in the world, and are more liquid, mature and deeper than elsewhere in the EU. The Swedish stock market is currently the third largest EU market by capitalisation (equivalent to 163.7% of GDP vs an EU average of 66.8% of GDP as of end-2024) and the largest by number of listed companies, with just over 950 companies at year-end 2024. In Sweden, the total market capitalization of publicly listed companies is a significant percentage of the country's GDP, currently standing at 123 (Graph 2.27.3). The Swedish equity market is characterised by active trading and by broad access for many investor types. Another key characteristic is the substantial activity by small and medium-sized enterprises (SMEs) companies. Sweden's market in initial public offerings (IPOs) has been particularly dynamic enabling smaller companies to list. Most publicly listed companies in Sweden are listed on a growth market, functioning as a stepping stone to the regulated market. Sweden stands out as the only EU Member State where capital markets are more than twice as deep today than they were a decade ago. This growth over the last ten years is nearly five times the average growth rate in the EU and has been driven by a large increase in venture capital (VC) and private equity (PE) activity.

The domestic bond market is dominated by the debt of financial institutions, notably through the issuance of covered bonds. The ratio of debt securities issued by financial institutions to GDP (81.2% of GDP) is four times more than those issued by the government, and more than twice the EU average (36.3%), while bonds issued by NFCs equate to 24% of GDP, which is the largest corporate segment in the EU. The number of issuers has increased manifold over the last decade and, in parallel, the average size of both issues and issuers has decreased substantially. Bond financing is now commonplace and an integral part of Swedish companies' financing strategies. Several factors are at interplay to enable this combination of market depth and profitability, resulting in a well-functioning and robust ecosystem.

1.29.3 Capital markets and financial intermediaries



Source: ECB, EIOPA, AMECO. End-2024.

Non-bank financial intermediation is growing and managing assets to an amount almost as large as that of the entire Swedish banking sector. Banks dominate the financial system, yet their relative share is declining as the non-bank financial sector – including pension funds, mutual funds and insurance companies – is growing. The insurance sector is relatively large with an assets-to-GDP ratio of around 73% compared to an EU average of 55%, while the total assets of the pension funds sector equate to roughly half of Swedish GDP. According to data from Riksbank, total assets of the Swedish investment fund sector would come close to 100% of GDP as it has almost quadrupled in size since 2012.

Financing of the economy

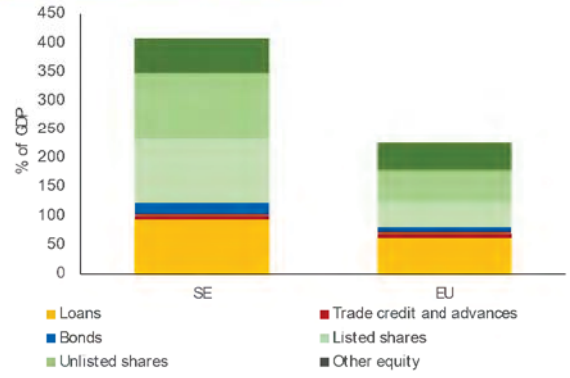
Sources of NFC funding

Firms in Sweden rely heavily on funding from capital markets. Almost three quarters of NFC funding is in bonds and equity (incl. unlisted shares and other equity). Over 2020-2023, the 3Y average of NFC bond and equity issuance as percentage of total NFC financing was the second highest rate of the EU after Malta.[774] This already high use of market-based

[774] AFME CMU Key Performance Indicators, November 2023.

funding has even been increasing in 2023 following strong secondary equity offerings and bond issuance. More specifically, at the end of 2024 listed shares and bonds represented 32.3% of all funding sources for Swedish firms, vs. an EU average of 23.8%, while bank finance through loans constituted 23% of funding sources, less than the EU average of 27% (see Graph 2.27.4).

1.29.4 Composition of NFCs' funding



Source: Eurostat. End-2024.

In terms of percentage of GDP, banks in Sweden are a stronger lender to the NFCs as compared to the EA average. Loans to NFCs were at 45.4% of GDP in 2024 (vs. 30.2% for the EA). Financial borrowing by NFCs in Sweden constituted 93.3% of GDP in 2024, which is significantly higher than the EU average of about 61%. The overall levels of NFCs funding are also substantially higher as a share of GDP, with 408% in Sweden and 225.6% of GDP for the EU average, given the overall much larger size of the aggregate balance sheet of Swedish NFCs.

Sweden leads the rest of the EU in terms of SME equity financing. In the 2024 SAFE survey, 45% of SMEs indicated that they used equity, compared to an EU average of 12%.[775] Sweden has a high number of publicly listed small companies, second only to Finland in terms of capital raised as a percentage of GDP. According to reports of the European Securities and Markets Authority, Sweden alone accounts for more than 40% of EU SME trading volumes with UK pre-Brexit trading volumes included. Supporting factors that facilitate the listing process include a strong start-up ecosystem, supportive regulation and retail-investor participation. Sweden also consistently ranks first in the EU for number of IPOs.

Swedish businesses depend more on internal or intra-group financing than their European peers. Sweden exhibits the lowest reliance on external finance for investment: only 26% of all firms use it, vs an EU average of 42%, according to the 2024 EIB Investment Survey. Also, only 15% of Swedish firms' investment needs are covered by external funding, compared to an EU average of 25%[776], which is also confirmed by the high aggregate reliance on unlisted equity. At the same time, only 75% of Swedish firms believed that their investment activities over the last three years were about the right amount, less than the EU average (80%), while 21% believed that they were too little (vs an EU average of 14%).

Market finance

The Swedish market has been one of the best performing equity markets in the world. The main broad local market index (OMX Stockholm) has consistently outperformed major international indices over long periods of time, including the EU average (Graph 2.27.5). Between June 2020 and June 2025, the annualized net return of the MSCI Sweden was 11.22%, mainly thanks to the performance of banks and information technology. The strong performance of the Swedish market is also reflected in its representation in international indices.

1.29.5 Stock market performance

Source: London Stock Exchange Group[777].

Bond financing is now a commonplace and integral part of Swedish companies' financing strategies.

[775] Data and surveys - SAFE - European Commission, 2024, Results by country, T27.

[776] For further details, see the 2024 EIB Investment Survey.

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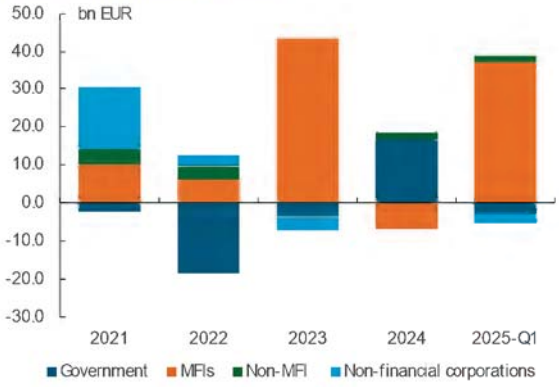
Since the financial crisis, the Swedish corporate bond market has also grown significantly in size and changed in character and Sweden has now the largest corporate bond segment (23.8% of GDP) compared to the other EU member states (10.8% of GDP on average). The number of issuers, both Nordic and non-Nordic, has increased manifold (among the highest number of individual issuers in the EU) and, in parallel, the size of both issues and issuers has decreased substantially.

1.29.6 Net issuance of bonds

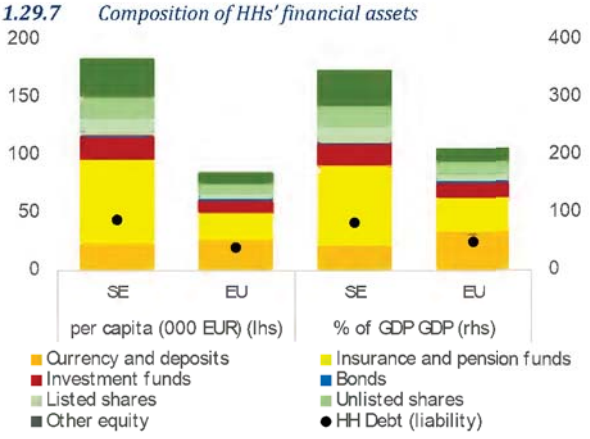


Source: ECB.

Retail participation in capital markets

Thanks to their large and often automatic investments in insurance and pension funds, Swedish households have a rather high participation in capital markets by EU standards. The gross saving rate of Swedish households was around 27.1% in 2024, which is one of the highest rates in the EU. As of end-2024, households' aggregate financial assets equated to 347.5% of GDP, which is above the EU average of 212.2%. The largest component of these assets consists of collective savings, namely premium and occupational pensions, which households cannot take hold of in the short term. Insurance savings in Sweden are also high from an international perspective. Together, they account for 39.8% of households' financial assets (vs an EU average of 27.9%). Another significant share (18%) consists of 'other equity', covering all forms of equity other than listed and unlisted shares (Graph 2.27.7). In addition to indirect ownership through funds, households own just over one tenth of the outstanding volume in listed equities. At the same time, foreign investors own almost 40% of Swedish listed equities. As of end-2024, Swedish households held only 12.6% of their financial wealth in cash and bank deposits, as opposed to 31.7% on average in the EU.

1.29.7 Composition of HHs' financial assets



Source: Eurostat. End-2024.

The high households' participation in equity markets observed in Sweden is not only backed by a mature capital market, but also by a unique investment culture. Swedish households' investments in insurance and pension funds, relative to GDP, are more than twice larger than the EU average (138.2% vs. 59.2% of GDP). Smart policies have driven this: (1) a pension system where capitalisation plays a strong role through a series of reforms in the 1990s.[778] The premium pension is a mandatory defined contribution system where every year, pension holders are allowed to invest themselves 2.5% of their pensionable income in a savings account, administered by the Swedish Pensions Agency; (2) the introduction of "Investingsparkskonto" (ISK) accounts in 2012, which are exempt from reporting holdings or paying tax on capital gains but subject to a low flat tax on ISK's market value. From 2025, ISK accounts are exempted from capital gains taxes on amounts up to SEK 150000 in 2025 and SEK 300000 in 2026. Moreover, organizations such as Aktiespararna begin financial education early, teaching children the benefits of stock ownership. These policies have contributed to a unique culture of high financial literacy and stock market engagement, as well as vast domestic equity holdings of Sweden's four largest pension funds. Measures to scale up retail investment have been combined with more structural reforms of pensions and retirement savings and mutually nurtured one another.

[778] Sweden implemented major pension reforms in 1999, shifting from a defined benefit system to a mixed system combining a pay-as-you-go notional defined contribution scheme and a fully funded scheme, both of which are based on lifetime earnings and individual accounts.

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