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REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL

on the macroprudential review for credit institutions, the systemic risks relating to Non-Bank Financial Intermediaries (NBFIs) and their interconnectedness with credit institutions, under Article 513 of Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and amending Regulation (EU) No 648/2012

As required by Article 513 of Regulation (EU) No 575/2013 (Capital Requirements Regulation, CRR), and after consulting the European Systemic Risk Board and the European Banking Authority, this report **reviews the EU macroprudential framework** set out in the CRR and Directive 2013/36/EU (CRD). The review was originally due by June 2022 and, if appropriate, followed by a legislative proposal to the European Parliament and to the Council by December 2022.[1] The Commission decided to postpone the review in order to better assess the effects of the pandemic (and the post-pandemic) macroeconomic conditions, the growth of Non-Bank Financial Intermediation (NBFI) and the US banking crisis of March 2023.

The report draws upon numerous studies by EU and international bodies as well as on a comprehensive public consultation process conducted by the Commission, including a targeted Call for Advice (CfA) to the European Banking Authority, the European Central Bank and the European Systemic Risk Board, that were completed in 2021.[2] Furthermore, numerous bilateral discussions have been held between the Commission services and stakeholders, including at the Commission's Expert Group on Banking, Payments and Insurance.

The 2008-2009 global financial crisis exposed the vulnerabilities in the banking sector worldwide, as many financial institutions were overleveraged, had large exposures towards risky assets and insufficient sources of stable funding. In the run up to the crisis, it was difficult to assess exposures and potential spillover effects, partly due to limited transparency of the growing leverage and interconnection among financial institutions. Credit risk, funding and market liquidity risks were largely underestimated and the regulatory framework had limited mechanisms to address incentives of systemically important institutions. As a result, supervisory and regulatory frameworks that focused mainly on ensuring the stability of financial institutions on a standalone basis proved to be inadequate in mitigating the challenges to financial stability triggered by systemic shocks. Vulnerabilities can build up across the financial system, even if financial institutions are resilient individually.[3] Consequently, it became necessary to develop additional policy tools, including at macroprudential level, to limit excessive credit growth and to strengthen the overall resilience of the financial sector to withstand systemic shocks.

The aim of macroprudential policies is to maintain financial stability by increasing the resilience of the financial system and limiting the build-up of vulnerabilities, in this way mitigating (structural and cyclical) systemic risks and ensuring that financial services can continue to support the economy. Systemic risk can materialise in various forms. For instance, it can stem from large and complex banking groups, excessive credit growth, leverage amplifying the credit cycle in housing markets and structural banking sector vulnerabilities (e.g., having a highly concentrated or large banking sector relative to GDP). By mitigating systemic risks, macroprudential policies ultimately aim to limit the frequency and severity of financial crises. By complementing micro-prudential supervision, macroprudential policies smoothen the financial cycle, limit contagion effects and create the right incentives for market participants. In this way, the banking sector is sufficiently resilient and it does not curtail the supply of credit to households and firms in a crisis, which amplifies negative shocks to the economy and can deepen or prolong an economic downturn.

[1] The report was postponed allowing consideration of the COVID-19 crisis and its impact on the financial system.
[2] See European Commission (2021), Targeted consultation on improving the EU's macroprudential framework for the banking sector, November 2021; European Commission (2022), Summary of responses to the targeted consultation June 2022; European Commission (2021), Call for Advice on the review of the macroprudential framework for the banking sector, September 2021.
[3] See, IMF (2011), "Macroprudential Policy: An Organizing Framework", available at https://www.imf.org/external/np/pp/eng/2011/031411.pdf.

The macroprudential toolkit includes requirements or procedures designed to minimise the negative impact of systemic events[4] and to protect the financial system as a whole[5]. Microprudential tools may only indirectly mitigate systemic risk by tackling entity or transaction-level risks[6]. **Macroprudential tools** typically take the form of **pre-emptive measures** (i.e., *ex ante* measures activated before systemic risk materialises, such as structural leverage limits or systemic risk capital buffers) and ***ex-post* measures** (i.e., measures activated after a systemic risk materialises, such as suspending investor rights to redeem units of investment funds).

1. A revised macroprudential framework for banks

In the aftermath of the global financial crisis, actions taken at international and EU levels to strengthen the microprudential framework for banks and develop a macroprudential policy framework have resulted in a comprehensive reform agenda. The Basel Committee on Banking Supervision (BCBS) developed the Basel III framework, which raised the quality of capital, brought in new capital and liquidity buffers and leverage ratio limits for banks, improved risk management, governance and transparency and created a macroprudential policy framework.

At EU level, the De Larosière Report[7] recommended that supervisory and regulatory frameworks should no longer focus only on supervising individual financial institutions,[8] but also on the stability of the entire financial system. The Report noted that 'The objective of macro-prudential supervision is to limit the distress of the financial system to protect the overall economy from significant losses in real output […]. Macro-prudential analysis […] must pay particular attention to common or correlated shocks and to shocks to those parts of the financial system that trigger contagious knock-on or feedback effects. Macro-prudential supervision cannot be meaningful unless it can somehow impact on supervision at the micro-level; whilst micro-prudential supervision cannot effectively safeguard financial stability without adequately taking account of macro-level developments.'

The EU has taken significant steps to strengthen its macroprudential framework by implementing the reforms recommended in the De Larosière Report and the standards developed at international level. For example, it has adopted measures to reduce the pro-cyclical effects of Basel II measures and created the ESRB and the European Supervisory Authorities (ESAs) to ensure proper monitoring of financial stability risks across the whole financial system, along with other risks.

In 2014, a macroprudential toolkit, which builds on the international standards developed by the BCBS, became applicable to credit institutions (henceforth 'banks'). This toolkit, set out in the Capital Requirements Directive and Regulation (CRD/CRR) was only marginally revised in 2019.[9] To safeguard financial stability, the CRD and CRR acknowledge that macroprudential policy is a necessary complement to microprudential supervision. As systemic risks may differ across Member States,

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[4] A 'systemic event' is a large negative event for the financial system, such as a systemic liquidity crisis like the COVID crisis or a major credit event like the bankruptcy of Lehman Brothers, or a series of smaller event (the failure of one or few medium-sized financial institutions, like the events triggered by the bankruptcy of Silicon Valley Bank) that uncover the build-up of a large financial imbalance (in the form of large exposures or interconnectedness among market operators).

[5] The high level group on financial supervision in the EU. De Larosière report (europa.eu).

[6] For instance, leverage limits are prudential measures that have a microprudential nature when they are designed and implemented to face an idiosyncratic entity or transaction-level risk, but they are macroprudential tools when they are designed and implemented at sector-wide level, disregarding the individual business model or activity. This is the case of structural limits for loan-originating funds, under the recently agreed AIFMD/UCITS review, which qualify as macroprudential tool.

[7] The high-level group on financial supervision in the EU. De Larosière report (europa.eu).

[8] The term "financial institutions" refers to both banks (i.e., credit institutions) and to non-bank intermediaries.

[9] As contained in Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013, as amended by Regulation (EU) 2019/876 of the European Parliament and of the Council of 20 May 2019 (Capital Requirements Regulation – CRR) as regards macroprudential provisions; Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013, as amended by Directive (EU) 2019/878 of the European Parliament and of the Council of 20 May 2019 (Capital Requirements Directive - CRD) as regards macroprudential provisions. The Banking Package of 2019 introduced some targeted changes to the macroprudential provisions, which became applicable as of 29 December 2020.

national authorities should be able to factor in the specific needs of their banking sectors. Although uniform microprudential rules ('the single rulebook') were introduced for banks, national authorities were granted a leading role and some degree of flexibility in the conduct of macroprudential policies, reflecting the different sources and complex nature of systemic risk.

The EU macroprudential toolkit for banks includes several instruments that aim to tackle multiple aspects of systemic risk. The CRD introduced a macroprudential capital buffer regime (i.e., five buffers forming together the combined buffer requirement), allowing banks to adapt their capital position to the specific macroeconomic and financial sector conditions (see *Appendix 1*). For instance, they should build up the counter-cyclical capital buffer when credit growth is associated with a build-up of cyclical systemic risk, while the buffers for other important institutions and for overall systemic risks can be used to mitigate structural systemic risks to financial stability. They should then use capital when necessary to absorb losses and meet credit demand during periods of economic downturn and crises. **Capital buffer usability and releasability** need to work effectively, enabling capital to flow back into the economy as macroeconomic conditions improve and without being slowed down by prepositioning for reputational reasons. The post-financial crisis regulatory reforms have strengthened the resilience of the EU banking sector and its capacity to withstand systemic shocks. Nevertheless, more recent crisis episodes, in particular the COVID-19 pandemic, have shown that the availability of releasable capital buffers in times of crisis to absorb losses remains a pressing concern (see *Appendix 2*). In the event of a significant shock, a reduction in buffer requirements could alleviate problems and reduce the incentives of banks to deleverage and de-risk. Economic outcomes can be considerably better when capital buffers are released or used to maintain lending to the economy.

The CRR also includes **discretionary macroprudential tools that aim to tackle specific systemic risks**, such as those stemming from the real-estate sector. These risks can be mitigated by increasing risk weights and exposure weighted average Loss Given Default (LGD) parameters of internal rating-based models. In addition to the conventional systemic risks stemming, for instance, from real-estate markets, **the banking sector has been increasingly exposed to new risks, such as climate change-related and transition risks, as well as cyber-risks**. Prudential regulators and supervisors have yet to find an adequate manner to address these risks, which can become systemic if not addressed proactively. As financial systems become more interconnected, complex, but also more prone to shocks and uncertainty triggered by geopolitical developments and other factors, maintaining sufficient policy tools and flexibility to support the flow of credit to the economy is warranted. Striking the right balance between, on the one hand, macroprudential tools and preventive measures, and crisis management tools, on the other hand, requires evaluation and thorough assessment to avoid any undue impacts on the effectiveness of the latter measures and tools. Therefore, any potential reform of macroprudential tools should take due consideration of its impact on prudential and resolution frameworks and should not give rise to an increase in the overall level of capital or minimum requirements on own funds and eligible liabilities (MREL).

The EU institutional framework for the implementation of macroprudential policies is multi-layered, with various national and EU authorities involved. To preserve the integrity of the Single Market, the implementation of macroprudential measures at national level often requires the involvement of different EU bodies (such as the European Commission, the ESRB and so on). While the ESRB is tasked with the macroprudential oversight of the financial sector within the EU, the Single Supervisory Mechanism Regulation gives macroprudential powers to both the national authorities and the European Central Bank (ECB). These shared responsibilities have enhanced the ability of the EU and Member States to identify, monitor and address systemic risks in the diverse EU financial landscape. However, in this model, the harmonisation of certain aspects of the macroprudential toolkit is essential to ensure a level playing field and a certain level of simplification in the application of macroprudential measures. For instance, the different approaches in the identification of other systemically important institutions (O-SIIs) and the calibration of O-SII buffer rates cannot be fully explained by the economic or financial market specificities of Member States, such as the size of or banking sector concentration, and could be matter of concern for the single market and the Banking Union (see Appendix 2 for more).

In light of the above, the Commission will continue to work on macroprudential policies for banks, while ensuring compliance with the Basel III framework and taking into account that the overall level of capital and MREL requirements is deemed adequate. *In this context, the Commission will mainly focus on: 1) monitoring the usability and releasability of capital buffers to support lending to the economy in the event of a systemic shock, while preserving financial stability; 2) promoting consistency in the use of macroprudential tools by national authorities; and 3) assessing the scope for simplification and the efficiency and the ability of the macroprudential framework to tackle both conventional and new risks. Moreover, the Commission will assess the modalities on how to update the feedback received through the 2021 targeted consultation, as well as to gather additional feedback on aspects of the review that are only partially covered in this report.*

2. The macroprudential framework for NBFIs

Non-bank financial intermediaries (NBFIs) have grown significantly in recent years, as non-bank financing has become increasingly important to the finance the economy. The ESRB estimates that non-bank financial intermediation accounts for at least €41.5 trillion (39%) of the European financial sector's assets.[10] NBFIs comprise very diverse sectors, including asset management companies and investment funds, non-bank investment firms, family offices, supply chain finance companies, pension funds, insurance companies, and other non-bank entities.[11] In Europe, NBFIs play a pivotal role in fostering financial diversity and reducing dependency on bank financing, especially in the context of the Capital Markets Union and the development of a robust single market. They therefore make a positive contribution to financial stability (through private risk sharing) and to innovation.

Nonetheless, **a rapid expansion of NBFIs can also generate new risks and challenges to financial stability.** The growth of NBFIs has been accompanied by an increase in the riskiness of some asset portfolios, rising liquidity transformation and increased leverage, driven also by the 'search for yield' during an extended period of negative real interest rates.[12] The interconnectedness between banks and NBFIs has also steadily expanded and increased the risk of contagion across the financial sector, with the potential to have negative spillover effects on the economy.

Although **work at international level** to design and update the macroprudential framework for banks has advanced at a steady pace since the global financial crisis, work on macroprudential policies for NBFIs has proceeded in waves. The Financial Stability Board (FSB), the International Organization of Securities Commission and the International Association of Insurance Supervisors have progressively focused on developing macroprudential analyses and tools that aim to mitigate systemic risks related to NBFIs. This work has gained even more traction in recent years, after various episodes of market turmoil (e.g., the 'dash for cash' during the COVID pandemic in March 2020 and the UK gilt market crisis in September 2022) and financial mismanagement (e.g., Archegos or Greensill Capital), which revealed the impact that the build-up of systemic risk and vulnerabilities of NBFIs can have on the whole economy.

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[10] ESRB (2023), EU Non-bank Financial Intermediation Risk Monitor 2022, June 2023. This statistics goes up to 49% if we enlarge the scope to the global financial system; see FSB at Non-Bank Financial Intermediation - Financial Stability Board (fsb.org).

[11] The ESRB also includes an assessment of the crypto-asset ecosystem in the NBFI monitor, as it "may engage in types of financial intermediation that lead to similar vulnerabilities and expose them to similar risks", see ESRB (2023), EU Non-bank Financial Intermediation Risk Monitor 2022 (europa.eu), p. 6. The FSB defines "the NBFI sector" as "a broad measure of all non-bank financial entities, composed of all financial institutions that are not central banks, banks or public financial institutions." FSB (2022), Global Monitoring Report on Non-Bank Financial Intermediation: 2022, p.3. This categorisation also includes financial market infrastructure under the category of 'market intermediaries'. See, FSB (2022), Enhancing the Resilience of Non-Bank Financial Intermediation: Progress report , p. 18. Nonetheless, the FSB also identified a 'narrow measure' for NBFI, which is not based on entities, but as a bank-like activity measure. FSB (2022), ibid. p.3.

[12] Liquidity transformation is the process of using cash-like short-term liabilities to acquire longer-term assets such as loans. Leverage refers to either borrowing funds to buy an asset (physical or financial leverage) or posting margins to a contract where the party seeking leverage receives the financial return of an asset in exchange for a payment or a fee (e.g., total return swap or options), so called 'synthetic' leverage.

The FSB[13] and the ESRB[14] identified three structural vulnerabilities that contribute to the build-up of systemic risk, and which are only partially covered by macroprudential policies today. They are systemic liquidity mismatches[15], excessive leverage, and interconnectedness within NBFIs and of NBFIs with the banking sector. These vulnerabilities exacerbate the complexity of supervising such interconnected sectors and highlights the need to consider a more consistent and coordinated macroprudential supervision for NBFIs (see *Appendix 2*).

As a result, the same conventional and emerging risks affecting banks, coupled with the diversity and complexity of NBFI sectors, may lead to **specific vulnerabilities of NBFIs** stemming from:

1) structural liquidity mismatches;
2) the build-up of excessive leverage across NBFIs;
3) interconnectedness among NBFIs and between NBFIs and banks, which may create hidden risk amplifiers and transfer of risk from the banking to the non-banking sectors; and
4) lack of consistency and coordination among macroprudential frameworks across the EU.

In the absence of an overall EU macroprudential framework governing NBFIs, and to tackle some specific emerging risks in important NBFI sectors, a number of EU directives and regulations applicable to NBFIs already include some macroprudential tools that aim to mitigate the build-up of systemic risk or manage the impact of a systemic event (see *Appendix 1*). For instance, some tools and provisions to manage liquidity, leverage and operational risks were created for the investment fund sector (for alternative investment funds, undertakings for collective investment in transferable securities and money market funds), in the insurance sector and for margin practices and risk management related to central counterparties. However, as credit activity and risks shift increasingly from the banking to the non-banking sectors, the Commission will collect further evidence on missing tools, potential gaps in existing tools to meet macroprudential objectives and on the effectiveness and consistency of macroprudential policies for NBFIs in the EU.[16] This work will underpin and support any policy decision that the 2024-2029 Commission may take in this area.

Therefore, the Commission plans to run a targeted consultation on macroprudential policies for NBFIs in 2024. The aim will be to collect further insights into the business models of key NBFIs and the interconnectedness among them and between banks and NBFIs, and to identify gaps in the macroprudential framework and other factors that may contribute to the build-up of systemic risks in non-bank financial intermediation. In 2024, the Commission will also consult on the review of the Securities Financing Transaction Regulation (SFTR). The SFTR aims at improving transparency on funding and lending transactions and allow for better monitoring of risks resulting from non-bank credit intermediation.

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[13] FSB (2022), Global Monitoring Report on Non-Bank Financial Intermediation, December 2022, p. 31.

[14] ESRB, NBFI Monitoring, June 2023, p. 11 available at EU Non-bank Financial Intermediation Risk Monitor 2022 (europa.eu).

[15] The liquidity mismatch is a discrepancy in the supply or the demand for a security or in the maturity dates of securities. A liquidity mismatch arises if funds give their investors the option of short-term redemptions, while at the same time investing in assets that cannot easily be liquidated at short notice.
Liquidity mismatch in open-ended funds: trends, gaps and policy implications (europa.eu)

[16] The ECB, in particular, called for “a comprehensive [macroprudential] policy response to increase resilience” of the NBFI sectors, including “repurposing existing tools (i.e. by embedding macroprudential perspectives) and developing additional macroprudential policies as well as assessing the role of the authorities in implementing them.” See, ECB, Financial Stability Review Report, November 2023. Banque de France has noted that “The vulnerabilities associated with NBFI call for appropriate measures to be implemented in a harmonised way at the international level. […] However, the work carried out up until now has focused on microprudential measures, with the activation of certain tools being at the discretion of the funds, and centred on investor protection. A macroprudential approach, which would integrate the risks borne by cohorts of funds and their impact on the financial system as a whole, potentially including tools at the authorities' disposal, has yet to be defined.” See Banque de France, Non-bank financial intermediation: vulnerabilities and challenges, 14 November 2023. The Central Bank of Ireland published in July 2023 a discussion paper titled “An approach to macroprudential policy for investment funds” where, amongst other, it examines the systemic risk from investment funds and explores the idea of a more holistic macroprudential framework for investment funds.

Appendix 1

THE CURRENT EU MACROPRUDENTIAL TOOLKIT FOR BANKS AND NBFIS

The main macroprudential tools for banks are **capital buffers**, which are an additional layer of capital on top of minimum capital requirements. Capital buffers increase the banking sector's resilience, by enabling banks to absorb greater losses without breaching minimum requirements and therefore maintain the provision of key financial services and mitigate the amplification effects that the banking sector can have on the economic cycle. The EU macroprudential framework supports the accumulation of bank capital during periods of high credit risk and financial vulnerabilities. Subsequently, this capital can be utilised to absorb losses, when necessary, and to meet demand for credit in periods of economic downturn and crises.

The CRD sets out five macroprudential capital buffers, which together form the **combined buffer requirement**" *(CBR)*. Each bank must fulfil a specific CBR, the components of which are set at different levels. All banks must have a *capital conservation buffer (CCoB)* of 2.5% of the total amount of risk-weighted assets (RWA). Large banks deemed to be global systemically important institutions are required to have an additional buffer (*G-SII buffer*) of up to 3.5% of RWA (or more if deemed appropriate by supervisors). In the EU, national competent and designated authorities ('national authorities') set buffer requirements also to bolster the resilience of other (domestically) systemically important institutions (*O-SII buffers*) up to 3% of the total risk exposure amount, to make the banking system more resilient to broad-based cyclical risk (*counter-cyclical capital buffer - CCyB*) or to address other structural or cyclical risks not covered by above-mentioned buffers, including at the sectoral exposure level (*systemic risk buffers - SyRB*).[17] In the Banking Union, the ECB has the power to increase (top up) buffers and tighten certain macroprudential measures set by national authorities.[18]

National authorities can also **tighten the risk weights** applied to certain exposures, if justified by systemic risk. Under the current framework, several provisions in the CRR set rules on increasing risk weights and on increasing Loss Given Default (LGD) floors for banks using internal models, for residential and commercial real estate exposures. National authorities can also set macroprudential limits to lending standards (i.e., borrower-based measures) that are provided for in national law in most EU Member States, but which are currently not enshrined in the EU macroprudential framework.

Although there is no common macroprudential framework governing NBFIs, EU sectoral legislations already include some macroprudential tools and several provisions to manage risks. These include provisions on liquidity risks, leverage risks and operational risks that restrains the build-up of systemic risk.

In the **investment fund sector**, the Commission's legislative proposals to amend the Alternative Investment Funds Managers Directive (AIFMD)[19] and the Undertakings for Collective Investment Schemes (UCITS) Directives,[20] adopted in November 2021,[21] reflected the ESRB's recommendation

[17] The capital buffers, which form together the combined buffer requirement (CBR), are enshrined in the following articles of the Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013, OJ L 176, 27.6.2013, p. 338–436, on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms: the *CCoB* in article 129; the *G-SII* and *O-SII* buffers in article 131; the *CCyB* in article 130; and the *SyRB* in article 133.

[18] Article 5 (2) of Council Regulation No 1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions.

[19] 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.

[20] 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).

[21] European Commission (2021), Capital markets union: Commission adopts package to ensure better data access and revamped investment rules, 25 November 2021.

on liquidity and leverage risks in investment funds.[22] On 19 July 2023, Parliament and Council reached an agreement on the review. They agreed to introduce a harmonised list of liquidity management tools, which are microprudential tools that will become available for Alternative Investment Fund managers and UCITS across the EU. The review also sets a structural limit on leverage for loan-originating funds. The Money Market Fund Regulation (MMFR)[23] includes a number of macroprudential tools, such as structural limits on leverage and derivatives trading, liquidity buffers and stress testing under hypothetical scenarios. A recent targeted consultation[24] and the accompanying report,[25] concluded that the MMFR has boosted the resilience of the sector, while noting several vulnerabilities that would merit further assessment.

For **insurers**, the Commission adopted a legislative proposal to amend the Solvency II Directive in September 2021. These amendments adapt the well-established EU risk-sensitive prudential framework applicable to insurers and reinsurers to new developments and further strengthen their role in financing to the economic recovery and the dual digital and green transitions.[26] The proposal included most of the recommendations made by EIOPA (2020)[27] and ESRB[28] related on extending the supervisory toolkit and bringing in new requirements to tackle sources of systemic risk. In particular, the Commission proposed to grant national authorities the power to impose additional measures to strengthen the insurer's financial position in times of crisis, to impose a temporarily freeze on redemption rights for life-insurance contracts in exceptional circumstances and additional mitigating measures for liquidity risk. It also proposed to expand the Own Risk and Solvency Assessment and the prudent person principle to cover macroprudential concerns and to draft pre-emptive plans (recovery and resolution plans, as well as systemic risk and liquidity risk management plans). Parliament and Council have recently reached an agreement on these proposals, which are finalised for adoption in the coming months.

On **margining practices and risk management of central counterparties (CCPs)**, the Commission adopted in December 2022 a clearing package, which amends the European Markets Infrastructure Regulation (EMIR) and other pieces of financial services legislation ('EMIR 3 review').[29] The review includes provisions to:

- bring greater transparency to margin calls for market players that clear as clients (including funds and insurance companies);
- put greater emphasis on avoiding procyclicality of haircuts; and
- require CCPs to do their utmost not to withhold intraday variation margins and instead to pass them through and avoid "liquidity hoarding".

In addition, the proposal creates a cross-sectoral monitoring mechanism (the "Joint Monitoring Mechanism") with the aim of monitoring more closely the developments across the clearing ecosystem and of developing liquidity stress tests for the whole clearing chain.

Many of the international principles on **NBFIs performing bank-like activities**, including measures to improve transparency of securities financing transactions and on the reuse of collateral, were

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[22] ESRB Recommendation of 7 December 2017 on liquidity and leverage risks in investment funds (ESRB/2017/6).
[23] Regulation (EU) 2017/1131 of the European Parliament and of the Council of 14 June 2017 on money market funds available at EUR-Lex - 02017R1131-20190101 - EN - EUR-Lex (europa.eu).
[24] European Commission (2022), Targeted consultation on the functioning of the Money Market Fund Regulation, 12 April 2022.
[25] Report from the Commission on the adequacy of Regulation (EU) 2017/1131 on money market funds from a prudential and economic point of view (europa.eu)
[26] European Commission (2021), Solvency II review (europa.eu), 22 September 2021.
[27] EIOPA (2020), Opinion on the 2020 review of Solvency II, 17 December 2020.
[28] For information on systemic risk tools for insurers see, ESRB (2022), Letter to Chairperson of the Council Working Party on Solvency II Review, 2 February 2022; ESRB (2022), Letter to Members of the European Parliament, November 2022.
[29] European Commission (2022), Capital markets union: clearing, insolvency and listing package (europa.eu), 7 December 2022.

implemented through the Regulation on Securities Financing Transactions[30] (SFTR) adopted in 2015. This Regulation also applies to NBFIs and has helped bring greater transparency to the repo activities carried out both by banks and by NBFIs.

To shed light on the **interconnections between NBFIs and the banking sector**, the CRR includes reporting requirements that aim to improve the transparency of bank' exposures to NBFIs, with special focus on bank-like activities performed by NBFIs[31]. Banks are required to report to supervisors their largest ten exposures to entities that "carry out banking activities and services outside the regulated framework".[32]

[30] 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 (Text with EEA relevance), OJ L 337, 23.12.2015.
[31] See Article 394(2) of Regulation (EU) No 575/2013, OJ L 176, 27.6.2013, p. 1–337.
[32] These requirements were operationalised through a Level 2 Delegated Act, adopted by the European Commission on 6 September 2023, which harmonises the criteria for the identification of these entities by banks, specifically laying down the EU acts that constitute "the regulated framework"; see Commission Delegated Regulation (EU) 2023/2779 of 6 September 2023 supplementing Regulation (EU) No 575/2013 of the European Parliament and of the Council with regard to regulatory technical standards specifying the criteria for the identification of shadow banking entities referred to in Article 394(2) of Regulation (EU) No 575/2013; OJ L, 2023/2779, 12.12.2023.

Appendix 2

REVIEW OF THE MACROPRUDENTIAL FRAMEWORK FOR BANKS AND NON-BANK FINANCIAL INTERMEDIARIES (NBFIS)

Article 513 of Regulation (EU) No 575/2013, as amended by Regulation (EU) 2019/876, requires the Commission, in consultation with the EBA and ESRB, to review the EU macroprudential framework in the CRR and CRD by June 2022 and, if appropriate, to submit a legislative proposal to the European Parliament and to the Council by December 2022. EU law requires the Commission to assess the effectiveness, efficiency and transparency of the macroprudential framework, listing a number of specific issues to be considered. Article 513(1)(g) of the CRR also mandates the Commission to consider tools to address systemic risks arising from the exposures of banks to NBFIs,[33] especially from derivatives and securities financing transactions markets, asset management and insurance sector.

The EU macroprudential framework for banks has helped boost the banking sector's resilience in a preventive manner and has helped safeguard financial stability in the EU by limiting the build-up of systemic risks. In some areas the current framework has proved able to meet its intended objectives. For example, after the onset of the COVID-19 pandemic, national authorities adopted system-wide distribution restrictions in line with the ECB and ESRB recommendations on dividend distributions during the COVID-19 pandemic even though the restrictions were not enshrined at EU level (as also mandated to be investigated by Article 518b CRR). However, empirical evidence, studies carried out by several EU bodies, analyses by the Commission, the 2021 public consultation and targeted calls for advice have also highlighted certain **shortcomings that merit further analysis** in view of a possible legislative proposal.

Usability and releasability of capital buffers to support lending to the economy

Although capital buffers are designed to be used in a crisis, empirical evidence suggests that banks may be unwilling or unable to use them as envisaged, with potentially adverse effects on the economy. **Banks may be unwilling to use buffers** as they may be concerned about:

- constraints in the distribution of dividends, bonuses and other pay-outs;
- broader market stigma if the CBR is breached;
- uncertainty as to whether the use of buffers will actually be supported or accepted by their supervisors or would need additional supervisory scrutiny or measures such as stress tests, as well as the economic outlook and the duration and impact of any crisis34.

There is also evidence that the **banks' ability to use capital buffers may be limited**[35] by other prudential or resolution minimum requirements (leverage ratio and minimum requirements on own funds and eligible liabilities (MREL[36])) that may become binding before the buffers are exhausted,

[33] Non-bank financial intermediation refers to a heterogeneous group of financial institutions, other than banks, who facilitate the flow of funds between savers and borrowers in the economy. These intermediaries include entities such as asset management companies, investment funds, insurance companies, pension funds, family offices, market operators, and other non-bank financial institutions that offer various financial services and products.

[34] For further possible impediments to buffer usability see Behn et al. (2020), Macroprudential capital buffers – objectives and usability, ECB Macroprudential Bulletin, October.

[35] See ESRB (2021), Report of the Analytical Task Force on the overlap between capital buffers and minimum requirements, December 2021 and BCBS (2022), Buffer usability and cyclicality in the Basel Framework.

[36] MREL is set by resolution authorities to ensure that banks maintain at all times sufficient eligible instrumentsto be able to underpin the chosen resolution strategy. For instance, if the resolution strategy includes bail-in and the continuation of the bank's activity in the market, the MREL is set to absorb losses and restore the bank's capital position, allowing it to continue carrying out its critical functions after a crisis. The requirements are detailed in the EU Bank Recovery and Resolution Directive 2014/59/EU (BRRD), as amended by Directive EU 2019/879 as regards the loss-absorbing and recapitalisation capacity of credit institutions and investment firms (BRRD II); Regulation 806/2014/ EU establishing a Single Resolution Mechanism (SRMR) as amended by Regulation EU 2019/877 as regards the loss-absorbing and recapitalisation capacity of credit institutions and investment firms (SRMR II); and the CRR and CRD.

especially for banks with low risk-weights. While these potential limitations to banks' ability to use buffers is a feature of the current framework, the materiality of such limitations may change over time and across banks and become less important[37]. This may occur as a result of the implementation of the prudential reforms in the recently agreed "Banking Package" and the phase-in of MREL.

The **releasability** (i.e., freeing up) of capital buffers could also be improved and become more efficient.[38] Under the current framework, the bulk of capital buffers (i.e., the capital conservation buffer, the G-SII and O-SII buffers and, to a lesser extent, the systemic risk buffer) are of a structural nature, while only the CCyB is explicitly designed to be releasable. This buffer accounts for a very small proportion of the total capital buffer requirements, roughly 5% of the CBR of banks or 0.1% of RWA in the Banking Union at the onset of the COVID-19 pandemic. While many Member States increased their CCyB rates after the pandemic, its size is still dwarfed by non-releasable buffers. More buffer releases were not needed in response to the pandemic because of the extensive public support granted by Member States through fiscal, monetary, and regulatory policy measures. However, initial empirical evidence suggests that the economy could have benefited from more releasable capital buffers to stimulate additional lending during the crisis.[39]

Consistency in the use of macroprudential tools for banks by national authorities

While recognising the shared responsibilities of the ECB and national authorities in the Banking Union, **the application of the macroprudential framework in the EU is, to a significant extent, decentralised**. This is justified on the basis that systemic risks and financial cycles may differ across Member States, with national authorities generally considered well placed to identify and effectively manage such risks. However, this model is not always obvious to reconcile with the functioning of single market. It is essential to harmonise certain aspects of the macroprudential toolkit to ensure a level playing field.

On the one hand, national macroprudential measures may not be effective if they can be, for example, circumvented by cross-border activities. This issue can be tackled by 'reciprocation', i.e., the application of equivalent measures by the national authorities of other Member States to banks operating cross-borders in the country that imposed a national macroprudential measure. On the other hand, capital buffer and risk-weights can also be used to unduly restrict the free movement of capital and force cross-border banking groups to maintain higher capital requirements in host countries. This potentially reduces the cost of bank failures to host countries but could also harm the efficiency of cross-border banking. The ESRB, the ECB, the EBA and the European Commission are vested with certain powers under detailed procedures to coordinate macroprudential policies and promote the integrity of the single market, but their **capacity to ensure consistency** in the approaches of national authorities is limited.[40]

The identification of other systemically important institutions (O-SIIs) and the calibration of O-SII buffer rates are not consistent across the single market.[41] For example, O-SIIs with similar scores based on the EBA standardised methodology on the criteria for assessment of OSIIs are required to maintain

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[37] See, for instance, Leitner et at (2023), How usable are capital buffers? An empirical analysis of the interaction between capital buffers and the leverage ratio since 2016, ECB Occasional Paper No 329.

[38] An ECB study estimates that larger capital buffers and the new resolution framework significantly boosted the banking system's capacity to absorb losses. The ability of the banking system to absorb losses has increased *more than 3-fold* over the last ten years. See Carmassi et al. (2019), Is taxpayers' money better protected now? An assessment of banking regulatory reforms ten years after the global financial crisis. See also, Basel Committee (2022), Buffer usability and cyclicality in the Basel framework, 5 October 2022.

[39] See Couaillier et al. (2021, 2022), Bank capital buffers and lending in the euro area during the pandemic and Caution: do not cross! Capital buffers and lending in Covid-19 times.

[40] For example, the ESRB and EBA are to provide opinions on certain measures and measures with high impact that require authorisation or non-objection of the Commission. The ECB has the right to object to any macroprudential measure set out in EU law intended by an SSM-participating Member State. The ESRB also has more general coordination powers, for example to issue warnings and recommendations for national authorities, such as the one on the CCyB or voluntary reciprocity.

[41] EBA report on calibration of OSII buffer rates.

different O-SII buffer rates. This heterogeneity cannot be fully explained by the specific economic or financial market conditions in Member States, such as the size or concentration of banking sector, and this is a matter of concern for the single market and the Banking Union. Some of these differences can be attributed to the fact that some Member States used the SyRB instead of, or on top of, the O-SII buffer to tackle these risks. Nevertheless, the **heterogeneity** in the setting of O-SII buffers warrants further assessment[42].

The SyRB - the most flexible buffer - is used to face a wide range of systemic risks including common geographic exposures, public and private sector indebtedness, banking sector size as a percentage of GDP and external shocks to the economy. However, this flexibility can give rise to concerns about **arbitrariness and duplicative prudential requirements**. Last, Article 458 of the CRR, which allows the increase in risk-weights on real estate exposures for banks using internal models, should be used only as a last resort measure by national authorities. Nonetheless, certain **inconsistencies** have been observed in how national authorities apply this measure and it would also be necessary to ensure the efficiency of the process for its activation.

Simplification and efficiency of the macroprudential framework and its governance

The efficiency and effectiveness of the macroprudential toolkit can be hampered by including measures that are not used or lacking measures in certain areas. For instance, Articles 138 and 139 of CRD focus on tackling risks stemming from excessive credit growth in specific third countries, but these powers have never been used. It may also be necessary to further reflect on the supervisory and governance structure of the EU macroprudential supervision, especially when dealing with new risks and tools. The purpose would be to simplify supervisory processes where possible, taking into account the complexities of the financial ecosystem and safeguarding the European economy from potential disruptions.

Ability of the macroprudential toolkit for banks to address conventional and new risks

Since the introduction of the macroprudential toolkit for banks, Member States have taken measures to tackle real estate vulnerabilities, particularly regarding residential real estate[43] using both **capital-based measures** enshrined in EU law (buffers and risk weight measures) and increasingly **borrower-based measures** (BBMs). In addition to Article 458 of the CRR, Articles 124 and 164 of the CRR allow Member States to apply higher risk-weights for exposures secured by mortgages on residential and commercial immovable property and LGD floors to retail exposures secured by residential and commercial real estate.

To increase the effectiveness of these macroprudential tools based on risk-weights adjustments, it would be necessary to achieve greater consistency in the activation and use of risk-weight measures and to align the macroprudential risk weight toolkit for banks using internal models and the standardised approach. The effectiveness of these measures could be also increased by focusing on risk-weights rather than individual risk parameters (Article 164 of CRR). BBMs are preventive, macroprudential limits to lending standards that are provided for in national legislation in most Member States, but which are currently not enshrined in EU law.[44] BBMs currently differ across Member States in terms of their design, definitions of underlying indicators, scope, nature (legally/non-legally binding), exceptions, and governance arrangements. Moreover, BBMs are not enshrined in legislation in all Member States, which complicates reciprocation and may not allow Member States to tackle efficiently the systemic risk stemming from the real estate sector. Furthermore, developments in the commercial real estate

[42] An EBA analysis shows that some Member States are very strict and set a maximum possible O-SII buffer rate under CRD IV for banks with a relatively low O-SII score, whereas other Member States are relatively lenient and set a 0% or low buffer rate despite very high O-SII scores. Alternatively, very high O-SII scores can result in O-SII buffer rates of 0.25% in one Member State and 2% (maximum rate at the time of analysis) in another Member State.

[43] The ESRB conducted systematic, forward-looking assessments of vulnerabilities in residential real estate markets in the EEA in 2016, 2019 and 2022, which formed the basis for country-specific warnings and recommendations.

[44] For further details see the ESRB Review of the EU Macroprudential Framework for the Banking Sector: Response to the call for advice, March 2022, and the ESRB database of national measures.

sector warrant further attention. Macroprudential measures targeting specifically commercial real estate are scarce and could be further assessed, alongside the efforts to close current data gaps regarding bank exposures to this sector.

Anticipating, monitoring and mitigating financial stability risks linked to **climate change and environmental degradation** is increasingly becoming an essential task for national and EU authorities. Transition and physical risks impact individual financial institutions and the broader financial sector (including non-bank financial intermediaries). These risks can affect borrowers' solvency and the value of real estate loan collateral equally – extreme weather events, including heatwaves, wildfires, and the recent severe floods experienced globally, have vividly demonstrated the significant harm that vulnerable real estate properties and other assets could endure. Assets that generate significant greenhouse gas emissions could be subject to accelerated depreciation, as the economy moves towards climate neutrality in line with the EU climate law.[45] A significant exposure of financial institutions to these assets should therefore be covered with adequate buffers. Currently, climate-related financial risks are mainly considered in stress-tests,[46] but they are not yet factored in more broadly in macroprudential requirements. The EU and international fora (ESRB, ECB, the Financial Stability Board (FSB), the Network for Greening the Financial System), currently discuss how to better tackle these risks with macroprudential tools. The agreement reached on the "Banking Package" clarified that the SyRB could be used to deal with risks related to climate change and climate transition.

System-wide cyber-risk raises major concerns from a macroprudential perspective in an increasingly digitalised financial sector, exposed to growing cyber-threats. Reliance on third-party ICT providers allows financial institutions to achieve state of the art protection against cyber threats, but reliance on critical infrastructure provided by third-party providers may also create new vulnerabilities and concentration risks. Financial stability can be disrupted when cyber incidents spread rapidly across banks, non-banks and financial market infrastructures via financial and information technology connections, and a common dependence on third-party service providers. The DORA framework[47], the Directive on cybersecurity[48] and ongoing work to respond to the ESRB recommendation on cyber incident coordination,[49] as well as supervisory stress test of banks' resilience to cyberattacks by the Single Supervisory Mechanism,[50] aim to mitigate these risks.

Vulnerabilities of non-bank financial intermediaries (NBFIs)

For NBFIs, the FSB and the ESRB have identified three main structural vulnerabilities of different intensity and that are only partially tackled by the current macroprudential measures, which can contribute to the build-up of systemic risk. The three vulnerabilities are systemic liquidity mismatches, (excessive) leverage and interconnectedness. A limited and fragmented macroprudential supervision of

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45 Regulation (EU) 2021/1119 of the European Parliament and of the Council establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law'), OJ L 243, 9.7.2021.

46 The EBA has dedicated mandates on climate risk stress test. The ECB also performs climate risk stress tests and incorporates the results of these tests in the Supervisory Review and Evaluation Process (SREP) using a qualitative approach.

47 Regulation (EU) 2022/2554 of the European Parliament and of the Council of 14 December 2022 on digital operational resilience for the financial sector and amending Regulations (EC) No 1060/2009, (EU) No 648/2012, (EU) No 600/2014, (EU) No 909/2014 and (EU) 2016/1011.

48 Directive (EU) 2022/2555 of the European Parliament and of the Council of 14 December 2022 on measures for a high common level of cybersecurity across the Union, amending Regulation (EU) No 910/2014 and Directive (EU) 2018/1972, and repealing Directive (EU) 2016/1148 (NIS 2 Directive; OJ L 333, 27.12.2022). The Directive is a horizontal type of legislation applying to a number of sectors and requires entities, such as cloud service providers, data centres, managed service providers or managed security service providers, to take cybersecurity risk management measures, including supply chain security measures. The Commission has to adopt an implementing act further specifying the cybersecurity measures with respect to these types of entities by 17 October 2024.

49 ESRB recommends establishing a systemic cyber incident coordination framework (europa.eu).

50 ECB to stress test banks' ability to recover from cyberattack (europa.eu)

NBFIs across Member States may also create an additional source of systemic risk for the EU's financial system.

Systemic liquidity mismatches can arise from large and unexpected shifts in liquidity demand if there is a naturally scarcer supply of liquidity in times of stress. In March 2020, precautionary demand for liquidity in the economy and related cash needs by financial institutions led to the broad-based selling of financial assets, the so called "dash for cash".[51] On the supply side, a lower risk appetite, regulatory constraints (with implementation of the Basel III framework) and operational challenges limited liquidity provision by banks and broker dealers. In September 2022, the surge in interest rates of UK gilts (and the subsequent fall in prices of financial assets) sparked fear in the pension funds sector, where Liability-Driven (LDI) strategies led to a major sell-off of UK gilts, which in turn caused the Bank of England to intervene with a large asset purchase programme.[52] On 28 September 2023, the Bank of England announced the plan to create a new liquidity tool for NBFIs, which will initially cover insurance and pension funds and may potentially be extended to all NBFI entities that meet certain eligibility (*ex-ante* resilience) requirements.[53]

In addition, the market stress caused by the COVID outbreak in March 2020 revealed that certain money market funds (MMFs) can be susceptible to runs by investors (implying a first-mover advantage) that can exacerbate liquidity shocks, as MMFs must sell their assets to fund very large outflows in exceptional circumstances. This can often happen in connection with liquidity and transparency of the underlying short-term funding markets.[54] The Commission actively engages in international discussions on measures that aim to tackle systemic liquidity mismatches. The focus of international discussions is on pre-emptive liquidity measures (such as liquidity buffers or new margining practices) and on liquidity measures whose effects and use are amplified by systemic events (like sector-wide liquidity management tools or the power to suspend redemption rights, also called '*ex-post* liquidity measures') in various NBFI sectors, including investment funds, pension funds, and insurance companies.[55]

Liquidity mismatches are often amplified by **excessive leverage** that, once it becomes unsustainable due to related financing costs, can lead to sudden unwinding of positions in the market (deleveraging) and assets fire sales, with spill-over effects on other parts of the financial system and the economy. The case of Archegos Capital Management in March 2021, a 'family office' operating like a hedge fund, is an example of the impact the use of leverage, combined with liquidity mismatches, can have well beyond NBFIs. The collapse of Archegos spread major losses across financial institutions (and most of all on Credit Suisse with a $5.5 billion loss) due to a large (leveraged) exposure to few stocks via total return swaps and contracts for difference, which gave Archegos the possibility to leverage 5-6 times the invested capital.[56] The trades were underreported due to the regulatory status of family offices, which were unregulated both in Europe and the US. Nonetheless, some trades were visible when trading with European counterparts operating under EMIR reporting (mainly UK banks), but insufficient to give a full and timely picture that could trigger supervisory intervention at least on bank counterparts.

The FSB work also highlights pockets of high synthetic leverage in some NBFI entities, notably some hedge funds and Liability-Driven Investment (LDI) funds,[57] which in some cases also display a high degree of interconnectedness. Ongoing work at both EU and international levels aims at gaining a

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[51] See, FSB (2020), Holistic Review of the March Market Turmoil - Financial Stability Board (fsb.org), p.11.
[52] For more information see, Bank of England (2023), An anatomy of the 2022 gilt market crisis, Staff Working Paper No. 1019, 31 March 2023.
[53] A journey of 1000 miles begins with a single step: filling gaps in the central bank liquidity toolkit - speech by Andrew Hauser | Bank of England.
[54] See, European Commission (2023), Report from the Commission on the adequacy of Regulation (EU) 2017/1131 on money market funds from a prudential and economic point of view (europa.eu) and ESRB (2022), The market for short-term debt securities in Europe: what we know and what we do not know (europa.eu).
[55] The FSB is also contemplating a list of actions on margin practices for both users (margin preparedness) and market infrastructure operators, some of which are already included in the EMIR framework. See, FSB (2022) Enhancing the Resilience of Non-Bank Financial Intermediation: Progress report (fsb.org), p. 25.
[56] or more details, ESMA (2022), ESMA publishes ex-post analysis of derivatives risks in Archegos (europa.eu).
[57] See, FSB (2023), The Financial Stability Implications of Leverage in Non-Bank Financial Intermediation - Financial Stability Board (fsb.org).

deeper understanding on the way existing reporting and disclosure frameworks can effectively tackle excessive leverage. This involves ensuring that leveraged positions remain transparent and reconcilable, even when complex legal structures or intricate derivative instruments are involved. Furthermore, national and EU supervisory bodies are actively exploring ways to utilise reported data to manage such risks effectively and promote data sharing to minimise additional reporting burdens on market operators.[58] Discussions are also underway on potential limits to the accumulation of leverage in specific sectors, particularly in unregulated legal entities such as family offices.[59]

Interconnectedness among NBFIs and with the banking sector increases the risk of contagion across the financial sector, with potential negative spillover effects on the economy. For example, insurance and pension funds are the largest domestic investors in euro area investment funds (excluding MMFs), at around 25%, followed by households at 19% and investment funds (which invest in other funds) at 16%.[60] Conversely, investment funds and OFIs are an important source of funding for the banking sector as they held 14% of euro-area banking sector liabilities in the first quarter of 2023. Including insurance companies and pension funds, NBFIs hold roughly 28% of outstanding bank debt securities in the euro area.[61]

This interconnectedness can exacerbate the negative impact of liquidity shocks or excessive leverage mentioned above or even hide vulnerabilities and the build-up of systemic risk. A major risk associated with interconnectedness between NBFIs, and the banking sector is the potential cross-sectoral transmission of financial shocks. If an NBFI experiences financial distress, it can transmit this distress to its counterparties in the banking sector and to other NBFIs through both asset and liability exposures (e.g., derivative positions, bank security holdings and repo funding). The default of Archegos highlighted the importance of strong risk management and the way interconnectedness can heighten the credit risk for banks (as it happened to Credit Suisse for instance). Banks can also transmit distress to NBFIs, as they are central to the functioning of derivatives markets and are also large lenders to NBFIs.

NBFIs and banks can be interconnected via common exposures, if they invest in similar assets or have exposures to the same counterparties. If these common exposures are subject to financial stress, NBFIs and banks may be impacted simultaneously, increasing the potential for a systemic crisis. Moreover, if NBFIs and traditional banks act in sync they can trigger large fire sales on common assets (e.g., the market turmoil in March 2020, the liquidity crunch for energy companies caused by spikes in margin calls due to the energy crisis in March 2022). Supervisors are monitoring potential vulnerabilities stemming from interconnectedness within NBFIs and with banks via direct links (e.g., holdings between banks and NBFIs and among NBFIs or margin calls) and indirect links (e.g., common asset exposures).

Last, but not least, due to these structural vulnerabilities and the complexity in supervising such interconnected sectors, the merits of **a more consistent and coordinated macroprudential framework for NBFIs** should be further assessed. There are currently only a few macroprudential measures applicable to NBFIs and supervision of such tools for each sector spans across different supervisors even within the same jurisdiction. For example, under the AIFMD/UCITS directives, national competent authorities have the power to suspend investors' redemption rights when funds face financial stability risks and national supervisors have exercised this power individually in the past. There is limited experience on the coordinated use of such power when facing a broader EU-wide risk to the financial stability.

Supporting a consistent application of macroprudential tools and sufficient coordination among supervisors within the EU and with supervisors in third countries are key to effective macroprudential

[58] The European Commission has also adopted a broader Strategy on supervisory data in EU financial services (europa.eu) in December 2021 targeting sharing and reuse of supervisory data across the financial system.
[59] This includes consideration of new metrics for measuring leverage tailored to various NBFIs, particularly those introduced through off-balance-sheet activities, such as targeted off-balance-sheet derivatives or securities financing transactions. For instance, to what extent transactions involving pledged collateral are reported on the balance sheet of NBFIs and how these positions can be reconciled using current reporting requirements.
[60] ESRB (2022), EU Non-bank Financial Intermediation Risk Monitor 2022 (europa.eu), July 2022.
[61] See, ECB, Financial Stability Review, May 2023, Special feature on "Key linkages between banks and the non-bank financial sector".

policies. Fragmentation between sectors and national jurisdictions raises important questions on how to ensure effective coordination among Member States (especially in relation to systemic events that affect more than one Member State) and how to share the necessary data among authorities under the current reporting frameworks.