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| date of receipt: | 15 May 2014                                                                                  |
| To:              | Mr Uwe CORSEPIUS, Secretary-General of the Council of the European<br>Union                  |

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Delegations will find attached document SWD(2014) 158 final - PART 1/3.

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EUROPEAN  
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Brussels, 15.5.2014  
SWD(2014) 158 final

PART 1/3

**COMMISSION STAFF WORKING DOCUMENT**

**Economic Review of the Financial Regulation Agenda  
Chapters 1 to 4**

*Accompanying the document*

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN  
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL  
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

**A reformed financial sector for Europe**

{COM(2014) 279 final}

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## EXECUTIVE SUMMARY

### Key messages

- The financial crisis showed that a fundamental overhaul of the regulatory framework in the financial sector was necessary.
- The reforms will deliver greater financial stability. The financial system has already changed and improved in key aspects, and this will continue as the reforms take effect.
- Greater financial stability is being achieved without sacrificing the other key public policy objectives of efficiency, market integrity (including consumer protection), and financial integration. On the contrary, the reforms support these objectives.
- Many of the costs of the reforms are private costs to financial intermediaries that arise in the transition to a more stable financial system and are offset by wider economic and societal benefits. The reform agenda has been mindful of the need to minimise costs, allowing longer phasing-in and observation periods and adjusting rules where required.
- As a result, the financial reform agenda will help build a financial system that serves the economy and facilitates sustainable economic growth.
- There is a need for ongoing monitoring and review to assess the effectiveness and market impacts of the reforms and to identify new risks and vulnerabilities that may require policy action.

In response to the financial crisis, the EU has pursued an ambitious regulatory reform agenda that has been coordinated with international partners in the G20. The aim has been to restore financial stability on a global scale and build a financial system that serves the economy and can play its part in putting the EU back on a path of sustainable growth.

The Commission has followed a detailed roadmap in reforming the financial system. In 2009, the Commission set out the way forward for improving the regulation and supervision of EU financial markets and institutions.<sup>1</sup> Building on this roadmap, in 2010, the Commission announced further measures to bring about a safe and responsible financial sector which is conducive to economic growth and delivers enhanced transparency, effective supervision, greater resilience and stability as well as strengthened responsibility and consumer protection.<sup>2</sup> The subsequent emergence of specific risks which threatened financial stability in the euro area and the EU as a whole called for deeper integration to put the banking sector on a more solid footing and restore confidence in the euro. This led to the development of the Banking Union.<sup>3</sup>

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<sup>1</sup> Communication on 'Driving European recovery'; COM(2009) 114 final. This followed the recommendations of a group of high-level experts, set up by the Commission and chaired by Mr de Larosière (Report of the High-level Group of Financial Supervision in the EU, 25 February 2009).

<sup>2</sup> Communication on 'Regulating financial services for sustainable growth'; COM(2010) 301 final

<sup>3</sup> Communication on 'A roadmap towards a Banking Union' COM(2012) 510 final. Communication on 'A blueprint for a deep and genuine economic and monetary union – Launching a European debate'; COM(2012) 777 final/2.

As this Commission approaches the end of its mandate, this study provides an economic review of the EU financial regulation agenda.<sup>4</sup> Building on the individual impact assessments that have accompanied each reform proposal adopted by the Commission, the study examines the overall coherence of the reform agenda and the expected or actual economic impact, including the interactions and synergies between different reforms.

The full impact of the financial reform agenda can in principle only be assessed in the years to come, but even then it will be difficult to isolate regulatory impacts from other factors, such as the direct consequences of the crisis (e.g. increased risk aversion, uncertain market conditions, monetary policy interventions and low interest rates) and wider macroeconomic, technological and demographic changes. Pre-crisis market conditions cannot serve as the relevant benchmark, as it is precisely the boom-bust experience which much of the financial reform agenda aims to avoid being repeated.

In addition, there are severe data limitations that impede the quantitative assessment of many reform measures. For this reason, it would not be possible to come up with a reliable and comprehensive quantitative estimate of the total costs and benefits of regulation. This is also because available models simply do not allow the inclusion of key expected impacts, in particular certain categories of benefit. Therefore, the approach taken in this study is largely qualitative in nature, using quantitative evidence where available, relevant and appropriate.

The EU financial regulation agenda is gradually strengthening regulation and supervision to improve the stability and functioning of the financial system for the benefit of the economy. Legislative measures have only recently been adopted, and some are yet to enter into force. These measures now need to be implemented in full across the EU and systematically and effectively enforced. Many of them are subject to longer phasing-in periods and will be complemented with delegated and implementing acts. Accordingly, this study should be understood as a first step of a longer process of systematic review and evaluation of the reforms.

## **THE COST OF THE CRISIS AND THE NEED FOR REFORM**

Financial institutions and markets play a vital role in any developed economy. They provide lending to households and businesses. They help individuals to save and invest for their future and channel savings to support the economy. They help corporations and households in better managing and insuring against risks. And they facilitate payment transactions. By performing these key functions, a well-functioning financial system contributes to economic growth and prosperity. Past experience has shown, however, that failure of the financial system can have profound negative consequences for the wider economy.

Misaligned incentives and other severe deficiencies in the financial system, combined with shortcomings in the regulatory and supervisory framework, were key contributors to the financial crisis. The multitude and severity of problems called for far-reaching financial reforms.

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<sup>4</sup> The review only covers financial services regulatory reform and not the other important reforms taken in response to the crisis.

In the years preceding the crisis, the global financial system had grown significantly in size and become increasingly interconnected through long and complex intermediation chains, increasing systemic risks. The total assets of monetary financial institutions in the EU increased to more than EUR 45 trillion (or more than 350 % of EU GDP), with the largest EU banks holding more than EUR 1 trillion each. Leverage strongly increased as part of the active balance sheet expansion of banks, and banks relied more on short-term wholesale funding. The rapid growth of the financial sector was also facilitated by a surge in innovative but often highly complex financial products that allowed financial institutions to expand activities on and off their balance sheets.

Policymakers, regulators and supervisors failed to assess and adequately address the risks building up in the global financial system. They failed in macro-prudential surveillance and in keeping up with financial innovations. Many activities largely escaped any regulation and oversight. Moreover, while the operations of the largest financial institutions expanded significantly across borders and markets became increasingly integrated internationally, regulatory and supervisory frameworks remained largely nationally focused.

With the start of the financial crisis, all these deficiencies unravelled. What started as a sub-prime crisis in the USA in 2007 quickly spilled over into a full-blown global financial crisis. In Europe, the financial crisis later turned into a wider sovereign debt crisis with significant implications for the economy as a whole.

The financial and economic crisis caused large costs to the EU economy:

- Between 2008 and 2012, European governments provided state aid totalling EUR 1.5 trillion to prevent the collapse of the financial system (i.e. more than 12 % of 2012 EU GDP). In addition, central banks had to provide significant liquidity support. For example, as part of its three-year long-term refinancing operations in 2011 and 2012, the ECB lent some EUR 1 trillion to banks in the euro area.
- Output declined sharply and, for some EU countries, GDP remains below pre-crisis levels. While the final costs associated with output losses are still unknown, the cumulative output losses, measured in present value terms, may amount to 50-100 % of annual pre-crisis EU GDP (about EUR 6-12.5 trillion, based on 2008 GDP).
- The crisis wiped out financial wealth, including wealth accumulated by households. The total net financial assets of households in the euro area declined by nearly 14 % between mid-2007 and mid-2009, but have since recovered. This average conceals major differences between Member States.
- Households' trust in the financial sector has been considerably damaged. More than 60 % of EU citizens surveyed in 2013 stated that they had lost confidence in the financial sector (as well as in the relevant authorities) as a consequence of the crisis. Trust can be quickly lost but is slow and difficult to restore.
- The crisis was accompanied by significant job losses in the EU and increased poverty and inequality. The EU unemployment rate increased from a pre-crisis low of 7.2 % in 2007 to 10.8 % in 2013, with unemployment rising to more

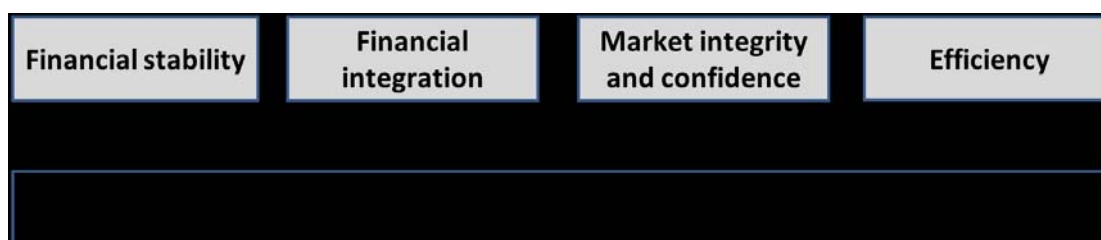
than 25 % in Greece and Spain. Compared with the end of 2007, an additional 9.3 million people are now unemployed in the EU. Youth unemployment has risen more sharply, and there is a risk of social tensions and of a lost generation in some Member States. Between 2008 and 2012, the number of people at risk of poverty and exclusion in the EU has increased by 7.4 million.

## THE OBJECTIVES AND THE EXPECTED BENEFICIAL EFFECTS OF THE REFORMS

The EU financial regulation agenda has been guided by the aim of creating a safer, more transparent, and more responsible financial system, working for the economy and society as a whole, and contributing to economic growth. The reform measures deliver on these objectives by:

- enhancing financial stability and the resilience of the financial system to reduce the likelihood and impact of future financial crises in the EU;
- restoring and deepening the EU single market in financial services.
- securing market integrity and confidence in the EU financial system by protecting consumers and investors, countering market abuse and enhancing disclosure and transparency;
- improving the efficiency of the EU financial system and ensuring that transaction costs are minimised and financial services are priced correctly to reflect underlying risks.

Chart 1: Overview of the reform objectives



### Financial stability

The EU took a comprehensive set of measures to strengthen the stability and resilience of the financial system. Taken together, the measures are expected to reduce the build-up and emergence of systemic risk across the financial system, thereby reducing the incidence and adverse effects of future financial crises.

In the **banking sector**, the crisis proved that existing rules were inadequate and needed to be adjusted, in order to:

- *Enhance deposit guarantees*: Only weeks after the Lehman failure in 2008, the Commission proposed to increase the coverage level of deposit guarantee schemes (DGS), which led via an interim step to a harmonised coverage of

EUR 100 000 since 2010. This measure immediately increased depositor confidence and helped mitigate the risk of bank runs across the EU.<sup>5</sup>

- *Decrease the probability of individual bank failure:* The new Capital Requirements Directive and Regulation (the CRD IV package) increase the level and quality of bank capital, thereby improving banks' capacity to absorb losses. They are also enhancing individual banks' resilience to liquidity shocks and limit the over-reliance on short-term funding. Combined with rules on better internal risk management and governance, these measures are expected to significantly reduce the probability of individual bank failure.
- *Reduce pro-cyclicality and systemic risk:* The CRD IV package requires banks to build additional capital buffers in good times that can be used in periods of stress. It also introduces additional capital requirements for systemically important banks and other measures to reduce the interconnectedness and systemic risk in the banking sector.
- *Facilitate crisis management and resolution:* a new Directive for bank recovery and resolution (BRRD) was proposed and has been agreed between the co-legislators in order to reduce the impact of bank failures on the economy and in particular to help ensure that the costs of failure are not borne by taxpayers. The BRRD entrusts national authorities with crisis management and bank resolution tools, including specific powers to impose losses on shareholders and unsecured creditors (bail-in) so as to reduce the likelihood of taxpayer-financed bail-outs.
- *Address the 'too-big-to-fail' problem:* The BRRD ensures an orderly resolution of EU banks in general, reducing systemic risk and hence the need for state aid to maintain financial stability. The complex structure of certain heavily interconnected and systemically important banks makes them harder to resolve. The expectation of state support leads to an implicit subsidy for these banks. The Commission's proposal on structural measures, including the proposed prohibition of proprietary trading and eventual separation of trading from deposit-taking and commercial banking activities, would further facilitate their resolution and mitigate the distortionary effects of the implicit subsidy.

To effectively reduce systemic risks across the financial system as a whole, the banking sector reforms have to be complemented with reforms to improve the functioning of **financial markets** and increase the stability and resilience of **financial market infrastructures**.

- *More resilient securities trading:* The revised Markets in Financial Instruments Directive (MiFID II) strengthens organisational requirements and safety standards across all EU trading venues and extends trade transparency requirements to bond and derivatives markets. It also introduces regulatory safeguards to control the risks related to algorithmic and high-frequency trading.

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<sup>5</sup> Full references for the different measures are provided in the relevant sections of the study.

- *Less risky and less opaque derivative markets:* Global derivatives markets had grown exponentially prior to the crisis (to more than USD 700 trillion in notional value or more than 12 times of world GDP in 2008) and were largely outside the perimeter of regulation. In coordination with the G20, EU reforms improve the transparency of derivatives that are traded over-the-counter (OTC) and reduce counterparty risk. The European Market Infrastructure Regulation (EMIR) requires all standardised derivative contracts to be cleared by a central counterparty (CCP), and all derivatives transactions to be reported to trade repositories. MiFID II further requires those derivatives to be traded on multilateral trading venues. More risk-reflective margins and improved risk management for non-centrally cleared trades will help reduce bilateral counterparty risk. In addition, new requirements to report trades to trade repositories will allow supervisors to better monitor risks and exposures.
- *Stronger settlement systems:* By imposing common prudential, organisational and business conduct standards, the Regulation on central securities depositories (CSDR) will increase the resilience of central securities depositories (CSDs), which settled about EUR 887 trillion worth of transactions in the EU in 2012. The regulation will also enhance the safety of the settlement process, in particular for cross-border transactions, and ensure that buyers and sellers of securities receive their securities or money on time and without undue risk.

Together, MiFID II, EMIR and CSDR form a framework in which systemically important market infrastructures are subject to common rules at a European level. A regulation was also adopted to address specific concerns raised by short-selling and credit default swaps.

All financial markets, products and participants need to be adequately regulated and subject to appropriate oversight. **Shadow banking** (i.e. the system of credit intermediation that involves entities and activities outside the regular banking system) presents an important source of finance but can raise systemic risks. In the pre-crisis years, the shadow banking sector had grown significantly in size (to USD 31 trillion in total assets in the EU, according to estimates of the Financial Stability Board) and was largely unregulated. It had also become highly interconnected, with strong links to the banking sector. In coordination with the G20, the EU reform agenda therefore includes a number of key measures to reduce systemic risk associated with shadow banking, although work in this area continues.

- Requirements are imposed on regulated banks and insurance companies in their dealings with the shadow banking sector.
- A harmonised framework for alternative investment funds managers (AIFMD) has been introduced to properly supervise hedge funds and other alternative funds and particularly their leverage and counterparty risk exposures.
- The proposed regulation on money market funds (MMFs) will enhance the resilience of MMFs by requiring adequate liquidity and capital buffers.

- The proposal on transparency and reporting requirements for securities financing transactions will reduce the opacity of shadow banking activities and allow better supervision and monitoring of those activities.

Stability is also reinforced by a new regulatory framework for the **insurance sector**. Well before the crisis, it had become apparent that the prudential regime for insurers was no longer adequate. From 2016, a new prudential framework (Solvency II) will be applied that is risk-based and market-consistent to increase the resilience and stability of the European insurance sector.

### **Financial integration and the EU single market in financial services**

In response to the crisis, a number of Member States took action on their own and adopted regulatory reforms aimed at curbing financial stability risks at national level. National responses were however often divergent and, given the integration of markets, risked being ineffective and creating arbitrage opportunities. A key benefit of regulatory and supervisory intervention at EU level therefore derives from **a coordinated and consistent response to the crisis** across the EU and better coordination with international partners in the G20.

Previously, EU financial services legislation was largely based on minimum harmonisation, allowing Member States to exercise considerable flexibility in transposition. This sometimes led to uncertainty among market participants operating across borders, facilitated regulatory arbitrage and undermined incentives for mutually beneficial cooperation. The Commission has therefore proposed to establish a single rulebook, providing for a single set of uniform rules for the financial sector throughout the EU. The **single rulebook** will ensure a single regulatory framework and its uniform application across the EU.

The creation of the **European System of Financial Supervisors (ESFS)** — and in particular the three European supervisory authorities: the European Banking Authority (EBA), the European Securities and Markets Authority (ESMA), and the European Insurance and Occupational Pensions Authority (EIOPA). These EU agencies, operating since 1 January 2011, are important to further develop the single rulebook and ensure consistent supervision and appropriate coordination among supervisory authorities in the EU. In addition, the European Systemic Risk Board (ESRB) monitors macro-prudential risks across the EU and can issue warnings and recommendations to call for corrective action.

The reform agenda is underlined by a new horizontal approach to **sanctioning regimes** to improve enforcement through more effective and sufficiently deterrent sanctions across the whole spectrum of financial sector legislation.

### **Banking Union**

The financial crisis revealed weaknesses in the institutional structures supporting economic and monetary union (EMU). The crisis abruptly halted financial integration, and fragmentation threatened the integrity of the single currency and the single market. While banks had diversified geographically and engaged in significant cross-border activities, they remained closely linked to the Member State in which they

were headquartered, contributing to the negative sovereign-bank feedback loop that weakened banks and sovereigns in some Member States.

Building on the single rulebook, the first pillar of the Banking Union is the Single Supervisory Mechanism (SSM), which transfers key supervisory tasks for banks in the euro area and other potential participating Member States to the European Central Bank (ECB). The ECB will fully carry out its new supervisory mandate as of November 2014. In preparation for its new supervisory role the ECB is currently conducting an asset quality review and a stress test, in coordination with the EBA, which will be vital for restoring confidence in the European banking system and ensuring a smooth transition towards the SSM.

The second pillar of the Banking Union - the Single Resolution Mechanism (SRM) – will achieve an integrated and effective resolution process at European level for all banks in participating Member States. A Single Resolution Fund, funded through bank contributions, will be set up, but recourse to the fund is only possible after appropriate burden-sharing by shareholders and creditors.

The Banking Union is expected to ensure high and common standards for prudential supervision and resolution of banks in the euro area and other participating Member States. It will also improve financial integration and support the transmission of ECB monetary policy.

### **Market integrity and confidence**

Integrity is about trust and confidence in the financial system, which largely depends on transparent and reliable information flows, ethical and responsible behaviour of financial intermediaries and their fair treatment of consumers. Failures in these areas were highlighted by the crisis and by more recent scandals of abusive market practices, including the manipulation of interest rate benchmarks (LIBOR and EURIBOR) and the alleged manipulations of benchmarks in foreign exchange and commodity markets. While the damage is difficult to quantify, it is likely to be large and in excess of the billions of euros of record fines that banks had to pay.

The financial regulation agenda secures greater market integrity and confidence by:

- *Countering market abuse*: the revised Market Abuse Regulation and Directive on Criminal Sanctions for Market Abuse (MAR/CSMAD) will establish tougher rules to better prevent, detect and punish market abuse. Also, the Commission's proposal for a regulation on financial benchmarks would enhance the robustness and reliability of benchmarks and counter their manipulation.
- *Improving the protection of consumers*: Several proposals seek to ensure that consumers have fair access to financial services and benefit from the required protection, irrespective of whether they consume banking, insurance or investment products and services. The measures provide for: the establishment of EU-wide responsible mortgage lending standards (Mortgage Credit Directive, MCD); better information disclosure and higher standards for financial advice and distribution (MiFID II, MCD, the Payment Accounts Directive (PAD), the revised Insurance Mediation Directive (IMD II), and new

rules on packaged retail and insurance-based investment products (PRIIPs) and undertakings for collective investment in transferable securities (UCITS)); enhanced protection of the assets of consumers (DGS, rules on asset safekeeping in UCITS, AIFMD and MiFID II); a prohibition of some surcharges (regulation on multilateral interchange fees); more secure alternative payment methods (Payment Services Directive II); and more transparency of bank account fees, easier bank account switching procedures, and access to basic bank accounts (PAD).

- *Enhancing the reliability of credit ratings and financial information:* The rules on credit rating agencies (CRAs) should increase the independence and integrity of the ratings process and enhance the overall quality of the ratings. Audit reforms aim to improve the quality of statutory audits within the EU and, combined with reforms of the international accounting standards that apply in the EU, should help enhance confidence in financial statements, in particular those of banks, insurers and large listed companies.

## Efficiency

By addressing underlying market and regulatory failures, the financial reform agenda improves the efficient functioning of the financial system. The main efficiency benefits are expected to come from the following:

- *Enhancing transparency:* Improved disclosure and reporting requirements in various reform initiatives will not only provide vital information for supervisors but also reduce information asymmetries in the system for all market participants. Furthermore, various transparency and disclosure requirements in retail financial services help to better inform consumers, thereby enhancing the competitive functioning of the market.
- *Reducing distortions in the single market:* Banking Union, the establishment of a single rulebook and other measures supporting financial integration contribute to efficiency by levelling the playing-field and facilitating cross-border activities.
- *Reducing the implicit subsidy:* Systemically important banks often benefited from a credit rating uplift due to an implicit bail-out guarantee. The total implicit subsidy has been estimated by the European Commission to be in the range of EUR 72-95 billion in 2011 and EUR 59-82 billion in 2012, based on a sample of 112 EU banks. This amounts to 0.5 % to 0.8 % of annual EU GDP and between one third and one half of the banks' profits. The CRD IV package, the BRRD and proposed restrictions on the activities of large, complex and interconnected banks (i.e. structural reform) will reduce competitive distortions by reducing the implicit subsidy and help to correct mispricing of risks.
- *Ensuring that risks are properly reflected in prices:* The improved prudential framework for banks and the new risk-based capital requirements for insurers in Solvency II, combined with improved risk management standards, will encourage financial institutions to internalise the risk of their activities and contribute to more efficient, risk-adjusted pricing.

- *Enhancing competition and efficiency along the securities trading chain:* The access provisions contained in MiFID II, EMIR and the CSDR reduce access barriers to financial market infrastructures and promote competition along the whole securities trading chain. These initiatives can also increase efficiency by improving transparency and prepare the ground for further initiatives (e.g. the Target 2 Securities project which will consolidate settlement across Europe).
- *Promoting market entry:* The revised CRA Regulation and the audit reforms aim to promote competition by facilitating market entry and increasing the visibility of new entrants.

Efforts have been made to strike a balance between strengthening requirements to ensure financial stability and allowing a sufficient and sustainable flow of finance to the economy.

The reform measures devote particular attention to small and medium-sized enterprises (SMEs), given their particular difficulties in securing external finance and their important role in EU employment and growth. The EU financial framework has been adapted considerably over the last three years, on the basis of an action plan adopted in December 2011.<sup>6</sup> The measures include: reducing the administrative burden and reporting requirements for SMEs (Prospectus Directive, Transparency Directive, Accounting Directive, MAR); creating a dedicated trading platform to make SME capital markets more liquid and visible (MiFID II); addressing the issue of risk weights in the bank capital framework to make SME lending relatively more attractive (CRD IV package); and introducing new EU frameworks for investment in venture capital and in social entrepreneurship funds. The proposal on European long-term investment funds further aims to ensure the long-term financing of SMEs and key infrastructure investment. Additional measures to facilitate the long-term financing of the EU economy are currently being developed, as set out in the March 2014 Communication on long-term financing of the European economy.<sup>7</sup>

### **Complementarity of reforms**

The large number of regulatory reforms at EU level, and their broad scope, is a reflection of the battery of underlying problems that needed to be addressed. No single reform would have been capable of achieving the four objectives of greater stability, integrity, efficiency and integration to improve the functioning of the financial system overall and facilitate sustainable economic growth.

**The combination of different reform measures helps the four objectives to be achieved more effectively and at lower cost.** For example, if higher capital requirements were used as the only regulatory tool to enhance stability in the banking sector, the capital levels required might need to be set so high that it would be difficult for banks to raise sufficient capital, given the size and leverage of their balance sheets. The consequent costs from disruptions to the efficient flow of financial services to the economy could then outweigh the stability benefits. Complementing the new capital requirements with further measures (in particular the

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<sup>6</sup> Communication on 'An action plan to improve access to finance for SME's', COM(2011) 870 final

<sup>7</sup> COM(2014) 168 final

BRRD and structural reform) helps to meet the stability objective while limiting disruptive effects.

Many of **the reform initiatives contribute to delivering more than one key objective of the reform agenda**. The objectives themselves interact and can only achieve a well-functioning financial system when combined. For example, financial integration needs to go hand in hand with a strong regulatory and supervisory framework to avoid cross-border capital flows becoming a source of financial instability. Reforms to the institutional framework to strengthen the single market and the functioning of EMU (ESFS, single rulebook and SSM) therefore target both financial integration and stability. Also, financial stability is of little benefit to the economy if this is achieved by unduly hindering the efficient functioning of the financial system. This is why the reform agenda focuses on correcting market failures. Measures which target information asymmetries (e.g. transparency and disclosure requirements) or which align private incentives with public interests and facilitate risk-reflective pricing in the market (e.g. the package of measures to reduce the implicit subsidy to banks) contribute to both financial stability and efficiency.

**There are cross-sectoral synergies between some reforms.** For example, there are synergies between the CRD IV package in banking and the EMIR reform on derivatives markets. The former imposes higher capital and collateral requirements on banks concluding derivative contracts that are not centrally cleared under EMIR. This will encourage a critical mass of contracts to be cleared through CCPs and thereby effectively enable central clearing to mitigate counterparty risk (as intended by EMIR), contributing to financial stability overall. As a second example, the CRA regulations are strengthened by measures in all EU sectoral legislation to reduce the mechanistic reliance on credit ratings. Finally, requirements for risk retention, due diligence and monitoring of securitisation positions were first introduced in the new bank capital framework and then extended in a consistent manner to Solvency II, AIFMD and UCITS. This cross-sectoral approach reduces the opportunities for circumventing the requirements by shifting exposures to less regulated sectors.

## **THE COSTS AND NET IMPACTS OF THE REFORMS**

Financial reform imposes costs on financial intermediaries (and their shareholders and employees) as it introduces compliance costs and requires adjustments in the way business is conducted. The compliance costs have been estimated as part of the impact assessments of the various legislative initiatives and are laid out in more detail in the main body of the study. A part of these costs are temporary **adjustment costs during transition to a more stable and responsible financial system**. The recurring costs that financial intermediaries will incur on a regular basis to meet the stricter regulatory requirements after the transition period are the costs that matter more in the long-term. These costs are expected to be more than offset by the benefits of enhanced stability and integrity of the financial system.

Costs to financial intermediaries are inevitable and, to a certain extent, are a sign of the effectiveness of the reforms. For example, a reduction in the implicit subsidy for certain large, complex and interconnected banks will increase their funding cost, but this cost is matched by future taxpayer savings and wider financial stability benefits. Similarly, the reforms induce a re-pricing of risks, which again creates costs, but these costs are matched by the benefits of avoiding excessive risk-taking due to underpriced

risks in the market. Thus, **costs to financial intermediaries often do not present costs from a societal perspective and are offset by wider economy benefits.**

For economic welfare, the aggregate societal costs and benefits are relevant, i.e. the impact on all stakeholders in the economy, including users of financial services (e.g. depositors, borrowers and other consumers of financial services), taxpayers and the wider economy.

The impact assessments conducted for the individual reform proposals predict (and in some cases quantify) benefits exceeding costs. Attempts have also been made to produce quantitative estimates of the macroeconomic impact of reforms.

- Based on simulations by the Commission, higher bank capital requirements (as per the CRD IV package) combined with the bail-in and resolution fund (as per the BRRD) are estimated to deliver macro-economic benefits of around 0.6-1.1 % of EU GDP per year (or about EUR 75-140 billion per year, based on 2013 EU GDP).
- In comparison, the macroeconomic costs of the same banking reforms have been estimated in a separate model and show a long-term negative output effect of about 0.3 % of EU GDP per year.
- These results are consistent with results from other studies by public authorities. For example, the long-term economic impact assessment of bank capital and liquidity regulations prepared by the Bank for International Settlement (BIS) confirms significant net benefits.
- The 2013 study by the BIS macroeconomic assessment group on derivatives estimates that the macroeconomic costs of OTC derivatives regulatory reforms would range between 0.03 % and 0.07 % of annual global GDP. The estimated gross benefits from OTC derivatives reforms are 0.16 % of annual global GDP, exceeding the costs more than twofold.

While these estimates show net benefits, they are subject to modelling uncertainty. Also, not all dimensions of reform impact can be included in the available quantitative models. The models are usually static and do not capture the transition to a more stable financial system.

The transition to a more stable financial system is particularly challenging and needs to be managed carefully. The reform process has been mindful of the potential costs of regulation and in particular the interaction of the new rules with the current difficult conditions in financial markets and the wider economy:

- **Longer phasing-in periods** have been granted in the transition phase to minimise costs and potential disruptions during the transition (although the market itself often requires tighter standards ahead of regulatory deadlines).
- Where significant adverse effects were anticipated, the **rules have been adjusted** (e.g. trade finance in the CRD IV package or the long-term guarantee package in Solvency II) or, under certain circumstances,

**exemptions have been granted** (e.g. for pension funds and non-financial corporates in EMIR and for SME growth markets in CSDR).

- Where rules entered uncharted waters, **observation periods** have been applied (e.g. with regard to the leverage ratio and liquidity regulation of banks).
- **Review clauses** have been introduced in all major pieces of legislation.

There are areas of concern where the reforms may contribute to creating new risks or have unintended consequences if left unaddressed. These include, in particular, the risk of increases in the cost of financial intermediation, in particular for long-term finance, disorderly deleveraging, regulatory arbitrage, the complexity of regulation, a concentration of risks at the level of CCPs, potential collateral scarcity and increased asset encumbrance of bank balance sheets. These risk areas are either the subject of ongoing work and addressed through careful implementation or are not considered, at this stage, to require immediate policy action, but they will nonetheless be subject to continual monitoring. Ongoing monitoring and review of all reforms is required to ensure that they deliver their intended benefits while avoiding the undesired effects.

## OVERALL ASSESSMENT

The EU financial regulation agenda addresses the regulatory shortcomings and market failures that contributed to the crisis. The reforms should reduce the likelihood and impact of financial crises occurring in the future. In addition to enhancing financial stability, the reform measures will help meet the other key public policy objectives of market integrity (including consumer protection), efficiency and financial integration.

The total benefits of the financial regulation agenda, if fully implemented, are expected to outweigh the costs. Individual impact assessments showed net benefits, and many of the rules create considerable positive synergies when combined. The reforms are expected to improve the functioning of the financial system and make it more stable, responsible and efficient, to the benefit of the EU economy.

Some important reforms still need to be adopted (e.g. on bank structural reform, shadow banking, financial benchmarks). Also, work in a few remaining areas is still under preparation. In particular, work on a resolution framework for non-banks and to address concerns in shadow banking is ongoing at EU and international level.

In addition to full implementation of the reforms, regulatory attention is focusing on tackling long-term financing and developing a more diversified financial system with more direct capital market financing and greater involvement of institutional investors and alternative financial markets. As set out in the March 2014 Communication on long-term financing, addressing these issues is a priority to reinforce the competitiveness of Europe's economy and industry.<sup>8</sup>

While the reforms address the problems revealed by the recent crisis, the risk of future crises cannot be regulated away. The Commission will remain vigilant and proactive, monitoring financial innovations and identifying new risks and vulnerabilities as they emerge.

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<sup>8</sup> COM(2014) 168 final

## CHAPTER 1: INTRODUCTION

In response to the financial crisis, the EU has pursued an ambitious regulatory reform agenda, coordinated and linked with the G20 reforms. The aim has been to strengthen regulation and supervision of the financial sector to restore and safeguard financial stability and to ensure that the financial sector can play an effective part in putting the EU back on a path of smart, sustainable and inclusive growth, creating jobs and enhancing competitiveness.

The Commission has followed a detailed roadmap in reforming the financial system. In 2009, building on the recommendations of a group of high-level experts, chaired by Mr de Larosière,<sup>9</sup> the Commission laid down the way forward for improving the regulation and supervision of EU financial markets and institutions.<sup>10</sup> Building on this roadmap, in 2010 the Commission further developed its vision of a safe and responsible financial sector which is conducive to economic growth and delivers enhanced transparency, effective supervision, greater resilience and stability as well as strengthened responsibility and consumer protection.<sup>11</sup> The emergence of specific risks which threatened financial stability in the euro area and the EU as a whole called for deeper integration to put the banking sector on a more solid footing and restore confidence in the Euro. This led to the development of the Banking Union.<sup>12</sup>

As this Commission approaches the end of its mandate, this study provides an economic review of the EU financial regulation agenda, with a view to assessing its overall coherence and the ongoing and expected economic impacts.

Each Commission reform proposal has been accompanied by a thorough impact assessment that evaluates in detail the associated costs and benefits.<sup>13</sup> This staff working document does not replace or supersede the individual impact assessments. Rather, the study seeks to evaluate the overall coherence and consistency of the reform package and to review whether the different reform measures have delivered (or can be expected to deliver) their objectives and intended benefits. It also considers the potential interaction between different rules, including any synergies between rules that may reinforce the positive effects but also unintended consequences. The document examines the potential costs and adverse impacts of the rules, including arguments expressed by the financial services industry, that the new regulations may be going too far and reducing the ability of the financial sector to channel finance to the real economy and thereby hinder recovery, growth and employment in the EU economy.

No study has yet attempted to assess comprehensively the total impact of the full set of the newly adopted EU financial services legislations. The available studies often

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<sup>9</sup> High-level Group of Financial Supervision in the EU (2009).

<sup>10</sup> Communication on 'Driving European recovery'; COM(2009) 114 final

<sup>11</sup> Communication on 'Regulating financial services for sustainable growth'; COM(2010) 301 final

<sup>12</sup> Communication on 'A roadmap towards a Banking Union' COM(2012) 510 final. Communication on 'A blueprint for a deep and genuine economic and monetary union – Launching a European debate'; COM(2012) 777 final/2.

<sup>13</sup> Additional impact studies were prepared by international bodies, as well as by industry associations and other bodies. See also annex 1.

focus on the costs of (a subset of) the regulations.<sup>14</sup> Often, these studies focus mainly on the direct costs of regulation to financial intermediaries, whilst ignoring the benefits and wider economic effects. From the public policy point of view the focus should be on the benefits and costs for society, including the impact on consumers, investors, SMEs and the economy as a whole.

Regulatory reform is driven by a number of key objectives, but the resulting benefits are very hard to quantify. For example, the monetary benefit of increased market confidence or the creation of a level-playing field can be very hard to correctly quantify. Any quantitative assessment risks overemphasising the costs of regulation to the extent that they are more easily quantifiable than the benefits.<sup>15</sup>

Many of the legislative measures taken as part of the financial reform agenda only recently entered into force. Moreover, several key measures are subject to phasing-in periods. EU Directives also need to be transposed into national law, and a large number of delegated and implementing acts need to be developed.<sup>16</sup> Thus, the implementation phase over the next few years will be critical.

Implementing the financial reform agenda is not a one-off exercise but a gradual process to restore financial stability and develop a financial system that better contributes to economic welfare and facilitates growth. In addition to phasing in the requirements over time and allowing extended observation periods before some rules are finalised, the reform package comes with explicit commitments to review legislations and allow adjustments to specific rules when this is deemed necessary.<sup>17</sup> In many ways, this study is therefore only the start of a longer process of systematic review of the reforms.

The full impact of the financial reform agenda can, in principle, only be assessed ex-post, but even then it will be difficult to isolate regulatory impacts from other factors, such as the direct consequences of the crisis (e.g. increased risk aversion, uncertain market conditions, monetary policy interventions and low interest rates) and wider macroeconomic, technological and demographic changes. Pre-crisis market conditions cannot serve as the relevant benchmark, as it is precisely the boom-bust experience which much of the financial reform agenda aims to avoid being repeated.

In addition, there are severe data limitations that impede the quantitative assessment of many reform measures. For this reason, it would not be possible to come up with a reliable and comprehensive quantitative estimate of the total costs and benefits of regulation. Any such estimates would not be sufficiently robust and indeed could deliver false conclusions, which could derail implementation of ongoing reforms and misguide future policy. This is also because available models simply do not allow the inclusion of key expected effects, in particular certain categories of benefit. Instead, the approach taken in this study is largely qualitative in nature, using quantitative evidence where available, relevant and appropriate.

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<sup>14</sup> See annex 1 for a review of quantitative studies in the banking sector.

<sup>15</sup> Indirect costs or unintended consequences of regulation are also difficult to quantify.

<sup>16</sup> More than 400 delegated and implementing acts, binding technical standards or empowerments for such acts are required, including about 100 for the Capital Requirements Regulation and Directive IV, about 100 for the revised Markets in Financial Instruments Directive, about 40 for the Bank Recovery and Resolution Directive, and about 60 for Solvency II.

<sup>17</sup> See annex 3.

The study takes an EU-wide perspective. However, it is likely that the impacts of the reforms will differ across Member States, partly due to differences in economic conditions and market structures but also due to differences in national implementation of EU legislation. While the aim is to move to a single rulebook for EU financial services, there remains flexibility in transposition and scope for going beyond EU requirements.

The financial regulation agenda was only part of the EU response to the financial and economic crisis in Europe. Important wider measures were taken, but are not considered in the study. These include, for example, the control of state aid provided to the financial sector, monetary policy, taxation (including the proposed financial transaction tax), structural measures and changes in the economic governance frameworks.

Given the wide-ranging nature of the regulatory reforms of financial services, this study is necessarily selective. While annex 2 provides an overview of all the measures taken, the main part of the study focuses on the key impacts of the EU financial regulation agenda, in particular the important elements of the policy response to the crisis. The study covers Commission proposals adopted by April 2014.

The study is structured as follows:

- Chapter 2 reviews the main functions of the financial system and the required characteristics for the financial system to serve the real economy and contribute to sustainable economic growth.
- Chapter 3 summarises the problems that characterised the financial systems in the years leading up to the financial and economic crisis and that called for wide-ranging reforms of financial regulation.
- Chapter 4 looks at the intended benefits of the financial reform agenda. It presents the main objectives of the reforms and how the different measures help to meet these objectives.
- Chapter 5 discusses the overall coherence and complementarity of the financial reform agenda.
- Chapter 6 considers the potential costs of the reforms, focusing in particular on potential adverse impacts on the provision of finance to the economy.
- Chapter 7 highlights a number of potential new risks and unintended consequences arising from the financial reforms, including those that arise from potential inconsistencies between the reforms. This emphasises the need for ongoing monitoring and review to minimise undesired consequences.
- Annex 1 provides a review of existing studies that seek to examine the costs and benefits of the reforms, focusing mainly on the studies that cover more than one set of rules.

- Annex 2 contains an overview of the legislative measures adopted or proposed as part of the financial regulation agenda since 2009. Annex 3 lists upcoming review reports required in these legislations.
- Annexes 4 and 5 presents estimates obtained from quantitative models of the benefits and costs of certain rules affecting the banking sector.

## **CHAPTER 2: TOWARDS A FINANCIAL SYSTEM THAT DELIVERS SUSTAINABLE ECONOMIC GROWTH**

The financial system enables welfare-enhancing allocation of resources over time. Households save money for future use (e.g. retirement savings) and pay for large expenditures by borrowing money (e.g. home purchase). Companies fund new investment projects and hedge against future risks. Among other things, governments raise money for infrastructure investment and social programs. A well-organised, efficient, and smoothly functioning financial system is hence an important component of a modern economy.

As a result of financial innovation, deregulation and globalisation, the scale of the financial system has increased over the last decades in the EU and across the world both in absolute size and relative to the real economy. This important phenomenon, characterised by significantly increased leverage and interconnectedness, financial innovation, complexity, and higher trading volumes, is referred to as the financial deepening or financialisation of the economy.<sup>18</sup>

However, there does not appear to be a straight-forward causal relationship between the financial intensity of an economy and the annual rate of economic growth in advanced economies.<sup>19</sup> As discussed in chapter 3, the strong financial system growth contributed to imbalances that culminated in an unprecedented and global financial crisis, the consequences of which will be felt for several years to come.

This raises important questions about the financial system. What is the contribution or value added of the financial system towards greater economic well-being? How does the financial system improve capital allocation, economic growth and consumer welfare? What are the characteristics of a well-functioning financial system? Will the financial system, if left to itself, select the levels of debt, leverage and maturity transformation that are optimal from society's point of view, or will it give rise to systemic risk? What should and can be done about it through government intervention (taxation, regulation, institution building) and what can be done when government intervention fails?

The overriding objective of the EU financial reform agenda is to create a financial system that serves the economy and enables sustainable economic growth. This chapter presents a short overview of the key functions of the financial system and its desirable characteristics. This shapes the framework for the analysis presented in subsequent chapters, since the overall effectiveness of the reforms needs to be assessed with respect to achieving a better functioning EU financial system that is capable of performing its desired role in the economy.

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<sup>18</sup> See for example Turner (2010).

<sup>19</sup> See box 6.1.1 for references to the academic literature.

## 2.1 THE ROLE AND BENEFITS OF THE FINANCIAL SYSTEM

The financial system is critically important for the economic well-being of households and corporates, as it fulfils different functions through which it serves the economy and facilitates sustainable economic growth.<sup>20</sup>

First, the financial system performs the important function of "**financial intermediation**". The financial system intermediates between ultimate providers of funds and ultimate users of funds. Ultimate providers of funds are lenders, savers, or investors (households, firms, or governments), whereas ultimate users of funds are borrowers, entrepreneurs, or spenders (again households, firms and governments). There are reasons why this bridge function is important and welfare-enhancing for the real economy. Financial intermediation, or the channelling of funds between ultimate lenders and borrowers, facilitates *productive investment and efficient capital allocation* in the economy. The entrepreneur needs control over the funds for some time to realise ideas, but cannot issue a safe promise. The retired person could release control over such funds, but wants them back later and is not in the position to monitor and control the borrower. The financial system brings them together, making both of them better off, but also benefiting the wider economy through higher economic growth by allocating capital to its most productive uses. In addition, the channelling of funds enables *life-cycle consumption smoothing and inter-generational resource transfers*. Consumers can time their purchases better, by making use of the financial system, which is welfare-increasing. Without the financial system that allows people to transform some of their future human capital in available cash today, they would not be able to buy a house until late in their lifetime. This objective yields welfare benefits to users and providers of funds, but does not necessarily give rise to greater investment and economic growth.

Second, the financial system performs **risk transformation** and **provides insurance services** to risk-averse households and firms, enabling the latter to achieve superior risk-reward outcomes compared to a situation without a financial system. Insurance companies play an important role in managing risks as they allow households and corporates to share their liability by pooling the individual risks and providing coverage in the event of loss. In addition, risks can be tranching, packaged and traded on financial markets. Derivative instruments allow hedging against different risks.

Third, the financial system **organises the payment system** and **provides payment and transaction services** (retail and wholesale) and thereby eases the exchange of goods and services. Consumers want to obtain simple and reliable payment services, such as storage and withdrawal of money, money transfers, ATMs, internet payments, and card services. These services are considered "essential-utility services" and billions of electronic payments are processed each day. The processing of electronic payments requires robust and reliable hardware, software, communication links and communication networks. The payment system provides convenience, trust and reliability to households and firms, which in turn support economic growth. If these services broke down and customers were no longer able to withdraw money from banks, a systemic crisis would arise instantaneously.

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<sup>20</sup> See for example OECD (2010).

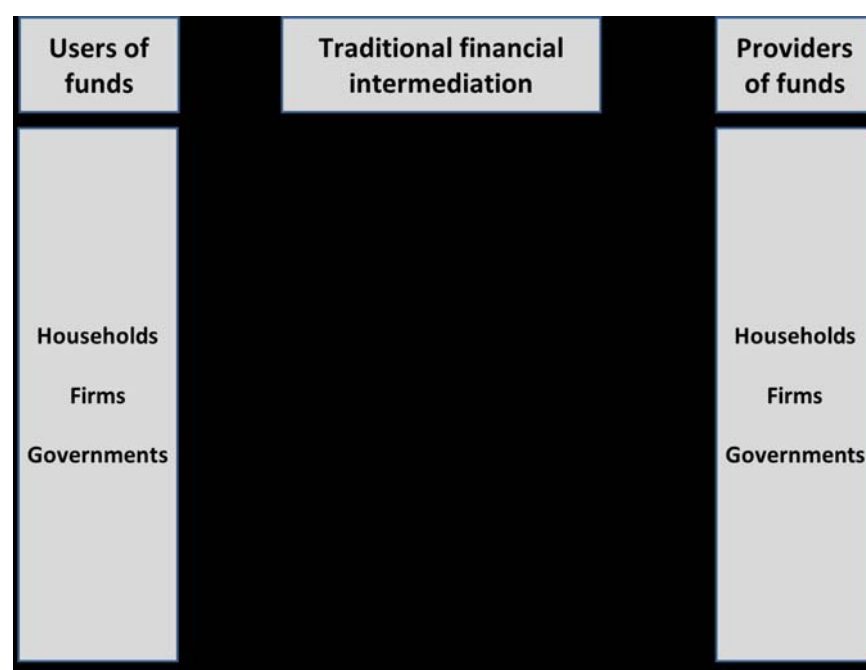
Fourth and finally, the financial system **creates markets** (e.g. for derivatives, asset-backed securities) thereby **allowing the trading and pricing of financial instruments and their risks**. The availability of prices facilitates the allocation of scarce resources and risks, whilst secondary markets allow individuals to reverse investment decisions, thereby enhancing economic welfare. Some welfare-increasing markets would not exist without a vibrant financial system (e.g. the market for safe, simple and robust securitisations, covered bonds, derivatives for hedging against interest, foreign exchange and other risks).

## 2.2 DIRECT VERSUS INDIRECT FINANCIAL INTERMEDIATION CHANNELS

Focusing more on the key function of financial intermediation, there are two distinct approaches to channelling funds from savers as the ultimate providers of funds to entrepreneurs or other ultimate users of funds.

**Direct intermediation** is the channelling of funds *through financial markets without an intermediary*, notably when savers purchase the debt or equity directly from the borrower that has issued these financial securities (in capital markets: equity markets, corporate debt markets, government debt markets). **Indirect intermediation** is the channelling of funds *through financial intermediaries*, notably banks, but also insurers, pension funds, hedge funds, mutual funds<sup>21</sup>. A highly simplified presentation of financial intermediation is depicted in chart 2.2.1.<sup>22</sup>

Chart 2.2.1: Stylised illustration of financial intermediation channels



Source: Commission Services

<sup>21</sup> The distinction is not always straightforward as intermediation via financial markets also tends to be very intermediated, with issuers and investors relying on advisers, investment managers, brokers and so on. Also, there are significant links between the direct and indirect intermediation channels, since banks, insurers, etc. are themselves heavy financial market users (as equity and debt issuers and investors).

<sup>22</sup> "Modern" financial intermediation using shadow banking is presented in chapter 4.4.

Direct and indirect intermediation differ in their relative importance, strengths and weaknesses. It turns out that in the EU **significantly more funds are being channelled from ultimate savers to ultimate borrowers through indirect finance, i.e. through financial intermediaries**. A significant part of the funding of non-financial corporates in the EU takes the form of bank loans (see section 4.2).

It is useful to recall why intermediaries are used and what the economic advantages are of indirect finance over direct finance.

- **Cost savings:** pooling savings by using intermediaries allows the realisation of economies of scale and scope and lowers transaction, contracting, and search costs for savers. Without intermediaries the latter costs would prevent otherwise mutually beneficial transactions taking place;
- **Risk diversification and liquidity insurance:** pooling savings by using intermediaries allows investing in more illiquid, but more profitable securities, while preserving desired liquidity. It also allows households to smooth their intertemporal consumption pattern and is hence welfare enhancing;
- **Information production:** intermediaries act as specialist delegated monitor for lenders and ensure that borrowers use the funds effectively and efficiently. Without intermediaries it would be prohibitively costly to monitor borrowers;
- **Asymmetric information:** intermediaries actively reduce information problems by creating long-term customer relationships, requiring collateral, screening ex ante, and monitoring ex post. Asymmetric information between relatively unknowledgeable savers and knowledgeable borrowers may otherwise give rise to market collapses or missing markets.

### 2.3 NECESSARY REQUIREMENTS FOR A WELL-FUNCTIONING EU FINANCIAL SYSTEM

In order to adequately perform effectively its main functions, the EU financial system should fulfil a number of requirements that define the characteristics of an “ideal” benchmark:

- **Financial stability:** The EU financial system needs to be resilient against external shocks and should not be prone to systemic risk and contagion. The probability of another financial crisis occurring and the resulting costs must be reduced;
- **Market integrity and confidence:** The EU financial system needs to operate in a fair and transparent manner, in the absence of fraud and market abuse. Disclosure should be fair, adequate, accurate and timely. There should be adequate consumer and investor protection to ensure trust and confidence in the financial system;
- **Efficiency:** Financial services should be priced adequately such that their true costs are reflected, and the expected returns on financial securities and instruments should adequately reflect their (systemic) riskiness. When the market fails and underprovides or overprovides certain goods or services, regulatory intervention is justified (see also section 3.2);

- **Financial integration:** The EU financial system should ensure that rules or market conditions for similar services and products do not vary significantly across countries or markets. The EU economy benefits from a single market where financial services and transactions are not constrained to the domestic market but can be undertaken across borders.

These characteristics link back to the earlier Communications setting out the Commission's objectives and roadmap for the regulatory response in the crisis aftermath (see chapter 1). They are discussed further as part of the detailed review of the individual EU legislative initiatives and their complementarities in the subsequent chapters of this study.

As illustrated in chart 2.4.2, the EU financial system will only be functioning well, if it is stable and efficient, displays integrity, and fosters financial integration. Then will it be able to perform its critically important role and functions, such as financial intermediation, organising risk transfer, providing payment services, and adequately pricing risk.

Chart 2.4.2: **The desirable characteristics and key functions of the financial system**



Source: Commission Services

## CHAPTER 3: LESSONS FROM THE CRISIS: THE NEED FOR REFORM

In the years leading up to the financial and economic crisis, the financial system had moved further away from the "ideal" benchmark set out in chapter 2 – i.e. a system that provides what is needed for the economy to function efficiently and deliver sustainable growth. The financial system was characterised by a number of fundamental problems that have become visible since the eruption of the crisis more than six years ago and that called for fundamental reform of financial regulation.

This chapter provides a short reminder of the causes and consequences of the crisis so as to provide the context in which much of the financial regulation agenda was shaped. It summarises the main underlying problems – both the directly crisis-related ones and others – that justified the regulatory measures taken, as analysed in more detail in the following chapters.

### 3.1 A DYSFUNCTIONAL FINANCIAL SYSTEM AND THE CAUSES OF THE GLOBAL FINANCIAL CRISIS

Until 2007, financial markets in Europe had been booming and financial institutions thriving, risk was not properly appreciated and underpriced in the market, funding and market liquidity was abundant, and credit was available at low interest rates. However, these conditions turned out to be unsustainable and contributed to significant and rapidly growing imbalances. The crisis triggered massive state aid intervention, a severe economic recession and enormous costs to public finances, economies and citizens. Its legacy continues to pose financial stability risks and is delaying economic recovery.

The crisis had a number of intertwined causes, which have been analysed in numerous studies.<sup>23</sup> While other factors have played an important role, including global macro-imbalances and accommodating monetary policy, **the deficiencies in the financial system and shortcomings in the supervisory and regulatory framework are generally considered key contributors to the crisis.** Many of these problems were global in nature, rather than specifically European.

In the years preceding the crisis, the financial system had undergone major changes. There had been significant asset growth (on and off balance sheets) of financial institutions, far outpacing the growth of the economy (see chart 3.1.1). Global banking groups – including those with EU headquarters – had grown ever bigger in size and scope (see chart 3.1.2).<sup>24</sup> They had become increasingly interconnected through long intermediation chains of claims and correlated risk exposures arising from increasingly similar investment strategies. Leverage had strongly increased as

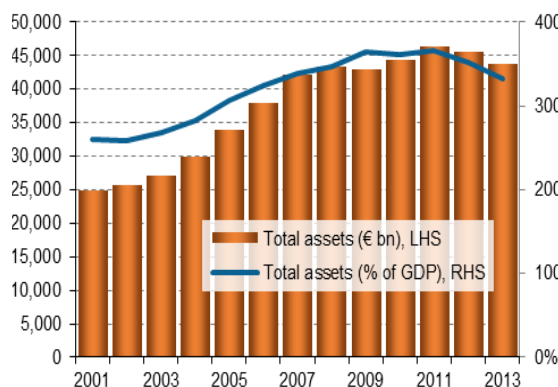
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<sup>23</sup> For example, see: European Commission (2009). Economic crisis in Europe: causes, consequences, and responses, European Economy No.7, September 2009; High-level Group on Financial Supervision in the EU (2009); Claessens et al (2014); Reinhart and Rogoff (2009); Acharya and Richardson (2009); Acharya et al (2009); Roubini and Mihm (2010); Lo (2012); Gorton (2010); and Gorton and Metrick (2012).

<sup>24</sup> This growth had also been partly fuelled by the introduction of the Euro, partly by the enlargement of the EU, but also by the boom of the US financial markets and other factors (e.g. the rapid inclusion of China to the global economy).

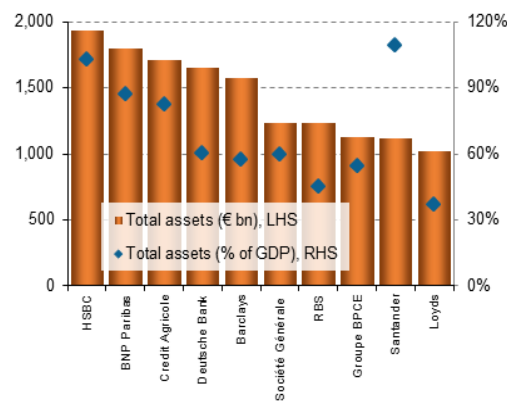
part of an active balance sheet expansion, and bank reliance on short-term wholesale funding had significantly increased. Thus, solvency and liquidity shock absorbers of the large banking groups had declined, despite their growing systemic importance.

Chart 3.1.1: Growth in total assets of EU monetary financial institutions



Source: ECB

Chart 3.1.2: Total assets of a sample of large EU banks, 2013



Source: SNL Financial, ECB.

New savings alternatives to bank deposits, such as money market funds, proliferated and new opportunities for borrowing, in addition to bank loans, emerged. An entire "shadow banking" sector developed, partly with the intention to circumvent prevailing rules, comprising a chain of non-bank institutions which were able to provide similar financial intermediary services as traditional banks.

Trading activities of the large banks increased, contributing significantly to the growth in balance sheets as the banks built up large asset inventories to conduct these activities. In addition, commercial banking moved increasingly away from customer relationship-based banking, where loans are granted and then held to maturity, towards the "originate and distribute" model (or transaction- and fee-oriented model), where granted loans are pooled, then securitised and sold to investors. This shift increased traditional banks' connections to the shadow banking sector and made them become part of the long intermediation chains that are characteristic of shadow banking. Shadow banking activities such as securitisation allowed banks to tap wholesale markets and institutional investors to grow more quickly than was possible by merely relying on relatively slowly growing insured deposits. Banks were increasingly funded by money market funds and other sources of short-term wholesale funding. Previously illiquid loans were being liquefied through securitisation.

The increasing influence of an investment banking-oriented management culture also spurred a focus on short-term profits in commercial banking, which was reinforced by shareholder pressure and short-term performance-based managerial compensation schemes.

**The rapid growth of the financial sector was facilitated by the low interest rate environment and a surge in innovative, but often highly complex financial products** that allowed financial institutions to expand their activities on and off their balance sheets. This was also **helped by the general underpricing of risk** in financial markets. Inadequate regulation, including undue reliance on self-regulation,

and inadequate supervision failed to stop and in some ways even reinforced adverse developments in the market.

The excessive asset growth in the financial sector during the pre-crisis boom was accompanied by asset price bubbles in many markets, such as the housing markets in some EU Member States (see chart 3.4.3). It was also accompanied by the accumulation of excessive levels of debt – not just among financial institutions but also in the wider economy (see charts 3.3.3 and 3.3.4). As further discussed below, there was unbalanced growth in some Member States, which was based on accumulating debt (fuelled by low interest rates and strong capital inflows) but often associated with disappointing productivity developments and competitiveness issues.

The financial system had become much more complex, concentrated, interconnected, and large, i.e. much **more prone to systemic risk**. Systemic risk can be measured by the financial sector's complexity, its interconnectedness and exposure to common shocks, its cross-border activity, and the lack of readily available substitutes for the services or infrastructure provided. The larger the financial sector, the larger the impact of systemic risk on the rest of the economy. Other network industries also have the capacity to create systemic risk and face similar challenges. However, exposure to rare events with a devastating impact (in statistical terms called “tail risk”) is particularly pronounced in the financial system, because it can be created and amplified within the system itself (i.e. it can be endogenous). Moreover, financial companies benefit from public safety nets (e.g. deposit guarantee schemes, implicit bail-outs, lender of last resort facilities), unlike most non-financial sectors.

The following provides a short summary of the main problems that were revealed by the pre-crisis financial boom and subsequent bust, focusing only on those that relate to deficiencies in the financial system and can be addressed by financial regulation reform.<sup>25</sup>

**Inadequate (micro- and macro-prudential) supervision and regulation—** Policymakers, regulators and supervisors did not adequately appreciate and address the risks building up in the financial system. Among other shortcomings, there was a lack of macro-prudential surveillance which allowed uncontrolled and excessive asset growth in the financial sector and the emergence of asset bubbles. Financial regulation was inadequate, often relying on self-regulation, and it did not provide an adequate level of consumer and investor protection. Regulation worked procyclically, i.e. allowing banks to expand their balance sheets during the boom period when there are less capital constraints but then to contract in the recession when capital requirements rise and insufficient capital buffers have been accumulated during the good years. Moreover, while the operations of the largest financial institutions expanded significantly across borders and markets became increasingly integrated internationally, regulatory and supervisory frameworks remained largely national and could not adequately deal with these market developments.

**Leverage and limited ability to absorb losses—**the expansion of the financial sector and bank balance sheets in particular was accompanied by an increase in

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<sup>25</sup> While other studies highlight or prioritise different problems, the ones listed are generally agreed to be among the main problems contributing to the crisis.

leverage. Banks' capital base shrank compared to the level of risk taken, and by the time the crisis hit, a number of important institutions had an equity capital base that amounted to less than 3 % of their balance sheets (see chapter 4.2 for data on bank capitalisation). This allowed banks to record high rates of return on equity, but the increased leverage led to a lower resilience and reduced banks' ability to absorb shocks and losses, as evidenced when the crisis hit. It also turned out that a large part of banks' capital stock (including so-called hybrid capital) was of poor quality and could not absorb losses.

**Limited ability to absorb liquidity shocks**—Banks increasingly relied on short-term funding to finance their balance sheets, tapping in particular the interbank and wholesale markets in repurchase agreements (repo). The increased reliance on unstable short-term wholesale funding (and the resulting increased maturity mismatch between these short-term liabilities and longer-term loans or other assets) made banks vulnerable to liquidity shocks, in particular when combined with increasingly small buffers of liquid assets. When the crisis hit (in particular after the Lehman failure in September 2008) and liquidity evaporated from bank funding markets, large-scale liquidity injections by central banks around the globe became necessary. For many banks, these were not sufficient, because the banks had run out of collateral for central bank operations. In fact, liquidity problems masked imminent solvency problems of many banks. The direct consequence was unprecedented state aid, including public capital injections to strengthen banks' capital base, guarantees on newly issued bank debt to help banks retain access to wholesale funding, and purchases or guarantees of impaired assets to help reduce the exposure of banks to large losses.

**Absence of frameworks to facilitate orderly winding-down of financial institutions**—EU Member States did not have an adequate crisis management mechanism for the resolution and winding down of financial institutions, and there was no common framework at EU level to deal with failures of cross-border financial institutions. When the crisis hit, many banks were considered to be too big (or too important and interconnected) to be allowed to fail. They therefore had to be rescued with large-scale taxpayer-funded bailouts to prevent a worsening of the systemic crisis and to cushion adverse effects on the economy. Due to the absence of adequate resolution tools, even relatively small financial institutions were deemed too big or too important to fail and hence bailed out.

**Too big to fail**—Banks effectively benefit from an (implicit or explicit) public subsidy to their funding costs. This in turn results in numerous distortions (over and above the costs to public finances). In particular, public safety nets and an expectation of being bailed out incentivises banks to expand and take excessive risks beyond what would be possible if risks were properly priced in the banks' funding costs, giving rise to a "**moral hazard**" problem. The subsidies also distort competition and raise entry barriers to the extent that: (i) small and medium-sized banks are less likely to benefit from such subsidies than the large ones; and (ii) banks in Member States with significant financial problems are less likely to enjoy subsidies than banks in Member States that are perceived to be in a better position to stand behind their banks.

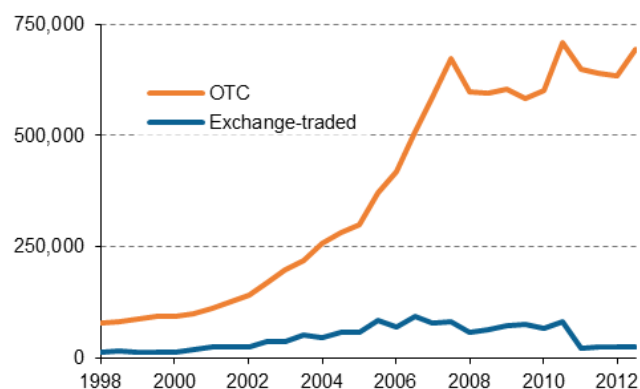
**Weak governance and risk management**—Weak governance structures and poor risk management frameworks reinforced the problems, as financial

institutions were taking risks that were insufficiently monitored in the market and inadequately controlled internally. Moreover, remuneration policies rewarded management and other staff for maximising returns to shareholders without due consideration of risk, and in some cases they incentivised excessive risk-taking.

### Deficiencies in derivatives markets

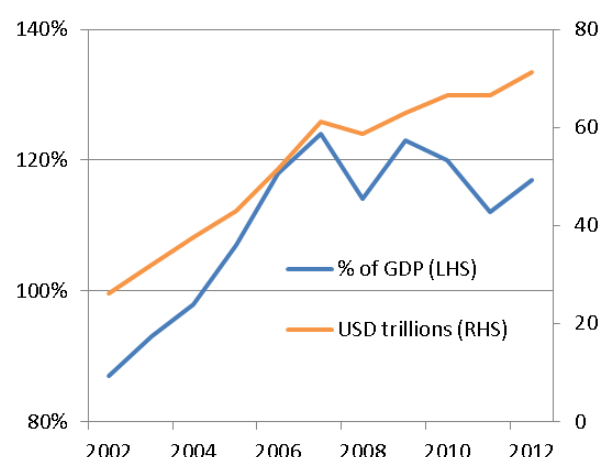
Derivatives markets had grown exponentially in the pre-crisis years, in particular those traded over-the-counter (OTC) as opposed to those traded on exchanges (see chart 3.1.3). The former remained largely outside the scope of regulation. A specific derivative market, namely that for credit default swaps (CDS), contributed significantly to the spreading of the financial crisis through a complex web of interconnections. Their inherent opaqueness made it difficult to detect the risks building up at individual institutions and in the system as a whole, and to assess the consequences of a default of a market participant (as was the case in the Lehman failure, for example). The opaqueness fuelled suspicion and uncertainty during the crisis, contributing further to the spreading of risk. Given the limited use of central counterparties for clearing derivative trades and inadequate collateralisation, the counterparty credit risk associated with OTC derivatives turned out to be much higher than both market participants and regulators previously thought. The financial crisis also revealed specific problems in OTC commodity derivatives markets, which were reinforced by more recent scandals linked to speculation in both physical and financial markets for commodities.

Chart 3.1.3: Growth in international derivatives markets



Source: BIS.

Chart 3.1.4: Growth of assets of non-bank intermediaries



Notes: Shows assets of non-bank financial intermediaries as a proxy for global shadow banking activities, in % of GDP (left-hand scale,

### **Systemic risk stemming from shadow banking—**Alongside

LHS) and in USD trillion (right-hand scale, RHS).  
Source: FSB (2013)

the growth of derivatives markets, there was a rapid growth of the shadow banking system at global level – i.e. credit intermediation outside the scope of bank regulation and public safety nets (chart 3.1.4). Many banks shifted from making loans and keeping them on their books to selling loan portfolios and shifted the risks off balance sheet via securitisations.<sup>26</sup> Thus, many types of asset-backed securities (ABS) contributed to the intermediation of non-bank credit, ranging from asset-backed commercial paper to credit default obligations (CDOs). Unlike traditional bank lending, the non-bank credit activities were not funded by deposits but relied on wholesale funding (e.g. money market funds and securities financing transactions). Given the short maturity of the funding, the difficulty to assess their value and the absence of an explicit public safety net, this made them prone to the liquidity runs experienced during the crisis.

**Inadequate regulation of credit rating agencies and audit firms—**CRAs played a negative role in the crisis by failing to properly assess the risk characteristics of complex financial products. For example, many ABS tranches originally had triple-A ratings, which many investors in these products relied on as meaning 'risk-free'. Ratings for complex securities, which were issuer-paid and very profitable for the rating agencies, often relied on inaccurate models and assumptions, leading to unreasonable analyses of the underlying securities. Moreover, the evaluations frequently lagged behind material market developments. Investors relied on those evaluations without carrying out their own due diligence. Regulation failed not only in providing adequate oversight of CRAs but also in overly relying on credit ratings for prudential regulatory purposes. Concerns about the value of audit reports and their quality, independence and consistency were already present before the crisis, but these were amplified in the crisis when a number of financial institutions failed only months after they had been given clean audit reports.

These deficiencies unravelled with the start of the financial crisis. What started as a sub-prime crisis in the USA quickly spread into a full-blown global financial and economic crisis, with serious consequences for the European economy and detrimental impacts for consumers and investors, as summarised below in section 3.4.

## **3.2 THE UNDERLYING MARKET AND REGULATORY FAILURES**

The deficiencies revealed by the financial crisis stem from fundamental underlying problems, or so-called "market failures" in standard economic theory, which upset the operation of the financial system. **Market failures explain why the market, if unregulated or poorly regulated, delivers outcomes that may be profit-maximising for financial intermediaries but detrimental from a societal point of view.**

Market failures, coupled with regulatory failures, explain why the financial system had moved far from the ideal benchmark discussed in chapter 2 and why, without

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<sup>26</sup> While the main issuers of asset-back securities were US-based, many EU financial institutions had built sizeable positions in these markets.

regulatory intervention, the system would always be prone to instability, inefficiencies and abusive practices. Indeed, leaving the financial crisis aside, there are **many examples to illustrate how unregulated or poorly regulated markets and market participants fail to behave in an efficient and responsible manner**. This includes recent scandals such as the rate-rigging of the LIBOR/EURIBOR interest benchmark rates and the manipulation in foreign exchange markets, cases of fraud or large scale losses of individual traders, and mis-selling of financial products to consumers.

While market failures are present in all markets, nowhere are they more pervasive, or have as profound consequences for the broader economy, than in the financial sector. The main market failures can be summarised as follows:<sup>27</sup>

- **Asymmetric information:** The financial system has significant imbalances of information, between those who buy financial services and products and those who sell them, between those who invest in financial intermediaries and the intermediaries which seek that investment, and between financial intermediaries and their management or other staff. Indeed, the complexity of financial information, of financial products, services and transactions, and of the operations of financial institutions reinforces the opacity. Asymmetric information explains some key risks and provides the basis for undesirable incentive effects, such as moral hazard, resulting in excessive risk-taking. Excessive risk-taking was a key contributing factor in this crisis and was exacerbated by a general underestimation of risk and an expectation of public safety nets (bail-outs), which limited down-side risks. Information asymmetries also give scope to conflicts of interest, which is another key risk in the financial system given the nature of the financial intermediation process – the entrusting of one's savings and investments to banks and other financial institutions. They also result in insufficient monitoring of market participants and explain the observed lack of market discipline.
- **Externalities:** Negative externalities or spillovers arise when the costs of individual actions do not incorporate potential broader social costs that may be imposed on others as a result of those actions. For example, individual financial institutions, when deciding on how leveraged and interconnected to become and what financial risks to take, may not consider the systemic implications of their actions. In fact, they may even wish to maximise the externality and create systemic risk problems because that increases the likelihood of a bailout. Externalities explain the potential instability of financial systems and markets, whereby confidence can quickly evaporate and lead to a panic and runs for exit, amplifying the costs for all concerned. These systemic risks became highly visible in this financial crisis. Without the massive state aid and liquidity support that was provided (see Box 3.4.1), a much more severe systemic crisis could have materialised.
- **Market power:** As with other economic sectors, imperfect competition may lead to market power abuses, including excessive pricing, inappropriate products being sold, or agreements being made on unfair contractual terms. The abuses are reinforced given the asymmetric information problem in

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<sup>27</sup> Based on OECD (2010).

financial services, which places financial institutions at an informational advantage compared to customers.

- **Market abuse:** There is a risk of abusive market practices, whereby customers may be taken advantage of and deprived of savings and investments or find themselves with grossly unfair and abusive contractual terms. This could occur for example through deceptive marketing practices, the inappropriate use of customer funds by the financial institution and unfair pricing. Abusive market practices also include the manipulation of share prices or other prices, as was the case in the recent scandals around the manipulation of LIBOR/EURIBOR and other benchmark rates (see chapter 4.3). Such abuses create particular problems for the financial sector since the system relies fundamentally on trust and confidence. Market abuse can, if sufficiently problematic and uncorrected, cause widespread reputational damage and undermine the functioning of the financial system.

A combination of different market failures, coupled with **regulatory failures**, was at work in the run-up to the crisis and the events that followed. These have been widely examined in the literature<sup>28</sup>. The role of regulation is to correct market failures or reduce their impacts in the market. Regulation may, however, create or exacerbate problems. The crisis has been a painful reminder of the fact that the cost can be huge when regulators and supervisors get it wrong.

The financial reform agenda is to a large extent a direct response to the financial crisis and the deficiencies it revealed in the financial system. However, more generally, the reforms of the last few years must be understood as part of a wider agenda to move the financial system closer to a system that is capable of conducting its key functions in a stable, efficient and responsible manner, and for the benefit of the economy. The reforms aim to correct market failures as well as previous regulatory failures.

### 3.3 ADDITIONAL PROBLEMS REVEALED BY THE ECONOMIC AND SOVEREIGN DEBT CRISIS IN EUROPE

In addition to the deficiencies in the financial system, which were largely global in nature and not specifically European, a number of additional problems were specific to Europe. They turned the financial crisis into a wider economic and sovereign debt crisis, in particular in the countries of the euro area periphery.<sup>29</sup> Adverse developments in the economy and poor public finances had repercussions for the banking sector and increased banking risks. This in turn reinforced stresses in sovereign debt markets and spilled over to the economy. **A negative feedback loop**

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<sup>28</sup> For example, Acharya et al (2011) highlight four key aspects: excessive risk-taking in the financial sector due to implicit government guarantees; regulatory focus on individual institution risk rather than systemic risk; opacity of positions in financial derivatives that produced externalities from individual firm failures; and runs on the unregulated (shadow) banking sector that eventually threatened to bring down the entire financial sector. Other studies highlight also regulatory failures, such as: the absence of appropriate resolution and crisis management tools; inappropriately defined regulatory boundaries and unregulated shadow banking activities; and capital requirements that contributed to the procyclicality of the financial system.

<sup>29</sup> For a narrative of the crisis unfolding in Europe, see High-level Expert Group on reforming the structure of the EU banking sector (2012).

**due to intertwined relationships between the banking sector, sovereign debt markets and the economy arose**, which required policy action on different fronts.

The loss of substantial tax income, massive amounts of state aid measures required to support banks, as well as the cost of automatic stabilisers (such as unemployment benefits) and fiscal stimulus spending, had a significant impact on the level of public debt (see chart 3.4.6 below), but helped stabilise the economy in the early phase of the crisis.

When the Greek government revealed the true size of the country's deficit and debt in November 2009, sovereign risks in the euro area grabbed the headlines. Subsequently, Greece and a number of other countries in the euro area (Ireland, Portugal, Spain, Cyprus) required financial assistance. The growing sovereign risks spilled back over to the banking sector, since European banks were heavily exposed to sovereign debt holdings, in particular to debt issued by the domestic sovereign. The high public debt burdens also called into question the sovereigns' ability to continue standing behind their domestic banks, further linking the risks of banks to that of the sovereign (see chart 3.3.1 illustrating the close correlation between bank and sovereign risks, based on CDS spreads).

In addition to the weaknesses in the banking sector and poor public finances, **the crisis exposed a number of structural problems that had been building up in the euro area for some time**. The competitiveness of the vulnerable countries in the euro area had eroded over time, and large current account imbalances had built up (see chart 3.3.2). These were financed (and indeed fuelled) by free capital flows that had expanded massively given the absence of exchange rate risks since the introduction of the euro. The strong cross-border capital flows often went into the non-tradable sector (e.g. real estate) and financed demand rather than supply (and imports rather than exports), leading to macroeconomic imbalances that turned out to be unsustainable. As current account deficits in the vulnerable countries of the euro area widened, these countries became increasingly dependent on foreign capital inflows. With the start of the crisis, private capital flows to the countries reversed and financing constraints became more apparent.

Chart 3.3.1: Correlation of bank and sovereign debt risks, based on 5-year CDS spreads (basis points)

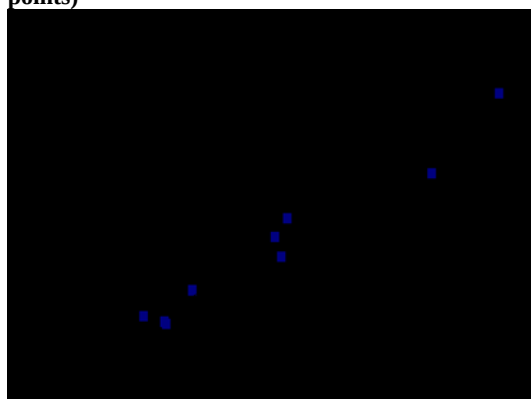
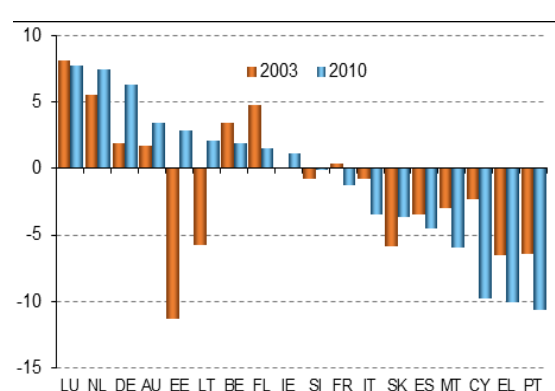


Chart 3.3.2: Current account balance (in % of GDP)



Notes: 5-year CDS spreads, showing the average for a small sample of banks per country and the sovereign. High CDS spreads for Greece are omitted. Measured as of end-November 2011.  
Source: Bloomberg

In the pre-crisis boom years, there was also a sharp increase in private sector debt. Low interest rates and easy access to credit allowed households (chart 3.3.3) and non-financial corporates (chart 3.3.4) to accumulate high debt levels.<sup>30</sup> The crisis revealed debt levels to be unsustainable with respect to income prospects and assets in a number of EU Member States. In the euro area periphery, but also in other parts of the EU, a significant part of the credit growth was being financed with capital inflows from abroad, in particular via cross-border lending between banks.

Chart 3.3.3: Household debt in % of GDP

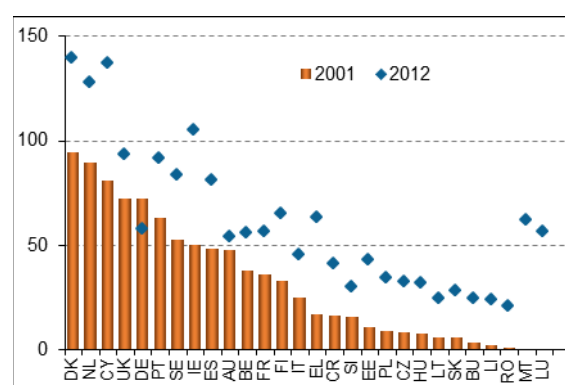
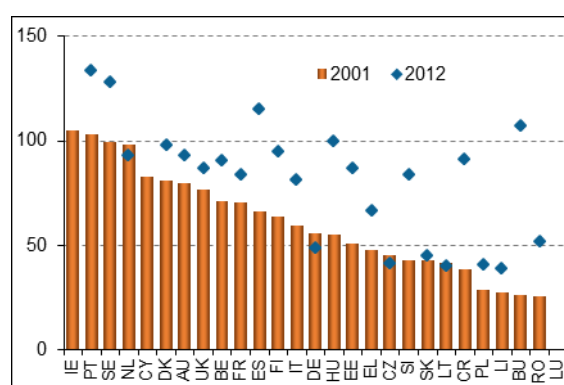


Chart 3.3.4: Non-financial corporate debt in % of GDP



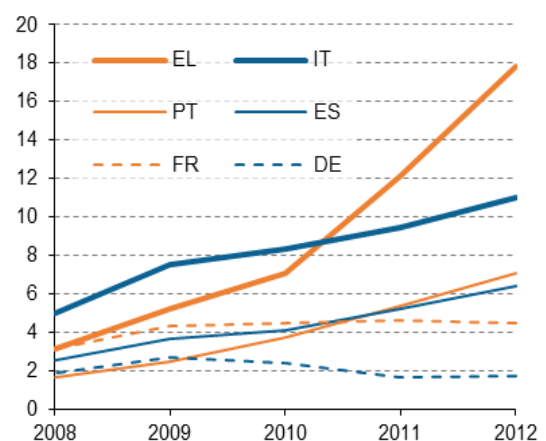
Notes: Consolidated data. Debt includes loans for households (HH) and loans and securities other than shares for non-financial corporates (NFC). 2001 data missing for Luxembourg and Malta. Vertical axis cut at 150% of GDP, not showing the higher levels of debt in 2012 for NFCs in Ireland and Cyprus.  
Source: Eurostat.

**The high debt levels in the private (and public) sector that built up in the pre-crisis years are hindering economic recovery** in the stressed countries. They have also reinforced problems for the banking sectors in those countries, because debt-servicing problems – along with a weak economic environment – led to an increase in nonperforming loans (chart 3.3.5), worsening the quality of the assets on bank balance sheets. In turn, weak banks have been reinforcing problems for the economy in stressed countries by tightening credit supply and increasing interest rates on new loans (chart 3.3.6). At the same time, the restructuring frameworks of many EU

<sup>30</sup> This created in particular a problem where, prior to the introduction of the euro, nominal interest rates had been high (e.g. Spain and Ireland).

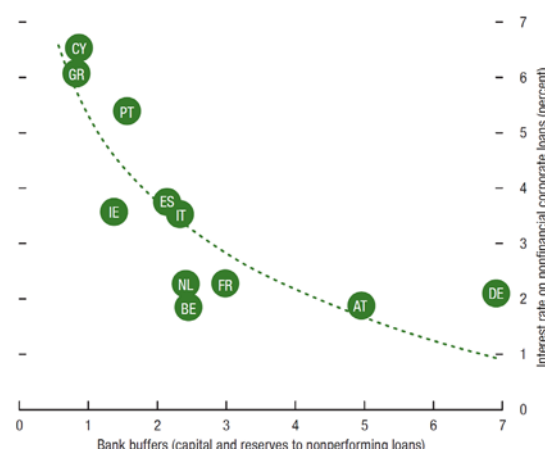
Member States are still inflexible, costly, and value destructive and thus inadequate in addressing the debt overhang problems.<sup>31</sup>

Chart 3.3.5: Growth in non-performing loans (% of total loans)



Source: ECB

Chart 3.3.6: Bank buffers and interest rates on corporate loans



Source: IMF Global Stability Report 2013.

Financial integration in Europe had progressed significantly in the years prior to the crisis, in particular in wholesale markets. The adoption of the euro and, shortly afterwards, the Financial Services Action Plan were major milestones in the integration process. Financial integration brought significant benefits, contributing to the convergence and decline in financing costs and the opening up of investment and diversification opportunities across Europe.<sup>32</sup>

However, the crisis has shown that financial integration - if not backed by the appropriate institutional framework and economic policy coordination - can also carry financial stability risks, especially in a single currency area. Free credit and other capital flows contributed to the build-up of imbalances in the euro area and helped fuel the boom-and-bust cycles observed in several Member States. Many cross-border capital flows turned out in hindsight to be excessive and ultimately unsustainable.

Moreover, the integration process was incomplete and uneven. Debt markets and in particular interbank markets had become most integrated (also reflecting the pre-crisis excesses in credit growth), while cross-border flows in foreign direct investment and equity portfolio investment remained more limited. Table 3.3.1 shows the relative magnitude of different types of incoming capital flows for EU and euro area Member States and, for comparison, emerging and developing markets. It highlights the significant share of debt in capital inflows in European countries, especially prior to the crisis. Whilst the share of debt has since come down, it is still significantly above the share it represented, for example, in emerging market economies prior to the crisis.

<sup>31</sup> This is why the European Commission put forward a Recommendation for a new approach to business failure and insolvency (which is outside the scope of this report). See C(2014) 1500 final.

<sup>32</sup> See ECB (2012).

Table 3.3.1: **Gross capital inflows expressed as a percentage of its total by type of capital flows.**

| Share of:                                                         | Debt  | FDI   | Equity |
|-------------------------------------------------------------------|-------|-------|--------|
| <b>2000-04</b>                                                    |       |       |        |
| Emerging markets                                                  | 39.3% | 48.6% | 12.1%  |
| Other developing                                                  | 55.4% | 44.2% | 0.4%   |
| EU Member States                                                  | 69.7% | 17.3% | 13.0%  |
| Euro area MS                                                      | 62.3% | 20.2% | 17.5%  |
| <b>2005-09</b>                                                    |       |       |        |
| EU Member States                                                  | 75.3% | 17.1% | 7.6%   |
| Euro area MS                                                      | 75.9% | 12.7% | 11.4%  |
| <b>2010-12</b>                                                    |       |       |        |
| EU Member States                                                  | 59.9% | 27.2% | 12.9%  |
| Euro area MS                                                      | 44.6% | 22.6% | 25.8%  |
| Source: Kose, Prasad, Rey and Wei (2009) and Commission Services. |       |       |        |

Charts 3.3.7 and 3.3.8 further illustrate the point. They show the net issuance of liabilities by the whole EU financial sector as a percentage of GDP. The charts display the significant increase in the liabilities issued by EU financial institutions, in particular following the introduction of EMU. However, chart 3.3.8 provides the breakdown by type of financial instrument and shows how the amount of loans and shares issued remained roughly stable in terms of GDP throughout the period. Instead, the sharp increase prior to the crisis was driven by 'currency and deposits' led by wholesale interbank deposits and 'fixed income securities'.

With capital flows in the boom years largely taking the form of interbank lending and debt, this exposed the recipient countries in the euro area periphery to significant rollover risk; when the crisis hit, the capital flows stopped or reversed, resulting in significant economic and financial disruption.

Chart 3.3.7: **Net issuance of liabilities of financial institutions in EU (% of GDP).**

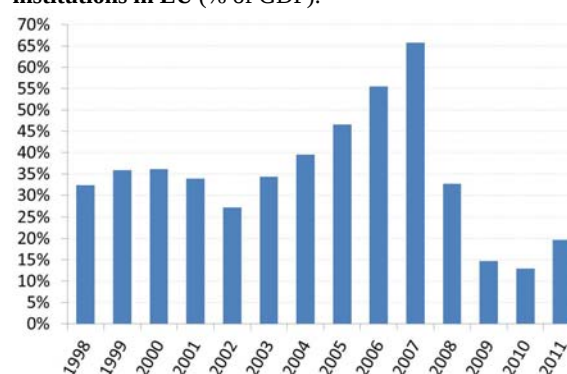
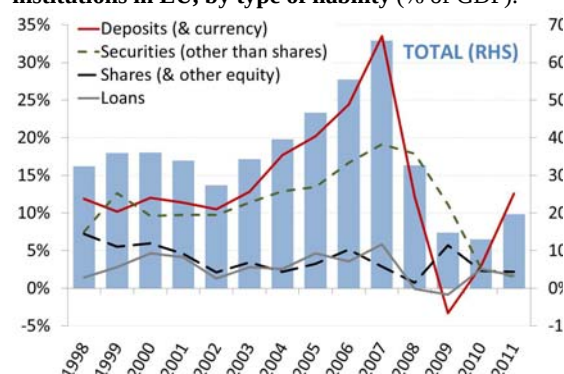


Chart 3.3.8: **Net issuance of liabilities of financial institutions in EU, by type of liability (% of GDP).**



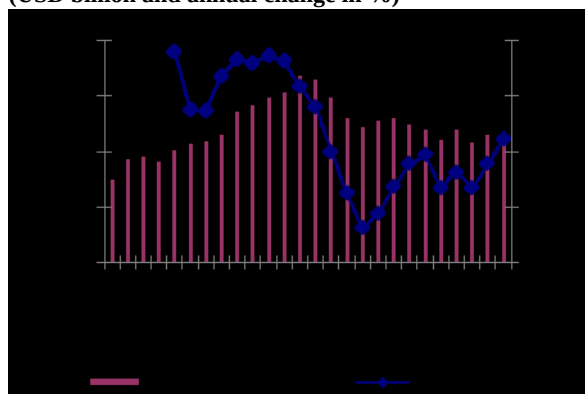
Source: Eurostat

Source: Eurostat

There were significant shortcomings in the institutional frameworks. **Financial integration was not accompanied by adequate regulatory and supervisory oversight and the required governance frameworks.** For example, there were no appropriate tools to monitor cross-border capital flows and related risks, to control credit supply and to prevent the build-up of debt-driven imbalances. The decentralised system of supervision prior to the crisis, based on loose cooperation between national supervisors, did not allow this. Furthermore, tools did not exist to coordinate crisis management and resolution.

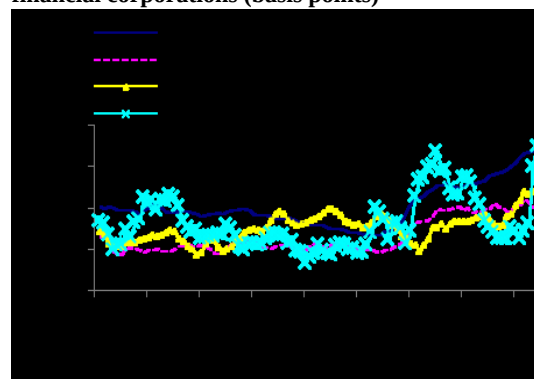
**The crisis halted to the integration process.** In particular, there has been a decline and in some cases a reversal of cross-border credit flows; banks have increasingly focused on their home markets and on meeting domestic lending commitments; and wholesale financing costs and retail interest rates differ between countries in the euro area. Chart 3.3.9 shows the decline in the total foreign exposures of European banks to other parts of the EU; and chart 3.3.10 shows the increased dispersion of interest rates on loans to non-financial corporations in the euro area. Moreover, partly because of the absence of a meaningful ability to resolve cross-border banking institutions to date, there is evidence that national supervisors have increased firewalls to trap capital and liquidity at a national level. Banks and other financial institutions have also been encouraged to invest in domestic debt.

Chart 3.3.9: EU bank exposures to other parts of the EU (USD billion and annual change in %)



Source: BIS

Chart 3.3.10: Dispersion in lending rates to non-financial corporations (basis points)



Notes: Dispersion is measured by the standard deviation in lending rates across euro area.

Source: ECB

Market fragmentation is economically inefficient. In particular, it has reinforced the adverse feedback loops between weak banks, sovereigns and the economy in the

stressed euro area countries. It has also entrenched significant differences in the financial and economic conditions within the single currency area. **Reforms in the governance and institutional frameworks were therefore needed to restore and preserve financial integration and stability**, especially in the euro area.

Many of the more fundamental problems touched upon in this section cannot be tackled by financial reform alone. Rather, they demand a wide range of fiscal, monetary and structural measures, which are not within the scope of this study. The blueprint for a deep and genuine EMU emphasised the importance of the different measures.<sup>33</sup> The main point here is that the financial regulation agenda in Europe was shaped and enacted in a difficult economic environment. Alongside restoring financial stability, policymakers face the challenge of correcting macroeconomic imbalances, dealing with high private and public sector debt levels, addressing financial fragmentation and ultimately facilitating growth and jobs.

### **3.4 THE COSTS AND CONSEQUENCES OF THE FINANCIAL AND ECONOMIC CRISIS IN EUROPE**

The financial and economic crisis was (and continues to be) associated with significant costs. While not all of the adverse consequences since the onset of the crisis can be attributed to failures of the financial sector (and the way it was regulated and supervised), the financial sector had a key role to play. Enhancing financial stability and thereby reducing the expected costs of similar crises occurring in the future is therefore a key objective of the financial reforms. This is further discussed in chapter 4.

The effects of the crisis have been wide-ranging, and it is beyond the scope of this study to provide a comprehensive review of all of the negative economic consequences. The below highlights some of the consequences known to date: output losses, reductions in household income and wealth, unemployment and related effects, and huge costs to public finances.

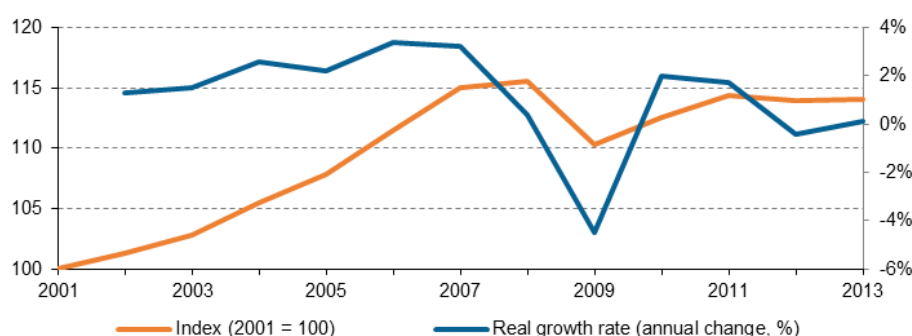
#### **3.4.1 Losses in GDP**

The crisis triggered a steep decline in output and a severe economic downturn in the EU (and globally), with weak growth expected to continue into 2014 and possibly beyond (chart 3.4.1).

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<sup>33</sup> COM(2012) 777 final/2

**Chart 3.4.1: Real GDP growth rate in the EU (in %)**



Notes: Shows the annual real GDP growth rate (right-hand scale) and the corresponding index starting at 100 in 2001 (left-hand scale, LHS).

Source: Eurostat data.

While the observed decline in GDP reflects some of the losses associated with the crisis, it does not capture the cumulative losses from the crisis. This requires an estimation of the cumulative shortfall between actual GDP over time and estimates of GDP had the crisis not occurred.

Experience from previous systemic crises suggests that the overall output losses can be significant, even if the estimation is inherently difficult and dependent on assumptions, such as those of the path of future GDP and about the counterfactual GDP in the absence of the crisis. In a 2010 study, a working group of the Basel Committee on Banking Supervision (BCBS) reviewed the literature estimating output losses; the median estimate across all studies reviewed is 63 % of pre-crisis GDP (measured cumulatively in present value terms and as the deviation from trend GDP). Considering only the studies that assume a permanent level change in output, the median is 158 %. Laeven and Valencia (2013) estimate that the output loss of a crisis amounts to about 32 % of GDP on average in advanced economies, measured cumulatively but only over the first four years since the start of the crisis. Atkinson et al (2013) examine the costs of the 2007-09 financial crisis in the USA and conclude that a conservative estimate suggests cumulative output losses of 40-90 % of pre-crisis GDP. Haldane (2010) suggests that the output loss resulting from this crisis could amount to anything between 100 % to 500 % of GDP, depending on assumptions about how permanent the drops in output will be.

ESRB (2014) calculates the EU output loss to amount to about 50 % of one year's GDP, if measured as the deviation of actual from trend GDP from mid-2008 to the third quarter of 2013.<sup>34</sup> Looking beyond 2013, estimates prepared for this study suggest that output losses in the EU may end up as high as 100 % of EU GDP, measured cumulatively in present value terms going forward (see annex 4). This assumes that about two third of the initial GDP reduction due to the crisis will be recovered in 5 years, while the remaining third is assumed to be a permanent loss. Thus, depending on output losses going forward, the total cumulative losses are at least 50 % of annual GDP but may well be as much as 100 % of annual EU GDP (or EUR 6-12.5 trillion) or indeed more, according to other estimates.

<sup>34</sup> Trend GDP is calculated over a long time period to filter out any artificial growth in the pre-crisis boom years.

Reinhart and Rogoff (2014) report that, based on a sample of 100 banking crises across the globe in the period 1857-2013, it took about 6.5-8 years on average to return to pre-crisis output levels. Almost six years into the crisis, most EU countries have returned to pre-crisis levels in real per capita GDP, but some continued to contract in 2013. Reinhart and Rogoff argue that, unless measures are taken, this crisis may ultimately surpass the depression of the 1930s in a large number of countries.

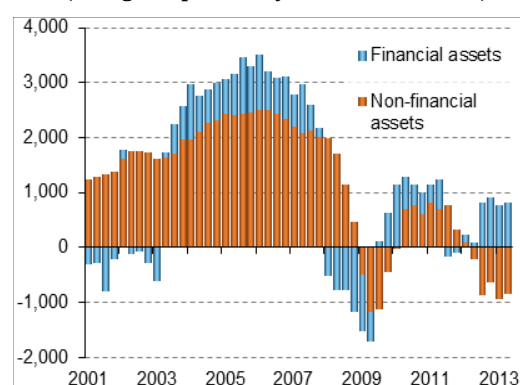
The ultimate costs of output losses in the EU as a result of the crisis are still unknown. However, based on the above discussion, **the present value of cumulative output losses across the EU may amount to 50-100 % of annual pre-crisis EU GDP (about EUR 6-12.5 trillion)**<sup>35</sup> or indeed more according to some estimates.

GDP is of course an imperfect proxy of overall social welfare. Moreover, these estimates mask the significant variations in output losses between EU Member States. They also do not reveal the distributional impacts of the crisis, and the fact that the costs fall disproportionately on certain social groups.

### 3.4.2 Losses in household wealth and income

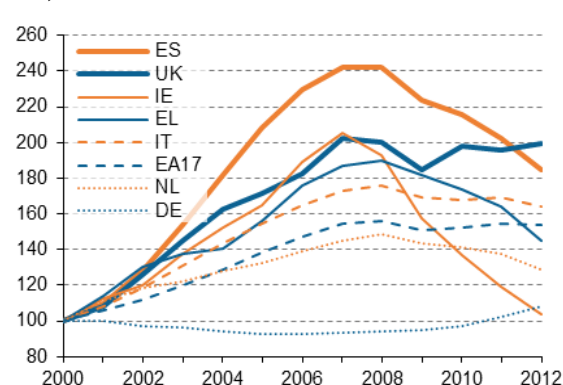
**The crisis wiped out an enormous amount of financial wealth, including wealth accumulated by EU households** (chart 3.4.2). In some EU Member States, a lot of this was driven by broad collapses in house prices (chart 3.4.3) that involved some homeowners losing substantial equity because home values declined faster than mortgage debt. Declines in the value of household financial assets also contributed to the reduction in wealth.

Chart 3.4.2: Evolution of household wealth in euro area (change on previous year, in EUR billion)



Source: ECB

Chart 3.4.3: Evolution of house prices (index, 2000 = 100)



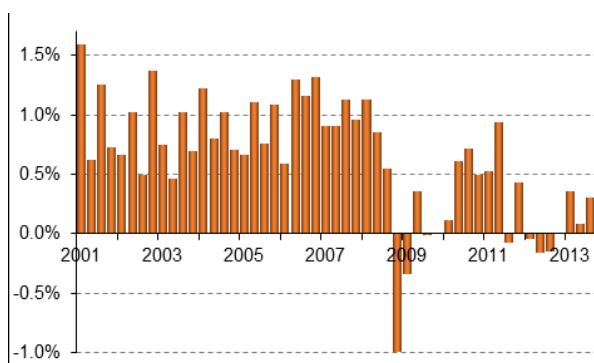
Source: OECD

As with trends in output losses, it is difficult to determine how much of the changes in household wealth can be attributed to the financial crisis rather than to other factors. In particular, many valuations before the crisis were inflated and unsustainable, so it may not be appropriate to judge the full amount of the overall decline as crisis driven.

Nonetheless, sharp declines in household wealth, combined with an uncertain economic outlooks and less secure jobs and income stream, can cause consumers to reduce their consumption, which – all else being equal – in turn reduces aggregate demand and real GDP.

<sup>35</sup> This is based on the total EU GDP in 2008 (Source: Eurostat).

Chart 3.4.4: Gross disposable income of households in the euro area (% change on previous quarter, seasonally adjusted)



Source: ECB

The household income levels (measured by gross disposable income, chart 3.4.4) fell for many households. Moreover, as is evident from the increase in the number of arrears, repossessions and non-performing loans, the crisis affected households' capacity to service existing loans, at least in some EU Member States.<sup>36</sup> This is particularly problematic given the high levels of household indebtedness in many countries (see chart 3.3.3 above).

During the crisis, income inequality in the EU as measured by the GINI index and the S80/S20 quintile ratio did not rise significantly overall (0.1 percentage points in EU-27 between 2008 and 2011), but there were sizeable increases in a number of Member States, particularly in Southern Europe. In the euro area, income inequality increased by 0.3 points. Significant variations in the inequality trends were observed between different Member States with changes in the GINI coefficient between 2008 and 2011 ranging from decreases of over 2 percentage points for Romania, Latvia, and Netherlands to increases of 2.7 percentage points for Denmark and Spain.<sup>37</sup>

The crisis damaged households' trust in the financial sector and in those charged with forming policies, supervising and regulating the sector. **More than 60 % of EU citizens surveyed in 2013 stated that they had lost confidence in the financial sector (as well as in the relevant authorities) as a result of the crisis.**<sup>38</sup> In addition to the declines in their wealth and income, trust was negatively affected by the public perception that, in the years leading up to the crisis, financial intermediaries lacked discipline and accountability, generated high profits and paid huge staff bonuses in the years before the crisis, but then proved largely immune to the downside of the excessive risks that they took when they were subsequently bailed out by taxpayer funds.

### 3.4.3 Unemployment

The crisis was accompanied by significant job losses in the EU. **The unemployment rate increased from a pre-crisis low of 7.5 % in 2007 to 12 % in 2013 in the euro area, and from 7.2 % to 10.8 % in the EU.** Compared with the end of 2007, 9.3 million more people are now unemployed in the EU.<sup>39</sup> These averages and the total conceal sharp differences across Member States, with the unemployment rate falling over the period in Germany but rising to more than 25 % in Greece and Spain (chart 3.4.5).

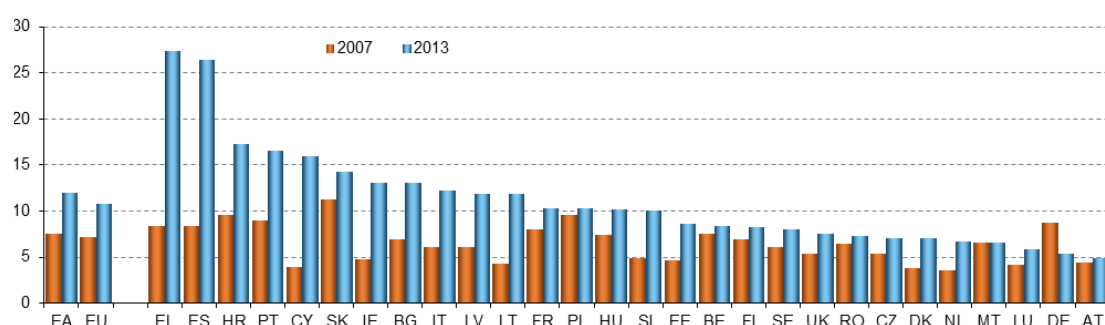
<sup>36</sup> See also EFSIR (2012) for an overview of the impact of the crisis on households.

<sup>37</sup> European Commission (2014), "Employment and Social Developments in Europe (ESDE) 2013 Annual Review, January 2014, pp. 18-19 - <http://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=7684>

<sup>38</sup> [http://ec.europa.eu/public\\_opinion/archives/ebs/ebs\\_398\\_en.pdf](http://ec.europa.eu/public_opinion/archives/ebs/ebs_398_en.pdf)

<sup>39</sup> Source: Eurostat

Chart 3.4.5: Increase in unemployment rate in the euro area, EU and the Member States (in %)



Source: Eurostat

Structural unemployment and labour market mismatches have been growing. Net job destruction has been coinciding with an increase in precarious jobs even though, compared to before the crisis, the share of temporary contracts has fallen in the EU. Part-time, especially involuntary part-time, jobs have been increasing.

Young people have been hit particularly hard by the crisis, and the threat to the future of many young people remains acute given the high levels of youth unemployment.<sup>40</sup> In 2013, nearly 6 million people in Europe under the age of 25 were unemployed and a total of 7.5 million were not in employment, education or training.<sup>41</sup> Youth unemployment rates in Europe stood at 23.4 % at the end of 2013, more than twice the (already very high) rate for the EU population as a whole.<sup>42</sup> In Greece and Spain, more than half of the young people in the youth labour force are unemployed.

Persistent, **high unemployment has a range of negative consequences for the individuals affected and the economy as a whole.** For example, displaced workers often suffer declines in their earnings potential. Spells of unemployment (and the stigma attached to it) reduces employment and earnings prospects. Skills erode as individuals lose familiarity with technical aspects of their occupation. Moreover, unemployed people tend to be physically and psychologically worse off than their employed counterparts, and their children tend to have worse educational opportunities. The high levels of youth unemployment are particularly damaging, as they affect the longer-term employment prospects for young people, with serious implications for future growth and social cohesion. For example, studies show that young people who graduate in a severe recession have lower life-time earnings, on average, than those who graduate in normal economic conditions.<sup>43</sup> Moreover, spells of unemployment deteriorate the capacity of households to service the mortgages and other debt they had previously taken out.

Poor labour market conditions affect not just the underemployed and unemployed, but also the employed. For example, a higher unemployment rate decreases job security and diminishes the belief that another job could be found if a layoff occurred. Thus,

<sup>40</sup> European Commission (2014), ESDE 2013, p. 60; and European Commission (2014), 'EU Employment and Social Situation Quarterly Review' (ESSQR), March 2014, <http://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=2054&furtherNews=yes>

<sup>41</sup> [http://ec.europa.eu/europe2020/pdf/youth\\_en.pdf](http://ec.europa.eu/europe2020/pdf/youth_en.pdf)

<sup>42</sup> European Commission (2014), ESSQR 2014, p. 25

<sup>43</sup> See for example Kahn (2010).

high unemployment has wider psychological effects, with consequences for social welfare that are difficult to quantify.<sup>44</sup>

Finally, persistent high unemployment also increase budgetary pressures as expenditures on social welfare programs increase and individuals with reduced earnings pay less taxes. Nearly a quarter of the EU population is at risk of poverty or exclusion. In absolute terms, in 2012 this amounted to almost 125 million people in the EU, an increase of 7.4 million compared to the onset of the crisis in 2008.<sup>45</sup> In-work poverty has also risen, partly reflecting the fact that those who remain in work have tended to work fewer hours and/or for lower wages. Children in such households are also exposed to increased poverty. Growing social distress in employment and poverty are the result of the crisis and the lack of resilience of the labour market and social institutions.<sup>46</sup> As discussed in the next section, these problems further strain public finances.

#### 3.4.4 Costs to public finances

Since the onset of the crisis, **European governments have used a total of EUR 1.5 trillion of state aid to support the financial system during 2008 and 2012 (which amounts to 12.3 % of 2012 EU GDP)**, in the form of guarantee and liquidity support, recapitalisation and asset relief measures (see Box 3.4.1). This response was deemed necessary because, without such intervention, a systemic crisis with more serious consequences for the economy would have materialised.

Notwithstanding the cases where such state aid has been fully or partly repaid, these state aid payments have generally contributed to the increased public deficit and debt levels in the EU. Other crisis-related contributing factors included reduced tax revenues (in part driven by declines in taxable income for consumers and companies), increased spending on unemployment benefits and other social assistance provided to individuals affected by the recession, and fiscal stimulus spending provided to prevent economies sliding into depression.<sup>47</sup>

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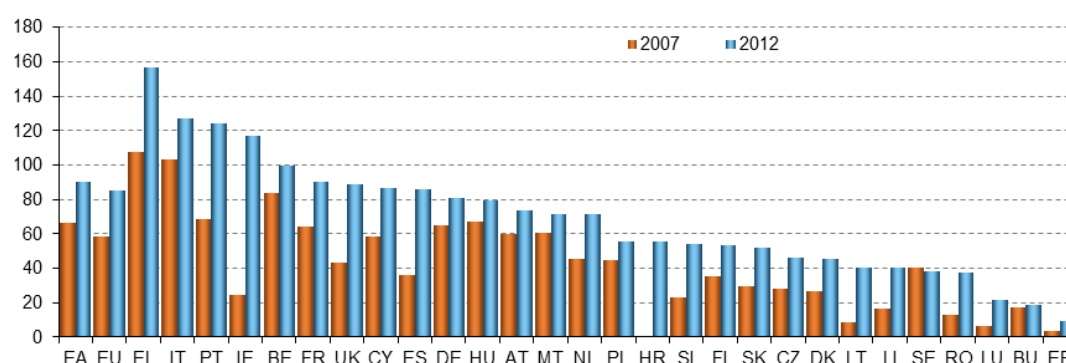
<sup>44</sup> For example, Helliwel and Huang (2011) confirm, using US data, that the costs of unemployment go well beyond income losses for the unemployed but significantly affect well-being of both unemployed and employed people. For the unemployed, the non-pecuniary costs of unemployment are found to be several times as large as those due to lower incomes, while the indirect effect at the population level is fifteen times as large. For those who are still employed, a one percentage point increase in local unemployment has an impact on well-being roughly equivalent to a four percent decline in household income. The authors also find evidence that job security is an important channel for the indirect effects of unemployment.

<sup>45</sup> European Commission (2014), ESDE 2013, p. 55

<sup>46</sup> European Commission (2014), ESDE 2013, p. 13

<sup>47</sup> Social expenditure trends were negatively affected in this crisis, in particular from 2012, neutralising the economic stabilisation function of social protection systems in many Member States.

Chart 3.4.6: General government debt levels (% of GDP)



Notes: Shows government consolidated gross debt in relation to GDP.

Source: Eurostat

Chart 3.4.6 reports the significant increase in public debt levels across Europe. On average, **general government debt in the EU increased by 26 % of EU GDP between the end of 2007 and 2012**. Because the impact of the crisis continues to be felt across Europe, the total impact on public debt cannot yet be evaluated. Past financial crises have generally been very costly. When analysing a subset of 49 crisis episodes from the 122 systemic financial crises that occurred since 1970 around the world, one finds that net direct fiscal outlays to rehabilitate the banking system averaged 13 % of GDP, including the values recovered from assets acquired by the public sector. However, increases in public debt ratios – the most comprehensive measure to capture fiscal implications from financial crises – went far beyond the direct costs attributable to tackling the financial sector problems and amounted to 20 % of GDP, on average<sup>48</sup>. Given the adverse feedback loops between the banking crisis and the sovereign debt crisis in Europe, the total costs to public finances may well be higher this time round.

As witnessed recently in the euro area, public debt levels can rise to a point where investors lose confidence in the ability of the government to repay debt and sovereigns themselves may then become vulnerable to crises. Because of the sharp increases in borrowing costs for both the sovereign and private businesses and households, the costs of such sovereign debt crises are massive, and this in turn reduces the chances to grow out from the problems.

More generally, while deficits during and after a recession can support economic recovery, **higher public debt levels have negative effects on economic growth**. For example, public debt can "crowd out" private investment in productive capital as the portion of savings that is used to buy government securities is not available to fund private investment. Also, higher debt results in higher interest payments, which must subsequently be funded by future generations.

As noted above, clearly not all of the cost to public finances can be explained by the crisis, and even less should be attributed to failings in the financial system. Nonetheless, taxpayer funds would not have been required to address the crisis and bail out financial institutions had there not been the crisis and failures in the financial system.

<sup>48</sup> See European Commission (2009).

Going forward, if debt levels remain high, there will be much less room for manoeuvre to respond to another crisis or economic contraction with fiscal measures. Equally, because the near-zero interest rates attributable to the crisis may hinder the effectiveness of conventional monetary policy, there may be less scope for effective monetary policy. Box 3.4.1 also summarises the central bank support provided to the financial sector during the crisis.

While the large-scale interventions were deemed necessary to restore confidence in the financial system and avert a more severe crisis, the unintended consequences and related costs of these interventions cannot be discarded. From a financial regulation perspective, one key concern is that the support measures may have encouraged market participants to expect similar emergency actions in the future (i.e. moral hazard may have increased). Thus, while considered necessary at the time in order to fight the crisis, an ongoing dependency of the financial sector on public support – beyond explicitly agreed backstop measures – would clearly be undesirable. Thus, exit from public support measures is needed to restore normal market conditions.

**Box 3.4.1: State aid measures and central bank support**

Between 1 October 2008 and 1 October 2013, the Commission took more than 400 decisions authorising State aid measures to the financial sector. In the period 2008-2012, the overall volume of state aid used for capital support measures alone (recapitalisation and asset relief measures) amounted to EUR 591.9 billion, which equals 4.6 % of 2012 EU GDP (Table 1).

**Table 1: Total amounts granted for recapitalisation and asset relief measures**

|  |  |  |
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|  |  |  |

Source: European Commission state aid scoreboard as of end 2013.

Significant aid was also granted in the form of guarantees and other form of liquidity support (Table 2). These reached their peak in 2009 with an outstanding amount of EUR 906 billion (7.7 % of EU 2012 GDP). The crisis intensity has gradually weakened in many EU countries since then, so the outstanding amount of liquidity support has dropped to EUR 534.5 billion in 2012 (4.14 % of 2012 EU GDP). However, during the first five years since the guarantee on liabilities programs were introduced, only EUR 2 billion of the total guarantees provided have actually been called.

In return for their financial support, the governments have received a total of EUR 125 billion (0.97% of 2012 EU GDP) in revenue in exchange for their support to banks, e.g. comprising fees received from guarantees.

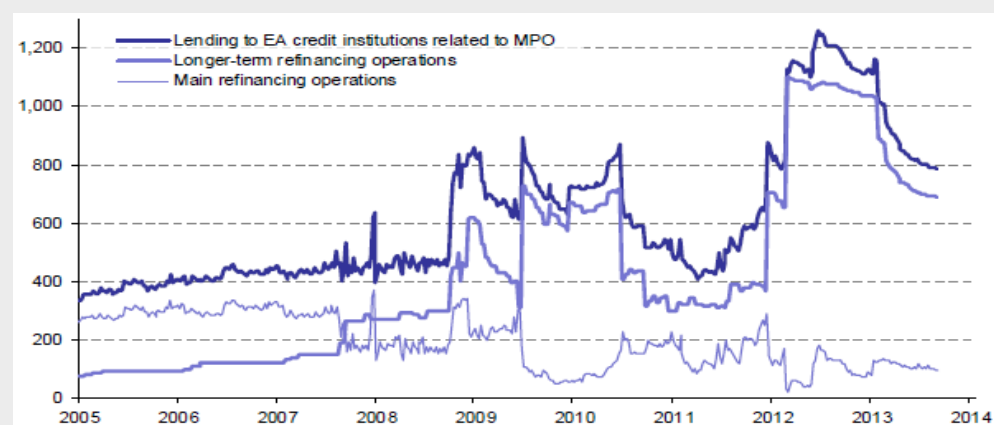
Table 2: Total aid outstanding amounts for guarantees and asset relief measures



Source: state aid scoreboard as of end 2013.

The ECB and other European central banks provided significant amounts of liquidity support to banks. Eurosystem lending to euro-area credit institutions related to monetary policy operations (MPOs) surged as a result of the large take-up in the 3-year longer-term refinancing operations (LTROs) in December 2011 and February 2012, when some EUR 1 trillion was allotted (although the net liquidity added amounted to about EUR 520 billion). Total Eurosystem lending related to MPOs has since declined again, mainly due to voluntary early repayment of the 3-year LTROs.

Chart 1: Liquidity providing operations of the Eurosystem (EUR billion)



Source: ECB data

## CHAPTER 4: THE OBJECTIVES AND INTENDED BENEFICIAL EFFECTS OF THE REFORMS

In response to the financial and economic crisis, the European Commission and the EU co-legislators pursued a far-reaching financial reform agenda to strengthen the regulation and supervision of the financial sector. This includes the reform measures agreed at international level as part of the G20 commitments that present a direct response to the financial crisis and will be implemented throughout the world. It also includes the wider set of measures taken at European level to create a stable, efficient and sound financial system and a single market in EU financial services. This chapter revisits the objectives of the reform programme and reviews the expected benefits.

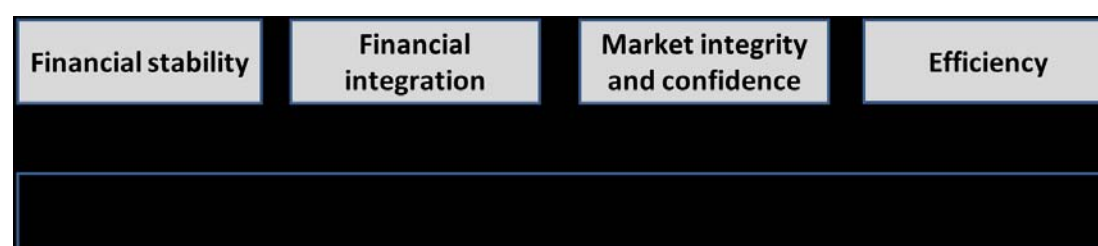
### 4.1 OVERVIEW OF REGULATIONS AND OBJECTIVES

The reform measures have a number of key objectives, and the overall benefits of the reforms can be evaluated with respect to their appropriateness and effectiveness in achieving these objectives collectively. **To allow a comprehensive review, the objectives are consolidated into the following four general categories:**

- Enhancing financial stability and the resilience of financial intermediaries, markets and infrastructures to reduce the probability and impact of future financial crises in the EU;
- Restoring and deepening the EU single market in financial services;
- Securing market integrity and confidence in the EU financial system, by enhancing disclosure and transparency, countering market abuse and protecting consumers and investors;
- Improving the efficiency of the EU financial system to ensure that capital is allocated to its most productive uses, financial services are priced to reflect risks, transaction costs are minimised and the competitiveness of the EU economy is enhanced.

These objectives relate back to the desirable characteristics of a financial system, as set out in chapter 2—i.e. financial stability, financial integration, integrity and efficiency. Put differently, **the overriding objective of the reforms is therefore to create a financial system that serves the economy and facilitates sustainable economic growth** (chart 4.1.1).

Chart 4.1.1: Objectives of the EU financial regulation agenda



Source: Commission Services

As set out in chapter 3, in the years leading up to the financial crisis, much of the financial system had become self-serving. The financial sector grew faster than the economy as a whole, and profits and salaries ballooned in that sector compared to other parts of the economy. The excessive risks taken in the sector endangered financial stability and ultimately imposed large costs on taxpayers and contributed to the deep recession.

Much of the focus in this chapter is on the financial stability objectives of the financial reform agenda. As evidenced in the crisis, financial stability is a precondition for sustainable economic growth. Based on the range of available estimates, the total cumulative output loss of this crisis may amount to 50-100 % of pre-crisis annual EU GDP (about EUR 6-12.5 trillion) or more according to some studies, with potential permanent effects on the growth rate (especially if unemployment remains high, labour is underutilised and skills are lost). One of the key goals of the financial reform agenda is to reduce the probability of future crises occurring, and to minimise the impact on society if they do. Only a one percentage point reduction in the probability of a systemic crisis occurring could deliver significant benefits amounting to 0.5-1 % of annual GDP, based on the above range of output losses.

If this is achieved, **regulation which promotes financial stability helps increase economic activity and growth over the cycle.** Sustainable economic growth is what counts, not temporarily boosted artificial growth that results in booms and subsequent busts. Moreover, as further discussed below, the financial stability measures contain a number of rules that improve incentives and reduce excessive risk-taking activities in the financial sector.

Table 4.1.1 presents the overview of this chapter, which is organised by objective (and in the case of financial stability also by sector). It maps different reform measures against the objectives and also indicates the relevant chapter section. The table illustrates that no single rule achieves all the objectives by itself. Even the regulations which appear to pursue the same objective are needed if they are complementary and jointly required to achieve that objective.

The remainder of this chapter reviews the financial regulation agenda against the different objectives. The overall coherence and synergies between the different reform measures in achieving those objectives are also reviewed in further detail in chapter 5.

Table 4.1.1: Overview of chapter by objective and reform

| Objectives                                              | Main reforms                                                                                                                                                                                                                                                                                                                                                                                | Section             |
|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| <b>FINANCIAL STABILITY</b>                              |                                                                                                                                                                                                                                                                                                                                                                                             | 4.2 – 4.5           |
| <b>Banking sector</b>                                   |                                                                                                                                                                                                                                                                                                                                                                                             | 4.2                 |
| Increasing loss absorbency                              | Capital Requirements Regulation and Directive IV (CRD IV package), Bank Resolution and Restructuring Directive (BRRD)                                                                                                                                                                                                                                                                       | 4.2.1               |
| More adequate liquidity and maturity matching           | CRD IV package                                                                                                                                                                                                                                                                                                                                                                              | 4.2.2               |
| Reducing pro-cyclicality and systemic risk              | CRD IV package, European System of Financial Supervisors (ESFS), structural reform                                                                                                                                                                                                                                                                                                          | 4.2.3               |
| Improving risk management and governance                | CRD III, CRD IV package, structural reform                                                                                                                                                                                                                                                                                                                                                  | 4.2.4               |
| Improving crisis management, recovery and resolution    | BRRD, Single Resolution Mechanism (SRM), structural reform                                                                                                                                                                                                                                                                                                                                  | 4.2.5               |
| Correcting "too big to fail"                            | Structural reform, BRRD, CRD IV package                                                                                                                                                                                                                                                                                                                                                     | 4.2.6               |
| <b>Financial markets and infrastructures</b>            | Markets in Financial Instruments Directive II (MiFID II), European Market Infrastructure Regulation (EMIR), Central Securities Depositories Regulation (CSDR), Short-selling and CDS regulation, regulations on credit rating agencies (CRAs), Prospectus Directive, accounting reforms, audit market reforms, benchmark regulation, regulation on securities financing transactions (SFTs) | 4.3                 |
| <b>Shadow banking</b>                                   | Alternative Investment Fund Managers Directive (AIFMD), Money Market Fund (MMF) regulation, SFT regulation (and other measures)                                                                                                                                                                                                                                                             | 4.4                 |
| <b>Stability and resilience of the insurance sector</b> | Solvency II, Omnibus II                                                                                                                                                                                                                                                                                                                                                                     | 4.5                 |
| <b>FINANCIAL INTEGRATION</b>                            |                                                                                                                                                                                                                                                                                                                                                                                             | 4.6                 |
| Enhancing the single market                             | All reforms, in particular the single rulebook, ESFS, European venture capital funds (EuVECAs), European social entrepreneurship funds (EuSEFs), European Long-term investment funds (EuLTIFs)                                                                                                                                                                                              | 4.6.1, 4.6.2, 4.6.4 |
| Banking Union to improve the functioning of EMU         | Single Supervisory Mechanism (SSM), SRM                                                                                                                                                                                                                                                                                                                                                     | 4.6.3               |
| <b>MARKET INTEGRITY AND CONFIDENCE</b>                  |                                                                                                                                                                                                                                                                                                                                                                                             | 4.7                 |

|                                                                |                                                                                                                                                                                                                                                                                                                                                          |               |
|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Countering market abuse                                        | Market Abuse Regulation and Directive on Criminal Sanctions for Market Abuse (MAR/CSMAD), benchmark regulation                                                                                                                                                                                                                                           | 4.7.1         |
| Consumer and investor protection                               | Deposit Guarantee Scheme (DGS) Directive, Mortgage Credit Directive (MCD), Packaged Retail and Insurance-based Investments Products (PRIIPS), Insurance mediation Directive (IMD), Undertakings for Collective Investment in Transferable Securities (UCITS) Directive V, MiFID II, Payment Services Directive (PSD) II, Payment Account Directive (PAD) | 4.7.2         |
| Improving the reliability of ratings and financial information | CRA regulations, accounting and transparency rules, audit market reforms                                                                                                                                                                                                                                                                                 | 4.7.3 – 4.7.5 |
| <b>EFFICIENCY</b>                                              | Single rulebook, CRD IV package, BRRD, structural reform, Banking Union, Solvency II, MiFID II, EMIR, CSDR, CRA regulations                                                                                                                                                                                                                              | 4.8           |

Notes: See the glossary for the list of abbreviations. Not all reforms taken are listed in this table. For a full list of the different financial regulatory measures proposed by the Commission during 2009 and 2014 (up to April), see annex 2. Detailed descriptions and references to the legislative initiatives are provided in the relevant sections.

## 4.2 STABILITY AND RESILIENCE OF THE BANKING SECTOR

Banks are at the core of the EU financial system. Households, non-financial corporates and governments rely significantly on banks to fulfil their funding needs (see Box 4.2.1). The fact that more than half of the assets of the financial system in the euro area are held by banks illustrates their key role in the financial system (Table 4.2.1).

Table 4.2.1: **Relative size of banks and other financial institutions in the euro area**

|                                                         | EUR trillion | % of total   |
|---------------------------------------------------------|--------------|--------------|
| <b>Regulated banks</b>                                  | <b>28.0</b>  | <b>51.5</b>  |
| Insurance corporations and pension funds                | 6.8          | 12.6         |
| Regulated investment funds other than MMFs              | 5.6          | 10.3         |
| Other intermediaries                                    | 10.8         | 19.9         |
| Eurosystem                                              | 3.1          | 5.8          |
| <b>Total assets of euro area financial institutions</b> | <b>54.4</b>  | <b>100.0</b> |

Source: Bakk-Simon et al. (2012), showing data for end 2011.

Unlike most non-banks, banks are characterised by a **high risk of instability and fragility** due to the maturity mismatch and liquidity mismatch between their assets (often long term and illiquid, such as loans) and their liabilities (often short term and liquid, such as deposits). They are hence **vulnerable to confidence crises** as their predominantly short term creditors may decide to withdraw their funds or stop rolling over their short-term debt paper. To avoid disruptive runs and confidence crises, banks **benefit from explicit and implicit public safety net coverage**, including deposit guarantee schemes, lender of last resort support by central banks, but also

implicit subsidies. Safety nets have important benefits for financial market stability, preventing bank runs, self-fulfilling prophecies and various forms of contagion. Thereby, safety nets prevent wide-scale collapse of the intermediation services of the banking sector. However, due to the presence of these public safety nets, banks also have **incentives to take excessive risks ("moral hazard"), expand their balance sheet and leverage up** (i.e. fund their activities with more debt rather than equity). Given the artificially low and risk-insensitive funding costs that result from the public safety nets and given the limited liability status of shareholders and bank managers, it is rational for banks to leverage up and take more risks by issuing more debt.<sup>49</sup> The banking sector is indeed more highly leveraged than any other sector in the economy, and the presence of public safety nets is a key driving factor.<sup>50</sup> Whereas the percentage of equity finance of non-banks often exceeds 40 % of the balance sheet for many sectors in the economy, it is often less than 5 % for the banking sector.

To control and curtail risk-taking and excessive leverage incentives, banks have long been **heavily regulated and supervised**. However, the financial crisis showed that the regulatory and supervisory framework of banks was inadequate. **Banks were at the heart of the crisis**. Whereas several large EU banking groups have weathered the crisis well, the EU financial system as a whole would have likely imploded due to a system-wide cascade of banking failures without the extraordinary and ongoing government and central bank support.

When the financial crisis started, the EU acted quickly and increased already in 2009 the protection levels of deposit guarantee schemes (DGS) from a minimum of EUR 20 000 to EUR 50 000 and, in 2010, to a harmonised level of EUR 100 000 per depositor per bank. This reinforced depositor confidence in public safety nets and thereby averted the risk of runs on banks across the EU. The DGS measures are further discussed in section 4.7.2, as they are critical also for consumer protection.

In order to enhance the stability and resilience of the banking sector and reduce the likelihood and costs of future banking failures (including calls on the deposit guarantee scheme and wider taxpayer support), the financial regulation agenda includes a number of important bank reforms which:

- increase the ability of banks to absorb losses by increasing the level and the quality of bank capital (section 4.2.1);

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<sup>49</sup> Roughly speaking, the return on equity (RoE) equals leverage multiplied by the return on assets (RoA). For a given ROA, say 1 %, the RoE will approximately be the multiplication of the ROA with the leverage. If banks have a leverage of 20, the RoE will amount to 20 %, whereas it would be 10 % with a leverage of 10.

<sup>50</sup> Note that tax distortions in favour of debt issuance cannot explain the high leverage of banks compared to non-banks. Debt tends to receive a more favourable tax treatment than equity, but this argument also holds true for non-financials. The argument that banks are prone to greater agency problems compared to non-banks in the sense that bank managers are able to expand the bank balance sheet aggressively and to take on tail risk is valid, but does not explain the preference for greater (short-term) debt funding by banks. Academic papers such as Calomiris and Kahn (1991) claim that short-term debt has a disciplinary effect on bank managers, but the crisis experience has illustrated that short-term debt issuance would need to be taxed, if anything, rather than being considered as a tool to control bank risk-taking. The Miller-Modigliani theorem states that the capital structure is irrelevant, except in the presence of important and real frictions (see also chapter 6.4). Admati and Hellwig (2012) and several others argue that the presence of the (mis-priced) public safety nets is the sole explanation behind the relatively high leverage of banks over non-banks.

- improve the ability of banks to absorb liquidity shocks (outflows) and ensure adequate asset-liability matching (section 4.2.2);
- reduce the pro-cyclicality in the regulatory framework ((section 4.2.3);
- improve banks' risk management and governance (section 4.2.4);
- facilitate crisis management and bank resolution (section 4.2.5);
- correct the "too big to fail" problem (4.2.6).

Results of quantitative models estimating the potential (net) benefits of bank reforms are presented in section 4.2.7.

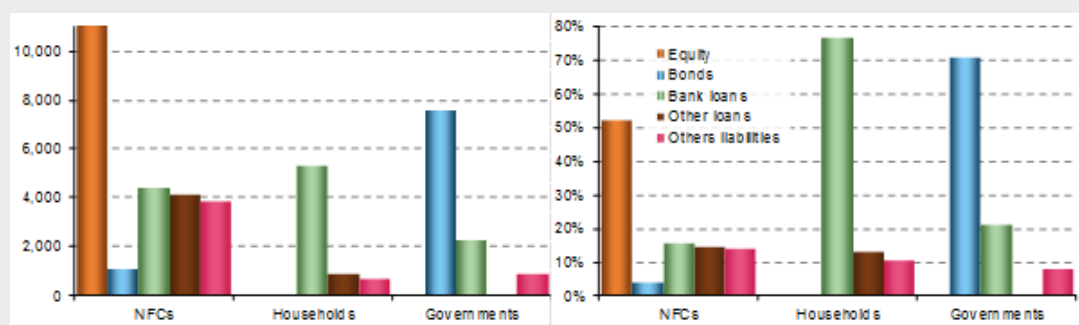
Over and above the reforms listed above, the EU took decisive steps towards establishing a Banking Union. This reform strand is discussed separately in section 4.6.3.

#### Box 4.2.1: The importance of banks in financing the economy

Businesses, governments and households finance their activities from different sources, including bank loans. Data from national accounts shows how financial liabilities (or the funding mix) differ widely from one economic sector to the other (Chart 1).<sup>51</sup> Households finance almost exclusively through bank loans (almost 80 % of liabilities), while NFCs also use a variety of other sources. With EUR 10.4 trillion or almost 40 % of financial liabilities, unquoted shares and other equity is the main source of funding used by NFCs. Bank loans represent almost 16 % of NFCs source of funding (EUR 5.3 trillion) and securities issued in the markets, about 19 % (EUR 1.1 trillion of debt securities and EUR 4.2 trillion of quoted shares).

Besides the collection of taxes, governments finance their activities mainly through the issuance of bonds (70 % of financial liabilities or EUR 7.6 trillion), but loans are also significant (21 % or EUR 2.3 trillion).

Chart 1: Source of financing by sector in the euro area (2013 Q3, EUR billion) and percentage of total liabilities



Note: Equity of NFCs: EUR 14.6 trillion includes quoted shares (EUR 4.2 trillion) and other equity (EUR 10.4 trillion). The chart omits the net worth of households (EUR 43.0 trillion). For government, bank loans include also other loans.

Source: ECB: Euro area accounts and own calculations.

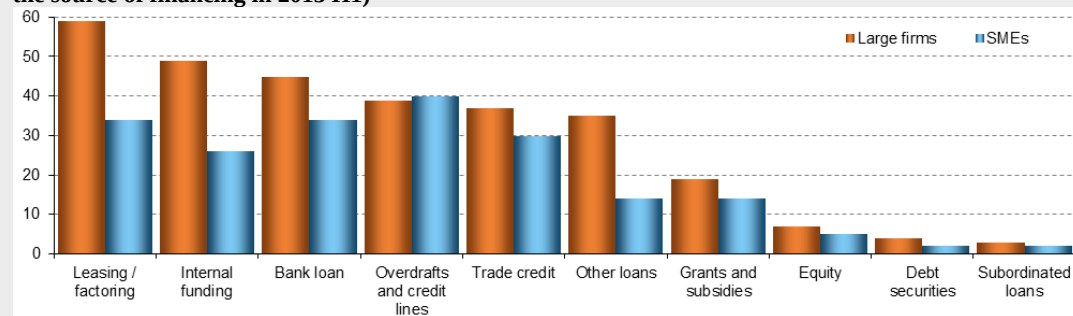
<sup>51</sup> Data in this box correspond to the euro area aggregate. In broad terms, the distribution of financing sources is similar both for the EU28 as a whole and for individual countries.

Overall, banks provide up to EUR 12.0 trillion financing in the form of loans to these three sectors (households, NFCs and governments), accounting to more than 25 % of their financing sources.

As shown in chart 1, on top of equity, bank loans and securities, other sources are also relevant. For instance, they represent almost 30 % of all funding for NFCs (EUR 8.0 trillion).

Chart 2 provides a more granular breakdown of financing sources of corporates, showing the percentage of small versus large corporates that have used the relevant source of financing (rather than actual volumes).

**Chart 2: Source of financing for euro area non-financial corporations (percentage of companies having used the source of financing in 2013 H1)**



Source: ECB Survey on the access to finance of SMEs in the Euro Area.

#### 4.2.1 Increasing bank capital and loss absorbency

As explained below, the financial crisis demonstrated that existing bank capital regulation was inadequate. Following calls from the G20 and the Financial Stability Board (FSB), the global standard setter for the prudential regulation of banks – the Basel Committee on Banking Supervision (BCBS) – agreed in 2010/11 on new rules requiring banks to hold more and better quality capital. At EU level, the new global standards are reflected in the Capital Requirements Directive (CRD IV)<sup>52</sup> and Regulation (CRR)<sup>53</sup> (henceforth, the CRD IV package) that entered into force in July 2013.

##### The role of bank capital

The first **(ex post) purpose** of bank capital is to **deal with “unexpected” losses**. Expected losses should be covered by provisions and the income generated by the institution. Bank capital is the guarantee of a bank’s financial soundness. It ensures that the bank can absorb higher than expected losses. Thus, bank capital protects the taxpayer from losses and minimises negative consequences of bank failures.

A second **(ex ante) purpose** of bank capital is to **ensure that the bank takes less risk because shareholders** have more “skin in the game”.

<sup>52</sup> 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, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC.

<sup>53</sup> Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012.

Important market failures (negative externalities) arise when bank capital reaches low levels. First, externalities may arise from fire-sales. When a bank under stress needs to liquidate its assets rapidly, it will be ready to do so at below market prices to expedite the process. This will also affect negatively the value of similar assets held by other banks. Thus, a sell-off by banks under stress impose costs on other market participants, putting pressure on their capital position and forcing them to liquidate their assets, too, which pushes the asset prices further down. This process might end in a vicious cycle where market participants are forced to liquidate (fire-sales). The fire-sale problem is exacerbated when a bank faces liquidity problems (short-term funding) in addition to capital constraints (see below section 4.2.2). Second, credit supply may be constrained. In a stress situation, banks prefer to reduce illiquid assets, because they require more capital to hold for the associated risks. Banks cut therefore the supply in new loans to non-financial firms or adjust the risk premium on existing loans, hampering in this way investments and economic activity.

Given these market failures, regulators need to establish minimum levels of capital for banks to absorb potential losses, preventing banking problems spilling over to the economy. However, a regime with flat, non-risk based capital requirements brings inevitably potential for distortion, because it incentivises banks to invest in high-risk assets, which has a negative impact for the sector and the economy (in extremis this could crowd safe borrowers out of the credit market). To avoid these distortions, the regulatory framework has to take the riskiness of assets into account when setting minimum capital requirements.

The benefits of a well-capitalised banking system in terms of lower probability and cost of financial crises and the resulting lower macroeconomic volatility are well recognised and have been analysed in a number of studies (see also section 4.2.7 below).

### **Changes in bank capital requirements – towards the CRD IV package**

The financial crisis highlighted the problems with the existing EU framework for bank capital regulation, which was embedded in the Basel agreements at international level (see box 4.2.2 for a short overview). In particular, it proved unable to ensure that adequate levels of sufficient quality capital were put in place to deal with solvency shocks. It became clear when the crisis struck that what is needed in the banking system is more and better capital and less leverage. Also, the regulatory capital ratios had not always been able to signal individual bank distress<sup>54</sup>. The risk weighting system inherent in capital regulation was allowed to become highly complex and turned out to be a poor proxy for the actual risk of an institution. Moreover, regulation was unable to account for the impact of financial innovation. At times, the latter has also been motivated by the simple wish to circumvent prudential rules and minimise the applicable capital requirements.

The regulatory framework had a number of other shortcomings, which are separately discussed in the subsequent sections. It was funding liquidity problems that triggered the crisis, but liquidity was largely left outside of the regulatory framework (see section 4.2.2). Moreover, the risk weighting system turned out to fuel the natural

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<sup>54</sup> Lehman Brothers, Northern Rock, RBS, Fortis and Dexia enjoyed excellent regulatory capital marks, while being unsustainably leveraged and vulnerable to funding liquidity risk.

procyclicality of banking, amplifying the boom and the bust when it eventually occurred. Also, its microprudential focus was ill-suited to take account of the increasing systemic risk (see section 4.2.3).

**Box 4.2.2: Changes in bank capital regulation**

In 1988, the Basel I international accord was signed. It was a landmark agreement: “International Convergence of Capital Measurement and Capital Standard”, as it was the first-ever genuinely international prudential regulatory agreement. More than 100 countries adopted the recommendation. The goals of the agreement were to (i) improve the resilience and stability of the financial system and to (ii) ensure a competitive level playing field internationally (between Japanese, US, European and other banks). The accord consisted of merely 30 pages and defined “capital adequacy rules” for banks at a global level. It specified the calculation of the total minimum capital requirements for assuming credit risk (later also market risk, see amendment below). The regulatory capital requirements are expressed as a ratio and are hence composed of three elements: (i) the numerator of the ratio defines regulatory capital; (ii) the denominator of the ratio defines risk weighted assets (RWA); (iii) the ratio was expressed as a minimum level: 8 % (the so-called “Cooke ratio”), i.e. per 100 units of RWA, 8 units of capital are required. In 1996, a market risk amendment was added to Basel I, covering market risk and recognising the internal risk models used by banks (“Value-at-Risk” – VaR models).

The definition of bank regulatory capital was more conservative than the accounting definition of capital and consisted of Tier 1 and Tier 2 capital. “Tier 1” capital is going concern loss absorption capital and mainly consists of common shares and retained earnings. “Tier 2” is gone concern loss absorption and mainly consists of hybrids, subordinated debt, and undisclosed reserves. Tier 2 could not be larger than Tier 1 capital. Risk weightings (RW) and risk weighted assets ( $RWA = RW \times \text{Assets}$ ) depend on issuer and location of issuer. There were 5 broad categories of risk weights only: 0 % for cash and OECD government debt; 10 % for loans to domestic public sector entities; 20 % for loans given to banks incorporated in an OECD country; 50 % for loans fully secured by a residential property; and 100 % non-OECD government debt, loans to the private sector, non-OECD banks, real estate investments. RWA could be considerably smaller than total assets, given the above weighting. For the same reason, regulatory capital could hence be significantly smaller than 8 % of total assets.

The Basel I framework was very successful in levelling the playing field internationally, but also displayed a number of shortcomings: risk categories were quite arbitrary (RW on sovereigns used a blunt OECD versus non-OECD country split; RW on corporates were always 100 % irrespective of the credit rating); there was ample scope for regulatory arbitrage (364-day facilities were treated significantly different from full one-year facilities, broad RW categories per issuer, etc.); there was no portfolio approach despite obvious diversification gains across asset classes and instruments; no rules for credit derivatives and securitisation existed; and risk management advances (VaR models) were not incorporated.

In response to these Basel I framework shortcomings, the Basel II agreement was reached in 2004. Greater detail characterised this fundamental overhaul of capital adequacy regulation. Internal models were extended to credit risk exposures and risk management advances were further encouraged. Basel II was a much more risk-sensitive framework. External and internal credit ratings were allowed. It was based on three pillars (i.e. two additional pillars were introduced): minimum capital requirements (“pillar 1”); supervisory review (“pillar 2”); and market discipline (“pillar 3”). It was meant to be a “total risk” approach: credit, market, and operational risk were all covered and a portfolio approach was used.

In direct response to the financial crisis, early revisions to Basel II (known as Basel 2.5) in 2009 addressed risks the exposed by the crisis that were related to trading, derivatives and securitisation activities. The Basel 2.5 agreement introduced important changes to the trading book capital requirements and the treatment of securitisation exposures, including an incremental risk capital charge to reflect the risk of large, but less frequent losses and the potential for large long-term cumulative price movements.

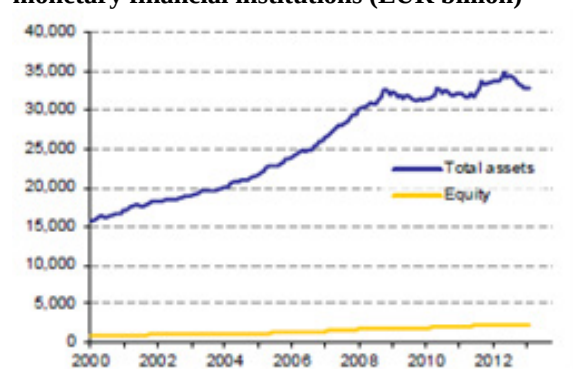
Following a more extensive global effort, Basel III was agreed in 2010/11. Its application was scheduled for January 2013, with the transition period to full implementation stretching out to 2019. Basel III is the attempt by the regulators to learn the full set of lessons from the financial crisis, acknowledging the shortcomings and insufficiencies of the Basel II regulatory framework. It was obvious that banks held insufficient capital and that more and better capital was needed in the system.

New definitions of capital components have been introduced. A shift of focus towards higher quality "core Tier 1" capital instruments took place. New targets for minimum capital requirements were set. The minimum regulatory capital that a bank needs to hold remains at 8 % of RWA, but the portion of capital of the highest quality that can fully absorb losses (common equity Tier 1, CET1) has been increased from 2 % to 4.5 % of RWA. Moreover, to be considered of the highest quality and therefore qualify as CET1, capital instruments now need to satisfy a number of additional, more stringent conditions. Additional capital buffers were introduced. This includes a capital conservation buffer of 2.5 % of RWA, which raises the total capital requirement to 10.5 % of RWA as well as an additional countercyclical capital buffer, a surcharge for systemically important financial institutions and a systemic risk buffer (see section 4.2.3 below for a discussion of the additional buffers). Capital charges were changed to cover derivatives counterparty risk and trading book related risks.

The BCBS is driving the international Basel framework agreements, but is not a legislator. Hence, the EU and its Member States need to reflect in EU law any recommendations agreed at Basel. Several pieces of EU legislation have given effect to the various Basel agreements in EU law, the latest being the CRD IV package.

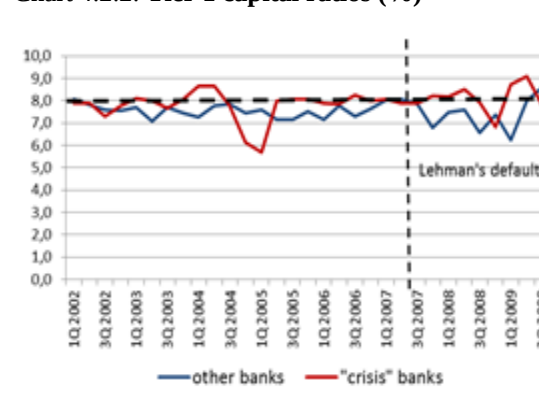
In the run up to the global financial crisis, banks' balance sheets increased significantly, but on a very thin capital base (chart 4.2.1). The trend to expand balance sheets prior to the crisis was associated by an optimisation of risk models, suggesting low risks and consequently low required minimum regulatory capital. The crisis demonstrated not only the insufficient capital to absorb losses, but also the inability of the regulatory ratios to provide timely recognition of emerging bank weakness so as to open the way to early corrective action by supervisors just before the crisis (Carmassi and Micossi, 2012). Chart 4.2.2 shows that shortly before the crisis the regulatory capital ratios (measured by Tier 1 capital in relation to risk-weighted assets) were at 8 % for most banks and did not signal any vulnerability; there was no difference in the evolution of the average capital ratios of "crisis" banks (that ultimately needed government bailout) and "non-crisis" banks. One reason for this are the shortcomings with risk weights and internal models, as discussed below.

Chart 4.2.1: Total assets and equity of euro area monetary financial institutions (EUR billion)



Source: ECB

Chart 4.2.2: Tier 1 capital ratios (%)



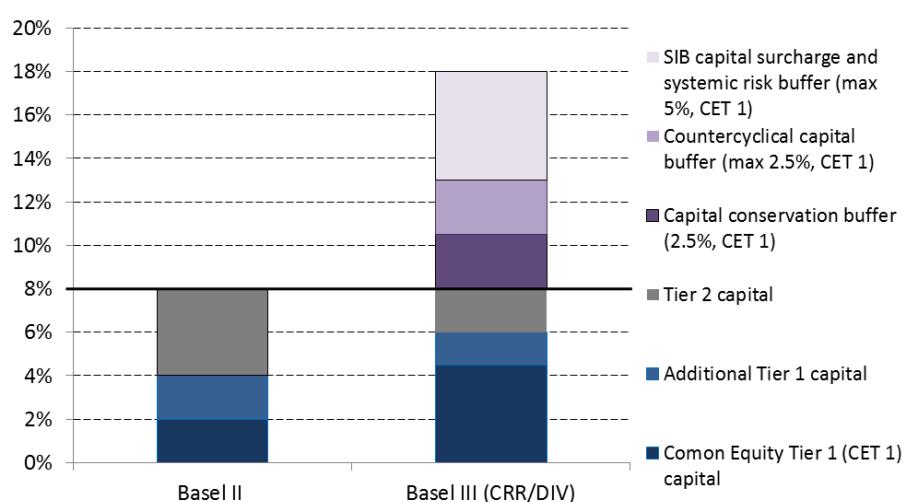
Notes: sample of the 30 biggest EU-banks; "crisis" refers to those banks that received direct state aid during the crisis.  
Source: Capital IQ.

Moreover, regulatory capital ratios reported by banks did not reflect their true capacity to absorb losses. The crisis made evident how several elements of what was considered (high-quality) capital to absorb losses did not work out as they were supposed to. For example, debt securities issued by banks that, in principle, should have been able to absorb losses (so called hybrid securities) did not perform as expected. Such securities were counted as capital, because they were meant to reinforce a bank's balance sheet by stopping cash flows from exiting the bank at times

of distress. Unfortunately, the possibility to differ or cancel such payments during the crisis was not used.<sup>55</sup> As a result, governments had to inject massive amounts of public money into banks and provide guarantees in order to maintain essential financial services for citizens and businesses (see Box 3.4.1).

Chart 4.2.3 illustrates the changes in EU bank capital requirements brought about by the CRD IV package (reflecting the global Basel III agreement), including the new buffers (some of which are discretionary or apply to some banks only, as further described in section 4.2.3 below).

Chart 4.2.3: Overview of the new CRD IV capital requirements compared to previous standards



Notes: The new requirements only phase in over time, with full implementation from 2019. The chart illustrates maximum requirements, since some of the buffers only apply selectively (e.g. to systemically important banks) or on a discretionary or temporary basis (e.g. depending on the cycle). Note that in some cases higher buffers can be applied. See section 4.2.3 for more detail on the buffers.  
Source: Commission Services

## Addressing trading, derivatives and securitisation risks

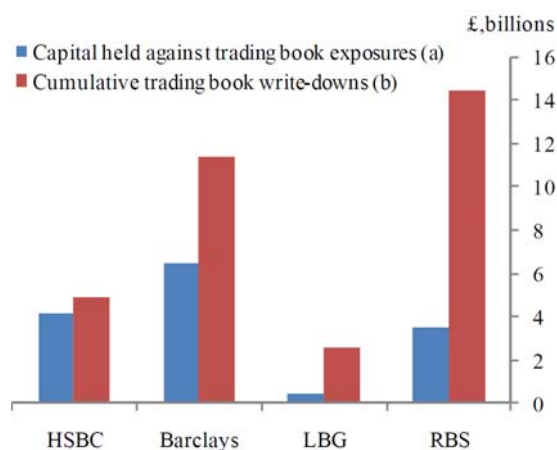
A number of EU (and non-EU) banks in the crisis incurred significant losses in relation to their trading and derivatives activities, in particular in relation to traded credit (e.g. mortgages, asset-backed securities, credit derivatives, structured credit). Substantial losses were also incurred in relation to loan origination and syndication.<sup>56</sup> Many of the losses related to risks carried in the banks' trading books as opposed to the banking book.

Chart 4.2.4: Cumulative losses on the trading book relative to capital requirements

<sup>55</sup> Banks whose capital instruments did not live up to the expectation regarding their loss absorption, permanence and flexibility of payment capacity include, amongst others, Allied Irish banks (IE), Bank of Ireland (IE), Bayern LB (DE), Bradford and Bingley (UK), Caja Sur (ES), Commerzbank (DE), KBC Group (BE), Lloyds (UK) and RBS (UK).

<sup>56</sup> See breakdown of write-downs on different investment banking activities in Box 3 of BCBS (2012).

The crisis demonstrated that trading book risks were not supported by appropriate levels of capital to deal with the losses that eventually materialised (see chart 4.2.4 with UK evidence). The Basel II capital framework did not adequately capture risks related to trading, derivatives and securitisation activities, allowing these activities to balloon (see chapter 3.1) without appropriate capital charges to reflect the risks.



Source: Chart 3 in Haldane (2011).

In direct response to these problems, early revisions to Basel II (known as Basel 2.5) during the crisis addressed such risks with an incremental risk capital charge to reflect the risk of large, but less frequent losses and the potential for large long-term cumulative price movements. Banks are now also required to estimate risks based on stressed market situations that may lead to significant losses ("stressed value-at-risk"). As regards securitisations, firms that repackage loans into tradable securities are required to retain some risk exposure to these securities, and investors in such securities to make their decisions only after conducting comprehensive due diligence. Banks are also required to publicly disclose more information and to hold more capital for re-securitisations. As regards derivatives, further revisions (as part of Basel III) introduced an additional capital charge for possible losses associated with the deterioration in the creditworthiness of a counterparty of a derivative (to address derivatives counterparty credit risk).<sup>57</sup>

In May 2012 the Basel Committee launched a fundamental review of market risk and trading book capital requirements. In essence, the purpose of this review is to further strengthen capital standards regarding the trading book as well as to achieve further comparability and compatibility of required capital outcomes across banks (see below)<sup>58</sup>.

In addition, in Europe, the Commission adopted Regulatory Technical Standards prepared by the European Banking Authority (EBA) to set out criteria for assessing when the specific risk of debt instruments in the trading book is 'material' enough to trigger an evaluation by the competent authority. After this evaluation, competent

<sup>57</sup> Much of the counterparty credit losses in the crisis were suffered not as a result of actual defaults of the counterparty, but because credit market volatility negatively impacted bank earnings. In response, the BCBS introduced the credit valuation adjustment (CVA) charge, aimed at improving banks' resilience against potential mark-to-market losses associated with deterioration in the creditworthiness of counterparties to non-cleared derivatives trades. The CVA charge applies to non-cleared trades as exposures toward central counterparties (see section 4.3.2) are exempt from the CVA charge.

<sup>58</sup> The second consultative document, published in October 2013, sets out a number of specific measures to improve trading book capital requirements. This includes a revision of the boundary between the trading and banking books, aiming to establish a better alignment between the two and reducing the risk of regulatory arbitrage between them. Moreover, it also incorporates the latest work trying to capture the risk of extreme events taking place (known in statistics as "tail risk"). Additionally, it now foresees the incorporation of illiquidity risk by introducing a "liquidity horizon" in the risk metric, as well as revisions to the standardised and internal model based approach.

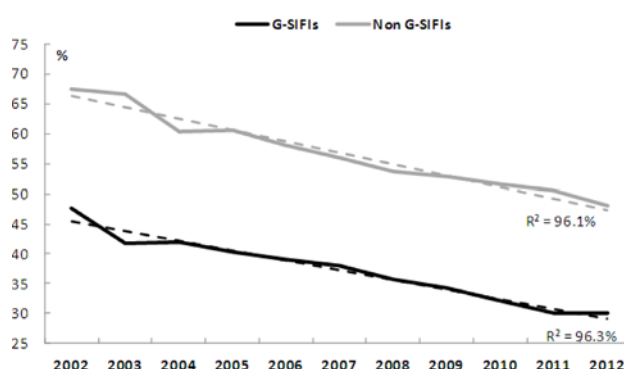
authorities will determine whether banks should incorporate specific risk in their internal models for the purpose of capital requirements.

## Improving risk weights and internal models

Minimum capital requirements are calculated with respect to risk-weighted assets, which banks can calculate using their internal risk models. While this is supposed to better reflect the true risk profile of the banks, it can also lead to considerable divergences in the calculation of risk-weighted assets for institutions with similar risk profiles. Concerns have also been expressed about risk-weight optimisation of banks.<sup>59</sup>

Chart 4.2.5 shows the ratio of RWA to total assets (TA) for a sample of banks, distinguishing between banks classified as global systemically important financial institutions (G-SIFIs and others). The chart shows that during the period under consideration (2002-2012) the ratio drastically decreased, and also that the G-SIFIs tended to have

Chart 4.2.5: RWA to Total Assets: G-SIFIs vs. Non G-SIFIs.



Source: Figure 1 in Blundell-Wignall, Atkinson and Roulet (2013).

lower RWA to total assets. Bank assets increased without a corresponding rise in risk-weighted assets and hence without a corresponding higher capital requirement. As noted above, lower risk-weights and hence lower required capital allows banks to expand their balance sheet and increase the recorded return on equity.

Dexia is a prominent example to demonstrate that high regulatory capital ratios, measured as capital in relation to risk-weighted assets, did not automatically imply that the bank is safe. As shown in Table 4.2.1, the bank recorded a core Tier 1 ratio as well as a capital

Table 4.2.1: Development of capital ratios of Dexia 2006-2010.

|                                   | 2006  | 2007  | 2008  | 2009  | 2010  |
|-----------------------------------|-------|-------|-------|-------|-------|
| RWA as % of total assets          | 23.5% | 26.4% | 23.5% | 24.8% | 24.9% |
| Total equity as % of total assets | 3.3%  | 2.7%  | 0.9%  | 2.1%  | 1.9%  |
| Core Tier 1 ratio (min 4%)        | 8.7%  | 8.2%  | 9.6%  | 11.3% | 12.1% |
| Capital adequacy ratio (min 8%)   | 10.3% | 9.6%  | 11.8% | 14.1% | 14.7% |
| Leverage ratio (assets/equity)    | 30.7  | 36.9  | 115.9 | 48.2  | 52.8  |

Source: CEPS (2011).

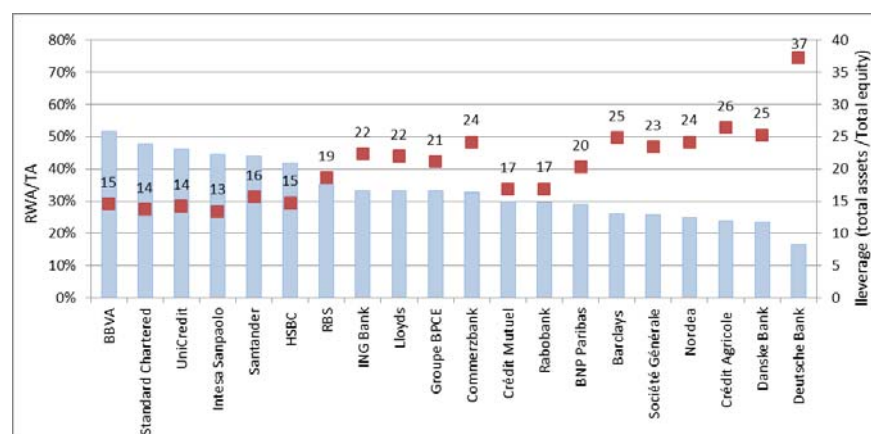
adequacy ratio that was well in excess of the minimum regulatory requirements at the time (4 % and 8 %, respectively),<sup>60</sup> and this although the bank needed to be bailed out in 2008 and its orderly resolution was approved in 2012. At the same time, the ratio of total equity to total unweighted assets was very low (1.9 % in 2010), indicating high leverage that was not revealed by the risk-weighted regulatory capital ratio.

<sup>59</sup> See for example Haldane (2009) and Blundell-Wignall et al (2013).

<sup>60</sup> Tier 1 capital is composed of core Tier 1 capital, which consists primarily of common equity and disclosed reserves (or retained earnings), and non-redeemable non-cumulative preferred stock. Tier 2 capital is supplementary capital (e.g. also including some hybrid instruments).

There are significant differences between banks when it comes to risk weighting of assets. This can be due to differences in the approach to risk-weighting but also reflects differences in bank business models. As illustrated in chart 4.2.6, banks with a greater focus on more traditional retail business tend to have higher-risk weighted assets in relation to total assets than banks with large wholesale banking and trading activities. The latter also tend to be more leveraged.

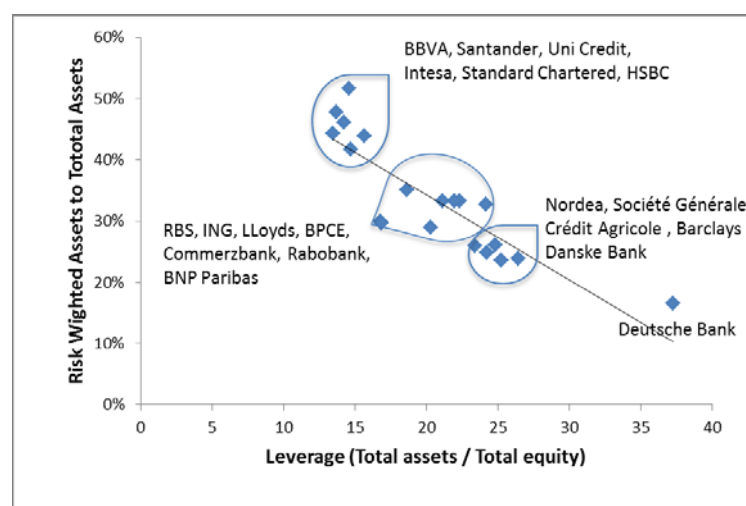
Chart 4.2.6: Risk weighted assets over total assets and Leverage. 20 large EU banks. 2012.



Source: SNL Financial, Leverage is estimated as amount of total assets to total equity

A negative relationship between risk-weighted assets (in proportion to total assets) and leverage (expressed as the ratio of total assets to total equity) is also evident in chart 4.2.7.<sup>61</sup> In general, it tends to be the large banks with significant trading book activities that display relatively high leverage, but low risk-weighted assets.

Chart 4.2.7: Risk weights versus leverage, for the biggest 20 EU banks 2012



Source: SNL Financial, Commission Services calculations.

The CRD IV package improves the risk-weighted capital requirements along key dimensions, by raising the level and quality of the capital requirements and by better reflecting the underlying risks, in particular those linked to the trading book and derivative activities.

<sup>61</sup> Miccossi, (2011) shows similar results for 2010.

Moreover, as part of the fundamental review of the trading book, the BCBS has put forward a revised framework that addresses concerns about the inherent modelling risks and measurement errors of risk-weighted capital requirements that are calculated by the banks using internal models. In particular, it introduces a revised internal models-based approach, which encompasses a more rigorous model-approval process and more consistent identification of material risk factors; banks' ability to reduce capital requirements by recognising hedging and diversification is also constrained and must be based on empirical evidence that such practices are effective during periods of stress. In addition, as an alternative to internal models, a revised standardised approach is put forward that is sufficiently risk-sensitive and appropriate for banks that do not require sophisticated measurement of market risk. Moreover, the revised framework establishes a closer calibration of the two approaches, requiring mandatory calculation of the standardised approach by all banks, and requiring mandatory public disclosure of standardised capital charges by all banks, on a desk-by-desk basis.<sup>62</sup> More generally, the BCBS has established comprehensive review programmes to ensure the timely and consistent adoption of Basel III as well as consistency in the treatment of risk-weighted assets both in the trading book and the banking book.<sup>63</sup>

At European level, EBA is also addressing such concerns.<sup>64</sup> In particular, following its stress test and recapitalisation exercise in 2012, questions were raised as to why there were significant differences in the denominator of the capital ratios (i.e. risk-weighted assets) and material differences in banks' regulatory parameters (probability of default – PD and loss given default – LGD). While differences in risk parameters and capital requirements between banks are not a sign of inconsistency per se, a substantial divergence between similar portfolios may signal that the methodologies used for estimating risk parameters require, in some cases, further analysis. The BCBS has also established comprehensive review programmes.

In this regard, the overall results of the review on RWAs will inform the work EBA is conducting in parallel on the validation of internal models, which will also contribute to better harmonisation of supervisory and banks' practices and to enhancing consistency. A deeper understanding of what drives differences in RWAs will allow the EBA to explore a number of options to address specific concerns. These include using existing guidelines, where appropriate, to enhance convergence in the

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<sup>62</sup> The BCBS is also considering the merits of introducing the standardised approach as a floor or surcharge to the models-based approach. However, it will only make a final decision on this issue following a comprehensive impact study, after assessing the impact and interactions of the revised standardised and models-based approaches.

<sup>63</sup> See BIS (2013).

<sup>64</sup> Risk weights have also been criticised for not reflecting the riskiness of sovereign bonds in the banking book. Within the banking book, sovereign debt is subject to a preferential treatment. Independent of that, during the crisis, banks have tended to reduce their cross-border exposure on sovereigns, increasing sovereign exposure to their own governments. The European legislators expressed the view that the Commission should, at an appropriate time, evaluate if concentrations in sovereign debt are adequately controlled. See Directive 2013/36/EU, recital 84: "The Commission should, at an appropriate time, submit a report to the European Parliament and the Council about any desirable changes to the prudential treatment of concentration risk".

computation of RWAs, and to improve Pillar 3 disclosures, as well as the validation and ongoing monitoring of internal models.<sup>65</sup>

### **Leverage ratio to complement risk-based capital requirements**

The leverage ratio is proposed in the CRD IV package as a new complementary tool to enhance the prudential regulatory framework. It is primarily intended to restrict the build-up of leverage in the banking sector and to complement the risk-based capital requirements with a non-risk based "backstop" measure. The leverage ratio should also present an extra layer of protection against model risk and measurement error.

#### *Leverage ratio as proposed by Basel<sup>66</sup>*

The BCBS defines the leverage ratio as the proportion of Tier 1 capital to a so called "exposure measure". Whilst the numerator is clearly defined, the "exposure measure" that generally follows the accounting rules for the value of assets is more complex. It includes special rules for some asset classes. For example, for the on-balance sheet items, "exposure" refers to the book value of assets, except for derivatives and securities financing transactions (repos) which are measured at their market value. In addition, specific rules allow limited netting of repos and special treatment of credit derivatives. However, netting of loans and deposits is not allowed. The off-balance sheet assets are weighted according to the risk weights in the standard approach, so that the "exposure measure" is not entirely risk-free. Some opponents of the leverage ratio argue that it is too complex and might give rise to creative solutions to reduce the leverage ratios and to potential for arbitrage.

In December 2013, the BCBS proposed a leverage ratio of 3 %. For many EU banks, a rate which is higher than 3 % would make the leverage ratio the primarily binding capital requirement. This might have adverse effects on asset allocation and pricing of "low risk" exposures, such as of SME loans and mortgages. While the leverage ratio is an important backstop, it should not become the major instrument for loan pricing and allocation of financial activities in the economy.

Since the leverage ratio is a new regulatory tool in the EU, there is a lack of information about the effectiveness and the consequences of implementing it as a binding measure. It is therefore important to gather more information before making the leverage ratio a binding requirement. The Commission therefore proposes a step by step approach. Banks are required to calculate a leverage ratio and disclose it starting from 2015. Data is gathered on the leverage ratio as of 1 January 2014, and a report is prepared by end of 2016 including, where appropriate, a legislative proposal to introduce the leverage ratio as a binding measure as of 2018. The observation period will allow gathering information to understand better the implications of introducing binding leverage ratio requirements and to be able to calibrate these requirements appropriately. The period will also be used to monitor possible unintended consequences and in particular risks related to disorderly deleveraging (see also chapters 6 and 7).

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<sup>65</sup> See <http://www.eba.europa.eu/risk-analysis-and-data/review-of-consistency-of-risk-weighted-assets>. Note also that the CRD IV package mandates at least annual benchmarking of internal models.

<sup>66</sup> See BCBS (2014).

## Recent improvement in banks' capital ratios

The CRD IV package entered into force in summer 2013. Institutions are required to apply the new capital rules as of 1 January 2014, but there is a gradual phasing in, with full implementation on 1 January 2019. As such, it is too early to observe the full effect of the measures in the market.

However, European banks have already made progress in boosting their capital positions and thereby strengthening the overall resilience of the European banking system. The process has been uneven and some banks still need significant repair of their balance sheet.

The general improvements in bank capitalisation are in part a response to market pressures following the lessons learned in the financial crisis as well as early convergence to the new capital rules. Moreover, the EBA conducted a one-off bank recapitalisation exercise in 2011/2012 in the context of a series of coordinated policy measures to restore confidence in the EU banking sector. Against the developments in the markets and the deterioration of the sovereign debt crisis in Europe, the EBA reviewed banks' actual capital positions and sovereign exposures and requested them to set aside additional capital buffers. It called on national authorities to require banks to strengthen their capital positions by building up an exceptional and temporary capital buffer against sovereign debt exposures to reflect market prices as at the end of September 2011. In addition, banks were required to establish an exceptional and temporary buffer such that the core Tier 1 capital ratio reaches a level of 9 % by the end of June 2012. With this recapitalisation exercise and a number of other EU-driven remedial actions, more than EUR 200 billion has been injected into the European banking system.<sup>67</sup>

Based on aggregate EU balance sheet data,<sup>68</sup> the level of total equity of EU banks was EUR 1 818 billion at the end of 2008 and EUR 2 310 billion at the end of 2012. Thus, the increase in the total equity of EU banks for the period 2009-2012 was EUR 492 billion, which represents a 27 % increase in total equity.

The improvements in bank capitalisation since the crisis are also visible in regulatory capital ratios. The median Tier 1 capital ratio of banks in the euro area increased from 8.7 % in 2008 to 12.7 % in 2012, as estimated by the ECB.<sup>69</sup> According to the ECB study, this increase has been mainly achieved through a reduction in RWA by deleveraging and decreasing exposures with higher risk weights. In other words, banks have achieved higher capital targets by downsizing regulatory capital-intensive activities and selling assets, in particular those that are non-core or those that do not meet profit targets and rely on cross-subsidisation from other parts of the business.

Chart 4.2.8 shows the Tier 1 capital ratios of a sample of the 20 largest EU banks. From 2005 to 2007, these banks had a capital base of about 8 % of RWA. Starting from 2008, the Tier 1 capital ratio gradually improved through to 2012. In 2012, all of

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<sup>67</sup> As part of the bank recapitalisation exercise, EBA required national supervisors to ensure that banks' plans to strengthen capital led to an appropriate increase of own funds rather than higher capital ratios being achieved through excessive deleveraging and lending disruptions to the real economy.

<sup>68</sup> Using the ECB's consolidated banking data, including data of domestic credit institutions and branches and subsidiaries of foreign banks..

<sup>69</sup> See ECB banking structure report, November 2013.

these 20 EU banks had a reported Tier 1 capital ratio of more than 11 % and more than half of the banks reached capital ratios of over 13.3 %.

The EBA's monitoring exercise (with data from June 2013) shows a similar trend of increasing capital.<sup>70</sup> For the sample of internationally active large banks (the so-called Group 1 banks),<sup>71</sup> the average common equity Tier 1 (CET1) ratio increased by 0.8 percentage points compared to the previous exercise (with reporting date end-December 2012). By June 2013, the reported Tier 1 and total capital ratios were on average 13.4 % and 16 %, respectively, for Group 1 banks. For the smaller banks in Group 2, the corresponding figures were 13 % and 15.8 %.

These capital ratios are the current "as reported" ratios and do not yet reflect the new Basel III definitions of capital (in the numerator) and increases in risk-weightings (in the denominator). For example, the Group 1 banks' average Tier 1 ratio would decline from 13.4 %, under the current rules, to 9.2 % under Basel III. Similarly, for Group 2 banks, the average Tier 1 ratio would decline from 13 % to 9.3 %.

While the majority of banks already meet the new capital requirements, some banks fall short and need to build more capital. For Group 1 banks, the total capital shortfalls corresponding to the regulatory ratios (including capital conservation buffer and the surcharge for global systemically important banks) amount to EUR 103.3 billion (Tier 1 capital). The CET1 shortfall as of June 2013 is EUR 36.3 billion, down from EUR 70.4 billion in December 2012. For Group 2 banks, the CET1 shortfall compared to the target level would be approximately EUR 29.1 billion. These shortfalls are calculated assuming full implementation of Basel III, which in practice only occurs from 1 January 2019.

Progress has been less marked in relation to the leverage ratio. Based on EBA's monitoring exercise, chart 4.2.9 shows that the average Basel III Tier 1 leverage ratio has generally fluctuated around 3.4 % for Group 2 banks during June 2011 and June 2013. For Group 1 banks, the leverage ratio is lower on average, and while it increased until June 2012, it remained at or slightly below the 3 % target since then. It should be pointed out that 66 % of Group 1 banks and 76 % of Group 2 banks would already meet the Basel III Tier 1 leverage ratio.<sup>72</sup>

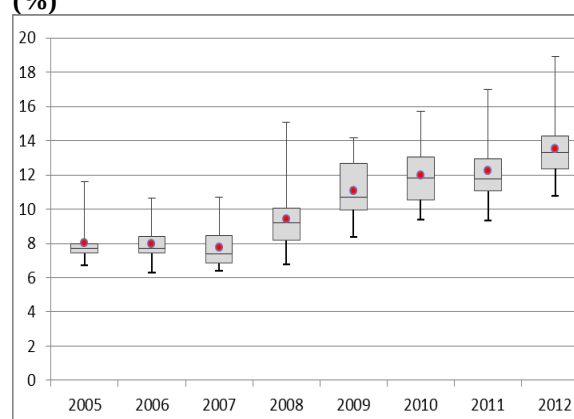
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<sup>70</sup> EBA (2014), Basel III monitoring exercise, March.

<sup>71</sup> "Group 1" include internationally active banks that have Tier 1 capital of more than EUR 3 billion, Group 2 banks refer to the remaining banks.

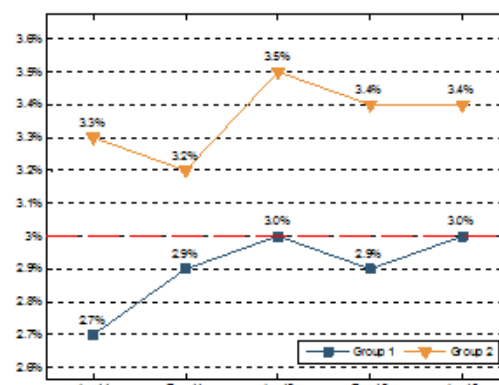
<sup>72</sup> The shortfall in Tier 1 capital due to the leverage ratio would amount to about EUR 100 billion for Group 1 and about EUR 27 billion for Group 2. The shortfall falls as banks increase Tier 1 capital to meet the risk-based regulatory capital ratios.

Chart 4.2.8: Evolution of Tier 1 capital ratios (%)



Source: SNL Financial, Commission Services calculations.

Chart 4.2.9: Evolution of leverage ratios (%)



Source: EBA (2014)

## 4.2.2 Improving liquidity buffers and preventing excessive maturity transformation

While strong capital requirements are necessary to improve the solvency position of banks and their ability to absorb losses with capital, they are by themselves not sufficient to enhance the resilience of banks. Banks also need a strong liquidity base and to adequately manage their cash flows and liquidity position, in particular to sustain stressed market conditions.

The crisis has shown that institutions' did not hold sufficient liquid means (e.g. cash or other assets that can be quickly converted into cash with no or little loss of value). Many banks had inappropriate funding structures. When the crisis hit, they were short of liquid assets and not able to raise cash as funding markets had dried up. This would have contributed to the demise of several financial institutions if it had not been for the state aid interventions and central bank support. Liquidity stress situations have proved lasting over time. While a number of Member States already imposed some form of quantitative regulatory standard for liquidity, others did not, and there was no harmonised regulatory treatment at EU level.<sup>73</sup>

There is a strong economic case for introducing bank liquidity requirements.<sup>74</sup> Banks play a valuable role in the economy in providing liquidity insurance (see chapter 2) and maturity transformation. The resulting maturity mismatch between short-term funding (e.g. deposits and wholesale debt funding) and longer-term investment (e.g. bank loans) is a defining characteristic of banks. As a result, banks are inherently unstable and vulnerable to confidence crises (materialized either through depositor runs in retail markets or, in the context of the recent crisis, short-term creditor or repo runs in wholesale markets).

This is costly: a fundamentally solvent and healthy bank can be forced into insolvency in the event of a depositor run on the bank, which may force the bank to liquidate illiquid assets at a loss ("fire sales"). Similarly, and more relevant in the context of

<sup>73</sup> Liquidity risk was a Pillar 2 concern under Basel II.

<sup>74</sup> For a detailed review of the academic literature of the benefits of liquidity regulation, see EBA (2013).

this crisis, interbank lending can freeze if banks stop trusting each other. Money market funds and other short-term creditors can lose confidence in individual banks and the entire banking sector. Thus, the wholesale funding market can dry up if confidence evaporates or risk aversion in the market increases. Raising cash at short notice through the sale of assets may be impeded if there are wider stresses in the market. Indeed, market illiquidity (i.e. inability to sell an asset at short notice with little price impact) often interacts with funding illiquidity in times of crisis. This can create a funding shortage as banks are neither able to borrow funds nor sell assets, except at prohibitive cost or loss. In times of crisis, these liquidity problems can turn instantly into a solvency problem.<sup>75</sup>

To reduce the risk of bank runs, well-known instruments have been put in place, such as deposit guarantee schemes and lender of last resort facilities (LoLR or emergency lending assistance, ELA). The recent government guarantees on newly issued debt and the large-scale LTROs by the ECB (see Box 3.4.1) play a comparable role. However, such safety nets can give rise to excessive risk-taking behaviour by the beneficiary banks, and they risk creating competitive distortions through an artificially lowered funding cost for beneficiary banks. Averting these moral hazard risks makes a case for regulating liquidity (and for regulating banks more generally).

Regulating funding liquidity can help support market confidence in the ability of a bank to fulfil its short-term obligations without generating huge distress. The crisis presents clear evidence pointing out how the collapse of market confidence and trust (and the bursting of a liquidity “bubble” based on under-priced risks and self-fulfilling beliefs) was an important reason for the deterioration of liquidity conditions in wholesale markets. Banks which were excessively funded in the short-term money market or reliant on securitisation ran out of cash.

During this financial crisis, many of the institution which significantly relied on short-term wholesale funding needed to be bailed out. There is evidence that banks’ reliance on short-term wholesale funding resulted in increased financial fragility (Demirgüç-Kunt and Huizinga, 2009 and 2010; Ratnovski and Huang, 2009). Banks with more stable funding structures continued to lend more relative to other banks during the global financial crisis (Cornett et al., 2010) and were less likely to fail (Bologna, 2011).

Regulation of bank liquidity is necessary where there is otherwise a risk of banks engaging in excessive maturity transformation and building up excessive asset-liability mismatches (usually combined with excessive leverage). By reducing these risks, liquidity regulation can enhance the resilience and stability of banks.

The CRD IV package adopted progressive phasing in of LCR until 2018, i.e. one year earlier than Basel III (see box 4.2.3). Depending on the results of the observation period applied to the NFSR and reports prepared by the EBA, the Commission will

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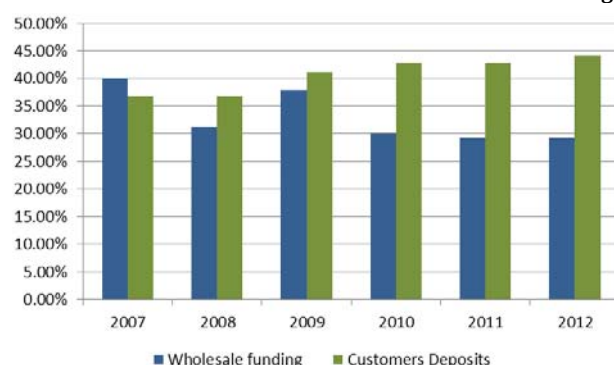
<sup>75</sup> A financial institution becomes insolvent when its going concern value sinks below the expected market value of its liabilities. In times of crisis, insolvency and illiquidity often get blurred and are hard to disentangle. Asset prices become disconnected from expected future cash flows and, instead, reflect only the prices that could be obtained if the assets had to be sold promptly to the few investors prepared to buy such assets in such times. Indeed, the term “illiquidity” is sometimes used to conceal solvency problems.

prepare, if appropriate, a legislative proposal by the end of 2016 to ensure that institutions use stable sources of funding<sup>76</sup>.

Since the liquidity requirements are yet to be phased in, it is too early to observe the impact in the market. However, market pressures and the expectation of future liquidity requirements already have induced banks to improve their liquidity position.

For example, aggregate balance sheet data for EU banks suggests that banks reduced their reliance on wholesale funding and increased their use of customer deposits as a funding source over the period 2008 to 2012 (see chart 4.2.10).

Chart 4.2.10: Reduction in the reliance on wholesale funding



Source: ECB

Based on EBA's monitoring exercise, 60 % of the large banks in the sample ("Group 1 banks") already met the minimum requirement of a 100 % LCR by June 2013, compared to 69 % of the smaller Group 2 banks. In total, the LCR shortfall was EUR 262 billion, which represents about 0.8 % of total assets. Banks are less prepared for the NSFR. While more than 50 % of the banks in the sample already meet or exceed the minimum NSFR requirement, the total amount needed to fulfil the minimum requirement of stable funding is EUR 833 billion. Since the new requirements are only gradually introduced, banks that are below the requirements can still take a number of measures until 2018 to meet the standards, including lengthening the term of their funding or reducing maturity mismatches.

#### Box 4.2.3: Basel III global liquidity standards

Basel III introduced for the first time internationally harmonised liquidity standards. It requires banks to manage their cash flows and liquidity much more intensely than before, to predict the liquidity flows resulting from creditors' claims better than before, and to be ready for stressed market conditions by having sufficient "cash" available, both in the short term and in the longer run. More specifically, Basel III introduced two new liquidity ratios:

- **Liquidity Coverage Ratio (LCR)** to improve short-term resilience of the liquidity profile of financial institutions. The LCR requires banks to have sufficient high-quality liquid assets (HQLA) to fund projected cash outflows over a 30-day period. The standard requires that, absent a situation of financial stress, the value of the LCR is no lower than 100 % (i.e. the stock of HQLA should at least equal total net cash outflows), so that the banks have a defence against the potential onset of liquidity stress; and

- **Net Stable Funding Ratio (NSFR)** to ensure that a bank has significant levels of stable funding to support its activities over the medium term. NSFR should help limit excessive maturity transformation and over-reliance on short-term wholesale funding, taking into account the liquidity profile of a bank's assets and off-balance sheet commitments, over a one-year period.

<sup>76</sup> In accordance with Article 510(3) of the Capital Requirements Regulation (EU/575/2013).

### 4.2.3 Reducing pro-cyclicality and systemic risk

One of the most destabilising elements of the crisis has been the procyclical amplification of financial shocks throughout the banking system and wider economy – i.e. banks (and other market participants) behaved in a procyclical manner, rapidly expanding their balance sheets and leveraging up in the pre-crisis boom years, but then deleveraging when the crisis hit and liquidity dried up. When the crisis hit, financial markets forced banks to deleverage in a manner that amplified downward pressures on asset prices. The deleveraging process exacerbated the feedback loop between bank losses, falling bank capital and shrinking credit availability (see also chapter 6). Bank behaviour fuelled the bubble in the boom phase and would in any case have worsened the bust when the cycle turned abruptly if it had not been for the unprecedented state aid and central bank support.

The pre-crisis regulatory framework contributed to the procyclicality.<sup>77</sup> Capital rules that are risk-sensitive introduce, by construction, a degree of cyclicality in minimum capital requirements over time. However, the main pro-cyclical dynamic of the Basel II capital framework was its failure to capture key risk exposures for banks in advance of the crisis, such as complex trading activities, securitisations and exposures to off-balance sheet vehicles. Banks were able to expand their balance sheets (and off-balance sheet activities) in the pre-crisis boom years without carrying capital to protect against these risks. As described above, the CRD IV package will disincentivise the procyclical behaviour by requiring banks to hold minimum capital for these risk exposures and, as described below, by introducing additional capital buffers that swing with the business cycle.

Ensuring a minimum **leverage ratio** can further reduce procyclical dynamics. If bank capital is only 2 % of the balance sheet (i.e. leverage amounts to 50), then following a loss of EUR 2 million, the bank must either recapitalise or liquidate EUR 100 million worth of assets just to re-establish that 2 % leverage ratio.<sup>78</sup> For the same loss, a bank with a higher starting leverage ratio level of 3 % (4 %) would "only" need to liquidate EUR 66 million (EUR 50 million) of assets, and so on. Deleveraging puts pressure on asset markets, inducing prices to fall, with negative repercussions for other market participants which also have assets of the same class on their books. As shown with the simple numerical example, the extent of the required deleveraging following a loss depends on what the bank's capital position is. The higher the leverage ratio (i.e. the more capital the bank holds) the lower the deleveraging pressures in response to a shock.

There is empirical evidence that banks adjust their balance sheet actively, and do so in a way that leverage is high during booms and low during busts, in particular for banks engaged in investment banking activities.<sup>79</sup> That is, leverage itself is procyclical. A minimum leverage ratio will help ensure that banks' capital position cannot fall below

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<sup>77</sup> A number of academic studies have examined the problem of procyclicality and called for reforms to capital regulation. For example, Brunnermeier et al (2009) and Goodhart (2008).

<sup>78</sup> This assumes that the EUR 100 million sale or non-renewal of loans does not give rise to further losses, as such an indirect effect would trigger a further need to sell.

<sup>79</sup> See Adrian and Shin (2010a).

a certain level for any given balance sheet size, thereby dampening the dynamics described above.<sup>80</sup>

The new capital adequacy framework contains a number of other key provisions to reduce procyclicality, including inter alia:

- **the capital conservation buffer** – banks are required to conserve capital to build buffers that can be used in periods of stress. The buffer is set at 2.5 % of risk-weighted assets. Banks are allowed to draw on this buffer in periods of stress. However, the closer their common equity is to the minimum requirement, the greater the constraints they will face on the distribution of earnings (e.g. dividend, share buybacks, bonuses); and
- **the countercyclical capital buffer** – there is an additional discretionary buffer which allows national regulators to require up to another 2.5 % of capital during periods of high credit growth. In justified cases, national authorities may set even higher buffer rates. The buffer will be implemented depending on national circumstances with the ultimate goal to protect the banking system against excessive credit growth.

As regards the capital conservation buffer, at the onset of the financial crisis, a number of banks continued to make large distributions in the form of dividends, share buy backs and generous compensation payments even though their individual financial condition and the outlook for the sector were deteriorating. Much of this activity was driven by a collective action problem, where reductions in distributions were perceived as sending a signal of weakness. However, these actions made individual banks and the sector as a whole less resilient. Many banks soon returned to profitability but did not do enough to rebuild their capital buffers to support new lending activity. Taken together, this dynamic has increased the procyclicality of the system.<sup>81</sup> The new buffer seeks to address this market failure and promote capital conservation in the banking sector.

As regards the countercyclical capital buffer, the financial crisis (just like previous banking crises) was preceded by a period of rapid credit growth in many parts of Europe (see chapter 3 for data on EU private and public sector debt levels). The losses in the banking sector and resulting deleveraging pressures exacerbated the downturn in the economy (as banks reduce their lending), which in turn further destabilised banks (as borrowers are less able to service their debt and the proportion of non-performing loans increases). If banks are required to build up additional capital in periods when credit is growing to excessive levels, this increases their ability to absorb losses. Moreover, the building up of higher capital would help moderate excessive credit growth in the first place.

## **Reducing systemic risk**

While procyclicality amplified shocks over the time dimension, a separate problem is the excessive interconnectedness among banks (and other financial institutions), which contributes to the transmission of shocks across the financial system and

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<sup>80</sup> See above for details on the Basel III leverage ratio.

<sup>81</sup> See BIS (2010)

economy. In line with international Basel III requirements, the new capital adequacy framework contains a number of rules to **reduce interconnectedness and systemic risk in the banking system**, including:

- higher capital requirements for systemically important banks: the CRD IV includes a mandatory systemic risk buffer of CET1 capital for banks that are identified by the relevant authority as globally systemically important. The identification criteria and the allocation into categories of systemic importance are in conformity with the G20 agreed criteria (size, cross-border activities and interconnectedness). The mandatory surcharge will be between 1 and 3.5 % of RWAs and will apply from 1 January 2016 onwards;<sup>82</sup>
- a systemic risk buffer: Member States may introduce a systemic risk buffer of CET 1 capital in order to prevent and mitigate long-term non-cyclical systemic or macro-prudential risks;<sup>83</sup>
- higher capital requirements for OTC derivatives that continue to be cleared bilaterally, so as to incentivise central clearing (see section 4.3.2 below);
- higher capital requirements for trading and derivative activities, as well as complex securitisations and off-balance sheet exposures (e.g. structured investment vehicles);
- higher capital requirements for inter-financial sector exposures; and the introduction of liquidity requirements that penalise excessive reliance on short term, interbank funding to support longer dated assets.

The proposed structural reforms in the banking sector are also intended to reduce interconnectedness and systemic risk (see section 4.2.6). In addition to better regulations, the reforms seek to improve the supervision of banks by putting greater emphasis on the stability of the banking system and wider financial system as a whole (as opposed to only concentrating on the supervision of individual banks). As further discussed in section 4.6, as part of the new European System of Financial Supervision (ESFS), the European Systemic Risk Board (ESRB) is now responsible for the macro-

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<sup>82</sup> In addition to the mandatory buffer for globally systemically important institutions, the CRD IV package provides for a supervisory option for a buffer on “other” systemically important institutions (O-SII). This includes domestically important institutions as well as EU important institutions. In order to prevent adverse impacts on the internal market there is framing in the form of the criteria used to identify O-SIIs, a notification/ justification procedure and an upper limit to the size of the buffer (2 % of RWAs). The O-SII buffer is applicable from 2016 onwards but Member States wanting to set higher capital for certain banks earlier can use the systemic risk buffer. The optional O-SII buffer CET1 capital will be recognised for the purpose of meeting the consolidated mandatory G-SII buffer requirement.

<sup>83</sup> Until 2015, in case of buffer rates of more than 3 %, Member States will need prior approval from the European Commission, which will take into account the assessments of the European Systemic Risk Board (ESRB) and the EBA. From 2015 onwards and for buffer rates between 3 and 5 %, the Member States setting the buffer will have to notify the Commission, the EBA, and the ESRB. The Commission will provide an opinion on the measure decided and if this opinion is negative, the Member States will have to “comply or explain”. Buffer rates above 5 % will need to be authorized by the Commission through an implementing act, taking into account the opinions provided by the ESRB and by the EBA.

prudential oversight of the financial system within the EU to help prevent and mitigate systemic risks.<sup>84</sup>

#### 4.2.4 Improving bank governance and risk management

The financial crisis revealed fundamental failures in bank governance and risk management systems (as well as significant failures in the assessment of risks by regulators and supervisors). The banks that failed or encountered difficulties and had to be bailed out by governments were generally lacking an appropriate risk culture<sup>85</sup>. In many cases, there was insufficient oversight by Boards on executive management. Boards were not adequately involved in strategy and gave low priority to risk issues as compared to other topics. Banks were allowed and, in some cases, even encouraged, by their Boards to take excessive risks that included unprecedented levels of leverage and high-risk business strategies. More generally, the risk management function in banks was not given the proper weight in the decision-making process, as part of a wider **lack of a risk culture** within banks. Consequently, risk issues were often not given appropriate consideration in major management decisions. Supervisors failed to exert proper monitoring and control over banks and their risk management practices. Furthermore, shareholders did not fulfil their role of "responsible owners", which should have entailed actively monitoring companies and using shareholder rights to ensure long-term value creation for companies and improve their corporate governance and strategy. This form of market discipline failed.

The impact of weak risk management and internal control systems at banks was further aggravated by improperly structured remuneration policies, including the large annual cash bonuses that make up a key variable element of remuneration in banks, in particular for investment banks. These remuneration structures failed to align employees' incentives with the long-term performance of the bank and instead provided incentives for excessive risk taking that maximised profits in the short-term. Moreover, while bankers and traders shared in any profits they generated, losses in the crisis were predominantly borne by shareholders and taxpayers.

#### The EU regulatory response

As part of the CRD IV package that entered into force in July 2013, the reforms undertaken by EU institutions have focused on: (i) risk management, ii) remuneration policies, and (iii) transparency.

Under the new rules, risk management policies for banks must be established that set out effective internal processes to identify, manage, monitor and report on the risks the institutions are or might be exposed to. Also, the risk management function is empowered to be independent from operational line units and to inform senior management directly.

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<sup>84</sup> Macro- and micro-prudential tools often operate through the same channels and can be mutually reinforcing because the safety and soundness of individual institutions helps reduce systemic risks and vice versa, i.e. the greater resilience of the system can strengthen individual firms. There can also be tensions (see chapter 6).

<sup>85</sup> See case studies in High-level expert group on reforming the structure of the EU banking sector (2012).

Additional rules apply regarding the choice and composition of board members. Members must possess sufficient knowledge, skills and experience and allocate sufficient time to perform their duties. This is particularly important given the complexity of many large banking groups today, which generates significant difficulties for non-executive members of management bodies to understand all dimensions of potential and actual risks taken by the financial institution. In significant institutions, a committee must be established to search for candidates and pick and nominate management. To ensure appropriate responsibility and accountability, the number of directorships held is limited. Institutions are now required to have diversity policies regarding gender, age and geographical origin, as well as with respect to the management's educational and professional background. These requirements will help limit the possibility that management becomes captured by "group-think". The measures are meant to allow and promote constructive criticism and a necessary level of scrutiny. Finally, to guarantee independence and avoid conflicts of interest, the reforms now establish that the chairman of the management body cannot hold at the same time supervisory and executive (CEO) functions. This will ensure that dominant executive members of the board can be questioned and challenged by external and non-executive members.

The reforms seek to improve remuneration policies by limiting incentives for short-term risk-taking and realigning employees' incentives with the long-term interest of the firm. The variable component of remuneration of so-called "material risk takers" is now to be based on a multi-year analysis of the performance of the individual, the respective unit and the bank as a whole. At least 40 % to 60 % of variable compensation will be deferred within a 3-5 year period and at least 50 % of variable compensation will be paid in non-cash instruments. Moreover, 100 % of variable remuneration is now subject to claw-back clauses to enable alignment with realised (ex-post) risk. Also, at institutions that supervisors consider significant enough, remuneration policies will be designed by a remuneration committee at the board level. Furthermore, to tackle excessive risk taking, the approved reforms also set a maximum ratio between the fixed and variable components of total remuneration of 1:1, with a possibility for shareholders to raise it to 1:2.<sup>86</sup>

Transparency is enhanced by making sure it extends to the bank's risk management objectives and policies as well as with respect to its remuneration standards. In this regard, the reforms now make it imperative for institutions to disclose in an annual remuneration report how many employees earn more than EUR 1 million per year. Additionally, CRD IV also requires public disclosure – on a country-by-country basis – of company names, people employed, overall turnover, profits made, taxes paid and subsidies received.

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<sup>86</sup> There has been some criticism that the introduction of this maximum ratio could lead to an increase in fixed remuneration and therefore to less flexibility for institutions to reduce fixed costs in a downturn. It should be borne in mind that the requirements regarding the maximum ratio only apply to a very small segment of the employee base, i.e. to material risk takers, so that the overall economic impact can be expected to remain limited. In addition, there is also a continuing legal obligation for institutions to ensure consistency between their remuneration policy and sound and effective risk management.

Taken together, the new standards for internal risk management, remuneration and transparency are expected to reduce excessive risk-taking behaviours and improve the overall risk culture in banks.

There is already evidence that the risk governance of banks has significantly improved since the financial crisis. For example, a thematic review by the Financial Stability Board (2013) of 36 banking groups across the G20, including EU banks, found improvements in some key areas, including in:

- assessing the collective skills and qualifications of the board as well as the board's effectiveness;
- instituting a stand-alone risk committee that is composed only of independent directors and having a clear definition of independence;
- establishing a group-wide chief risk officer (CRO) and risk management function that is independent from revenue-generating responsibilities and has the stature, authority and independence to challenge decisions on risk made by management and business lines; and
- integrating the discussions among the risk and audit committees through joint meetings or cross-membership.

Indeed, the review found that many of the best risk governance practices at surveyed firms are now more advanced than national guidance. The FSB interprets that this outcome may have been motivated by firms' need to regain market confidence rather than regulatory requirements. While progress has been significant, the FSB review also identified gaps in the risk governance frameworks at the surveyed banks and a need for further progress in some areas. The need for further progress in the area of risk governance has also been recognised by the industry.<sup>87</sup>

#### **4.2.5 Establishing crisis management and bank resolution frameworks**

Failures of banks cannot be ruled out, and although the above measures reduce the probability of bank failure occurring, they explicitly are not providing a zero-failure regime. Hence, there must be tools for dealing with bank failures and mitigating their impact.

The financial crisis has shown that public authorities generally lacked adequate tools to identify and effectively deal with unsound or failing financial institutions. Among other reasons, such tools are needed to prevent insolvency or, when insolvency occurs, to minimize its impact by preserving the critically important functions of the bank concerned, and isolating its negative elements. When confronted with failing banks during the crisis, public authorities faced a trade-off to either preserve financial stability or protect taxpayers' money. While authorities were able to develop appropriate tools to ensure the former,<sup>88</sup> they lacked appropriate tools to safeguard the latter and deal with bank failures without compromising public finances. As noted in chapter 3.4, a total of EUR 1.5 trillion in state aid was used to bail out and support EU financial institutions (mainly banks) in the crisis.

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<sup>87</sup> See for example KPMG (2014).

<sup>88</sup> For instance, central banks across the world worked well together to coordinate monetary policy decisions, developing non-standard policy measures and toolkits along the way.

Part of the problem is that standard liquidation and bankruptcy procedures are not well suited to preserve the critical functions of banks. Bankruptcy provides legal protection against creditors regarding the assets of a firm, financial or non-financial. For instance, it can imply that creditors are prohibited from seizing or selling collateral, starting or continuing litigation against the debtor or taking other action to collect what is owed. The objective of bankruptcy is to maximize the value of the firm to address the claims of creditors as a whole.

In general, bankruptcy law is designed to grant temporary protection to the insolvent firm from its creditors and to allow the firm to continue to operate and to preserve and realise maximum value. Bankruptcy applied to an insolvent bank would hence protect the bank from its "creditors", but this implies that depositors would lose the full access to their accounts and that borrowers would lose full access to their lines of credit. This is likely to give rise to financial panic and bank runs elsewhere in the financial system, given that liquidity provision and the general presumption of having guaranteed access to deposits is at the heart of the bank business model. Also, banks are at the nexus of the payments system. If bankruptcy and liquidation are initiated, this is likely to be much more disruptive to the bank's creditors, counterparties and the wider economy than is the case with a non-financial corporate.<sup>89</sup> Hence, liquidating a bank under normal bankruptcy proceedings is not an option often used by public authorities.

Lehman Brothers, the largest bankruptcy in US history at its time, exemplifies the time, cost and wider implications that a financial institution's bankruptcy can have for the wider economic and financial system. Strictly speaking, Lehman Brothers was not a bank: it was a bank holding company that included several banks. Once it filed for bankruptcy on September 2008, it did not emerge from it until March 2012 and as a former shadow of itself: an estate solely devoted to pay creditors<sup>90</sup>.

Given the difficulty of taking banks into bankruptcy, some governments developed special tools to deal with failing and failed banks that have systemic significance. These include establishing, for instance, separate bankruptcy proceedings for banks. They also include developing what are known as resolution tools, which allow for an orderly intervention by authorities.

Some of these resolution tools performed relatively well during the crisis. For instance, unlike EU Member states, the US already had special resolution tools in place: The Federal Deposit Insurance Corporation (FDIC) in the US had resolution powers. While relatively few banks were allowed to fail in the EU (less than 40), approximately 500 small and medium-sized banks were resolved in the US<sup>91</sup>. Moreover, in 2010 the US upgraded its tools with the Dodd-Frank Act to also be in a position to better deal with the failure of larger banks. Referring to the failure of Lehman Brothers in particular, the FDIC made the case that recovery rates with the new tools would have allowed Lehman's general unsecured creditors to fetch 97 cents on the dollar, instead of the 25 that its estate is expected to deliver<sup>92</sup>.

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<sup>89</sup> See Crockett (2012).

<sup>90</sup> The estate is still paying out to Lehman's former creditors <http://dm.epiq11.com/LBH/Project#>.

<sup>91</sup> Comments raised by Andrea Enria in an interview in the Frankfurter Allgemeine Zeitung of November the 18<sup>th</sup> 2013.

<sup>92</sup> See FDIC (2011).

In the EU the problems were magnified by the interaction present between increased cross-border operations of banks with legislative differences across Member States. The absence of common conditions, powers and processes for bank resolution constituted a barrier to the smooth operation of the internal market and hindered cooperation between national authorities when dealing with failing cross-border banking groups. Although special bank resolution regimes were developed at national level in response to the crisis, these were divergent and risked not being capable of dealing with failures of cross-border banks. Thus, EU level intervention was necessary to avoid the distortions caused by diverging national approaches and thereby improve the resolution of cross-border banks.

### **The new EU Bank Recovery and Resolution Directive (BRRD)**

In June 2012, the Commission proposed a common framework of rules and powers to ensure that authorities are able to intervene early to restore the viability of a financial institution that faces financial distress and, where necessary, allow a failing financial institution to exit the market in an orderly manner while safeguarding its critical functions, avoiding disruptions to economic activity, minimising recourse to taxpayers and protecting depositors adequately.

The Bank Recovery and Resolution Directive (BRRD) covers deposit-taking banks and large investment firms. Past crises have demonstrated that banks and investment firms (hereafter both referred to as ‘banks’ and ‘institutions’ interchangeably) represent the kinds of business models most prone to experience a destabilising loss of confidence in their ability honour their obligations and to give rise to systemic concerns at the point of failure. These institutions are also those subject to harmonised prudential requirements under the Capital Requirements Regulation and Directive.

BRRD was agreed by the co-legislators in December 2014. It was subsequently approved by the European Parliament in April 2014 and is expected for a final vote in the Council in May 2014. Publication is foreseen in June 2014. The BRRD will help to:

- ensure that the supervisors and resolution authorities adequately plan and prepare for the distress banks may face and, where possible, prevent such distress through ex-ante measures;
- improve supervisors' capability and capacity to intervene at an early stage;
- provide authorities with harmonised resolution tools and powers to deal, in particular, with cross-border institutions in a coordinated manner; and
- place the burden of financing bank resolution on private resources, as opposed to taxpayers.

As regards planning, preparation and prevention, the BRRD requires banks to draw up and regularly update recovery plans which clearly set out the measures they would take to restore their financial position in the event of a significant deterioration. Resolution authorities will have to prepare resolution plans for each institution and present the actions they might take if a bank meets the conditions for resolution. Based on the plans, resolution authorities are to identify the obstacles to resolve an

institution, including a bank's holding company and subsidiaries. To address the impediments to resolution, they can ask, amongst other things, an institution to change its legal or operational structures to ensure it can be resolved with the available tools in a way that does not compromise its critical functions.

The BRRD further sets out early intervention powers. These powers are available to a supervisor when an institution does not meet or is not likely to meet the requirements set out under the CRD IV package. In this case, authorities can ask banks to implement the measures set out in its recovery plan (if not already activated), require the management body of the institution to be removed or replaced, draw up a new plan with specific timeframes, and require the institution to convene its shareholders or creditors in case urgent decisions need to be taken, including those with a material impact on the long-term viability or status of the institution. In addition, in certain cases, supervisors can appoint temporary administrators to run the bank for a limited period of time.

With the BRRD, resolution can be triggered once a bank is failing or likely to fail, there is no reasonable prospect that an alternative private sector measure, including supervisory action, would prevent failure of the institution in a timely fashion, and there is a public interest in bypassing insolvency procedures to meet the resolution objectives set out above. It also establishes the principle that no creditor should be worse off in resolution compared to if the institution had been placed in liquidation. In the event of resolution, the BRRD endows resolution authorities with the following tools:

- *Sale of business.* Power to transfer shares or other instruments of ownership and any assets, rights or liabilities to a purchaser on commercial terms;
- *Bridge institution.* Power to transfer shares or other instruments of ownership and any assets, rights or liabilities to a new bridge bank. The latter is meant to maintain the critical functions of the institution under resolution. Upon the transfer, the institution under resolution can then go into normal insolvency proceedings;
- *Asset separation.* Power to transfer any assets, rights or liabilities of an institution under resolution to an asset management vehicle with a view to maximising their value through an eventual sale or orderly wind down;
- *Bail-in.* Power to impose losses on shareholders and unsecured creditors, respecting the seniority of claims and excluded liabilities. The resolution authority can convert debt to equity or reduce the principal of the claims. This is further discussed below.

In addition, the BRRD provides for additional protection of bank depositors in the event of resolution by establishing a general preference for deposits of natural persons and SMEs, with even a higher preference to deposits covered by the deposit guarantee scheme (see below).

As explained earlier, BRRD was approved by the Parliament in April 2014, following the political agreement reached between the co-legislators. Member States are to

apply all provisions as from January 2015, apart from the bail-in provisions which must be applied from 1 January 2016 at the latest.

Once applied, the new recovery and resolution framework for the EU will provide the relevant authorities with the necessary tools to ensure that failing institutions can be wound down in a predictable and efficient way with minimum recourse to public money. In the context of the Banking Union, these new rules will be applied within the Single Resolution Mechanism (SRM), once in place. The SRM is analysed separately in section 4.6 below.

### *Bail-in capacity of EU banks*

An effective resolution regime must minimise the costs of a failing institution to be borne by taxpayers – and as such breaking the link between the bank risks and the sovereign. It should also ensure that systemic institutions can be wound down without jeopardising financial stability. The bail-in tool provided for in the BRRD seeks to achieve that objective by ensuring that shareholders and creditors of the failing institution suffer appropriate losses and share the burden arising from the costs of resolution. In addition to protecting taxpayer funds in the event of failure, this gives investors in a bank an incentive to monitor the health of the institution *ex ante*, which reduces the risk of a failure occurring in the first place.

According to the BRRD, losses should first allocated to shareholders either through the cancellation or transfer of shares or through severe dilution, and to holders of other regulatory capital instruments. Where those instruments are not sufficient, subordinated debt should be converted or written down. Senior liabilities should be converted or written down if the subordinate classes have been converted or written down entirely. The BRRD foresees a minimum amount of bail-in of 8 % of total liabilities including own funds before, under exceptional circumstances, the resolution fund can be used to absorb losses.<sup>93</sup>

The amount of losses that can be forced on shareholders and creditors depends on the liability structure of EU banks. Table 4.2.2 provides information on the liability structure of bank balance sheets for a sample of 45 EU banks, showing the "average" bank as well as for different stylised bank business models. The table illustrates the extent to which the bail-in tool could be potentially applied as at the end of 2012. It also illustrates the differences that arise between different bank business models and the capacity of individual banks' shareholders and creditors to absorb losses.

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<sup>93</sup> Or where applicable 20 % of risk-weighted assets.

Table 4.2.2: Liability structure per type of bank, expressed as a percentage of total assets (2012YE)

|                                                       | Average Bank <sup>1</sup> | Big Bank <sup>2</sup> | Medium Bank <sup>3</sup> | Big Bank-Wholesale <sup>4</sup> | Big Bank-Retail <sup>5</sup> |
|-------------------------------------------------------|---------------------------|-----------------------|--------------------------|---------------------------------|------------------------------|
| Total Assets (Source: SNL)                            | 100,0%                    | 100,0%                | 100,0%                   | 100,0%                          | 100,0%                       |
| Total Equity (Source: SNL)                            | 4,5%                      | 4,8%                  | 5,0%                     | 3,9%                            | 5,9%                         |
| Subordinated Debt (Source: SNL)                       | 1,5%                      | 1,6%                  | 1,5%                     | 1,3%                            | 2,1%                         |
| Senior debt Unsecured                                 | 8,9%                      | 8,7%                  | 16,8%                    | 6,6%                            | 9,9%                         |
| of which less than 1 Month (Source: Bloomberg)        | 2,0%                      | 2,3%                  | 0,2%                     | 1,9%                            | 2,8%                         |
| of which more than 1 Month                            | 6,9%                      | 6,4%                  | 16,5%                    | 4,7%                            | 7,1%                         |
| Total Deposits                                        | 41,6%                     | 44,7%                 | 46,9%                    | 35,4%                           | 54,7%                        |
| Deposits by credit institutions (Source: SNL)         | 9,8%                      | 9,7%                  | 20,0%                    | 10,7%                           | 9,2%                         |
| Deposits and borrowings from the public (Source: SNL) | 31,8%                     | 35,0%                 | 26,9%                    | 24,7%                           | 45,5%                        |
| Derivative Liabilities (Source: SNL)                  | 15,7%                     | 17,5%                 | 5,8%                     | 26,5%                           | 8,2%                         |
| Repurchase agreements (Source: S&P)                   | 5,7%                      | 6,3%                  | 3,3%                     | 8,2%                            | 4,5%                         |
| Senior debt Secured (Source: Bloomberg)               | 6,4%                      | 5,8%                  | 15,6%                    | 5,1%                            | 5,7%                         |

Source: Sample of 45 EU banks data from Bloomberg, Dealogic, SNL Financial.

The table indicates that different banks would currently have to bail-in a portion of senior debt if at least 8 % of total liabilities plus own funds were to be bailed-in before, in exceptional circumstances, the resolution fund could be used to absorb the losses. Consistent with this evidence, several analysts foresee that banks will respond by raising their levels of capital and subordinated debt. The intention is to ensure that these two sources of funding should be in a position to bear full absorption capacity. The costs of bail-in on bank funding are discussed in chapter 6.

While the responsibility for covering bank losses will fall on private investors in this type of institutions, in some extreme cases there can be recourse to external resolution funding. The BRRD requires resolution funds to be financed by the banks themselves, and to be built up to a level equal to at least 1 % of covered deposits within 10 years. Recourse to the privately funded resolution fund and, if the former was exhausted, to alternative funding means would only be needed in the minority of extreme and duly justified cases.

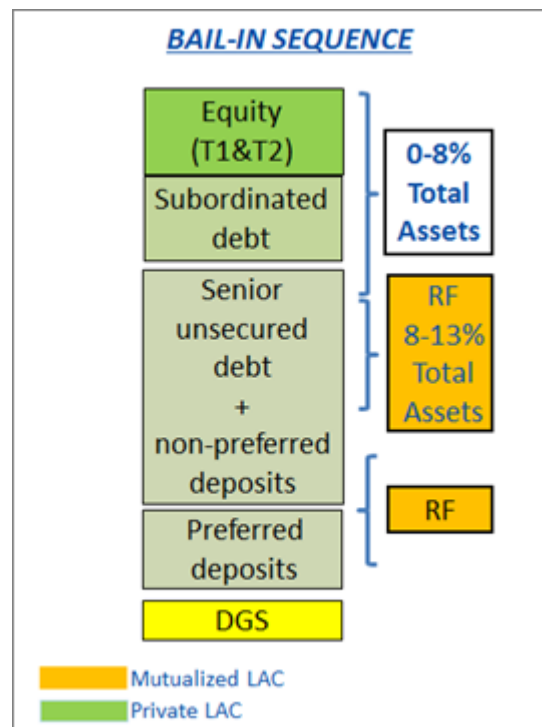
### *Redefining creditor claims and establishing depositor preference*

The liability structure presented in Table 4.2.2 hints at a related but separate issue to the level of bail-inable debt and total loss absorbing capacity of a bank: namely, the need to establish a clear hierarchy of claims regarding which creditor gets paid first (or, conversely, takes on losses first).

In addition to establishing that losses should first be absorbed by regulatory capital and then subordinated debt, as per the bail-in requirements, the BRRD further changes the hierarchy of claims against a failing bank by introducing depositor preference. Chart 4.3.11 summarises the hierarchy of claims in the BRRD. Depositor preference will strengthen the standing of depositors in the hierarchy of claims, minimise taxpayers' losses and reinforce financial stability.

Retail depositors are generally protected from losses in resolution and in insolvency through deposit guarantee schemes (DGS) established in all Member States. As noted above, in response to the crisis, the level of guarantee was increased to EUR 100 000 for eligible depositors in a bank. Covered deposits are fully protected from losses up to this limit. Whilst other eligible deposits are potentially available for loss absorbency purposes, deposits by natural persons and SMEs have been given a higher priority ranking over the claims of ordinary unsecured, non-preferred creditors in insolvency proceedings, reducing the likelihood of them having to bear any loss. In addition, national DGS, which will replace covered deposits in loss absorption, will receive super preferential treatment and will thus contribute as the very last.

Chart 4.2.11: **BRRD: hierarchy of claims in a bank**



Note: LAC stands for loss absorption capacity; RF for resolution fund, DGS for Deposit Guarantee Schemes.

Source: Commission Services

Covered deposits are estimated to present approximately EUR 5.2 trillion in the euro area, or about 16.5 % of the average bank's balance sheet. While DGS are in the first instance industry-funded, they are implicitly backed by taxpayer support. Thus, changing the hierarchy of claims in favour of the DGS is effectively also a measure to reduce risks to public funds. Depositor preference is therefore justified on the grounds of protecting both eligible depositors and taxpayers. That is, it protects citizens both in their role as depositors and taxpayers.

While seeking to minimise the risk to taxpayers and avoid a repetition of the large-scale bailouts that were required in this crisis, the BRRD will allow for extraordinary public support to solvent banks in the form of a guarantee or precautionary recapitalisation, subject to specific qualifications<sup>94</sup>, to remedy a serious disturbance in the economy and preserve financial stability. Such support will also have to comply with the Union State aid framework, as explained in Box 4.2.4.<sup>95</sup>

<sup>94</sup> For example, only if any of the following conditions hold: (i) the institution does not infringe (or is not likely to infringe in the near future) the requirements for continued authorisation of its operations; (ii) the liabilities of the institution do not exceed (or are not likely to exceed in the near future) its assets; (iii) the institution is not unable (or is not likely to be unable in the near future) to pay its maturing debts or other liabilities; (iv) conditions for resolution as specified in BRRD have not been met; (v) there is no need to exercise any bail-in power for the institution to remain viable.

<sup>95</sup> State Aid is defined as an advantage in any form whatsoever conferred on a selective basis to undertakings by national public authorities. To be State aid, a measure needs to have the following features: (i) there has been an intervention by the State or through State resources which can take a

#### Box 4.2.4: The BRRD and the State aid rules

The transposition period of BRRD will end on 31 December 2014, with the exception of provisions relating to the bail-in tool that shall apply from 1 January 2016 at the latest.

Any State support for a financial institution before 1 January 2015 will have to comply with State aid rules and especially with the new Banking Communication applicable as of 1 August 2013. The two main principles are that (i) any recapitalisation and impaired asset measures will be authorised only once a restructuring or liquidation plan has been approved by the Commission and that (ii) shareholders, hybrid capital and subordinated debt holders have to contribute to reduce the capital shortfall to the maximum extent before State aid can be granted.

As from 1 January 2015, on top of State aid rules, any state support to a financial institution will have to comply with the BRRD requirements, which means that no public recapitalisation will be possible outside resolution, except in strictly defined cases of precautionary recapitalisations (. Under precautionary recapitalisations, state aid rules will ensure a full burden sharing of shareholders and subordinated holders. Other non-precautionary public recapitalisations will be possible within resolution only after burden sharing under both BRRD and State aid rules.

As from 1 January 2016 at the latest, any public support, in the form of injection of funds by the Single Resolution Fund or by national resolution funds will be possible within resolution after a minimum bail-in equal to 8 % of liabilities, including own funds. Precautionary recapitalisations will still be possible outside resolution provided that they comply with the BRRD rules and with the State aid rules.

#### 4.2.6 Addressing "Too-big-to-fail"

The EU financial system is characterised by the presence of relatively few large, banking groups, which are active in commercial banking (deposit taking and lending to individuals and businesses), traditional investment banking (security underwriting and advisory services), asset and wealth management services, and capital market and trading activities such as market-making, brokerage services, securitisation, proprietary trading, etc. Several of them form financial conglomerates that are also active in insurance. Prior to the crisis, these large EU banking groups have rapidly increased in size, scope and complexity. Much of the balance sheet growth volume that has taken place was driven by intra-financial business, rather than lending to the wider economy. The largest EU banking groups have total on-balance-sheet assets exceeding EUR 1 trillion (see section 3.1). Several large EU banking group balance sheets exceed the GDP of the country where they are headquartered.

Large banking groups in particular have benefited from the significant amounts of explicit aid from governments and central banks (see Box 3.4.1).

In addition, the perception of being too big to fail (TBTF) gives rise to bail out expectations and is reflected in an artificially low funding cost and hence an *implicit* subsidy for TBTF banks. The implicit subsidy is provided by taxpayers and in particular benefits the TBTF bank shareholders, management and employees, and their customers to the extent that the subsidy is passed on. Although the quantification is challenging, the implicit subsidy for TBTF banks is shown to be significant in absolute size and as a percentage of the annual profitability of banks (see Box 4.2.5).

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variety of forms; (ii) the intervention gives the recipient an advantage on a selective basis; (iii) competition has been or may be distorted; and (iv) the intervention is likely to affect trade between Member States. See: [http://ec.europa.eu/competition/state\\_aid/overview/index\\_en.html](http://ec.europa.eu/competition/state_aid/overview/index_en.html)

According to several studies, implicit subsidies are estimated to mainly benefit the largest banks.<sup>96</sup>

**Box 4.2.5: The implicit subsidy benefiting Too-Big-To-Fail banks**

Market discipline is supposed to lead inefficient firms to fail and exit the market. However, as has been mentioned above, this is not always the case in the banking sector. The recent crisis has shown that policymakers are prone not to declare that a large or otherwise significant bank has failed, hence, typically referred to as too-big-to-fail ("TBTF"). Anticipated public support gets reflected in lower returns of bank liabilities held by bondholders and depositors. The lower funding cost that banks benefit from can stem from non-risk adjusted contributions to deposit guarantee schemes as well as from the expectation that certain bank creditors or investors would not face the (full) risk of loss (Fitch (2014) estimates that support from sovereigns has reduced the cumulative five year default rate on its fixed income portfolio approximately six-fold, from 6.95 % failure rate to 1.15 % actual default rate). Thus, while government safety nets can help prevent systemic crises, they can also have several adverse effects: (i) impose strains on public finances once called upon, and (ii) lead to several market distortions.

There has been significant interest by academics and policymakers to determine the size of the implicit government guarantee and the implicit subsidy<sup>97</sup>. By definition, implicit subsidies are not transparent, and therefore not observable or easy to estimate. The precise estimate of their level depends on the exact methodology used, as well as on the sample period and countries under consideration. However, empirical analyses typically confirm that implicit subsidies exist and in most cases are significant, reaching several billion euros annually and representing a significant share of countries' GDP (typically more than 0.5 %) and banks' profits (more than 30 % in some studies). A summary of the methodology and results is provided in the Commission's impact assessment on bank structural reform.<sup>98</sup>

Credit ratings of banks often involve a "stand-alone rating" and a "support rating". Whereas the former assesses the bank's creditworthiness by looking at the business model and net cash flow generation of the business activities as such, the latter in addition takes into account the extent to which the bank implicitly enjoys backing from the state when in need (in practice, abstraction is made from possible parental or cooperative support to isolate the sovereign support). Prior to the crisis, the 29 most systemically important global banks benefitted from just over one notch of uplift from the ratings agencies due to expectations of state support (for example from AA to AA+ or from A+ to AA- for S&P and Fitch ratings or from Aa3 to Aa2 for Moody's ratings). Today, those same banks benefit from around two or three notches of implied support on average, although results differ across banks, Member States, and time (see also Charts 1 and 2 below).

According to a number of researchers and regulators expectations of state support have risen substantially since the crisis began (Ueda and di Mauro (2012), Haldane (2010b, 2012)). Some of the subsidies have already declined in recent years, thanks to the introduction of effective and credible resolution regimes (e.g. UK), due to a worsening of the creditworthiness of the sovereign creditor (e.g. Spain), or following concrete proposals and government endorsement of structural reform initiatives

<sup>96</sup> See Noss and Sowerbutts (2012), Oxera (2011), Schich and Lindh (2012), Schich and Kim (2012), Haldane (2012), Alessandri and Haldane (2009), and Ueda and Mauro (2012). Estimation methodologies belong to two groups. First, "funding advantage" models, i.e. ratings-based approaches that focus on the difference between support and stand-alone credit ratings. Second, "contingent claim" models, i.e. option pricing approaches that focus on the resemblance of implicit subsidies to put options or look-back options and model them accordingly. Evidence for the largest 26 global banks suggests an average credit rating uplift in the 2007-2009 period of approximately 2.5 notches (i.e. support rating are 2.5 notches above stand-alone financial strength ratings). Funding cost advantages are not negligible and may exceed 100 basis points, depending on the time period and stand-alone rating. Within a given country, the majority of the subsidies are enjoyed by the largest banks. UK bank evidence for the period 2007-2009 suggests that small and medium sized banks only received 8.5 % of total estimated implicit subsidies for UK banks, compared to 91.5 % for the top 5 UK banks (Haldane, 2010b).

<sup>97</sup> See the Commission's impact assessment on structural reform (SWD(2014) 30 final) and chapter 3 of the April 2014 IMF Global Financial Stability Review.

<sup>98</sup> SWD(2014) 30 final

(e.g. UK)<sup>99</sup>. In other Member States they have not or hardly decreased, or have in fact increased (see also Schich and Kim (2012)).

Chart 1: Average uplift in notches (difference between support rating and stand-alone rating) in March 2013

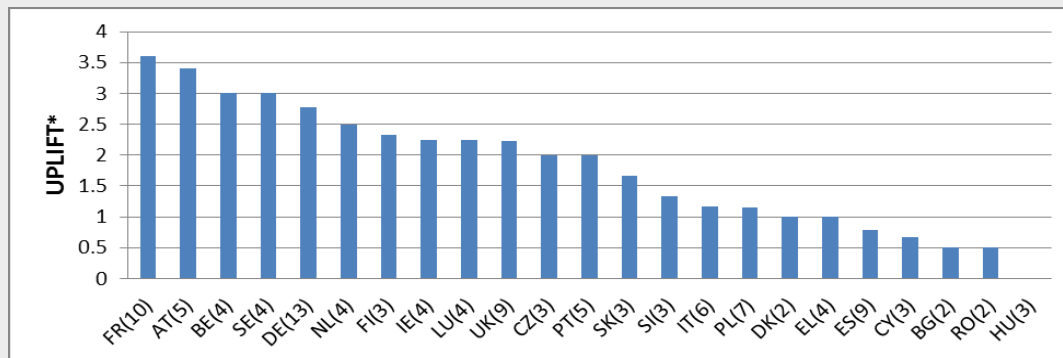
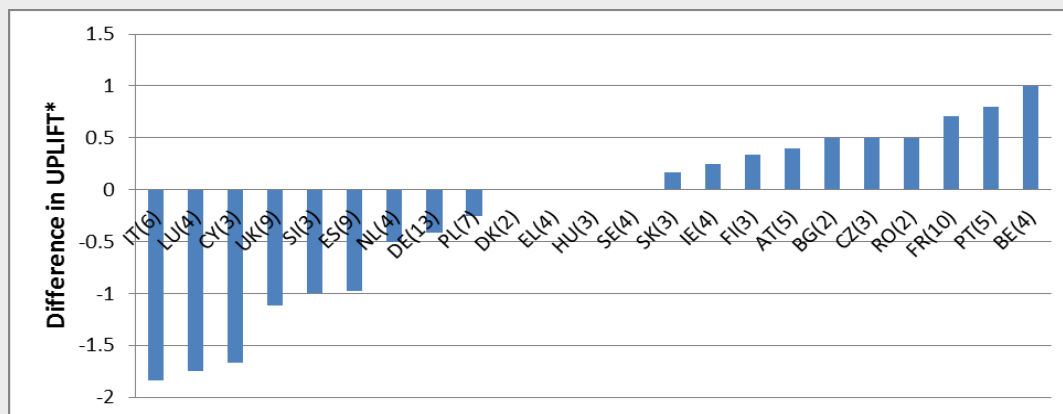


Chart 2: Change in average uplift between March 2013 and June 2011



Source: Moody's and European Commission calculations

Implicit subsidies or artificial funding cost advantages can be estimated in monetary terms by mapping the support rating and stand-alone rating into a funding cost and by multiplying the corresponding funding cost differential with the volume of outstanding rating-sensitive funding sources at a given point in time. The Commission has thus estimated the size and determinants of the implicit state guarantee and implicit subsidy enjoyed by a sample of 112 EU banks covering 60-70 % of the total bank assets in the EU over the period 2011-2013<sup>100</sup>. The implicit subsidy estimated by the Commission is in the range of EUR 72-95 billion and EUR 59-82 billion in 2011 and 2012, respectively. In relative terms, this amounts to 0.5 % to 0.8 % of annual EU GDP and between one-third and one-half of the banks' profits.

Similar findings are found elsewhere in literature. Thus, there is strong evidence suggesting that there is a significant subsidy. Moreover, the evidence also points out that larger banks benefit disproportionately from government support. Government support is also higher for banks headquartered in Member States with high sovereign ratings and for banks with high levels of wholesale/interconnected activities.

<sup>99</sup> Moody's (2011) stated on the UK ring-fence plans that "the ring-fencing proposals would likely lead to a further reduction in our assumptions of systemic support". JP Morgan (2011) analysts stated that "ring-fencing of retail operations will be a transformational change for the UK banks and will most likely lead to the undermining of the sector ratings, particularly for the entities excluded from the retail ring-fence", and anticipate that "the ratings associated with the non-ringfenced entity should tend towards the stand-alone ratings of such institutions". HSBC (2011) reached a similar view.

<sup>100</sup> Cariboni et al (2013).

Implicit subsidies have a significant distortionary impact, as they contribute to excessive balance sheet growth and risk taking, and give rise to competition distortions between large banks, on the one hand, and small and medium-sized banks, on the other hand. These distortions in turn reinforce the initial problem and give rise to TBTF banks becoming even bigger, complex, interconnected, and systemically important over time. Moreover, the implicit support results in a relative increase in the size of the financial sector, which unduly diverts resources from other sectors of the economy (see box 6.1.1). Reducing the implicit subsidies is therefore a key objective of the financial regulatory reform agenda.

Looking forward, Fitch (2014) estimates that the BRRD is likely to further weaken the sovereign support. Extraordinary support for senior creditors, while still possible under BRRD, is becoming significantly more uncertain. As a result, Fitch revised its outlook on tens of European banking groups from stable to negative due to a weakening of sovereign support assumptions.

TBTF banks often grow - supported especially by cheaper funding compared to other banks - not necessarily because they are more efficient or provide better services, but because they enjoy greater implicit subsidies.<sup>101</sup> In addition to imposing a burden on taxpayers, the implicit subsidy causes different types of distortion, among others:<sup>102</sup>

- competitive distortions – banks that benefit from the implicit subsidy have a competitive advantage over those that do not. Beneficiary banks can benefit from artificially cheap funding to expand their business at the expense of banks that do not enjoy a similar advantage. Also, banks in Member States with a sovereign more capable of standing behind its banks are at an advantage to equally strong banks headquartered in weaker Member States.
- excessive risk-taking – the implicit subsidies allow banks to reap upside profits from risky strategies while being protected against downside losses. Since investors in banks do not need to fully price in risk-taking, bank management is incentivised to take more risk than it would if their cost of funding reflected their activities (i.e. if market discipline would be effective); and
- excessive balance sheet growth and misallocation of resources to the banking sector – guaranteed funding allows banks to grow artificially, diverting resources, such as talented human capital, from other sectors of the economy than would be the case in the absence of the subsidy.

The measures to strengthen banks' solvency (the capital and liquidity requirements as part of the CRD IV package) and measures to strengthen bank resolvability (the BRRD) reduce the probability and impact of bank failure.<sup>103</sup> As discussed above, under the new capital rules, systemically important banks face higher capital

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<sup>101</sup> See Stiglitz (2013).

<sup>102</sup> See Noss and Sowerbutts (2012) and Schick and Lindh (2012).

<sup>103</sup> Other measures to address the TBTF problem include measures discussed below to better guarantee deposits (the revision of the Deposit Guarantee Schemes directive (the "DGS")); measures to improve transparency and address the risks of derivatives and to improve market infrastructures (European Market Infrastructure Regulation (the "EMIR") and related revisions to the Markets in Financial Instruments Directive ("MiFID")). Additionally, in order to break the negative feedback cycle between the sovereign and banking risks and to restore confidence in the euro and the banking system, the European Commission has called for further development of a Banking Union, building on the single rule book that will be applicable to all banks in the entire EU, as also discussed below.

requirements both in terms of quality and quantity. The reforms to bank capital requirements will reduce incentives to take excessive risks. It will also enable banks to absorb more losses before defaulting. These two effects will reduce the probability of default. The increased capital requirements on banks' trading books may also reduce banks' rapid balance sheet growth. As regards the new resolution tools, these provide a necessary framework to ensure that banks can be resolved in an orderly manner.

However, higher capital and the availability of resolution tools are not enough to eliminate the TBTF problem, in particular for the large European banking groups which are universal banks and typically combine retail/commercial banking activities and wholesale/investment banking activities in one corporate entity, or in a combination of interconnected entities.

Thus, to complement existing reforms, "structural" measures have been proposed by the European Commission in January 2014 to reduce the probability and impact of failure of TBTF banks. Such structural measures have global support, as evidenced by recent statements by G20 leaders and ministers,<sup>104</sup> and are already being adopted in a number of EU Member States.

### **The Commission proposal on structural bank reform**

The Commission bank structural reform proposal follows the work of the High-Level Expert Group (HLEG) on bank structure reform, set up by Commissioner Barnier in November 2011 and chaired by Erkki Liikanen. In its final report of 2012, the HLEG recommended amongst others that existing and ongoing reforms need to be complemented by a structural reform in the banking sector; it recommended the mandatory separation of proprietary trading and other high-risk trading activities into a separate legal entity within the banking group for banks where such activities amounted to a significant share of the its business.<sup>105</sup> In July 2013, the European Parliament adopted an own initiative report, welcoming measures at EU level to tackle concerns related to TBTF banks.<sup>106</sup>

The Commission adopted its proposals on structural reform in January 2014,<sup>107</sup> with the following **objectives**: (1) reduce excessive risk taking within the banking group; (2) remove material conflicts of interest between the different parts of the banking group; (3) avoid misallocation of resources and encourage lending to the economy; (4) contribute to undistorted conditions of competition for all banks in the internal market; (5) reduce interconnectedness within the financial sector leading to systemic

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<sup>104</sup> G20 Leaders, September 2013: "We recognize that structural banking reforms can facilitate resolvability and call on the FSB, in collaboration with the IMF and the OECD, to assess cross-border consistencies and global financial stability implications." G20 Ministers, October 2013: "We will pursue our work to build a safe and reliable financial system by implementing the financial reforms endorsed in our Leaders' Declaration, which are aimed at building upon the significant progress already achieved, including in creating more resilient financial institutions, ending too-big-to-fail, increasing transparency and market integrity, filling regulatory gaps, addressing the potential systemic risks from shadow banking and closing information gaps."

<sup>105</sup> The HLEG also included other further recommendations.

<sup>106</sup> European Parliament (McCarthy 2013), Reforming the structure of the EU banking sector, 2013/2021 (INI).

<sup>107</sup> COM(2014) 43 final

risk and contagion; and (6) facilitate orderly resolution and recovery of the banking group.

The proposal targets a small group of large and complex banking groups, the European banking groups identified by the Bank for International Settlements (BIS) as Global Systemically Important Banks (EU G-SIBs), as well as a number of additional banking groups that engage in significant trading activity and exceed certain balance sheet metrics.<sup>108</sup> Around 30 banking groups are expected to fall within the scope of the proposed regulation, accounting for 65 % of the EU total assets.<sup>109</sup>

The proposal provides for two types of measures for the banks that fall under the scope of the regulation:

- **A prohibition of proprietary trading activities for the group of banks that fall under the scope of the regulation** (which would apply as of 2017).<sup>110</sup>  
The rationale for the full prohibition of proprietary trading is that such an activity generates high risks and is by definition not customer-oriented. It has the ability to produce “tail risk” or systemic risk and is easily scalable (in comparison to more relationship-based activities such as lending). Proprietary trading potentially gives rise to large open positions and counterparty risk (risk that the counterparty to the investment will fail to pay), as well as interconnectedness between institutions. The potential opaqueness, complexity, and interconnectivity of proprietary trading represent important impediments to orderly and swift resolution. Proprietary trading can also be a high-frequency activity that may result in thousands of daily transactions. As a result, snapshots of the positions of these activities may have limited predictive value for future positions and understanding and monitoring the risks is difficult. Proprietary trading is particularly prone to conflicts of interests because the bank in its role of proprietary trader no longer is a service provider to its client, but becomes a potential competitor and hence faces interests that are no longer aligned with those of its clients. The bank can make improper use of client-related information to increase its own profits.
- **The potential separation of other trading activities** (which would apply as of 2018). Banks engage in a number of other trading and investment banking activities including market making, investment and sponsorship of complex securitised products and over-the-counter derivatives trading. These activities may however expose credit institutions to excessive risks if they represent a significant part of the bank's business. In such cases where large risky trading activities trigger a number of risk alerts (because of their size, complexity, opaqueness etc.), a separation of these activities within group entities that take eligible deposits might be warranted, unless the bank demonstrates to the satisfaction of the supervisors that these activities do not pose a threat to the

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<sup>108</sup> These are banks that exceed the following thresholds for three consecutive years: (a) the bank's total assets exceed EUR 30 billion; and (b) the bank's total trading assets and liabilities exceed EUR 70 billion or 10 percent of their total assets. See the proposal for further detail on how trading assets and liabilities are defined.

<sup>109</sup> Changes in the systemic importance and trading activities of the EU banking groups in the next years may increase or decrease this number.

<sup>110</sup> Proprietary trading activities is narrowly defined in a legal sense as desks', units', divisions' or individual traders' activities specifically dedicated to taking positions for making a profit for own account, without any connection to client activity or hedging the entity's risk.

financial stability of the deposit taking entity or to the EU financial system as a whole. If the activities remain within the banking group, they have to be transferred to an entity that is legally separate from the deposit-taking entity. The proposal also grants the supervisor powers to require separation of certain trading activities when it deems that the activity in question threatens the financial stability of the bank in question or of the EU.<sup>111</sup> Banks would need to demonstrate that the objectives of the structural reform are not put at risk in order to “avoid” separation of their activities into a “trading entity”.

**The reform is only at proposal stage, so it is too early to measure its impact.** The market response to the proposal announcement and statements from market participants in the days after the launching of the proposal suggest that the impact of the proposal may be perceived as limited, although this may be linked to the fact that the proposal was long expected and that the final outcome will depend on negotiations in the period ahead. It is difficult to foresee when the proposal will become law and whether the proposal will be strengthened or weakened following negotiations with the new European Parliament and Council in the meantime.<sup>112</sup> Other responses from market participants refer to the long timeline foreseen and corresponding uncertainty and costs. The proposal is tabled for discussion and market participants expressed a willingness to cooperate constructively in the period ahead.

The impact assessment<sup>113</sup> that accompanies the proposal expects significant tangible and non-tangible benefits to arise from this reform, however difficult their quantification might be. These include but are not limited to: reduced risk of bank failure, thus a more resilient banking system, the facilitation of bank resolution and recovery which in times of stress will translate into lower costs of possible bank failures, easier monitoring and supervision of banks, reduced moral hazard and conflict of interest, improved capital and resource allocation for the benefit of the economy and enhanced competition among market participants.

On the other hand, the proposal would reduce the implicit subsidies that the EU TBTF banks enjoy today for some of their risky trading activities. The proposed measures may lead to higher funding costs for these trading activities within the banks concerned. The reduction of implicit public subsidies would contribute to enhancing the level-playing field in the banking sector because the gap in the funding costs between the TBTF and smaller banks would narrow. There may also be operational costs related to the separation of some trading activities in a specific legal entity.

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<sup>111</sup> Separation will be accompanied by a number of legal, economic, governance and operation constraints. In particular, the separate entities need to meet prudential requirements on an individual basis; they also need to issue their own debt and operate with intra-group exposure limits; and contracts and transaction between the two entities should be on an arm's length basis. Banks would need to demonstrate that the objectives of the structural reform are not put at risk to “avoid” separation of their activities into a “trading entity”.

<sup>112</sup> The impact assessment (SWD(2014) 30 final) states that social benefits exceed social costs even for the polar case in which all EU banking groups within the scope of the regulation would be required to separate trading activities such as proprietary trading (including bank-internal hedge funds), market making, investing, sponsoring, and structuring activities related to “complex securitisation”, and structuring, arranging or execution of “complex derivative transactions” into distinct and dedicated subsidiaries.

<sup>113</sup> SWD(2014) 30 final

However, banks would have time to deal with this transfer of existing trading activities as the proposal would be phased in over time.

Overall, the wider societal benefits from this reform are deemed to significantly outweigh the costs by increasing the financial stability and resilience of the EU banking and financial system as a whole. Moreover, this reform focuses on large banks only and hence would not affect the vast majority of EU banks providing traditional financing activities to retail customers, SMEs or larger companies.

#### **4.2.7 Quantitative estimates of macroeconomic benefits of select banking reforms**

The different regulatory measures work together to enhance the stability and resilience in the EU banking sector. The resulting wider economic benefits can be measured in terms of a reduction in both the probability and impact of banking failures and the corresponding reduction in the expected costs resulting from banking crisis.

Only a few studies have attempted to quantify these benefits of (a sub-set of) the banking reforms (see also annex 1 for a review of the literature). All the studies are characterized by significant model and data uncertainty, and the results can at best be taken as indicative.

The Basel Committee's Long-term Economic Impact (LEI) report (August 2010) presents estimations of the long-term net benefits of stronger capital and liquidity standards of the Basel III rules.<sup>114</sup> The benefits of the regulatory measures are calculated as the reduction in the annual probability of a crisis times the costs of crisis, measured as the cumulative output losses (in present value terms). According to the LEI study, the cumulative discounted losses associated with banking crises range between 19 % (in case the crisis has no permanent effects) and 158 % (in case of permanent effects) on annual pre-crisis GDP levels (see also section 3.4). When there is a moderate permanent effect of a financial crisis, the cost of crisis is estimated to equal 63 % of pre-crisis annual output (based on the median of different studies considered in the LEI report). LEI estimates a fall by 2.7 percentage points (from 4.6 % to 1.9 %) in the annual probability of a systemic financial crisis when the ratio of capital requirements increases by 2 percentage points from 7 % to 9 %. Considering moderate permanent effects of a crisis, the benefits of the increase in required capital equals to  $(2.7 \% \times 63 \%) = 1.7 \%$  of the pre-crisis GDP per year. When in addition liquidity regulation is introduced and the NSFR is met at 100 %, the annual expected benefits add to 1.82 % of pre-crisis GDP. The LEI study also examines the costs of the requirements (see chapter 6 and annex 1). Considering benefits and costs, the net benefits are estimated to equal to 1.56 % of pre-crisis annual GDP. The LEI report's estimates of net benefits of the regulatory measures remain positive even if the crisis-related output losses are assumed to be more temporary in nature. Net benefits also remain positive for a broad range of capital ratios.

For the UK, the Bank of England (2013) estimated the impact of higher capital requirements coming from the CRD IV for the period 2010 to 2021. The net benefits (i.e. after accounting for costs) sum up to an annual £8.25 billion, which is roughly

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<sup>114</sup> See "An assessment of the long-term economic impact of stronger capital and liquidity requirements", BCBS, August 2010. The report uses bank data that are not restricted to EU Member States.

0.53 % of UK GDP in 2012. Reflecting the model and data uncertainty, the results vary for different confidence intervals (e.g. for the 95 % confidence interval, the net benefits lie between £-2 billion and £23 billion).<sup>115</sup>

New quantitative analysis has also been undertaken for the purpose of this study, as summarised in Box 4.2.6 and explained in more detail in annex 4 (for benefits) and annex 5 (for costs). The results are based on simplified models that seek to capture the macroeconomic impacts of select banking reforms, namely higher capital requirements (as per CRD IV package) and bail-in and resolution financing arrangements (as per BRRD).

**Box 4.2.6: (Net) benefits of increased capital requirements, bail-in tools and resolution fund**

Annex 4 sets out the details of a quantitative model (SYMBOL) that aims to assess the macroeconomic benefits of the regulatory reforms in the banking sector. Given the specification of the model, only certain types of bank reforms can be included – namely, higher capital requirements under the CRV IV package and the bail-in and resolution fund provisions of the BRRD. More specifically, the model simulates the benefits of increasing capital requirements from 8 % to 10.5 % of risk-weighted assets (RWA) (see section 4.2.1), the bail-in tools and intervention by the resolution fund (see 4.2.5). The other important reforms are not captured in the model, as they generate benefits along different dimensions and through mechanisms that are difficult to include in the model.

The benefit estimates reported below are all based on banks' 2012 capital position (allowing for potential buffers that banks hold above the regulatory requirement) and only count the impact of moving from that position to the new required level. This may underestimate the benefits, for the reasons set out in annex 4, so annex 4 also reports higher benefit estimates based on the assumption of no capital buffers (i.e. where all banks are assumed to start with capital equal to 8 % of RWA and move to 10.5 % of RWA).

The simulations show that the increased capital requirements result in a 22 % reduction in the potential public finance costs associated with bank failure. Considering also the two additional tools, i.e. bail-in and resolution fund, the costs of public finances are reduced by 92 %. This assumes that these tools are effective in preventing contagion resulting from bank failure. To further avoid losses for public finances, the BRRD allows for extra tools to be used, including for example the full bail-in of unsecured debt or the full use of the resolution fund. These tools are not included in the estimations, because supervisors have discretion in their use. The model assumes that capital requirements combined with the resolution tools in BRRD are fully effective and stop contagion in the system. As discussed in section 4.2.6 above, for the largest banks, structural reform is needed to complement higher capital requirements and resolution tools to reduce the risk and cost of bank failure. The impact of the structural reform proposal cannot directly be included in the same quantitative model, but depending on the extent to which structural reform is required to resolve the largest, systemically important banks, about a third of the estimated reduction in public finance costs as a result of effective resolution may be attributable to structural reform.<sup>116</sup>

The macroeconomic benefits of the reforms are measured in terms of avoided GDP losses. They arise from the fact that new regulatory requirements reduce the probability of a systemic crisis in the banking sector. The reduction in the probability of systemic crisis is then applied to the estimated costs of such crisis, which are expressed as the net present value of cumulative output losses and amount to 98.6 % of annual pre-crisis EU GDP. The results show that the avoided output losses and corresponding benefits of the reforms amount to 0.51 % of annual pre-crisis EU GDP if only higher capital requirements are considered and to 1.07 % if all three measures are combined. Assuming a lower level of the cumulative costs of crisis, namely 50 % of annual EU GDP (see section 3.4), the

<sup>115</sup> An empirical study by the former UK Financial Services Authority (2012) also concluded that there are positive net effects of prudential reforms on the macroeconomy. The study shows an overall net benefit of increased capital requirements (as per CRD III and the FSA's 98-6-4 recapitalisation regime, including Basel III capital buffers and liquidity coverage ratio). The net benefits are estimated at £11.9 billion annually.

<sup>116</sup> See also the impact assessment accompanying the structural reform proposal for quantitative evidence (SWD(2014) 30 final).

benefits of all three measures would amount to 0.59 % of EU GDP per year. Thus, considering also this lower bound, the estimated benefits are 0.6-1.1 % of annual pre-crisis EU GDP (or about EUR 75-140 trillion per year, if applied to 2008 EU GDP).

Macroeconomic costs (also in terms of GDP) are estimated separately (using the QUEST model) and presented in Box 6.4.1 and annex 5. The yearly macroeconomic costs are estimated to be around 0.3 % of annual EU GDP, based on the assumptions set out in annex 5.

Thus, on balance, the models suggest that the potential annual net benefits of the three reform measures may be between 0.3-0.8 % of annual pre-crisis EU GDP per year. This corresponds to a net benefit of about EUR 37-100 billion per year, based on 2008 EU GDP.

However, given the high degree of uncertainty, the estimates should be considered more as a tendency, rather than interpreted as exact numbers. They are sensitive to the choice of the modelling approach and the assumptions made. Both models, on costs and benefits, are highly simplistic and focus only on some mechanisms by which costs and benefits are transmitted to the economy. For example, the SYMBOL model to simulate benefits captures credit risk of banks only, and the QUEST model to estimate costs only considers the credit channel and is based on a simplified balance sheet of the EU banking sector.

### **4.3 STABILITY AND RESILIENCE OF FINANCIAL MARKET INFRASTRUCTURES**

This section describes the reforms pursued to enhance the stability and safety of financial markets and the infrastructures that support it. Trading, clearing and settlement of financial transactions form the three fundamental activities in financial markets. Hence, the EU regulatory agenda has paid a lot of attention to these activities, including in particular the review of the Markets in Financial Instruments Directive (MiFID) as the central piece of legislation for securities markets (section 4.3.1), the new rules for the central clearing of OTC derivatives (EMIR) (4.3.2) and the regulation of central securities depositories (CSDs) (4.3.3). These three reforms together form a framework in which systemically important securities infrastructures (trading venues, central counterparties, trade repositories and CSDs) are subject to common rules on a European level.

In addition, the section covers the restrictions that have been put in place to address the risks in relation to short-selling and credit default swaps (4.3.4). While also relevant for the stability of financial markets, reforms on securities financing transactions are covered in section 4.4 as part of wider measures on shadow banking. Also, the reforms on credit rating agencies, accounting standards, the audit process and financial benchmarks are discussed separately in section 4.6 as they also have a key role in enhancing the integrity of markets by increasing the reliability of ratings and financial information.<sup>117</sup>

#### **4.3.1 Improving trading in securities markets**

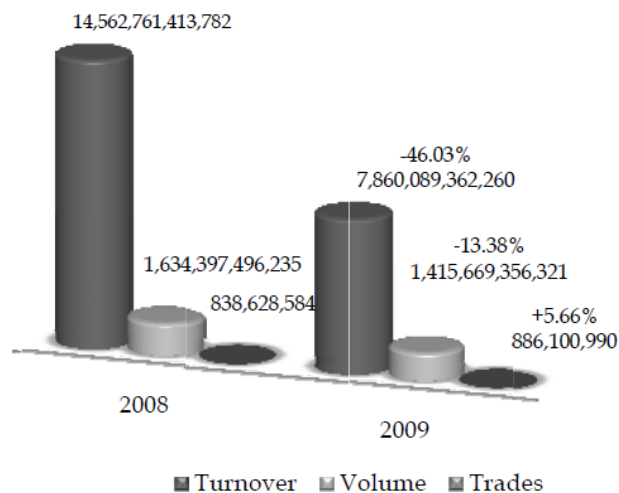
The Markets in Financial Instruments Directive (MiFID) was transposed in November 2007 as the central piece of legislation for securities markets. It governs the operation of traditional stock exchanges and alternative trading venues as well as the provision of investment services in financial instruments by banks and investment firms. While MiFID increased competition between trading venues and brought more choice and lower prices for investors, some shortcomings were exposed (e.g. in relation to market

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<sup>117</sup> The review of the Prospectus Directive is also relevant for transparency and market efficiency, but is not discussed here (but it is listed in annex 2).

fragmentation, the high degree of dark trading). Furthermore, the financial crisis clearly called for a stricter framework for non-equities markets, and in particular derivatives, including commodity derivatives. This was confirmed by the commitments by the G20 leaders at the 2009 Pittsburgh summit.<sup>118</sup>

Chart 4.3.1: Impact of the crisis on EEA equity trading



In the years following the application of MiFID capital markets in Europe have changed in many ways.<sup>119</sup> However, as the implementation of MiFID coincided with the financial crisis (which significantly affected financial markets as illustrated by the sharp decline in equity turnover and volumes in chart 4.3.1) and with rapid innovation in financial services, its effects are virtually impossible to assess in isolation.<sup>120</sup>

Source: CEPS (2011).

Stronger competition between trading venues and investment firms, both on trading costs and execution services, together with technological innovation dramatically changed the structure of financial markets across Europe, particularly equity markets. Many new trading venues emerged, trading costs declined and the speed of trading drastically increased. This development has been particularly pronounced in cash equity markets.

At the same time, however, capital markets have become fragmented and more opaque, which can be observed by the proliferation of dark trading venues, dark pools and broker dealer crossing networks.

Dark trading is trading that is not subject to pre-trade transparency requirements<sup>121</sup> either because it is not covered by the definitions of trading venues or because waivers from pre-trade transparency requirements apply. Dark trading allows market participants to carry out trades without exposing their orders to the public ahead of the execution ('pre-trade transparency'). Three different forms of dark trading need to be distinguished. 'Dark pools' are trading venues that fall within the categories of regulated markets or MTFs but for which waivers to pre-trade disclosure apply (e.g. for large in scale trades). Broker crossing systems are systems used by investment firms to match client orders internally. Typically such systems use algorithms to slice larger parent orders into smaller 'child' orders before they are sent for matching. Some

<sup>118</sup> G20 Leaders Statement: The Pittsburgh Summit, September 24-25, 2009, Pittsburgh, <http://www.g20.utoronto.ca/2009/2009communique0925.html>.

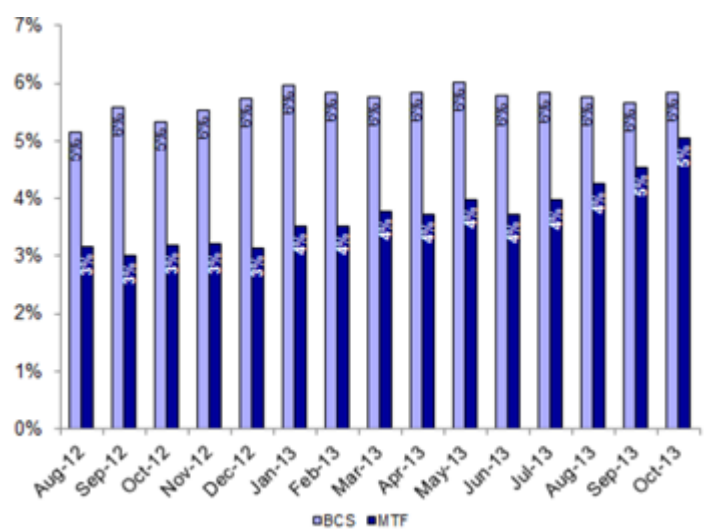
<sup>119</sup> It is difficult to disentangle the regulatory impact of MiFID on capital markets from changes due to e.g. technological innovation and the impact of the financial crisis.

<sup>120</sup> For example, institutional investors increasingly seek to hide their trading intentions from the public. It is not possible to clearly identify one single underlying factor, but it is rather a multitude of factors contributing to this trend (e.g. uncertainty created by the crisis, technical innovations, fragmentation of trading, increased competition, available waivers from pre-trade transparency).

<sup>121</sup> Insufficient pre-trade transparency can hinder the price formation process.

systems try to match only client orders while others also provide matching between client orders and house orders (with the permission of clients). If client orders are not matched internally they are then routed on to a trading venue for execution. Crossing systems are not covered by the existing definitions of trading venues of MiFID and hence not subject to pre-trade disclosure. While the role of broker crossing systems remained still small in the overall market, these systems grew very quickly between 2008 and 2010 and nearly tripled from an average of 0.7 % of total EEA trading in 2008 to an average of 1.5 % in the first quarter of 2010.<sup>122</sup> Finally, trading that takes place over the counter (OTC) is not subject to pre-trade disclosure and therefore also falls within the category of dark trading.

Chart 4.3.2: **Proportion of dark trading on broker crossing systems and dark MTFs as a percentage of European executable activity**



Source: TABB Group (2013), "Dark Matters: Time for facts".

In 2011, dark trading accounted for 45 % of EEA trading, of which pools and broker crossing networks accounted for approximately 7 % and OTC trading for around 38 %. Dark trading (including both broker crossing networks and dark pools) is expected to continue growing if it is not subject to requirements on transparency and investor protection comparable to those for regulated markets. Chart 4.3.2 shows that the proportion of dark

activity including Broker crossing systems and dark MTFs (but excluding dark trading on regulated markets and OTC trading) has been increasing since the second half of 2012. In particular, trading activity in dark MTFs has been rising from 3.16 % in August 2012 to 5.05 % in October 2013.<sup>123</sup>

These developments have resulted in an uneven playing field between markets and market participants, as they are subject to different rules, conditions and costs whilst carrying out similar activities. Also, there is insufficient transparency for market participants to make optimal investment decisions, for the price formation mechanism to work effectively and for regulators to detect potential market concerns and threats to financial stability and to react to those.

Concerning market fragmentation, despite providing comparable services to regulated markets, multilateral trading facilities (MTFs) were subject to a less stringent regulatory and supervisory regime since they are not fully covered by the market abuse rules. In addition, crossing systems and derivative trading platforms have emerged that carry out similar activities to MTFs without being subject to the same

<sup>122</sup> This follows from a fact-finding exercise conducted by CESR, the predecessor of European Securities and Markets Authority, in 2010. See impact assessment of MiFID II: [http://ec.europa.eu/internal\\_market/securities/docs/isd/mifid/SEC\\_2011\\_1226\\_en.pdf](http://ec.europa.eu/internal_market/securities/docs/isd/mifid/SEC_2011_1226_en.pdf)

<sup>123</sup> TABB Group (2013).

regulatory requirements. As most of these requirements relate to transparency and investor protection, the lack of a level playing field may hinder the safety of financial markets as well as their efficiency. Also, the share of trading on MTFs increased to 18 % of total turnover by February 2011<sup>124</sup>.

Another concern has been the growth of algorithmic trading and High Frequency trading (HFT) which has drastically increased the speed of trading. Data availability in this area is limited, but recent estimates by the European Securities and Markets Authority (ESMA) suggest that HFT traders make up 22 % of the total value traded for a sample of European equities in May 2013. In terms of orders, HFT activity was higher, with most orders placed by HFT traders (60 % of all orders). While HFT offers many opportunities, it is important to control systemic risks that might arise from this technological innovation. Events in recent years, e.g. the "Flash crash" of 6 May 2010 or the loss of USD 420m by Knight Capital in August 2012 have revealed that algorithmic trading can be destabilising and amplify extreme market movements. At the same time, there is still significant debate on the impact of HFT on market quality, including liquidity and price discovery, and on volatility (see box 4.3.1).

The transparency regime in the MiFID for market participants in both the equities and non-equities markets has turned out to be insufficient. The increased use of dark pools, not subject to the transparency regime under MiFID, raises regulatory concerns as it may ultimately affect the quality of the price discovery mechanism on the original markets. For example, insufficient pre-trade transparency in markets can hinder the price formation process. Market participants as well as supervisors have expressed concerns about time delays in the publication of trade reports in the equities markets. For non-equity markets, transparency requirements were not covered by the MiFID, but only regulated at national level and not always harmonised or sufficient. These issues, if not addressed, can undermine market safety and efficiency as well as investor protection. During the financial crisis, existing transaction reporting requirements failed to provide competent authorities with a full view of the market because their scope is too narrow and because they are too divergent.

### **The MiFID review (MiFID II)**

In response to the crisis and as a result of new risks emerging, the Commission presented in October 2011 proposals to revise MiFID, consisting of a Directive and a Regulation (MiFIR). This package – commonly referred to as MiFID II – was approved by the European Parliament in April 2014, following the January 2014 political agreement with the Council. After entry into force in summer 2014, significant implementation work will continue in the course of the next two years, since many technical details need to be elaborated. It is expected that MiFID II will be applied from end 2016. To ensure a smooth transition into the new regime, longer transition periods are envisaged for some areas.

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<sup>124</sup> See "The impact of market fragmentation on EU stock exchanges", Consob Working Paper No. 69, July 2011 <http://www.consob.it/mainen/documenti/english/papers/qdf69en.html?symbblink=/mainen/consob/publications/papers/index.html>

The central objective of the MiFID II is to make financial markets more resilient, transparent and efficient. Another main objective of MiFID II is to ensure investor protection, which is separately discussed in section 4.7.4.

MiFID II recognises the need for the different business models, while ensuring a high level of market integrity and a level playing field among trading venues (e.g. open and non-discriminatory access rules). While MiFID II has many different elements, focus here is on the elements that can be directly linked to the financial crisis and are relevant to the financial stability objective of the reform agenda.<sup>125</sup>

MiFID II aims to **enhance the robustness and efficiency of securities trading and trading venues**. MiFID II introduces a category of organised trading facility (OTF) as a third category of multilateral trading venue. This will ensure that organised trade execution systems that have so far not fallen under the existing MiFID trading venues (e.g. broker crossing networks) are subject to the same transparency and organisational requirements as those that already were covered by MiFID (i.e. regulated markets and MTFs). The different types of trading venues will be clearly distinguished based on their characteristics. The aim is to ensure a level playing field and avoid fragmentation without imposing a one-size-fits-all regulation.

In addition, MiFID II aims at controlling the risks stemming from algorithmic trading and HFT by various measures, ranging from requiring algorithmic traders to be properly regulated, to liquidity provision requirements and the testing of high frequency trading programs (see box 4.3.1).

The financial crisis disproved the widespread view that professional investors know what is best for themselves and the market as a whole as has been seen on numerous occasions (e.g. lack of due diligence in the area of securitisation; blind faith in judgements of rating agencies). MiFID II addresses this misplaced assumption by enhancing the regulatory framework not only for equity markets but also for non-equity markets, which are traditionally dominated by wholesale market participants and dealer markets. As further discussed in section 4.3.2, MiFID II also introduces mandatory trading of clearing-eligible and liquid derivatives on multilateral trading venues, including commodity derivatives. It thereby complements derivative markets reforms (see below) and delivers on an important G20 commitment.

MiFID II contains important measures to **enhance transparency**. Transparency is central to ensure appropriate risk monitoring by market regulators and market participants. The key rationale for transparency is to provide investors with fair access to information about current trading opportunities, to facilitate an efficient price formation process and assist firms to provide best execution to clients. Increased transparency also addresses potentially negative adverse effects of market fragmentation and liquidity and support market participants in correctly valuing their portfolios. MiFID II will improve transparency in three ways:

- 1) Introduction of a consolidated tape of post-trade data (i.e. continuous, real-time data on the trading volume and price of securities on all trading venues);
- 2) Strengthening existing trade transparency requirements for equity markets and introducing a trade transparency regime for non-equity markets; and
- 3) Strengthening transaction reporting to supervisory authorities.

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<sup>125</sup> This section only focuses on crisis-related elements of MiFID II.

Trade transparency requirements are necessary to balance the interests of individual investors and the collective interest of having transparent and well-functioning markets. While individual investors are interested in receiving as much information about markets and prices as possible they are not inclined to disclose information about their trades so as to not lose their informational advantage. Trade transparency requirements hence help to remove information asymmetries.

Whilst increased transparency does not imply a one-size-fits-all regime to the non-equity markets, differences in market structure do not justify exempting non-equity markets completely from trade transparency requirements. The financial crisis has clearly brought to light the opacity of many non-equities markets, in particular the markets for derivatives and bonds, which hinders supervisory authorities and market participants to appropriately monitor markets and which is conducive to an environment with low competitive pressure and high trading costs. It is important to address these shortcomings while taking different market structures (e.g. lower liquidity, higher trading sizes) into account. This will be accomplished by allowing for waivers from transparency in specific circumstances to avoid detrimental impacts on market liquidity (see chapter 6).

The strengthening of the existing trade transparency regime for equities and the introduction of a trade transparency regime for non-equities markets together with the introduction of a trading obligation for derivatives and for shares and the setup of an appropriate framework for consolidated trade data are expected to enhance the price formation process and help to overcome market fragmentation. MiFID II also contains specific measures to enhance the transparency and oversight in commodity derivatives markets, but these are separately discussed in section 4.6.2.

Overall, this new transparency regime is expected to enhance price discovery in both equity and non-equity markets and provide the necessary level of transparency for investors to make optimal decisions and for regulators to detect potential stability issues and to provide adequate responses.

#### Box 4.3.1: High-frequency trading and the MiFID II requirements

There is a lack of consensus among academics, practitioners and regulators on both the definition of high-frequency trading (HFT) and its effects on the working of securities markets,<sup>126</sup> notably its impact on real liquidity, price volatility, market abuse possibilities and market efficiency (including price discovery). At the same time, HFT accounts for a significant part of trading activity in a large number of exchanges. Current estimates on the proportion of HFT in the EU markets range between 30-60 %.

The existing theoretical and empirical literature on HFT is vast and growing rapidly.<sup>127</sup> However it is inconclusive as regards the beneficial effects or otherwise of HFT. Moreover, it is mostly centred in US markets, making it difficult to extrapolate results to the EU market. Some early US studies were supportive and emphasised the benefits of HFT. This research suggested that HFT was a natural evolution due to advances in technology, quantitative finance and the securities markets. Thus, HFT was seen as contributing to greater liquidity; lower volatility; lower transaction costs; and improved speed and accuracy of the price discovery process. In sum, **high-frequency traders can be seen as market makers** providing liquidity to the market, lowering volatility and narrowing bid-offer spreads, thereby making trading and investing cheaper for other market participants.

Notwithstanding these alleged benefits, concerns emerged after several flash crashes and turbulence attributed to the presence of HFT (see also section 4.3.1).<sup>128</sup> Other empirical literature assessing these market episodes<sup>129</sup> and relying on more recent available data, has concluded that **HFT can also decrease liquidity, increase volatility and adversely impact market confidence.**

First, there are natural limits to the alleged benefits of HFT. There may exist unhealthy competition among high-frequency traders to acquire the capability to trade at ever higher speeds by investing in broadband cables, microwave technology etc. This leads to a speed or arms race, to profit from “low latency arbitrage”<sup>130</sup>. High-frequency traders invest in speed to trade one fraction of a second faster than other traders. As a result the fastest High-frequency trader may be able to know, with near certainty, where the market will be a fraction of a second ahead of everybody else, profiting at nearly zero risk. The problem is that, beyond a certain threshold, this speed race becomes essentially a zero sum game, with a severe potential negative impact on efficiency of the markets.

A second concern is that the increase in market quality attributable to HFT is only transitory and it comes at the expense of institutional liquidity providers whose presence ensures the adequate valuation of tradable securities in the long-term. High-frequency traders can effectively take profits from rather than provide liquidity to long-term investors, particularly at times when liquidity is already low and/or the market is under stress. Thus, **HFT may push institutional investors out into dark pools** where HFT activity does not take place. There is evidence that institutional investors, at least in some instances, have chosen to execute their orders through systems that do not involve any pre-trade transparency. By using voice trading systems or dark pools they ensure that their orders cannot be picked up by high-frequency traders. While this may be in the investors’ individual interest, it is not in the interests of the market as a whole, because dark trading harms the market price formation mechanism. If, as feared, this speed race among HFT ends up shifting market quality participants away from transparent exchange markets, this **could discourage long-term investment through exchange markets.**

Technology is a key driver of innovation and growth, but it also raises risks in the marketplace. As a consequence, regulators are confronted with **a challenge to maintain the integrity of markets**, whilst at the same time not suffocating advances in their development. It is in this context that regulatory measures have been taken at the EU level, notably as part of MiFID II review to mitigate and control

<sup>126</sup> See Appendix II and III at Gomber et al (2011) for a comprehensive table of different definitions by academia and regulators.

<sup>127</sup> See Jones (2013) and Gomber et al (2011) for literature surveys.

<sup>128</sup> See Bowley (2010).

<sup>129</sup> Boehmer et al 2012, SEC report of Flash Crash, Jarrow and Protter (2011), Cartea and Penalva (2010), Zhang and Powell (2011).

<sup>130</sup> Low-latency trading uses computers that execute trades within microseconds, or “with extremely low latency” in the jargon of the trade. Low-latency traders profit by providing information to their algorithms, such as competing bids and offers, microseconds faster than their competitors. See, for example, Budish et al (2013).

the risk and concerns associated with HFT. Effective implementation of these measures across Europe shall ensure that HFT lives up to its promise of **improving market quality without endangering or distorting the adequate functioning of securities markets** either in normal times or in times of market stress. The targeted requirements and measures to address the specific concerns referred to above include:

1) **Obligation to provide continuous liquidity:** Flash crashes may be caused or accentuated by HFT trading systems shutting down whenever there is an unforeseen movement in the market. This has the effect of withdrawing liquidity from the market, potentially accentuating any fall. To address this problem, HFT market makers are required to provide liquidity into markets continuously and could be sanctioned for any failure to provide such liquidity.

2) **Minimum tick sizes:** Minimum tick sizes limit the minimum fractions for quotes or orders and are adopted to reduce the incentives for HFT. HFT strategies frequently exploit minor differences in prices (which is only possible where the tick size is small) to step ahead of more long-term investors who are less likely to make trading decisions based on small price differences. Imposing minimum tick sizes may therefore reduce HFT trading opportunities, whilst favouring long-term investors. This will be further calibrated by ESMA in delegated and implementing acts.

3) **Minimum order to trade ratio:** HFT trading strategies frequently involve the issuing of numerous orders to test the market, which are then rapidly withdrawn. To address this concern, a minimum ratio of unexecuted orders to executed trades is imposed on market participants. This, too, will be calibrated by ESMA in delegated and implementing acts.

4) **Restrictions on distortive fee structures:** The fee structures of trading venues may encourage distortive HFT practices. Hence, restrictions are imposed to ensure that co-location services are offered on a non-discriminatory basis and do not create incentives for disorderly trading.

5) **A requirement on algorithm testing:** This ensures that the people using such algorithms understand them both for their own risk management purposes and also to reduce risk in the system as a whole.

### 4.3.2 Improving derivatives markets and advancing central clearing

As already shown in chapter 3, derivatives markets grew significantly in the years leading up to the crisis. This growth concentrated on OTC derivatives markets, as opposed to derivatives traded on exchanges. The size of derivatives markets, as measured by the gross notional value of derivatives outstanding, exceeded USD 700 trillion by 2008, but has fallen somewhat since (Table 4.3.1).<sup>131</sup> Between 1998 and 2008, the market size for OTC derivatives grew by a factor of 10. The growth in the global derivatives market far outpaced that of the global economy: the notional value of OTC derivatives outstanding exceeded global GDP in 1998 by a factor of 3, but in 2008 the market had grown to exceed global GDP by more than 12 times.

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<sup>131</sup> While notional amounts provide a measure of market size and a reference from which contractual payments are determined in derivatives markets, they do correspond to amounts truly at risk. Gross market values provide some measure of the financial risk from OTC derivatives. At the end of 2009, the total gross market value stood at USD 21.6 trillion.

Table 4.3.1: **Size of derivatives markets**

|                                                                                          | <b>1998</b> | <b>2008</b> | <b>2012</b> |
|------------------------------------------------------------------------------------------|-------------|-------------|-------------|
| Global size of OTC derivative markets (gross notional value in USD trillion)             | 70          | 700         | 633         |
| Global size of exchange-traded derivative markets (gross notional value in USD trillion) | 14.3        | 82.8        | 59.5        |
| World GDP (in USD trillion)                                                              | 30.2        | 61.4        | 71.9        |
| <b>Ratio of derivative markets size to global GDP</b>                                    | <b>2.8</b>  | <b>12.7</b> | <b>9.6</b>  |

Source: Commission Services based on BIS (gross notional derivatives) and World Bank (GDP).

Size and rapid growth is not necessarily a problem. However, the financial crisis exposed significant weaknesses in the structure of derivatives markets, in particular OTC derivatives. While markets in certain OTC derivatives asset classes continued to function well, the crisis highlighted the significant contagion potential due to the interconnectedness of OTC derivatives market participants and to the limited transparency of counterparty relationships, as further set out below. Owing to the perception that OTC derivatives are reserved for professional investors and hence did not require tight regulatory intervention, OTC derivatives had generally been subject to light-handed regulation prior to the crisis, which contributed to their rapid growth.

At least three main problems in OTC derivatives were highlighted by the crisis:

The first problem relates to **the lack of transparency of OTC derivatives and exposures**. The bilateral nature of this market makes it rather opaque to parties outside a particular transaction. For regulators and supervisors, this means that they did not have complete information about the size of different segments of the markets and the breakdown of positions of the regulated entities. As a result, they were not able to monitor activities in the market and to detect the potential risks building up. The lack of transparency made detection of systemic risks generally more difficult and exacerbated the asymmetry of information faced by regulators, thus creating significant scope for moral hazard. The lack of transparency proved problematic during the financial crisis, when supervisors realised that they were no able to assess the precise exposures of firms to derivatives markets. This prevented them from being able to accurately assess the consequences of a default of a market participant and of the potential knock-on effects on other market participants, thus giving authorities no alternative but to bail-out the distressed participant.

The lack of transparency also affects market participants, who know their own exposures to their counterparties but not what the exposure of any of their counterparties is to other market participants. During the financial crisis, the lack of transparency on positions generated mistrust among market participants and contributed to the drying up of liquidity in the market.

The second problem relates to the **insufficient management of counterparty risk and lack of collateralisation**. OTC derivatives contracts involve significant counterparty risk, i.e. the risk that a counterparty may not honour its obligations under

the contract when they become due.<sup>132</sup> Volatility in the credit risk of market participants can lead to excess correlations between certain types of OTC derivatives contracts during times of crisis, amplifying the effects of market participants' credit risk re-pricing and leading to heightened price volatility in the entire system.<sup>133</sup> A high degree of market concentration in the OTC derivatives dealer network amplifies the effect of individual counterparty risk to a system-wide level.<sup>134</sup> The effect of one of these major dealers facing financial distress or defaulting altogether then ripples throughout the system, as happened in the case of the Lehman bankruptcy. Moreover, the absence of regular margin calls exacerbated pro-cyclicality: market participants reacted to the deterioration of their counterparties' credit risk by imposing on them substantial additional margin calls, triggering liquidity strain on these counterparties and the market as a whole.

A major problem with derivatives was that they provided the perception of eliminating the underlying risks, while in reality they only redistributed them—the overall volume of risks remained unchanged in the system.

The crisis revealed that the level of counterparty credit risk related to OTC derivatives was far higher than previously thought. OTC derivatives were typically collateralised bilaterally as opposed to being cleared by a central counterparty (CCP). While bilateral collateral agreements were concluded to mitigate counterparty credit risk, the level of collateral provided was inadequate and too low compared to the level of counterparty credit risk.<sup>135</sup> Put differently, the amount of leverage in the market was higher than should have been the case given the amount of collateral.

Bilateral collateralisation requires management of numerous clearing relationships with the individual counterparties, necessitating investments in systems and manpower. Such a complex web of bilateral networks makes it extremely challenging, if not impossible for an institution to gauge its aggregate credit risk exposure, also taking into account that the institution does not have visibility of the bilateral exposures of its counterparties that may create indirect exposures to the institution itself.

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<sup>132</sup> Derivative contracts bind counterparties together for the duration of the contract, which can range from a few days to several decades. Throughout the duration of a contract, counterparties build up claims against each other, as the rights and obligations contained in the contract evolve as a function of its underlying. This gives rise to counterparty credit risk, i.e. the risk that a counterparty may not honour its obligations under the contract when they become due, and that after the default of one counterparty, the other counterparty has to replace the contract by a new contract concluded at a new adverse price. (the definition did not include the concept of replacement cost).

<sup>133</sup> For example, there is empirical evidence that during the 2008 crisis, a systematic re-pricing of counterparty risk was the main factor that amplified the observed increase in correlation between credit default swap (CDS) spreads. Changes in the fundamental determinants of credit risk accounted for only a small fraction of the contagion experienced during that time. In other words, complexity of the market meant that participants were no longer able to judge properly the creditworthiness of their counterparties, which contributed towards contagion effects. See Anderson (2010).

<sup>134</sup> A handful of major dealers provide liquidity to the majority of the market, limiting the number of potential trading partners for each party to rebalance positions. The fact that practically all major financial institutions are participants in this market has led to a high level of interconnection and hence a high level of interdependence amongst these institutions.

<sup>135</sup> Also, the majority of bilateral collateral arrangements provided only for the exchange of variation margin (covering fluctuations in the value of the contract), but not of initial margin (covering the potential cost of replacing the contract in case the original counterparty defaults).

The third main problem relates to the **lack of standardisation and insufficient management of operational risk**. Many OTC derivatives contracts were non-standardised and highly complex. Such contracts require significant manual intervention at several stages at the processing, which becomes particularly problematic once the transaction volumes of a type of contract start to increase rapidly. Indeed, in the past, the rapid expansion of volumes in the OTC derivatives market has invariably led to significant processing backlogs of unconfirmed trades.<sup>136</sup> Low levels of standardisation of contracts and low automation of processes increases operational risk, i.e. the risk of loss resulting from inadequate or failed internal processes, people and systems. This may in turn lead to increased legal risk, limit transparency and even lead to an increase of counterparty credit risk. For example, the failure to confirm a transaction because of lack of automation may jeopardise its enforceability or the ability to net it against other transactions. Furthermore, to the extent that it allows errors in recording transactions to go undetected, an unconfirmed transaction may cause market or counterparty credit risks to be incorrectly measured and, most seriously, to be underestimated. This risk is further increased when portfolio reconciliation and dispute resolution procedures are insufficient. The low levels of standardisation also limit the level of adoption of centralised market solutions (i.e. trade repositories and CCPs).

An additional issue that concerns standardisation (or lack thereof) is its impact on liquidity. In general, the more bespoke the product, the less liquid it is (and hence the more difficult it is to sell or replace it, even more so in distressed market conditions).

## **EU derivative markets reform**

Consistent with the international agreement at G20 level<sup>137</sup>, the EU took action on different fronts to reduce systemic risk and increase the safety and efficiency of the OTC derivatives market, principally through the European Markets and Infrastructure Regulation (EMIR) which entered into force in August 2012:

- **Central counterparty clearing:** EMIR requires eligible (standardised) derivative contracts to be cleared through CCPs. It also promotes financial stability by establishing stringent organisational, business conduct and prudential requirements for these CCPs.
- **On-exchange trading:** standardised OTC derivatives contracts are required to be traded on exchanges and electronic trading platforms. As discussed in section 4.3.1 above, this obligation will enter into force through MiFID II, which governs the operation of trading venues.
- **Increased risk management, collateralisation and capital requirements for non-centrally cleared trades:** If a contract is not standardised and

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<sup>136</sup> Trade confirmation implies verification of the terms of trade after execution (affirmation) and final confirmation. On-exchange, this occurs automatically within the exchange's matching system. The most standardised OTC contracts use electronic third-party services.

<sup>137</sup> In response to the problems revealed by the financial crisis, the Pittsburgh declaration of the G20 leaders in September 2009 stated that: (i) all standardised OTC derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties; (ii) OTC derivative contracts should be reported to trade repositories; and (iii) non-centrally cleared contracts should be subject to increased risk management collateralisation and higher capital requirements.

eligible for CCP clearing, enhanced risk management techniques must be applied to reduce bilateral counterparty credit risk. EMIR requires financial (and certain non-financial)<sup>138</sup> counterparties to measure, monitor and mitigate risks, e.g. by improving operational processes (electronic confirmation of contracts), conducting regular portfolio reconciliation between counterparties,<sup>139</sup> and engaging in portfolio compression for large numbers of contracts with the same counterparty.<sup>140</sup> In addition, EMIR requires non-centrally cleared trades to be appropriately collateralised through the posting of initial and variation margins on a bilateral basis. Separately, under the new capital adequacy framework for banks (CRD IV package), capital requirements are higher for non-centrally cleared derivatives. These measures together will also provide incentives to move to central clearing and trading of derivatives.

- **Improved transparency:** EMIR ensures that data on all European derivatives transactions is reported to recognised trade repositories and is accessible to supervisory authorities, enabling them to monitor effectively the risk and exposures of the major market players and intervene when necessary to avoid the build-up of excessive concentration of risk that could lead to systemic failures. Combined with on-exchange trading and central clearing, this will significantly reduce the current opacity of the OTC derivatives market.

These measures are complementary and in combination will facilitate the early detection of risks building up in the financial system, reduce the counterparty credit risk related to OTC derivatives, and overall result in more stable OTC derivatives market.

Chart 4.3.3 shows a stylised comparison between the bilateral and CCP clearing models. In addition to helping mitigate systemic risk, CCP clearing is associated with benefits pertaining directly to financial institutions, including improved counterparty credit risk management, multilateral netting opportunities, lower uncertainty about counterparty exposures and greater transparency of market activity.<sup>141</sup>

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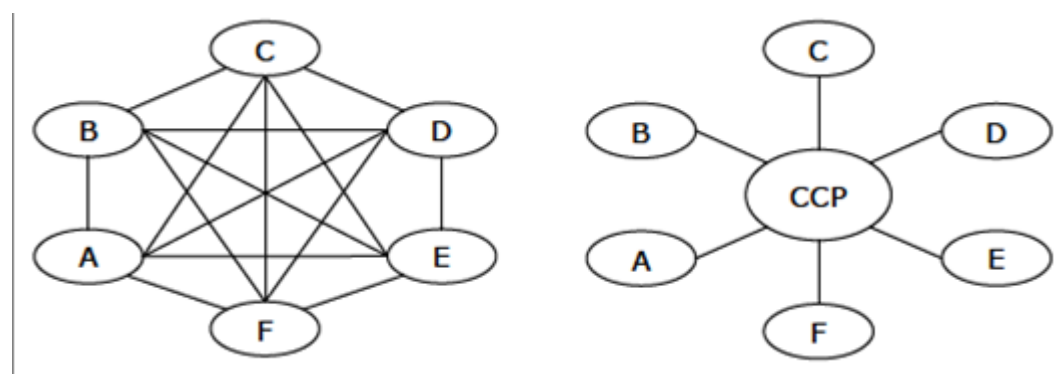
<sup>138</sup> Non-financial counterparties whose OTC derivatives positions are below a certain threshold are exempted from the EMIR requirements.

<sup>139</sup> Managing collateral with a wide variety of counterparties may be challenging. In 2008, all major dealers started portfolio reconciliation for all OTC derivatives between themselves and the major counterparties. This process involves matching the population, trade economics and mark-to-market of outstanding trades in a collateralised portfolio.

<sup>140</sup> In OTC derivatives, participants build up gross positions far exceeding their net risk position. Portfolio compression is a process, whereby mutually offsetting trades are eliminated, reducing the notional market size. Thus, portfolio compression achieves lower counterparty credit risk, operational risk and the cost of capital. The more standardised the contract, the easier it is to match eligible trades and to compress them. In principle, portfolio compression can be applied to all OTC derivatives with sufficient liquidity. In practice, it is predominantly used in interest rate and CDS markets. Portfolio compression can also be used to compress a CCP's portfolio, facilitating default management. The smaller and less complex the defaulted party's portfolio, the easier and faster it is to manage the consequences of a participant's default.

<sup>141</sup> See ZEW (2011).

Chart 4.3.3 **Stylised presentation of bilateral and CCP clearing**



Source: Commission Services

Besides lowering collateral requirements, multilateral netting reduces the settlement risk on delivery date. CCP clearing is the most effective way of reducing counterparty credit risk and is broadly feasible in all market segments. Although CCP clearing can cover large parts of OTC derivatives, it cannot apply to all OTC derivatives. It is, therefore, also important to improve product and market standardisation, strengthen bilateral collateral management and to ensure central storage of contract details.

According to Pirrong (2011)<sup>142</sup>, CCPs can contribute to the stability of the financial system by reducing price volatility and the incidence of extreme price moves that can occur when a large derivatives trading firm defaults.<sup>143</sup> CCP rules facilitate the porting of customer positions held in accounts at a troubled CCP member to financially sound member firms. This reduces the likelihood that a defaulter's clients suffer losses and that customer margin will be encumbered by the bankruptcy process. It also facilitates the ability of customers to trade unhindered in the event of default of their clearing firm. By allocating default losses more efficiently, CCPs can mitigate the potential for cascading defaults.

Central clearing should also enable regulatory capital savings, increase operational efficiency and solve disruptive information asymmetries for market participants. The use of specific processes, such as portfolio compression, should reduce counterparty credit risk and operational risk. Although contract standardisation could lead to less flexibility for certain market participants, it would be mitigated, if not offset, by the benefits of such standardisation (e.g. easier adoption of automated processes, ability to centrally clear).

The obligation to report all derivatives contracts to a trade repository is expected to allow for full transparency of the derivatives market. This will enhance the effectiveness of supervision and also increase market efficiency. The reported data will be used by micro and macro prudential regulators, central banks and supervisory authorities. The huge amount of information will of course also provide challenges for

<sup>142</sup> Pirrong, C., "The Economics of Central Clearing: Theory and Practice", ISDA Discussion Papers Series No.1, May 2011.

<sup>143</sup> CCPs can mitigate the destabilising effects of the replacement of defaulted positions by: (a) reducing (via position netting) the magnitude of positions that need to be replaced; (b) transferring customer trades to solvent CCP members; and (c) coordinating the orderly replacement of defaulted trades through auctions and orderly hedging of exposures created by defaults. These measures can reduce the knock-on price movements that result from a large default or defaults precipitated by an asset price shock.

the authorities, since the data needs to be processed to identify areas where risks are growing.

Separately, there has also been growing concern that the trading of derivatives creates instability in the underlying asset markets and the wider financial system. This concern applies in particular in relation to commodity derivatives and the related **financialisation of commodities markets**. The term "financialisation" stands for the increased presence of financial investors in commodities markets that are traditionally dominated by commercial investors, and the related concern that the presence of financial investors may contribute to excessive physical commodity price increases and volatility, e.g. for food or energy to the detriment of consumers.<sup>144</sup> MiFID II will tackle these concerns by: 1) reinforcing cooperation between regulators of physical and commodity derivatives markets, given their increasing interconnection;<sup>145</sup> 2) introducing position reporting requirements to tackle insufficient transparency in both financial and physical commodities markets; and 3) extending the scope of MiFID to commodities' traders to provide supervisors and trading venues with intervention powers to prevent disorderly markets and detrimental developments.<sup>146</sup> In particular, MiFID II introduces position limits for trading in commodity derivatives. These measures will increase the transparency and market integrity of commodity derivatives markets and allow regulators and supervisors to better assess the price formation and price volatility of these markets and their interaction with primary markets.<sup>147</sup>

### **Evidence of improvements in the market**

EMIR is already in force, but some of its key obligations will only take effect going forward. Nonetheless, operational risk mitigation techniques and reporting to trade repositories are already effective. Progress towards centralised clearing is underway. CCPs had to apply for reauthorisation or recognition by September 2013, but the clearing obligation itself will only apply later in 2014, after CCPs have been reauthorized under EMIR (to ensure that they meet the strict risk management standards set down by EMIR) and technical standards on which classes of derivatives should be subject to clearing have been proposed by the European Securities and Markets Authority and adopted by the Commission.

Some improvements can already be observed in the market. These reflect, at least in part, changes in the market in anticipation of the future requirements, although it is difficult to isolate the impact of the rules from other factors influencing the market.

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<sup>144</sup> The existing body of research provides divergent outcomes about whether there is a link between speculation and commodities prices or not. In the context of the CBA for the new rule on position limits proposed by the CFTC on 5 November 2013, it received 130 studies examining the link between speculation and commodities prices. According to the CFTC analysis, "about a third of them say excessive speculation has an impact, about a third say it doesn't and about a third say they can't tell". See <http://www.cftc.gov/ucm/groups/public/@newsroom/documents/file/federalregister110513c.pdf>

<sup>145</sup> See for instance Cheng and Xiong (2013).

<sup>146</sup> IOSCO Principles for Regulation and Supervision of Commodity Derivatives Markets (2011). <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD358.pdf>

<sup>147</sup> The intervention powers will contribute to orderly and stable commodity markets and prevent market abuse. The Market Abuse Regulation (see below) complements these reform measures by extending the market abuse regime to cross-market abuses. In addition, measures have been introduced to reduce the number of non-regulated entities to make sure that all relevant actors are captured.

The outstanding notional amounts of OTC derivatives globally increased in the first half of 2013 to reach USD 693 trillion at the end of June 2013 (chart 4.3.4).<sup>148</sup> The gross market value of OTC derivatives (i.e. their replacement cost at current market prices) declined to USD 20 trillion in the first half of 2013 (chart 4.3.5), whilst the gross credit exposures (i.e. the gross market values after bilateral netting but before collateral) stood at USD 3.9 trillion.

Chart 4.3.4 Outstanding notional amount of OTC versus exchange-traded derivatives (USD trillion)

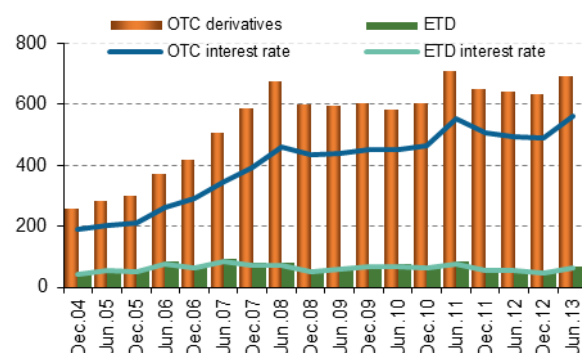
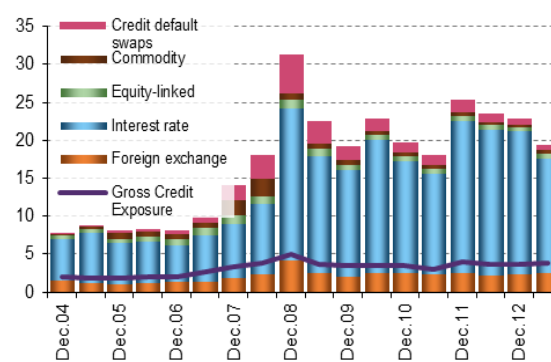


Chart 4.3.5 Gross market values of OTC derivatives (USD trillion)



Source: BIS

A shift to central clearing increases the outstanding notional amounts due to novation,<sup>149</sup> which in part explains the increase in the notional amounts observed in 2013.

The percentage of centrally cleared OTC derivatives has increased steadily (chart 4.3.6). It is expected that ultimately some 70 % of the OTC derivatives market would be centrally cleared.<sup>150</sup> It has been estimated that the volume of cleared OTC transactions (notional amounts without adjustment for double counting) at the end of 2012 totalled USD 346.4 trillion, of which USD 341.4 trillion was attributable to interest rate derivatives and USD 5 trillion to CDS.<sup>151</sup>

EMIR mandates portfolio compression (whereby offsetting trades are identified and eliminated) when there are a large number of trades with the same counterparty, so as to minimise related operational risk. Portfolio compression is already increasingly being used in the market, so the EMIR provision is setting minimum standards that match good market practice.

<sup>148</sup> Statistical release, OTC derivatives statistics at end-June 2013, BIS, November 2013. It combines data from both the semi-annual BIS survey with the more comprehensive Triennial Central Bank Survey, capturing more than 400 dealers in 47 countries

<sup>149</sup> Novation is the replacement of one contract with another. When a CCP steps in between the original parties to the trade, two novations takes place, leading to the creation of two new, perfectly offsetting contracts. Because the two contracts offset one another, the CCP normally bears no market risk (the latter is still borne by the original parties to the trade). However, as counterparty to every position, the CCP bears credit risk in the event that one of its counterparties fails. This risk is being managed through margin requirements. Similarly, the CCP's counterparties bear the credit risk that the CCP might fail.

<sup>150</sup> Non-Cleared OTC Derivatives: Their Importance to the Global Economy, March 2013, ISDA.

<sup>151</sup> OTC Derivatives Market Analysis, Year-End 2012, June 2013 (updated August 2013), ISDA.

Chart 4.3.7 shows the increase in portfolio compression activity over time. Portfolio compression reduced the notional amounts of OTC derivatives by USD 48.7 trillion in 2012.<sup>152</sup> Approximately USD 35.9 trillion worth of the compressed interest rate derivatives transactions was centrally cleared.

CDS are now particularly prone to efficient compression, as a large proportion of contracts were standardised during 2009 and 2010. Overall, USD 143.7 trillion of interest rate derivatives and USD 70.6 trillion of CDS have been eliminated via portfolio compression since the end of 2007.

Chart 4.3.6 Central clearing of OTC derivatives (% of outstanding notional amounts)

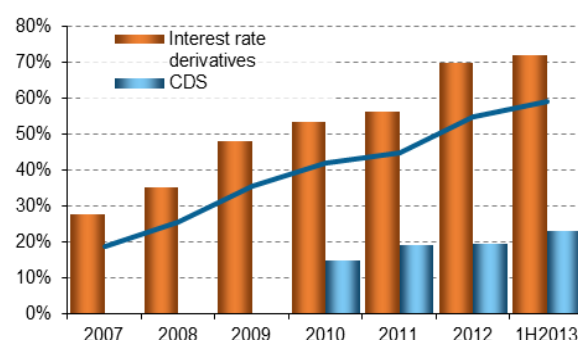
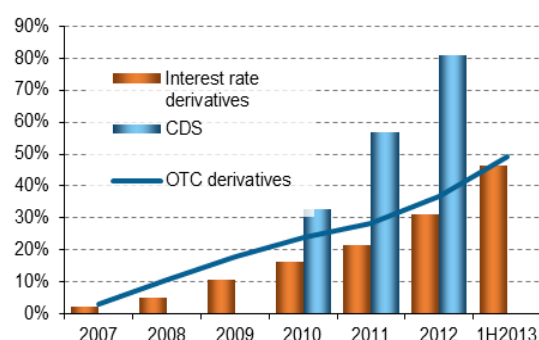


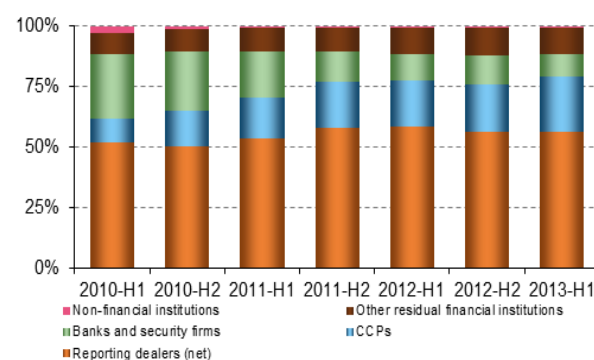
Chart 4.3.7 Portfolio compression of OTC derivatives (% of outstanding notional amounts)



Source: BIS, ISDA

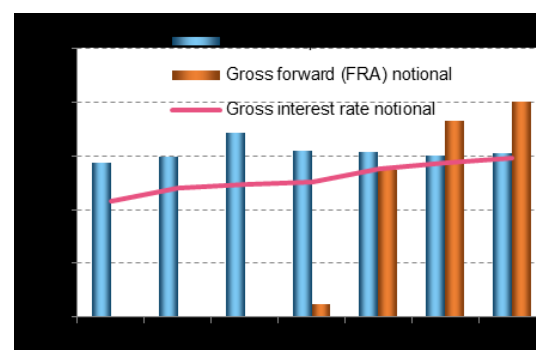
In the CDS market, CCPs were party to some 23 % of the notional amounts outstanding at the end of June 2013, based on BIS data (chart 4.3.8). Although the DTCC Global Trade Repository data slightly differs from BIS statistics, it equally confirms steady progress with the share of centrally cleared OTC derivatives (chart 4.3.9). CCPs are party to some 60 % of the notional amounts of all OTC interest rate derivatives outstanding (i.e. swaps and forward rate agreements – FRAs). The rapid rise in the central clearing of FRAs is particularly notable, since it only started in 2010.

Chart 4.3.8 Central clearing of credit default swaps (% of notional amounts outstanding)



Source: BIS

Chart 4.3.9 Central clearing of OTC interest rate derivatives (% of notional amounts outstanding)

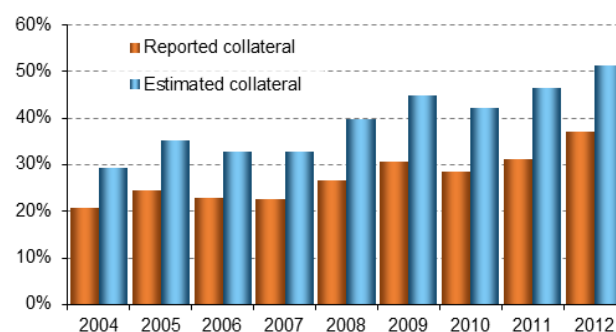


Source: DTCC and TriOptima

<sup>152</sup> ISDA reports the volume of compressed trades that are centrally cleared on a net basis (as ½ of the amount) to adjust for double counting. As an illustration, gross compression of interest rate derivatives totalled USD 80.5 trillion in 2012, of which USD 71.8 trillion related to CCP portfolios. ½ of the latter figure equals the USD 35.9 trillion quoted in the main text above, whilst the difference of USD 8.7 trillion relates to bilaterally cleared trades under both net and gross reporting methodologies.

The industry has also been collateralising a significant and increasing proportion of bilaterally cleared OTC derivatives trades, reducing counterparty credit risk ahead of the new margining rules.<sup>153</sup> Estimates suggest that the estimated collateral in circulation in the bilaterally cleared OTC derivatives market rose by 1 % in 2012.<sup>154</sup>

**Figure 4.3.10 Collateralisation of bilaterally cleared OTC derivatives transactions (% of gross credit exposure of all OTC derivatives)**



Source: BIS, ISDA

In light of the ongoing shift towards central clearing and portfolio compression, the collateralisation level of bilaterally cleared OTC derivatives is clearly on the rise, reaching about half of gross credit exposure of all OTC derivatives. At the end of 2012, 69 % of bilaterally cleared OTC derivatives trades were subject to collateral agreements,<sup>155</sup> with the number rising to 75 % for large firms. Chart 4.3.9 shows the increase in collateralisation if expressed in percent of gross credit exposure.

The above changes in the market demonstrate that market practice has changed significantly since the financial crisis struck. The market seems to go for increased central clearing and more collateralisation as a response to the crisis as well as the new regulation and upcoming requirements.

The Macroeconomic Assessment Group on derivatives (MAG) of the BIS published a study in 2013 to assess the expected overall benefits (and costs) of derivatives reform at global level. Although subject to uncertainties due to modelling assumptions and data scarcity, the MAG derivatives study concludes that the main benefit of the reforms arises from reducing counterparty exposures, both through netting as central clearing becomes more widespread and through more comprehensive collateralisation. The Group estimates that in the central scenario this effectively brings the annual probability of a financial crisis propagated by OTC derivatives almost down to zero.<sup>156</sup> With the present value of a typical crisis estimated to cost 60 % of one year's GDP,<sup>157</sup> the estimations suggest that the reforms help avoid losses equal to 0.16 % of GDP per year. The MAG study balances the benefits against the costs to derivatives users of holding more capital and collateral (see chapter 6), concluding that the net benefit of the reforms is roughly 0.12 % of GDP per year. While these estimates are based on derivatives reforms at global level, they suggest

<sup>153</sup> Technical standards on initial and variation margin are yet to be developed and adopted.

<sup>154</sup> ISDA Margin Survey 2013, June 2013.

<sup>155</sup> However, these agreements do not always include initial margins, but include variation margin only.

<sup>156</sup> The MAG estimates that, prior to the reforms, the annual probability of two or more large dealers defaulting and triggering a financial crisis is 0.26 %. In all post-reform scenarios, exposures were found to be sufficiently collateralised that no plausible increases in default probabilities could generate a financial crisis through OTC derivatives exposures. From this, the Group concludes that, following the implementation of the reforms, the probability of such a crisis is negligible (absent the remote possibility that a CCP fails – see also chapter 7 in this report), so the expected cost of crises propagated by OTC derivatives exposures is almost zero.

<sup>157</sup> This estimate of crisis costs is based on the BCBS's LEI study (2010) and refers to the median cumulative output losses estimated in a large number of studies of international banking crisis.

gross (net) benefits of about EUR 21 billion (EUR 16 billion) per year if applied to 2013 EU GDP.

### 4.3.3 Enhancing the securities settlement process

Settlement is an important process, which ensures the exchange of securities against cash following a securities transaction (for instance an acquisition or a sale of securities). Central securities depositories (CSDs) operate the infrastructures (so-called securities settlement systems) that enable the settlement of virtually all securities transactions. CSDs also ensure the initial recording and the central maintenance of securities accounts: they record how many securities have been issued, by whom, and changes in the holding of those securities. CSDs therefore assume the critical role of guaranteeing a safe and efficient transfer of securities. Because they provide these services, CSDs are systemically important institutions for the financial markets.

CSDs in the EU settled approximately EUR 887 trillion worth of transactions in 2012 and were holding almost EUR 43 trillion of securities. There are over 30 CSDs in the EU, generally one in each country, and two 'international' CSDs (Clearstream Banking Luxembourg and Euroclear Bank). In terms of relative shares, the latter concentrate around 65 % of transactions measured in terms of value between them – up from 55 % in 2006.<sup>158</sup>

Despite their systemic importance, there were no common prudential, organisational and conduct of business standards for CSDs at EU level. In addition to the lack of common regulatory framework, there were also no common rules for the settlement process. The access and competition between different national CSDs are quite limited. These important barriers to cross-border settlement had a negative impact on the efficiency and on the risks associated with cross-border transactions.

While generally safe and efficient within national borders, CSDs combine and communicate less safely across borders, which means that an investor faces higher risks and costs when making a cross-border investment. For example, the number of settlement fails is higher for cross-border transactions than for domestic transactions (the settlement failure rate for cross-border transactions reaches up to 10 % in some markets),<sup>159</sup> and cross-border settlement costs are up to four times higher than domestic settlement costs. At the same time, cross-border transactions (ranging from usual purchases/sales of securities to collateral transfers) continue to increase in Europe and CSDs become increasingly interconnected. These trends are expected to accelerate with the advent of Target2 Securities (T2S) – a Eurosystem project on

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<sup>158</sup> International integration of EU and global financial markets necessitated already in the 1960s for cross-border settlement and handling of Eurobonds the establishment of the I-CSDs. Clearstream and Euroclear also serve DE FR, and Benelux countries. Crest, Iberclear and Monte Titoli are the significant players respectively in the UK, ES and IT. The data on volumes and values is from ESMA (2014).

<sup>159</sup> Settlement fails increase counterparty risk, market risk and liquidity risk for market participants. Furthermore, they create disruptions for corporate actions, for instance if a dividend payment occurs in the period of delayed settlement.

borderless common securities settlement platform in Europe, which is scheduled to start in June 2015.<sup>160</sup>

## The CSD Regulation

In response to these problems, the Commission proposed a regulation on improving securities settlement in the EU and on CSDs in March 2012 and the last plenary of the current European Parliament in April 2014 approved the political agreement reached between the Union co-legislators. The Regulation is expected to deliver benefits by:

- increasing the safety of settlements, in particular for cross-border transactions, by ensuring that buyers and sellers receive their securities and money on time and without risks;
- increasing the efficiency of settlements, in particular for cross-border transactions, by reducing cross-border barriers for the operations of national CSDs; and to
- increasing the safety of CSDs by applying high regulatory requirements in line with international standards.

In order to achieve the first main benefit, the Regulation introduces a number of key provisions: the dematerialisation of securities;<sup>161</sup> the harmonisation and shortening of settlement periods to a maximum of two days;<sup>162</sup> and penalties for failure to deliver securities on the agreed settlement date. These provisions can be expected to reduce settlement failures and enhance settlement discipline, thereby enhancing safety of the settlement process.

Regarding the second type of benefit, the efficiency of the settlement process will be enhanced by reducing the scope for national monopolies, reducing cross-border

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<sup>160</sup> The T2S was launched by the Eurosystem to create a common technical platform to support CSDs in providing borderless securities settlement services in Europe. This is complementary to the regulation, which harmonises legal aspects of securities settlement and the rules for CSDs at European level, allowing T2S (<http://www.ecb.int/paym/t2s/html/index.en.html>) – which harmonises operational aspects of securities settlement – to achieve its goals more effectively.

<sup>161</sup> Dematerialisation is the obligation for most securities to be recorded electronically, in book-entry form through a CSD, at least from the moment they are traded via an organised trading facility (i.e. non-OTC market) or posted as collateral. In certain Member States, mainly in the UK and Ireland, a certain number of securities are still held directly by the investors in paper form. It takes more than three times longer to settle a transaction in paper securities than a transaction in securities held in book entry form. The key objective of dematerialisation is to ensure a quicker settlement. Other benefits of this measure include: safety for holders, given that there will be fewer opportunities for fraud and less risk of losing paper certificates and ensuing indemnities; safety for issuers, custodians and third parties, in that there will be a better 'reconciliation' between the securities issued and the ones circulating and a better identification of the actual moment of transfer of securities from one holder to another; and reduction of costs for issuers, custodians and third parties, given that the management of paper securities is more costly. An extensive period of time, until 1 January 2025, will be envisaged for market participants to record all existing paper securities in book entries, in order to facilitate transition and reduce related costs.

<sup>162</sup> In Europe most securities transactions are settled either two or three days after the trading day (T+2 or T+3), depending on each market. A harmonised settlement period will reduce operational inefficiencies and risks for cross-border transactions, while reducing funding costs for investors (for instance, for those that have to deliver cash or securities at T+3 but can only receive them at T+2). A shorter settlement period would have an important advantage of reducing counterparty risk, that is, the period of time during which an investor runs a risk that its counterparty will default on its obligation to deliver cash or securities at the agreed settlement date.

barriers and opening access to the settlement systems: CSDs will be granted a 'passport' to provide their services in other Member States; users will be able to choose between all CSDs in Europe; and CSDs in the EU will have access to any other CSDs or other market infrastructures such as trading venues or Central Counterparties (CCPs), whichever Member State they are based in (see also section 4.7 on the efficiency objective of the reforms).

Regarding the third benefit, CSDs will have to comply with strict organisational, conduct of business and prudential requirements to ensure their viability and the protection of their users. They will also have to be authorised and supervised by their national competent authorities, with ESMA playing a coordination role. Thus, for the first time at European level, there will be a common authorisation, supervision and regulatory framework for CSDs.

The Regulation is not yet in force, so it is too early to observe any impacts in the markets. The analysis in the Commission's impact assessment shows that there will be important benefits in terms of efficiency, over and above the safety of the settlement process (see section 4.8). Overall, the measures should therefore facilitate issuers' ability to raise capital in the markets and investors' ability to place their funds more safely and cost effectively.

#### **4.3.4 Reducing the financial stability risks and enhancing the transparency of short-selling and credit default swaps**

Short-selling is a transaction that involves the sale of a security, which the seller does not own, with the intention of buying it back at a later point in time (at a lower price). 'Naked' short-selling is a transaction whereby the seller has not borrowed the securities, or ensured they can be borrowed before settlement prior to their sale. In normal market conditions, short-selling enhances market liquidity and contributes to efficient pricing by contributing to faster transmission of information into market prices, thereby mitigating overvaluation. However, short selling and in particular 'naked' short-selling can also be used to manipulate market prices downwards, at the risk of a short squeeze leading to settlement failures. Thus, short-selling has the potential to increase the magnitude of market disruptions by reinforcing a downward price spiral in distressed markets and amplifying systemic risks.

Related concerns apply to sovereign credit default swaps. Sovereign CDS can be used to secure a position economically equivalent to a short position in the underlying sovereign bonds. The buyer of a naked sovereign CDS benefits from the deterioration of the credit risk of the sovereign issuer in a very similar manner as the short-seller of the bonds derives from this same deterioration in the bond price. While sovereign CDS provide the key economic benefit of allowing investors to hedge the default risk of the (sovereign or corporate) debt, speculation in CDS could put pressure on the underlying sovereign bond spreads. Similar to short-selling, there are concerns that this could impair funding conditions for the issuer of the sovereign debt and potentially provoke a vicious spiral, whereby rising funding costs translate into an ever increasing probability of default.

Concerns about (naked) short-selling and the buying of naked sovereign CDS have come to the forefront during the financial crisis and subsequently in the context of the euro area sovereign debt crisis. EU Member States reacted very differently to these

concerns. A variety of measures were adopted using different powers by some Member States, while others did not take any action. There was no legislative framework at European level to deal with the concerns in a coherent way. The fragmented approach to these issues risked limiting the effectiveness of the measures imposed, leading to regulatory arbitrage (which basically means shopping around for the least onerous regime) and creating additional costs and difficulties for investors.

### **The new short-selling and CDS regulation**

In response, the Commission proposed a Regulation on short-selling and certain aspects of CDS in 2010 that entered into force in November 2012. Whilst acknowledging that short-selling has economic benefits and contributes to the efficiency of EU markets (notably, in terms of increasing market liquidity, more efficient price discovery and helping to mitigate overpricing of securities), the Regulation seeks to address four main risks:

- **Transparency deficiencies:** the lack of transparency in relation to short selling prevents regulators from being able to detect at an early stage the development of short positions which may cause risks to financial stability or market integrity. It also provides the opportunities to engage in aggressive short-selling that may have detrimental effects, but go undetected.
- **The risk of negative price spirals:** as noted above, there are risks of short-selling (or short positions through CDS transactions) amplifying price falls in distressed markets, and that this could lead to systemic risks.
- **The risks of settlement failure associated with naked short selling:** when a financial instrument is sold short without first borrowing the instrument, entering into an agreement to borrow it, or locating the instrument so that it is reserved for borrowing prior to settlement (i.e. naked short selling), there is a risk of settlement failure. Some regulators consider that this could endanger the stability of the financial system, as in principle a naked short seller can sell an unlimited number of shares in a very short space of time.
- **The risks to the stability of sovereign debt markets** posed by naked sovereign CDS positions.

Correspondingly, the expected benefits of the Regulation come from:

- **Enhanced transparency:** significant net short positions in EU shares and government debt need to be notified to regulators;
- **Additional powers to regulators in exceptional situations within a coordinated EU framework:** in exceptional situations, regulators are given the powers to impose temporary measures, such as to require further transparency or to restrict short selling and credit default swap transactions. ESMA is given a central role in coordinating action in exceptional situations and ensuring that powers are only exercised where necessary;
- **Reducing the risks inherent in naked short-selling:** certain restrictions are imposed on naked short selling of EU shares in order to reduce the risk of

settlement failures and increased price volatility. In particular, in order to enter a short sale, an investor must have borrowed the instruments concerned, entered into an agreement to borrow them, or have an arrangement with a third party who has located and reserved them so that they are delivered by the settlement date (the so-called “locate rule”). These requirements are adapted in relation to sovereign debt; and

- **Reducing the risks posed by naked sovereign CDS:** a ban is introduced on entering into a naked sovereign CDS (that is a sovereign CDS acquired by the buyer not to hedge against a) the risk of default of the sovereign issuer where the buyer has a long position in the sovereign debt of that issuer, or b) the risk of a decline of the value of the sovereign debt where the buyer of the CDS holds assets or is subject to liabilities the value of which is correlated with the value of the sovereign debt. A competent authority may temporarily suspend the ban where it believes, based on objective elements, that its sovereign debt market is not functioning properly.

A number of exemptions apply, e.g. for market-making activities and primary market operations, in order to minimise potential adverse consequences for market liquidity and price discovery (see chapter 6).

In December 2013, the Commission published a report with an initial review of the functioning and effectiveness of the short-selling Regulation since it entered into force in November 2012,<sup>163</sup> taking into account technical advice from ESMA.<sup>164</sup> The results show that the Regulation improved the transparency of short-selling. There is also evidence of a general improvement in settlement discipline in shares. ESMA considers that the introduction of the restrictions on naked short-selling had a noticeable impact in reducing the incidence of settlement failures in share transactions.<sup>165</sup> However, it cautions that the analysis should be interpreted with due care given the short time span, the empirical limits and the difficulty in identifying the specific effects of the Regulation.

The same applies to the wider economic effects of the Regulation, where the results are more mixed. For example, two Member States (Italy and Portugal) are reported to have applied the powers to temporarily restrict short-selling, but according to feedback from market participants, the bans created confusion and uncertainty and led to immediate impacts on liquidity and price efficiency. More generally, the empirical evidence available indicates that the Regulation has had some beneficial effects on volatility, mixed effects on liquidity and a slight decrease in price discovery. Overall, there is however no compelling evidence of a substantial negative impact (see chapter 6).

As concluded in the Commission’s review report of December 2013, it is too early, based on available evidence, to draw firm conclusions on the operation of the SSR framework which would warrant a revision of the legislation at this stage. The Commission will, therefore, continue monitoring the application of the short-selling

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<sup>163</sup> [http://ec.europa.eu/internal\\_market/securities/docs/short\\_selling/131213\\_report\\_en.pdf](http://ec.europa.eu/internal_market/securities/docs/short_selling/131213_report_en.pdf)

<sup>164</sup> ESMA (2013).

<sup>165</sup> US market evidence also shows a significant reduction of settlement failures following the entry into force of a stricter regime for ‘naked’ short sales. See Office for Economic Analysis (2009).

Regulation. Based on more empirical data and evidence, and once sufficient regulatory experience has been accumulated, a new evaluation could be concluded by 2016.

#### 4.4 STABILITY OF SHADOW BANKING

##### Definition, size and drivers of shadow banking growth

The Financial Stability Board (FSB) defines shadow banking broadly as “credit intermediation that involves entities and activities fully or partially outside the regular banking system” or in short **“non-bank credit intermediation”**.<sup>166</sup>

Shadow banking is an important alternative financial intermediation channel, next to regulated banks, and yields similar benefits for society. Chart 4.4.1 presents a simplified illustration of such non-bank credit intermediation in contrast to the traditional bank intermediation channel (see section 2.3). In practice, shadow banking entities raise funding with deposit-like characteristics, perform maturity or liquidity transformation, allow credit risk transfer or use direct or indirect leverage. Shadow banking is comprised of a chain of interconnected financial intermediaries that conduct either all three or any one of the classic banking functions - maturity, credit, and liquidity transformation-, but without access to explicit public safety nets, such as deposit guarantee schemes and central bank emergency liquidity assistance.

Although there are significant data gaps to date (see box 4.4.1), attempts so far suggest that **shadow banking is significant in size and grew rapidly in the run-up to the crisis** (see also chart 3.1.5). The FSB estimates that worldwide aggregated financial assets of “other financial intermediaries”<sup>167</sup> reached 71.2 trillion USD at the end of 2012, which is equivalent to 24 % of total financial system assets (or 117 % of the corresponding aggregate GDP).<sup>168</sup> The “EU” non-bank financial intermediation accounts for 31 trillion USD (i.e. 22 trillion USD for the euro area and 9 trillion USD for the UK), whereas the US non-bank financial intermediation amounts to 26 trillion USD. Recent ESRB (2014) estimates of EU shadow banking assets are broadly in line.<sup>169</sup>

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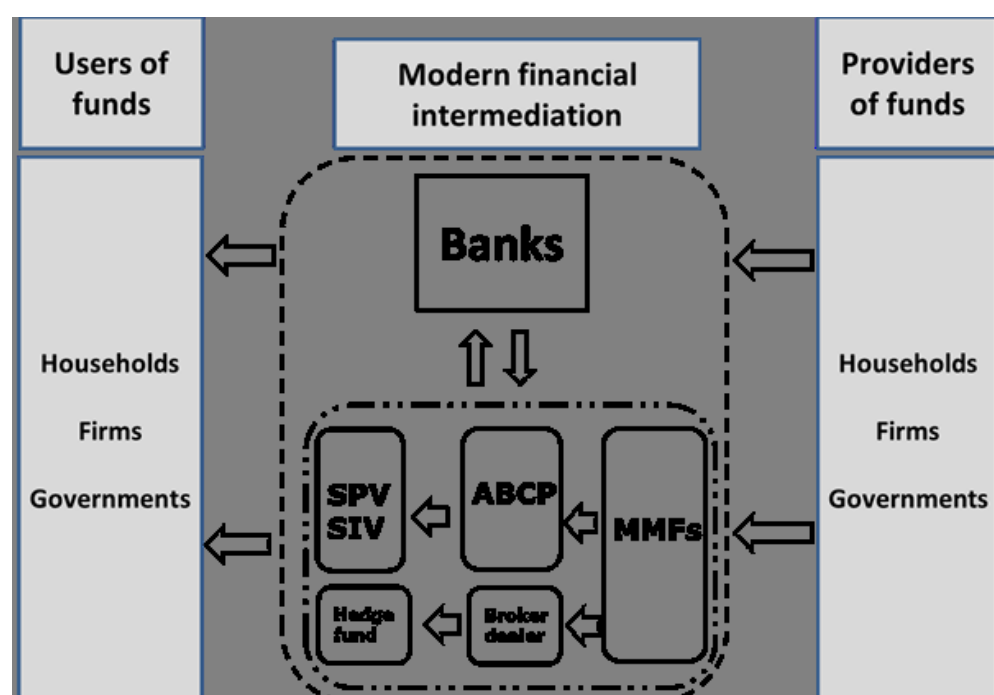
<sup>166</sup> Shadow banking should not be confused with the entirely different concept of shadow economy. A less confusing term sometimes used by Commissioner Barnier has been “parallel banking sector”. The term “shadow banking” system is in fact quite new and credited to the economist Paul McCulley in a 2007 speech at the annual financial symposium hosted by the Kansas City Federal Reserve Bank in Jackson Hole, Wyoming: “Unlike regulated banks [...], unregulated shadow banks fund themselves with uninsured commercial paper, which may or may not be backstopped by liquidity lines from real banks. Thus, the shadow banking system is particularly vulnerable to runs.” In McCulley’s talk, shadow banking mainly referred to nonbank financial institutions that engaged in maturity transformation. Nowadays, it is generally perceived to be broader in scope.

<sup>167</sup> FSB defines “other financial intermediaries” as all financial institutions that are not classified as banks, insurance companies, pension funds, public financial institutions, and central banks.

<sup>168</sup> FSB uses flow of fund data from 20 jurisdictions plus ECB data for the euro area. Box 3 in Pozsar and Singh (2011) succinctly summarise the limitations and data gaps of Flow of Funds data for measuring shadow banking activities and entities.

<sup>169</sup> ESRB (2014) aggregates funds (MMFs, bond funds, equity funds, private equity funds, real estate funds, ETFs), financial vehicle corporations engaged in securitisation, security and derivative dealers, and financial corporations engaged in lending.

Chart 4.4.1: **Simplified illustration of credit intermediation via the shadow banking system**



Notes: This chart is a highly stylised illustration only, which does not give a full picture of the shadow banking system or of the relative importance of its component parts. See separate list of abbreviations and further explanations below.

Source: European Commission

#### Box 4.4.1: **Measuring the size of shadow banking**

Measuring the relative size of shadow banks and shadow banking is challenging in general due to the heterogeneity of entities and activities, the fact that shadow banking is not always easy to distinguish from traditional banking, and its scalability and quickly evolving nature.

Measuring the size of shadow banking is nevertheless important given the fact that (i) the size of the shadow banking sector in the EU (more precisely euro area and UK combined) is reported to be greater than in the US and (ii) the sharp decline in US shadow banking since the financial crisis is more than compensated by increasing volumes in UK, euro area, and other jurisdictions (FSB, 2012; FSB, 2013a). ESRB (2014) reports that the EU shadow banking sector is estimated to have grown in total assets by 67 % in the 7 years between December 2005 and December 2012 (whereas EU banks according to ECB MFI statistics have grown by only 34 % or roughly half that much over that same time period).

Attempts to “fill the gap” are made by ESMA (2013), Bouveret (2011), Bak-Simon et al. (2012), FSB (2012; 2013a), and ESRB (2014). Current efforts necessarily compile and combine several databases that have not been designed for these purposes and which are managed by central banks, industry associations, and commercial data providers. FSB (2013b) provides a summary of the data available to regulators on securities financing transactions (SFTs), showing the lack of frequent and granular data on EU securities financing markets. Similarly, ESRB (2013) concludes that the information available to EU regulatory authorities is not sufficient for the purpose of monitoring the systemic risks that may arise from SFTs. Existing industry data or data collected in other publicly available surveys displays weaknesses in relation to the level of granularity, coverage of instruments and of institutions and their geographic coverage across Member States. This makes it particularly difficult to compare and use the data from different surveys for prudential purposes. To date, the economic and financial statistics collected for the EU (and euro area) are not detailed enough nor have sufficient coverage to allow for a full understanding of shadow banking related policy concerns, such as the leverage and maturity transformation achieved by the shadow banking sector and the possible channels for systemic

contagion towards the regulated banking sector. Relevant time series statistics are of particular importance when evaluating possible regulatory measures at the European level.

Work is currently being undertaken by the European Central Bank (ECB), European Systemic Risk Board (ESRB) and European Supervisory Authorities (EBA, EIOPA, ESMA) to fill EU shadow banking data gaps. In January 2014, the European Commission published a proposal for a Regulation requiring the reporting of SFTs to trade repositories in the EU (see also main text). This will allow central banks and supervisors to monitor closely the build-up of system risks related to SFTs. These initiatives will shed light on shadow banking activities, in particular with a view to add granularity in (i) the breakdown within non-bank financial institutions so as to better identify leverage and maturity transformation concerns, (ii) the counterpart information to monitor relationships between regulated banks and shadow banks, and (iii) the residual maturity breakdowns of exposures (current statistics often focus on original maturity only).

### Policy concerns related to shadow banking

Shadow banking intermediation has important benefits for financing the economy and can help foster **economic growth**. However, shadow banking may, because of its size, give rise to systemic risk, which has already been highlighted above.

A second factor that raises systemic risk concerns is the high level of **interconnectedness between the shadow banking system and the regulated sector**, particularly the regulated banking system. Several shadow banking activities are shown to be operated from within systemically important banks or in a chain in which systemically important banks play an important role. The shadow banking system is “much less shadowy than we thought” (Cetorelli and Peristiani, 2012). In the EU, shadow banks provide up to 7 % of banks’ liabilities, and banks hold up to 10 % of their assets issued by the shadow banking system (ESRB, 2014). Given that the EU financial system is bank-intermediated, compared to the much more market-intermediated US financial system, the EU faces a greater urgency to map and understand the role of large EU banks in shadow banking activities. Shadow banking is a phenomenon that also defies geographic boundaries and there are important cross-border and even trans-Atlantic links between regulated banking and shadow banking. It turns out that the large EU banking groups have become intimately linked and connected to the US financial system in the run-up to the crisis, notably through the US shadow banking sector. At the peak of the crisis, the large EU banking groups were significantly: (i) relying on funding provided by US MMFs; (ii) acting as sponsor for USD asset-backed commercial paper (ABCP) vehicles; (iii) borrowing through repo transactions with US collateral; and (iv) investing in US mortgage-backed securities (MBS) and asset-backed securities (ABS) (Bouveret, 2011).

Third, **regulatory arbitrage** may drive shadow banking sector growth and in turn raise concerns for the stability and leverage of the system as a whole. Regulatory arbitrage certainly explains part of the growth of shadow banking in the US and Europe.<sup>170</sup> In the pre-crisis period, banks could reduce regulatory capital charges by the use of allegedly bankruptcy remote special purpose vehicles (so-called conduits and structured investment vehicles) that relied on implicit (thus not requiring capital charges) and explicit credit and liquidity support from banks or by simply holding

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Tax arbitrage may have been another driver behind securitisation growth. Certain shadow banking entities have been used as instruments to hide illicit activities such as tax fraud or money laundering strategies (European Commission, 2012). Alworth and Arachi (2010) investigate the impact of taxes and tax avoidance activity on the recent financial boom and bust more broadly.

securitised assets on their own balance sheet which received better credit ratings than the original non-securitised assets. Regulatory arbitrage has exploited loopholes and has led to a sharp build-up of risk and leverage along the way.

The exploitation of regulatory gaps and regulatory arbitrage possibilities contributed to the build-up of risk and leverage in the system. Maturity and liquidity mismatches increased sharply outside the regulatory perimeter (through SIVs, broker-dealers). Excessive leverage arose in the financial system. When wholesale funding dried up throughout the system, an unprecedented systemic crisis has been triggered which to date requires significant and exceptional government and central bank intervention. The underestimation of correlation enabled financial institutions to hold insufficient amounts of liquidity and capital and to sell cheap insurance against negative shocks.

Fourth, given the absence of explicit public safety nets, **shadow banking is vulnerable to increased interconnectedness and bank-like runs**, as recently evidenced by the money market fund (MMF) segment. The crisis of 2008 itself can be seen as a market run on the repurchase agreement segment. Thus, the procyclical nature of funding liquidity provided by shadow banking entities can be disruptive, if not controlled and curtailed.<sup>171</sup> For example, rehypothecation of collateral to support multiple deals (in particular, securities lending and repurchase agreements) helped fuel the financial bubble through increased liquidity as well as the build-up of hidden leverage and interconnectedness in the system.

Fifth, shadow banking regulation is required to **curtail moral hazard coming from implicit public safety nets**. Given their de facto similarity to regulated banks, numerous shadow banking activities and entities have enjoyed the ex post coverage of public safety nets (see below for experience of MMFs). Safety nets serve useful purposes ex post, but create incentives for excessive risk-taking and significant competition and other distortions ex ante. As is the case in the bank structural reform debate (see section 4.3), the question arises why and to what extent shadow banking activities necessarily need to enjoy (implicit) taxpayer support. It may need to be ensured that public safety nets only cover (i) activities essential to the economy and (ii) liquidity risk (not solvency risk), so as to curtail moral hazard and aggressive and inappropriate growth of the activities under consideration. If performed by entities

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<sup>171</sup> Margins and haircuts implicitly determine the maximum leverage of a repo-funded financial institution. If the margin is 2 %, the borrower can borrow 98 euro for 100 euro worth of securities pledged. Hence, to hold 100 euros worth of securities, the borrower must come up with 2 euros of equity. Thus, if the repo margin is 2 %, the maximum permissible leverage is 50 (=100/2). The liquidity impact of increased margins can be enormous. If margins would increase from 2 % to 4 %, the permitted leverage halves from 50 to 25. The borrower either must raise new equity so that its equity doubles from its previous level (difficult in crisis times), or it must sell half its assets, or some combination of both. The evidence in the crisis has been that margins on repo agreements have increased rapidly from very low to high levels. Haircuts on US Treasuries for example increased sharply from 0.25 % in April 2007 to 3 % in August 2008, for invest-grade bonds from 0-3 % to 8-12 %, for prime MBS from 2-4 % to 10-20 %, etc. which imply massive and acute deleveraging pressure on highly leveraged financial institutions, giving rise to price decreases and endogenous second-round effects. Brunnermeier and Pedersen (2009) emphasise that "funding liquidity", "market liquidity" and asset values are linked in self-reinforcing procyclical cycles. The example also makes clear that increases in haircuts will do most harm when they start from very low levels. In this sense, the low risk premiums at the peak of financial cycles are of particular concern. When haircuts rise, all balance sheets shrink in unison, and there may be a general decline in the willingness to lend.

more alienated from commercial banks (which benefit from public safety nets), shadow banking activities may not create systemic risks to the same extent.

Policy concerns are not solely driven by systemic risk concerns. Regulation can and should help in **fostering the recovery of sustainable, safe and high-quality securitisation markets with a view to unlocking funding sources for the economy** (see chapter 7).

### **EU policy measures in the area of shadow banking**

Shadow banking is a phenomenon that defies institutional and geographic boundaries. The EU regulatory response to the crisis in general and shadow banking in particular has therefore been internationally coordinated through the G20 and the FSB. At the end of 2011, the FSB initiated five work streams aimed at identifying the key risks of the shadow banking system. These work streams focus on the following policy concerns:

- limiting spill-overs between shadow banking entities and regulated banks;
- reducing the vulnerability of money market funds to runs;
- identifying and controlling the systemic risks from new and unregulated shadow banking entities;
- assessing and aligning incentives associated with securitisation activities; and
- dampening the risks and procyclicality associated with securities financing transactions, i.e. securities lending and repo).

The Commission has been active in addressing the policy concerns raised by the G20 and FSB. The shadow banking regulatory agenda of the Commission has been set out in a Communication adopted in September 2013, which also provides a comprehensive overview of the policy measures taken to date and the work plan going forward<sup>172</sup>. The below sections focus on specific areas where a new regulatory framework has either been adopted (AIFMD) or proposed (money market funds, securities financing transactions). Work in the area of shadow banking is on-going.

### **Alternative Investment Fund Managers Directive (AIFMD)**

Early on in the crisis concerns arose as to the use of leverage and counterparty exposures by hedge funds. For this reason, the Commission proposed in April 2009 a directive on Alternative Investment Fund Managers (AIFMD), including managers of hedge funds.<sup>173</sup>

Non-harmonised funds or so-called Alternative Investment Funds (AIFs) contain different investment funds. AIFs invest in a wide variety of asset types and employ very different investment strategies. Inter alia, hedge funds, private equity funds, infrastructure funds, commodity funds, real estate funds or other special funds can all be classified as AIFs. The AIF sector is estimated to represent around EUR 2.5 trillion in assets. From a prudential and shadow banking perspective, the hedge funds are the most relevant entities to be analysed.

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<sup>172</sup> COM(2013) 614 final

<sup>173</sup> COM(2009) 207 final

### *Macprudential and microprudential problems*

AIFs **amplified the boom and the subsequent bust**. Certain types of AIF managers have exhibited a strong appetite for credit derivatives and ABS and thus have contributed to the rapid growth of these markets. AIF managers, in particular those managing large, leveraged hedge funds, may also have contributed to the pre-crisis asset price inflation in many markets. The same actors may also have contributed to the speed and scale of the market correction witnessed in the early stages of the crisis. On average, AIFs lost significant value during 2008 and assets managed by EU-domiciled managers contracted by 11.5 %. In addition to adverse market conditions, many managers were faced with increased redemption demands from investors and with tighter lending conditions from banks. Leveraged funds were forced to unwind positions (hedge fund leverage, for example, has declined from around 3 to 1.5). Faced with such pressures, in particular hedge funds were often forced to sell assets into declining markets, thereby realising losses and adding further pressure on declining asset prices. This pro-cyclical behaviour may have undermined financial stability and contributed to a deepening of the crisis.

AIFs had **inadequate liquidity and capital (i.e. shock absorbers)**. Excessive reliance on counterparties and trend-following at the expense of sound risk management and due diligence were observed by many market participants, including managers of alternative funds. The combination of increasing redemption requests and illiquid asset markets resulted in major funding liquidity risks for several AIFs. Many AIFs experienced net outflows of funds. Others unable to exit illiquid investments had to activate gate provisions in order to limit withdrawals and some offered lower fees in exchange for longer lock-in periods. The counterparty risks faced by hedge fund managers were demonstrated by the near-failure of Bear Stearns and the bankruptcy of Lehman Brothers that highlighted the importance of monitoring the security of the cash and security balances held with prime brokers.

### *Adopted measure*

The AIFMD aims to put in place a **comprehensive and effective regulatory and supervisory framework for managers of alternative investment funds in the EU**. Concretely, the AIFMD makes all AIF managers subject to appropriate authorisation and registration requirements, allows monitoring of macro and microprudential risks, and introduces several investor protection tools. Another objective is to develop a single market in the area of AIFs.

The AIFMD was published in the EU Official Journal in July 2011<sup>174</sup> and Member States were obliged to transpose it by July 2013. A number of key conditions have to be met to be authorised as an AIF: it must hold sufficient capital and have appropriate arrangements in place for risk management, valuation, the safe-keeping of assets, audit and the management of conflict of interests.

In order to provide competent authorities and investors with the necessary information that is needed to monitor the macro- and microprudential risks, AIFs are subject to detailed reporting requirements on their activity, including their positions, their risks

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<sup>174</sup> 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.

and their counterparties. A specific set of rules has been established for the AIFMs that manage leveraged AIFs, typically the hedge funds. Those funds are subject to more stringent reporting requirements and competent authorities may decide to limit the use of leverage should they assess that it may pose a risk to the financial system.

#### *Expected benefits*

Due diligence will be facilitated on an ongoing basis. Each AIF manager will be required to set a limit on the leverage it uses and will be obliged to comply with these limits on an ongoing basis. AIF managers will also be required to inform competent authorities about their use of leverage, so that the authorities can assess whether the use of leverage by the AIFM contributes to the build-up of systemic risk in the financial system. This information will be shared with the European Systemic Risk Board. The AIFMD will also create powers for competent authorities to intervene to impose limits on leverage when deemed necessary in order to ensure the stability and integrity of the financial system. ESMA will advise competent authorities in this regard and will coordinate their actions, in order to ensure a consistent approach. As a result, the procyclicality of the financial system is expected to be dampened by the AIFMD. In addition, investor protection will improve, mainly through the increased transparency of AIFs and markets.<sup>175</sup>

### **Money Market Funds (MMFs) Regulation**

In Europe, MMFs are an important source of short-term financing for financial institutions, corporates and governments. Around 22 % of short-term debt securities issued either by governments or by the corporate sector are held by MMFs. MMFs hold 38 % of short-term debt issued by the EU banking sector. MMFs in Europe manage assets of around EUR 1 trillion. The EU market is equally split between Variable Net Asset Value (VNAV) MMFs and Constant Net Asset Value (CNAV) MMFs. While VNAV MMFs behave like any mutual fund with a NAV or share that fluctuates in line with the value of the investment assets held in the portfolio, CNAV MMFs maintain a constant share price (e.g. 1 EUR or 1 USD per share), irrespective of fluctuations in the value of the MMF's investment assets.

#### *Problems*

MMFs give rise to **contagion** and are **vulnerable to runs**. The inherent liquidity mismatch between the maturity of MMF assets and the commitment to provide daily redemptions may prevent an MMF from meeting all redemption requests during stressed market conditions. A liquidity mismatch can cause redemption bottlenecks for both CNAV and VNAV MMFs. During the crisis, several EU based MMFs had to suspend redemptions due to their inability to sell illiquid assets (mostly securitised products like ABCP). If one MMF stops redeeming investors, investors in all other MMF tended to "rush to the exit" by withdrawing their money as well. As a consequence, banks and corporate issuers lose an essential channel to distribute their short-term debt.

CNAV MMFs are structured as an investment fund where each share invested can be redeemed at a stable price (unlike other investment funds). Events in 2007/08 and again in 2011 have shown that stable redemption prices cannot be maintained during

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<sup>175</sup> For further details, see Directive 2011/61/EU.

stressed market conditions. In these situations, the MMF has to either decrease its NAV or share price or the sponsor has to provide financial assistance to “prop up” a stable redemption price. The first situation (decrease in value) is often referred to a “breaking the buck” (breaking the dollar or breaking the euro) because the fund must decrease its NAV from 1 EUR per share to reflect current market value of its shares. “Breaking the buck” is an event that can trigger **massive outflows**, in particular when coupled with a general deterioration in the credit quality of one or more MMF issuers. The second situation is less transparent because the injection of sponsor support avoids that the MMF is obliged to formally “break the buck”. Instead, the MMF sponsor (often a bank) needs to make up the difference between the stable redemption price and the real value of the NAV out of its own means. Because banks did not build capital reserves directly linked to their exposure to the risk of MMFs decreasing in value (regulatory arbitrage), **sponsor support often reached proportions that exceeded the sponsor’s available reserves**.

#### *Proposed measure*

The MMF proposal aims to prevent the risk of contagion to the economy (the issuers of short-term debt) and to the sponsors (usually banks).<sup>176</sup> The MMFs should have adequate liquidity to face investor’s redemption requests and their structure should be transformed such that the stability promise can withstand adverse market conditions.

In September 2013, the Commission adopted a regulation proposal that intends to make the MMFs managed and marketed in the EU safer. Liquidity and stability aspects are at the core of the Commission proposal. The proposal is now with the co-legislators which may introduce amendments in the course of negotiations. Under the current proposal, the rules are expected to enter into force in 2015.

**Liquidity shock absorbers** are put in place. During the crisis numerous MMFs had to suspend redemptions or even close the fund. To respond to that problem, MMFs should always have “natural” liquidity at hand in order to provide orderly redemptions. This is achieved in the Commission proposal by introducing daily and weekly minimum thresholds of maturing assets (at least 10 % daily and 20 % weekly). The second aspect is to ensure that the portfolio is of appropriate duration and sufficient quality. This is ensured in the proposal by introducing new diversification standards (5 % cap on individual issuers in CNAV MMFs), including new maturity and credit requirements for those MMFs that invest in ABS, in particular ABCP. The third point is on the investor side. Under the current proposal, managers will be obliged to “know their customers” better (in terms of redemption cycles and amounts). This is in order to better anticipate the redemptions patterns of their investors.

The proposal also puts in place **solvency shock absorbers**. Stable redemptions are often impossible without the support of the sponsor. To remedy this unhealthy dependence on ‘discretionary’ sponsor support the Commission proposal introduces an obligation that all CNAV MMF gradually establish a capital buffer amounting to 3 % of the MMF's NAV. This buffer will serve to absorb differences between the stable NAV per share and the real NAV per share.

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<sup>176</sup> COM(2013) 615 final

### *Expected benefits*

The proposed MMF regulation is expected to render the European MMFs more secure in adverse market conditions, mitigating systemic risk concerns. The regulation is expected to give retail investors a fairer treatment (compared to institutional investors). By increasing the MMF safeguards, more retail investors will be attracted to these markets. With regard to SMEs, their protection will be enhanced when acting as investors. SMEs, like corporates of larger size, may use MMFs to place their excess cash for short periods. Reducing the probability to face limits or suspensions of redemptions will prevent SMEs from suffering cash shortfalls.<sup>177</sup>

### **Regulation on the reporting and transparency of Securities Financing Transactions (SFTs)**

Securities financing transactions (SFTs) are considered to be any transaction that uses assets belonging to the counterparty to obtain funding from or to lend them out to another entity. In practice, this includes lending or borrowing of securities and commodities repurchase (repo) or reverse repurchase transactions, or buy-sell back or sell-buy back transactions. SFTs are used by almost all actors in the financial system, be they banks, securities dealers, insurance companies, pension funds or investment funds. According to ESMA (2014), **EU repo markets** account for some 70 % of the EU shadow banking sector's liabilities, which, in turn, equal 19 % of the EU banking sector liabilities. At the end of 2013, the total size of these **markets** had shrunk to EUR 5.5 trillion, compared with over EUR 6 trillion in June 2013.<sup>178</sup> Global estimates on securities lending transactions are EUR 1.4 trillion.<sup>179</sup> According to ESMA (2014), the total value of EU securities on loan averaged USD 560 billion in the second half of 2013. EU government bonds at USD 336 billion represented the main type of assets on loan at end-2013, whilst equities averaged USD 160 billion and (EUR and GBP) corporate bonds USD 57 billion. The main purpose of SFTs is therefore to obtain additional cash or to achieve additional flexibility in carrying out a particular investment strategy.

### *Problems*

SFTs have the propensity to increase the build-up of leverage in the financial system as well as to create contagion channels between different financial sectors. The recent financial crisis showed that securities financing markets are vulnerable to bank-like runs and fire sales of the underlying collateral, especially when the value of the assets is decreasing. Moreover, the assumption that securities financing is always robust even in stressed market conditions proved to be flawed, as interconnections among markets and market participants led to contagion.

EU regulatory authorities lack the necessary data to better monitor the use of SFTs and the risks and the vulnerabilities for the stability of the financial system that they imply. At the same time, investors are not properly informed whether and to what extent the investment fund, in which they have invested or plan to invest, has encumbered or intends to encumber investment assets by means of engaging in SFTs

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<sup>177</sup> See impact assessment, COM SWD(2013) 315 final.

<sup>178</sup> See ICMA (2013).

<sup>179</sup> See International Securities Lending Association.

and other equivalent financing structures that would create additional risks for the investors. Finally, insufficient contractual transparency makes clients uncertain about the extent to which their assets can be rehypothecated, or about the risks posed by rehypothecation.<sup>180</sup>

### *Proposed measure*

Different measures on the transparency of shadow banking activities have been proposed in January 2014.<sup>181</sup> Under the current proposal, the transparency measures would enter into force in 2016.

To ensure that regulators have access to the information, the proposal requires that all SFTs are reported to a trade repository, or, if that is not possible, directly to the European Securities and Markets Authority (ESMA). In order to ensure that investors have sufficient information over the use of SFTs, the proposal requires periodical reports and fund's pre-investment documents such as the prospectus to include detailed information on the use of those SFTs by fund managers. To ensure that investors are informed over rehypothecation activity, the proposal includes specific transparency requirements which have to be met by the parties involved, including written agreement and prior client consent.

### *Expected benefits*

Transparency in the area of SFT is important as it provides the information necessary to develop effective and efficient policy tools to prevent systemic risks. The reporting of SFTs to trade repositories will allow supervisors to better identify links between banks and shadow banking entities. It will also shed more light on the funding operations of shadow banking entities. Supervisors and regulators will then be able to monitor the market and, if necessary, design better-targeted and timely actions to address any risks to financial stability that emerge. Transparency in the use of SFTs by investment funds is vital. At present, there is very little information available on the use of these transactions by funds, in particular with regard to securities lending and total return swaps. The Regulation will therefore not only benefit investors, but also enable regulators to access valuable information. This, in turn, will allow them to assess the risk linked to the use of these instruments and propose further measures if necessary. Finally, the harmonised rules with respect to rehypothecation will limit potential financial stability risks and remove uncertainty about the extent to which financial instruments have been rehypothecated.<sup>182</sup>

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<sup>180</sup> "Rehypothecation" is defined as any pre-default use of assets collateral by the collateral taker for its own purposes. Rehypothecation is used in bilateral transactions between commercial market participants (dynamic rehypothecation) and between intermediaries and their clients (static rehypothecation). When market conditions deteriorate, rehypothecation can amplify market strains. Simply put, rehypothecation re-introduces counterparty risk in case a trader fails. Rehypothecation increases the linkages between traders. As dealers grow unsure of the quality of their counterparty, they prefer to take precautionary measures regarding their collateral. So it is natural that in a time of crisis, dealers become reluctant to agree to rehypothecation, to ensure that they know where their collateral is. This makes traders wary about agreeing to rehypothecation when conditions deteriorate. As a consequence, funding liquidity needs can increase, thus amplifying market strains.

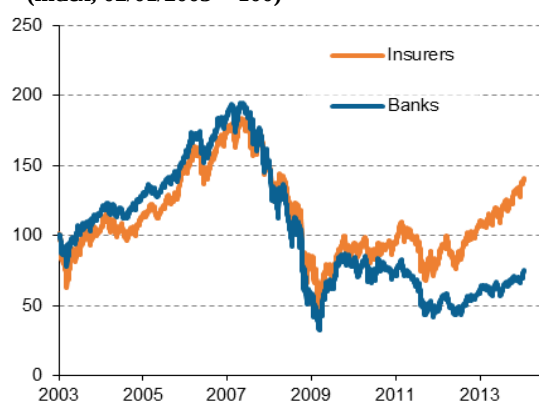
<sup>181</sup> See COM (2014) 40 final.

<sup>182</sup> See also Annex 13 of the impact assessment for further details (SWD(2014) 30 final).

## 4.5 STABILITY AND RESILIENCE OF THE INSURANCE SECTOR

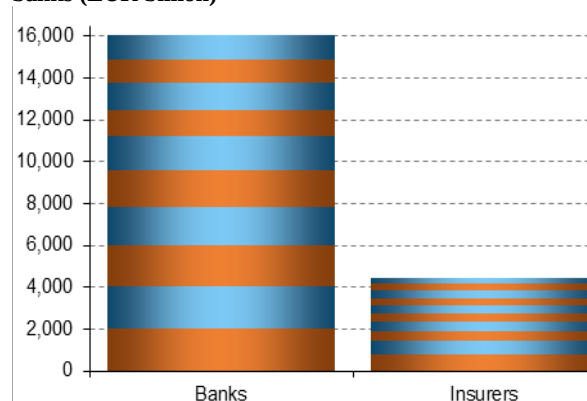
**The insurance industry was significantly affected by the crisis** (and in some cases as more than mere innocent bystander). In particular, since the origins of the crisis lay in credit markets, those firms offering various forms of credit insurance were significantly affected, as were the insurers as investors in credit products. Furthermore, across the sector, equity market movements presented significant challenges to insurance companies. EU insurance companies themselves experienced a sharp drop in their share prices following the onset of the crisis, although the trend has reversed since (chart 4.5.1). The financial positions of insurers have suffered from the low interest rate environment following the onset of the crisis and from the slow economic recovery and weak growth outlook. Moreover, due to their sovereign debt exposures, the sovereign debt problems created financial and operating problems for domestic insurers in some parts of the euro area, as clearly evidenced in the recapitalisation needs of a number of insurers following the 2012 Greek sovereign debt restructuring. At the more general level, the crisis demonstrated the need for effective risk management and governance for insurance companies just as much as for banks.

Chart 4.5.1: Share prices of European insurers (index, 02/01/2003 = 100)



Notes: Shows Stoxx 600 Insurance Europe index and corresponding index for banks.  
Source: Bloomberg

Chart 4.5.2: Total assets of 10 large EU insurers vs banks (EUR billion)



Note: Sample includes 10 insurers (Axa, Allianz, Generali, Legal & General, Aviva, Prudential, Aegon, CNP Assurances, ING Verzekeringen, Crédit Agricole Assurance) versus 10 banks (HSBC, Deutsche Bank, BNP Paribas, Barclays, Crédit Agricole, RBS, Santander, SocGen, Lloyds, Groupe BPCE).  
Source: SNL Financial

The risks and business profile of insurance are different from banking in at least two main respects. First, the business model is different: whereas banks (and shadow banks) are typically involved in the maturity transformation of short-term liquid liabilities into longer-term assets, insurers typically do not take such maturity transformation risks. Thus, insurers are less exposed to liquidity risks and "runs".<sup>183</sup>

<sup>183</sup> Liquidity risk is less acute for insurers than banks, due inter alia to the nature of policyholders' claims on insurers, which cannot be easily liquefied on demand at short notice. Instead, their claims can normally only be lodged following an insured event, the probability of which is generally uncorrelated with the economic or financial market cycle; or by cancelling the policy, usually only at the cost of a substantial fee. Insurers are nonetheless at risk if they are forced to make major unexpected payouts due, e.g. to natural disasters or increased surrender rates. Even in these cases, the lags involved are normally such that investments can be sold opportunely, rather than on a forced sale basis. However, there remains a risk that insurers are unable to raise the funds they need, if their assets are illiquid and

Second, the failure of insurance firms is far less likely to create systemic risks than that of a bank (and not just because the largest insurers are generally smaller than the largest banks, see chart 4.5.2). This means that financial stability risks are less relevant in insurance than in banking. Many of the risks are independent and uncorrelated (e.g. natural disasters, life expectancy).

Nonetheless, from a prudential regulation point of view, banks and insurers have at least one important thing in common which distinguishes them from other financial services providers, namely that they bring the funds which customers deposit or invest directly onto their balance sheets and therefore expose customers directly to the financial risk inherent in those balance sheets.

Also, insurer failure<sup>184</sup> can directly disrupt the provision of critical financial services. For example, long-term savings contracts provided by life insurers that are often an individual's primary pension provision are critical financial services that can often be substituted only at an unacceptable cost.

Insurer failure may also result in financial instability if the failure propagates stress to other financial firms.<sup>185</sup> For example, interconnections within the insurance sector can be generated through reinsurance, whereby insurers pass on some of the risks they have taken on to other insurers. While reinsurance helps individual insurers manage their insurance risk, it also results in additional counterparty risk exposures. Hence, failure of a major reinsurer (although not observed in practice) could affect the solvency of the insurers from which it faced claims.

Insurers are also interconnected with other parts of the financial system, either because of their participation in financial markets or because insurers form part of wider financial groups. In most European countries, insurance companies are the largest institutional investors and have the potential to disrupt financial markets. Owing to the rising size of insurers' investment portfolios, any significant risk reallocation within the insurance industry has the potential to impact asset price dynamics.

The collapse of AIG – a major global insurance group – in 2008 was triggered by its activities in derivative and securities lending markets. It was not AIG's insurance underwriting activity which caused the failure, but the auxiliary financial market activities it undertook on the back of its core insurance business. The US government rescued AIG partly because of the likely impact that a disorderly failure would have

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they are required to make larger than expected cash outflows to meet margin calls on collateralised business, claims and early surrenders.

<sup>184</sup> The main causes of failure have been, historically, poor liquidity management; under-pricing and under-reserving; a high tolerance for investment risk; management and governance issues difficulties related to rapid growth and/or expansion into non-core activities; and sovereign-related risks. The insurers that performed best in times of systemic stress were those with robust franchises, solid liquidity management, and good capitalization. These companies also display strong underwriting and reserving policies, competitive cost structures and investment returns, and prudent risk management structures and risk appetite. Standard & Poor's (2013), "What may cause insurance companies to fail", June.

<sup>185</sup> For a discussion of financial stability concerns and other reasons to regulate insurers, see Bank of England (2013).

had on other market participants. In the EU, a number of insurers – and financial groups with an insurance arm - also received state aid during the crisis.<sup>186</sup>

Overall, **the economic case for regulation to achieve stability and resilience of the insurance sector is justified, inter alia, by two key sources of market failures:**

- First, there is asymmetric information (as is the case in banking and other financial services provided). Policyholders need to be confident that commitments made by insurers will be honoured, but they do not have sufficient information to assess this. They do not have the expertise to appraise insurers' financial statements and make an informed assessment of an insurer's solvency. There is also limited market oversight and discipline. There is scope for moral hazard behaviour given that insurers receive premiums upfront, but it can take time before any payments are due. This leaves scope for insurers to take action that conflicts with policyholders' interest and financial stability. The incentive problems are reinforced if insurers believe that government bailout in the event of failure is likely.
- Second, there are negative externalities in that the potential impact of a failed insurer could raise financial stability concerns and cause other adverse spillover effects to the economy, albeit much less so than a failed bank, as set out above.

The insurance sector has of course long been subject to solvency standards to mitigate the risk and impact of insurance failure. However, it has also long been recognised that the prudential framework for insurance needs a fundamental overhaul: the regime is not risk sensitive; it has not ensured the removal of all restrictions preventing the proper functioning of the single market; it does not properly deal with group supervision; and it has been superseded by industry, international and cross-sectoral developments. This led to the Solvency II Directive proposal presented in July 2007 and amended in February 2008<sup>187</sup>.

### **The new prudential framework for insurers (Solvency II)**

The overriding objective of Solvency II is to bring about a fundamental change to the solvency and risk management standards for the European insurance industry and to thereby increase the resilience and stability of the insurance sector, resulting also in improved policyholder protection. More specifically, Solvency II will deliver, inter alia:

- **a risk-based capital framework**—Solvency II replaces 14 existing Directives on insurance supervision. It will implement an economic and risk-based supervisory framework. Insurers will have to hold sufficient financial resources to cover the risks inherent in their business and to absorb unexpected losses.<sup>188</sup> The adoption of this framework should encourage firms to better

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<sup>186</sup> For case studies of insurers affected in the crisis, see The Geneva Association Systemic Risk Working Group (2010).

<sup>187</sup> [http://ec.europa.eu/internal\\_market/insurance/docs/solvency/proposal\\_en.pdf](http://ec.europa.eu/internal_market/insurance/docs/solvency/proposal_en.pdf)

<sup>188</sup> This is unlike legislation preceding Solvency II where prudential requirements are largely volume-based and not risk-reflective and where national approaches to implementation differ significantly. A survey of failed insurers and 'near-misses' conducted in 2005 confirmed that the current requirements

understand the risks they run, and thus increase the resilience of both firms and the industry as a whole.

- **a market-consistent approach**—Solvency II aims to embed a market-consistent approach to the regulation of insurance across the EU. Market-consistent valuations for both assets and liabilities of insurers' balance sheets will give both markets and supervisors much greater clarity of a firm's financial position, including the firm's capacity to meet its obligations;
- **improved transparency**—Solvency II requires consistent data disclosures by firms across Europe. This should facilitate better peer analysis on a pan-EU basis and generally raise the level of understanding by investors, supervisors and policyholders. Increased public disclosure will also enhance market discipline.
- **improved supervision and intervention tools**—Solvency II creates a codified ladder of intervention across the EU which will help group supervisors to act quickly and effectively in times of firm-specific or systemic stress.

Moreover, different regulatory regimes across the EU often place different financial requirements on very similar products, favouring some firms and disadvantaging others. By moving to a harmonised risk-based approach, Solvency II should align regulatory requirements with the underlying economics and risks of individual products. This will **provide a level-playing field across the EU**. Supervisors will be able to get a better, more consistent, view of European groups. Also, harmonisation and greater transparency may lead to increased competition. Moreover, firms which operate across the EU will have lower costs of regulatory compliance.

The new regime emphasises that capital is not the only (or the best) backstop against failures, and stresses the importance of risk identification, measurement and proactive management. Indeed, **one key benefit that the Solvency II process has already generated is improved risk management**. The launch of the Solvency II project in 2000 induced some firms (and supervisory authorities) to embrace the new provisions early.<sup>189</sup> Insurers (especially the large ones) started introducing stress scenarios and internal models for risk-based capital allocation, as well as increasing the profile of risk management and strengthening compliance teams to gear up early for Solvency II. Also, some firms' business models have already changed for the better. Insurers which started constructing (and in some cases applying) internal capital models before

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do not provide sufficient early warning for an intervention to be launched. In more than 75 % of the cases, the reported solvency ratio up to one year before failure was more than 100 %, and in 20 % of the cases, the reported ratio was over 200 %. See Committee of European Insurance and Occupational Pensions Supervisors (2005), "Answers to the European Commission on second wave of Calls for Advice in the framework of the Solvency II project".

<sup>189</sup> Some national authorities have helped speed up the adaptation to a risk-based capital framework. For example, the Swedish FSA introduced a "traffic light system", in the spirit of Solvency II, in 2006. Using stress scenarios, insurers' exposure to various financial and insurance risks are measured on both the asset and liability side. Also, UK introduced the Individual Capital Adequacy Standards (ICAS) regime for general insurance companies in 2005, which presented a step change to risk-based capital requirements in line with Solvency II.

the crisis indicated that this has helped them through the crisis.<sup>190</sup> More generally, the process of internal model development brings benefits through improved understanding of the sources and magnitude of risks facing the companies.<sup>191</sup>

The introduction of internal models has however raised a number of concerns, in particular given the recent experience where sophisticated internal capital models, e.g. in banking, have not been reliable. Wide-spread adoption of internal models may also result in a loss of transparency and comparability between insurers. This has led some to call for companies that have an internal model approved by the regulator to also report a solvency ratio calculated using the standard formula of pre-determined risk weights.

**Solvency II with risk-based capital and market-consistent valuation was vigorously supported by the industry in the pre-crisis boom years.** While still supportive of the overall framework, the crisis has shifted the debate on the expected impacts of Solvency II. In particular, the low interest rate environment that followed the crisis presents a major challenge for insurance companies. As a consequence of the market-consistent valuation approach of Solvency II, the post-crisis present value of liabilities is higher than it would have been had the pre-crisis (higher) interest rates prevailed. This, in turn, demands higher reserves. The effect is significant given the typically long-term nature of insurance liabilities.

Given that we are in the aftermath of a considerable crisis, under a risk-based capital framework like Solvency II, one would necessarily expect prudential requirements for firms to be higher now than in the pre-crisis period. One would also expect the risk management of companies to address the volatility in asset prices and interest rates, since this can effectively deteriorate insurers' solvency in times of crisis. However, there is a valid concern that market-consistent valuation may induce excessive "artificial" volatility in the solvency ratios of insurers with matched long-term liabilities (see chapter 6 for some of the potential adverse consequences). This has led to significant modifications to Solvency II following the crisis experience, through a package of measures known as the long-term guarantee package.<sup>192</sup> The measures include adjustments to the discount rates for calculating insurance liabilities (the so-called "volatility adjustment" and the "matching adjustment"), aimed at reducing the impact of volatility in asset prices and credit spreads. This aims to stabilise insurers' capital base and avoid pro-cyclical investment behaviour of insurers.

In order to ensure appropriate supervision of the whole insurance sector, the same principles apply to all insurers. However, by introducing simplified requirements for small undertakings proportionate to the nature, scale and complexity of the risks to

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<sup>190</sup> Based on a survey of insurers for European Commission (2012), "European Financial Stability and Integration Report", April, chapter 4. Various industry surveys also report progress of the industry towards meeting the new Solvency II standards, e.g. Ernst & Young (2012) and Deloitte (2012).

<sup>191</sup> In a 2012 survey, more than one-half of responding insurers (53 %) say they expect either some or significant tangible benefits from Solvency II, with an additional 20 % expecting some benefits in due course. See Deloitte (2012).

<sup>192</sup> The measures were added via the Omnibus II Directive, which amends Solvency II with respect to the powers of EIOPA, contains a number of provisions to smooth the transition to the new regime and provides for the modified treatment of insurance with long-term guarantees.

which the undertaking is exposed, Solvency II seeks to avoid unduly burdening small, uncomplicated firms if they are dealing with equally uncomplicated risks.<sup>193</sup>

Overall, the aim of Solvency II is not to increase capital levels of insurance companies across the board. Indeed, quantitative impact studies conducted by EIOPA demonstrated that the significant majority of insurers are not expected to raise capital because of Solvency II. Rather, the aim is to align solvency requirements more appropriately with the underlying economic risks. As a result, some insurance products may attract a higher capital charge and hence may become more expensive to provide, but this is because they reflect higher economic risks (e.g. life insurance products with guarantee). Concerns about artificial volatility in solvency ratios are being mitigated by the long-term guarantee package, which will facilitate transition to Solvency II in the current market environment. Once applicable in 2016,<sup>194</sup> the risk-based and market-consistent framework can be expected to deliver a more resilient and stable insurance sector. The actual impact can only be assessed thereafter.

#### **4.6 FINANCIAL INTEGRATION AND THE SINGLE MARKET**

The single market has brought significant benefits to EU Member States. It has contributed to solid economic growth and has supported employment. Estimates suggest that, from 1992 to 2008, the single market has generated an extra 2.77 million jobs in the EU and an additional 2.13 % in GDP.<sup>195</sup>

Integration in the markets for financial services is a key element of the single market. Among other benefits, financial integration has contributed to the convergence and decline in financing costs for corporations and households and the opening up of investment and diversification opportunities across Europe.<sup>196</sup>

Financial integration and the deepening of the single market in EU financial services is therefore a key objective which governs all reform measures at European level. As outlined in chapter 3, the financial crisis revealed significant shortcomings in the institutional framework supporting the single market and, given monetary union, in particular within the euro area. This created tensions between financial integration and stability.

The financial reform agenda seeks to address these shortcomings and jointly restore financial integration and stability. As further set out below, this includes in particular the move towards a single rulebook for EU financial services (section 4.6.1), establishment of the European System of Financial Supervision (section 4.6.2) and the

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<sup>193</sup> It cannot be excluded however that, in the transition phase, the higher degree of efficiency expected under Solvency II will put pressure on small and medium-sized insurance undertakings, where the most up-to-date risk management and risk-based capital management practices are not yet as widespread.

<sup>194</sup> In order to make the new solvency regime operational, it is necessary for the Commission to adopt a large number of delegated acts foreseen in the Solvency II Directive, which is expected for later in 2014.

<sup>195</sup> European Commission calculations using the macroeconomic model QUEST II. More detail about the model is available at [http://ec.europa.eu/economy\\_finance/publications/publication1719\\_en.pdf](http://ec.europa.eu/economy_finance/publications/publication1719_en.pdf). The QUEST model is also used in annex 6 to estimate the macroeconomic costs of certain bank reforms.

<sup>196</sup> See ECB (2012).

proposal to create a Banking Union with a single rulebook, a Single Supervisory Mechanism (SSM) and a Single Resolution Mechanism (SRM) (section 4.6.3). Additional measures taken as part of the Single Market Acts I and II to promote access to finance are also briefly presented (section 4.7.4).

#### 4.6.1 Towards a true single rulebook

The financial crisis revealed a significant lack of harmonised rules, leaving excessive room for divergences in national rules and a fragmented supervisory framework lacking consistency and coordination among supervisors, both across borders and across financial sectors. The lack of harmonisation resulted in a regulatory patchwork and huge legal uncertainty for financial institutions and investors, allowed for the exploitation of regulatory loopholes, distorted competition and created barriers for financial actors and investors to operate across the single market. Moreover, the financial crisis has shown the disruptive effects of national divergent approaches and ring-fencing measures which are incompatible with an integrated market.

In response to the crisis, a number of countries took unilateral action and imposed regulatory reforms aimed at reducing financial stability risks at national level. Examples include actions to suspend or ban short-selling, implementation of special frameworks for bank resolution, reforms to restrict the structure of banks, and so on. The national rules were divergent and risked not only being ineffective, given the integration of markets, but also creating arbitrage opportunities and related distortions. Thus, **a main benefit of EU level action comes from achieving a coordinated, harmonised response to the crisis across the EU** (and better coordination of the crisis response at global level between the EU and its international partners).

The need for coordinated action also applies to policy measures that are not directly crisis-related. For example, the current prudential framework for insurance companies is based on minimum standards that can be supplemented by additional rules at national level. Most Member States operate an 'EU-minimum plus' regime whereby insurers are subject to more stringent requirements than those set out in the current insurance directives. There are also continuing significant differences in the way in which supervision is conducted, which further undermines the creation of a level playing field and the integration of the EU insurance market. It also increases costs for cross-border insurers and hinders competition within the EU. Solvency II, once it enters into force in 2016 (see section 4.5 above), will change this and lead to a convergence of prudential standards.

More generally, a well-functioning internal market for financial services presupposes stringent, efficient and harmonised rules for all operators, coupled with an effective supervisory framework, strong, dissuasive sanctions and clear enforcement mechanisms. In order to establish a unified regulatory framework for the EU financial sector, the European Union has engaged in the process of establishing a truly **single rulebook** providing for a single set of harmonised rules for the financial sector throughout the EU. The single rulebook does not only contribute to an integrated market by ensuring a uniform regulatory framework and its uniform application, but also closes regulatory loopholes and thus contributes to a more stable financial system. In addition, it will contribute to a more efficient and transparent financial system, since market participants only have to apply with one set of rules instead of

28 different sets of rules. It will thereby reduce compliance costs for cross-border activities and increase legal certainty. Moreover, the single rulebook will ensure higher quality of available and comparable information across the EU for supervisors, market participants, investors and consumers. Improved transparency will contribute to effective supervision but also to market and investor confidence.

The creation of the ESFS, and in particular, the three European supervisory authorities (EBA, ESMA and EIOPA) is instrumental for further developing the single rulebook.

#### **4.6.2 The establishment of the ESFS**

Building on the recommendations of the De Larosi re report<sup>197</sup>, the Commission presented in October 2009 proposals to strengthen financial supervision, which were adopted by co-legislators in November 2010. The European System of Financial Supervision (ESFS) consists of three micro-prudential European Supervisory Authorities (ESAs), namely the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA), and the European Securities and Markets Authority (ESMA), working within a network of national competent authorities (NCAs) and the European Systemic Risk Board (ESRB) as the macro-prudential body. The ESFS has been operational as from January 2011.

The ESFS reinforces the stability and effectiveness of the financial system throughout the EU. The ESAs take important regulatory, supervisory, financial stability and consumer protection roles. The ESRB provides early warnings of system-wide risks that may be building up and, where necessary, issue recommendations for action to deal with these risks. Close cooperation between the micro- and macro-prudential levels is essential to achieve valuable synergies, to mutually reinforce the impact on financial stability and to benefit from a fully integrated supervisory framework. The regulations establishing the ESFS provide for regular reviews of the system. The first comprehensive review has been carried out during 2013. The report will be adopted soon.

While the new system has been operational for just three years (and the parallel establishment of the Banking Union needs to be taken into account), the ESA are widely perceived as having performed well and to have contributed to re-establishing confidence in the financial system. They are seen as having played a particularly important role in preparing draft technical standards, fostering supervisory convergence and culture through their participation in colleges, identifying and assessing systemic risks. EBA also had an important role in the stress tests and the recapitalization exercise of European banks in 2012/13.

The establishment of the Banking Union (see below) and notably of the Single Supervisory Mechanism (SSM) as a key component will impact the functioning of the ESFS, but does not call into question its existence and necessity. The ESAs, and in particular the EBA, will continue to be responsible for contributing to the single rulebook applicable to the EU 28 and ensuring supervisory convergence. Close cooperation between the EBA and the ECB will be crucial to avoid duplications and ensure a smooth functioning of the Banking Union within the wider single market for banking services.

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<sup>197</sup> Report of the High-level Group of Financial Supervision in the EU, 25 February 2009.

The review process, as well as the own initiative report of the European Parliament<sup>198</sup> and the FSAP report by the IMF<sup>199</sup>, identified some shortcomings of the ESAs, in particular regarding the governance and the limited action in the area of contributing to supervisory consistency and on consumer protection

The ESRB has managed to establish itself as a key component of the European supervisory framework. It provided a unique forum for discussion on financial stability issues throughout the crisis and contributed to raising awareness among policymakers on the macro-prudential dimension of financial policies and regulations. There are, however, a number of areas for improvement in terms of external organisation, internal governance and output, in order to enhance the efficiency of macro-prudential oversight at EU level. As the areas for potential improvements relate mainly to governance issues, legislative action seems appropriate.

When establishing the ESFS particular attention has been given to the interaction between the ESRB and the ESAs. Close interaction is ensured by cross-membership among the three micro-prudential authorities and the ESRB via the Joint Committee of the ESAs. The cooperation between the micro- and the macro-prudential elements has overall worked satisfactorily with minor arrears for improvement being identified in the course of the ESFS review.

#### **4.6.3 The Banking Union – towards more sustainable financial integration**

Boosted by the single currency and benign market conditions in the run-up to the crisis, the EU banking sector grew and became more and more integrated. Banks developed significant cross-border activities, and some outgrew their national markets. As set out in section 3.3, debt markets and in particular interbank markets had become most integrated, while cross-border flows in foreign direct investment and equity portfolio investment more limited. With capital flows in the boom years largely taking the form of interbank lending and debt, this exposed recipient countries in the euro area periphery to significant rollover risk. Financial integration was not backed by an appropriate institutional framework and therefore carried financial stability risks, especially in the single currency area. Free credit and other capital flows contributed to the build-up of imbalances in the euro area and helped fuel the boom-bust cycles observed in several Member States. Many cross-border capital flows turned out to be excessive and ultimately unsustainable.

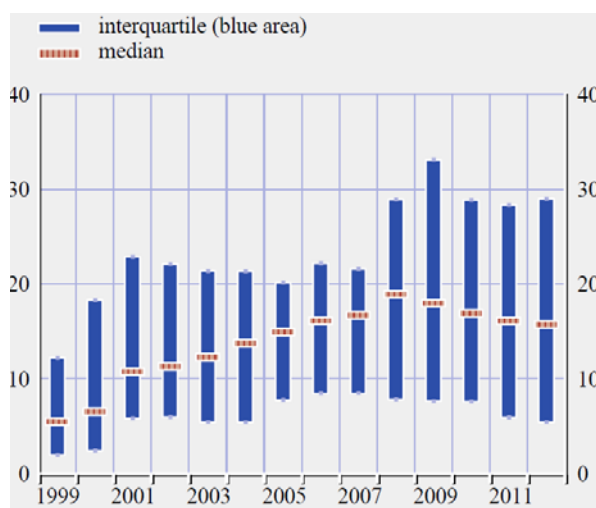
Chart 4.6.1: Total assets of foreign branches and subsidiaries of euro area banks across euro area countries (in % of total assets of euro area banks)

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<sup>198</sup> European Parliament Resolution of 11 March 2014 with recommendations to the Commission on the European System of Financial Supervision (ESFS) Review.

<sup>199</sup> International Monetary Fund – Financial Sector Assessment Program at EU level, March 2013.

The financial crisis abruptly stopped the integration of banking markets, capital flows stopped or reversed, resulting in significant economic and financial disruption. For example, chart 4.6.1 shows that cross-border activities of euro area banks across the euro area increased strongly and steadily between 1999 and 2008 but have been decreasing since 2008. The chart also shows significant differences in the share of cross-border assets between euro area countries.



Notes: The chart displays the median for the share of cross-border assets and the overall dispersion (interquartile range) across countries

Source: ECB Financial Integration Report (2013).

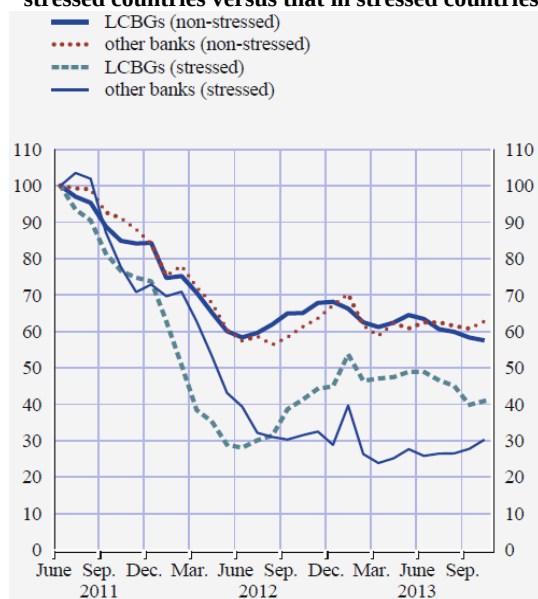
Financial fragmentation threatened the integrity of the single currency and the internal market. It increased the divergence of interest rates for firms and households across the euro area and hampered monetary policy transmission. While interest rates are high in the euro area periphery, fragmentation has led to very low interest rates and potential distortion of asset prices in the centre.<sup>200</sup>

Chart 4.6.2 and 4.6.3 show the significant financial fragmentation in terms of the availability and costs of market funding for banks, in terms of both their country of residence and the strength of their balance sheets (see also section 3.3). In the course of the sovereign debt crisis, debt issuance fell markedly across euro area banks. This process was most pronounced for banks of smaller size established in "stressed" countries.<sup>201</sup> By contrast, debt issuance by banks, in particular large banks, in non-stressed countries was more resilient and these banks had to pay much lower spreads on their newly issued unsecured debts than their counterparts in stressed countries.

<sup>200</sup> See Draghi (2014).

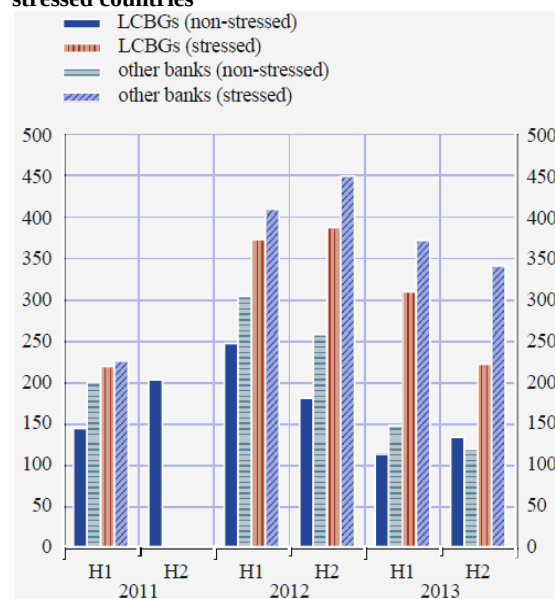
<sup>201</sup> "Stressed countries" refer to Cyprus, Greece, Ireland, Italy, Portugal, Slovenia and Spain.

Chart 4.6.2: Debt issuance by large and complex banking groups (LCBGs) and other banks in non-stressed countries versus that in stressed countries



Notes: Excludes retained deals. Debt issuance measured by indices (June 2011 = 100), based on 12-month moving sums. "Stressed countries" refer to Cyprus, Greece, Ireland, Italy, Portugal, Slovenia and Spain. Source: ECB

Chart 4.6.3: Spreads on senior unsecured debt for banks in non-stressed countries versus those in stressed countries



Note: Shows spread over benchmarks in basis points. Based on euro-denominated fixed rate deals with an issue size of at least EUR 250 million. Excludes retained deals and government-guaranteed debt. In the first half of 2011, only LCBGs from non-stressed countries issued debt that met the above-mentioned criteria. Source: ECB

The financial crisis clearly revealed the incomplete nature of integration in the euro area and the strong link between banks and the Member States in which they are established resulting in a harmful interplay between the fragilities of the sovereigns and vulnerabilities of banks. Bail-outs of failing banks imposed a heavy burden on the public debt of some Member States. As set out in section 3.3, negative feedback loops between strained national financial budgets and banks jeopardized not only national financial stability in the EU, but also called into question the sustainability of the euro area. The crisis demonstrated that a system largely based on the supervision of banks at national level and lacking a comprehensive cross-border resolution framework, is incompatible with an integrated and stable banking sector and a single currency.

On 23 May 2012, the European Council gave a mandate to its President, in collaboration with the Presidents of the Commission, the Eurogroup and the European Central Bank, to present a vision for the future of a more deep and integrated Economic and Monetary Union. On the eve of the European Council meeting of 28-29 June 2012, the Commission President laid out the main thrust of the proposal for a Banking Union to restore confidence in banks and the financial sector, the euro area and the EU as a whole.<sup>202</sup> This approach was affirmed by both the European Council<sup>203</sup> and the Parliament<sup>204</sup>.

<sup>202</sup> See [http://europa.eu/rapid/press-release\\_SPEECH-12-494\\_en.htm?locale=en](http://europa.eu/rapid/press-release_SPEECH-12-494_en.htm?locale=en). The Commission set out its vision of a gradually unfolding Banking Union in its Communication of 12 September 2012 (COM(2012) 510 final). The Blueprint for a deep and genuine economic and monetary union of 28 November presents a comprehensive vision for a deep and genuine EMU (COM(2012) 777 final).

<sup>203</sup> See in particular the Euro Area statement of 29 June 2012 and the European Council conclusions from 29 June as well as the European Council conclusions from March and June 2013.

## Towards a Banking Union

The Banking Union is a vital part of a deep and genuine Economic and Monetary Union (EMU). It is instrumental for the EU and, in particular, for the euro area, where banking plays a central role in financing the economy. Its overarching objectives are to strengthen financial integration and complete EMU, restore confidence in the financial sector while minimizing costs to taxpayers, increase financial stability, and thereby contribute to economic recovery. The Banking Union aims to achieve these objectives by:

1. Ensuring that high and common standards of prudential supervision and resolution of credit institutions are consistently and impartially applied across all banks. The Banking Union will enable both supervisory and resolution decisions to be taken with the interests of the EU as a whole. This will contribute to create a level playing field in the provision of banking services and address the issue of "banking nationalism"<sup>205</sup>, i.e. the tendency of national supervisors to protect financial institutions in their territory or promote national champions or attractive financial centres. The Banking Union will deliver an institutional setup that allows the benefits from further financial integration to be realised in a more stable and sustainable way. It will furthermore stop the trend of market fragmentation which risks undermining the single market for financial services.
2. Generating a higher quality of financial integration and tackling the current mismatch between financial market integration and the fragmented nature of banking policy in Europe. Developments in the last years have provided instances of a 'financial trilemma'<sup>206</sup>, i.e. the impossibility to have an integrated financial system, financial stability and national responsibilities. The Banking Union is a tool to deal with these problems by replacing national for supranational responsibility in a European solution which ensures that all Member States are appropriately involved in decision making processes.
3. Helping ensure the smooth transmission of monetary policy, easing current bottlenecks and frictions which threaten to derail the appropriate monetary policy set by the ECB. Banks are the main transmission channel of monetary policy to the economy. Enhanced integration as a result of the currency union has shown the importance of establishing a single European regime for banking supervision and resolution. Restoring monetary policy transmission should help contribute to ease funding conditions of banks and the economy, in particular SMEs in vulnerable Member States.

The single market and the Banking Union are mutually reinforcing processes. The Banking Union rests upon the single rulebook applicable to all 28 Member States of the EU, in particular the CRD IV package and the BRRD (described above in section 4.2). It thereby preserves the unity and integrity of the single market. Furthermore, the EBA will develop a single supervisory handbook complementing the single rulebook.

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<sup>204</sup> See in particular the resolution of the EP on the Banking Union (European Parliament resolution of 13 September 2012 Towards a Banking Union (2012/2729(RSP)).

<sup>205</sup> See Véron (2013).

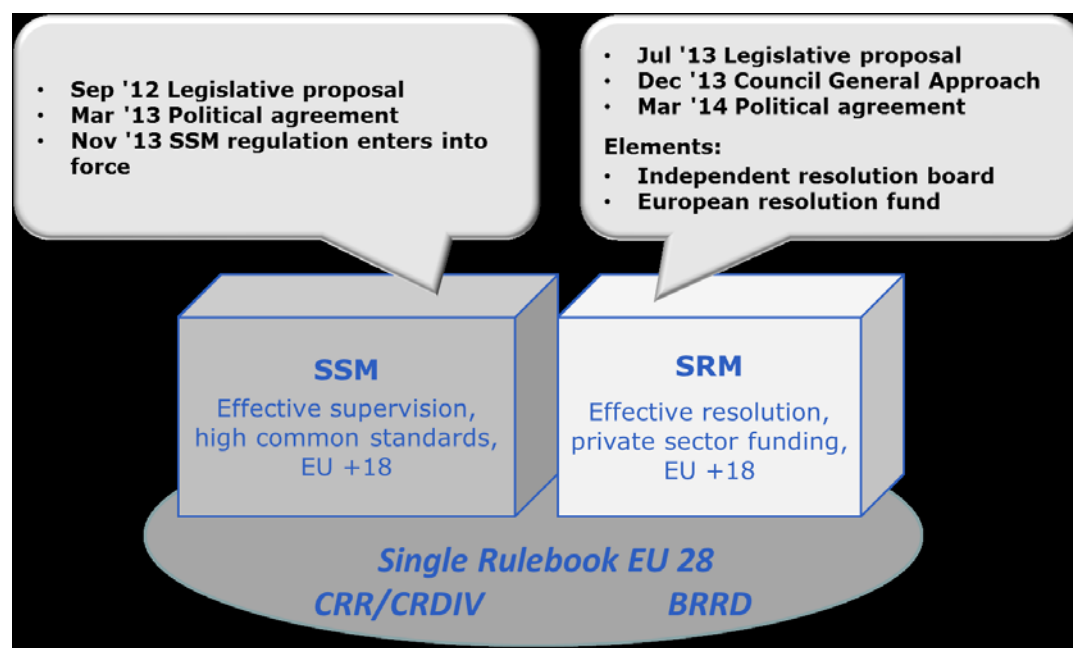
<sup>206</sup> See Schoenmaker (2011).

As illustrated in chart 4.6.4, the Banking Union consists of two main pillars: Banking supervision, i.e. the Single Supervisory Mechanism (SSM); and bank resolution, i.e. the Single Resolution Mechanism (SRM), consisting of a central decision-making body (the Single Resolution Board) and a Single Resolution Fund (SRF). These two central pillars complement each other.

The Banking Union is constructed as a hub and spokes system with a strong central level (the ECB for the SSM and the Single Resolution Board for the SRM) and a decentralised level (i.e. national supervisory and resolution authorities) involved in decision making and in the preparation and implementation of decisions at the central level.

The SSM and the SRM have the same material scope and are mandatory for Member States of the euro area, but they will also be open to the participation of any other Member States that may want to join. All banks in participating Member States (i.e. alone for the Euro area about 6000 banks with EUR 34 trillion of assets) will be covered. That is, the SSM will ultimately be responsible for the supervision of all banks in participating Member States, and potentially all banks will be subject to the resolution powers of the SRM. This is not only necessary to increase confidence in the stability of the banking sector but also to maintain a level playing field. However, in order to ensure practicable and efficient solutions and make best use of national expertise in this area, there will be an appropriate distribution of tasks between the centre and national supervisory and/or resolution authorities.

Chart 4.6.4: Illustration of key elements of Banking Union



Source: Commission Services

Reinforced supervision within the **SSM** will restore confidence in the health of banks. The SSM implies the transfer to the ECB of specific, key supervisory tasks for banks established in the euro area Member States and in participating Member States. While the ECB will retain ultimate responsibility for all banks within participating Member States, tasks will be distributed between the central level (ECB) and the decentralised

level (national authorities) to ensure practicable and efficient supervision. This structure will provide strong and consistent supervision across the euro area, making best use of local and specific know-how to ensure that national and local conditions relevant for financial stability are taken into account.

**A single supervisor removes some of the dividing lines between jurisdictions that create compliance costs.**<sup>207</sup> For example, there will no longer be a distinction between home and host supervisors for cross-border banks within participating Member States. Instead, there will be a single supervisory model and eventually a single supervisory culture, rather than one per country. Also, cross-border groups will be able to report at the consolidated level. Furthermore, with a European supervisor, borders will not matter. Issues such as protecting national champions or supervisory ring-fencing of liquidity will no longer be relevant. Therefore, another benefit of the SSM will be the lack of "hidden barriers" to cross-border activity linked to national preferences. This means that banks will be in a better position to achieve the economies of scale that were promised by the single financial market - and that they also need to be competitive at the global level.

**The SRM will align the decision-making of bank resolution to the European level and help to ensure the timely, efficient and impartial resolution of failing banks** minimizing externalities and coordination problems as well as possible tensions between European supervision and national resolution. In a context where supervision is moved to the European level, it is essential that the responsibility for dealing with bank resolution is moved to the same level. Repeated bailouts of banks have created a situation of deep unfairness, increased public debt and imposed a heavy burden on taxpayers. The BRRD will help EU countries intervene to manage banks in difficulty to ensure that taxpayers won't have to end up bailing out banks repeatedly again and the SRM will apply the rulebook set out in the BRRD. On top of improving the challenges faced in securing adequate cross-border cooperation, the SRM can reduce national "home" biases that may appear in, and possibly impede, a resolution event. The SRM will ensure a swift and effective decision-making process at centralised level.

The SRM will be accompanied by a SRF funded via levies from the banking sector to protect the taxpayer from having to bail-out banks in times of crisis. Since all banks will profit from enhanced financial stability, the fund should be built up by contributions of all banks while taking their risk profile into account and hence respect the principle of proportionality. The SRF will have significant advantages as compared to a network of national resolution funds:

- Firstly, in terms of effectiveness by pooling resources, providing a bigger 'firepower' and having a greater ability to tap markets in the unlikely scenario that it is necessary.
- Secondly, and importantly, the fund can provide an appropriate and effective common backstop of financing for tail risk events, whereby there is either insufficient private resources to absorb the banks' losses, or it is deemed inappropriate for them to do so (following the rules and pecking order set out

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<sup>207</sup> See Draghi (2014).

in the BRRD). This, in turn, can fully break the link between the bank and its national sovereign.

- Thirdly, and finally, by aligning the supervisory and fiscal incentives of the different stakeholders at the supranational and Member State level (i.e. SSM, SRM, national authorities) to ensure an efficient and effective resolution of cross-border banking groups.

The Regulation establishing the SSM entered into force in November 2013. The SSM, with the ECB at its centre, will be operational by November 2014. The proposal for a Regulation establishing the SRM was presented by the Commission in July 2013. A political agreement on the SRM Regulation was reached in March 2014 and it was approved at the last plenary of the current European Parliament in April 2014. The SRM will start resolution planning as from January 2015 and will have resolution powers as from January 2016. The SRF will be built-up progressively over a transitional period of eight years. During the transitional period, the contributions will be allocated to different compartments corresponding to each participating Member State (national compartments). These compartments will be subject to a progressive merger so that they will cease to exist at the end of the transitional period.

#### 4.6.4 Additional measures aimed at boosting growth

The Single Market Act (SMA) I (April 2011)<sup>208</sup> and the SMA II (October 2012)<sup>209</sup> announced a set of key actions to further deepen the internal market and help boost economic growth. Focusing only on actions in the area of financial services, three innovative fund frameworks were proposed: European Venture Capital Funds (EuVECA); European Social Entrepreneurship Funds (EuSEFs) and European Long Term Investment Funds (ELTIFs).

For many companies in the EU, access to finance has become markedly more difficult with the financial crisis (see also chapter 6). Financing conditions remain tight especially for start-ups and SMEs and in countries whose economies have been hit most severely by the crisis. A drop in venture capital fundraising following the crisis is significantly limiting the funding available for innovative companies. The EU's 21 million SMEs represent a major asset for sustainable growth and job creation. Difficulty in accessing finance is one of the main obstacles that prevent SMEs from launching new products, strengthening their infrastructure and taking on more employees. This situation is equally true of well-established SMEs and those that are innovating and rapidly expanding. To help alleviate those problems the Commission proposed to create **European Venture Capital Funds (EuVECA)**. The Regulation (adopted in April 2013<sup>210</sup>) will make it easier for venture capital funds to invest freely across the Union without obstacles or additional requirements. Its objective is to ensure that SMEs wanting to use venture capital can call upon funds with the

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<sup>208</sup> European Commission (2011): Single Market Act – twelve levers to boost growth and strengthen confidence. Communication from the Commission; 13 April 2011. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0206:FIN:EN:PDF>

<sup>209</sup> European Commission (2012): Single Market Act II – Together for newgrowth. Communication from the Commission. 3.10.2012. [http://ec.europa.eu/internal\\_market/smact/docs/single-market-act2\\_en.pdf](http://ec.europa.eu/internal_market/smact/docs/single-market-act2_en.pdf)

<sup>210</sup> Regulation (EU) No 345/2013 of the European Parliament and of the Council of 17 April 2013 on European venture capital funds.

necessary expertise for the sector and the capacity to offer capital at an attractive price.

The internal market is based on a "highly competitive social market economy", which reflects the trend towards inclusive, fair and environmentally sustainable growth. New business models are being used, in which these societal concerns are taking precedence over the exclusive objective of financial profit. This trend must be reflected in the single market. A level playing field must be ensured. Initiatives, which introduce more fairness in the economy and contribute to the fight against social exclusion, should be supported. The tremendous financial lever of the European asset-management industry (around EUR 9 trillion of assets under management) should be used to promote the development of businesses which have chosen – above and beyond the legitimate quest for financial gain – to pursue objectives of general interest or relating to social, ethical or environmental development. These objectives have guided the Commission in proposing **European Social Entrepreneurship Funds (EuSEF)**. The Regulation (also adopted in April 2013<sup>211</sup>) sets up a European framework facilitating the development of social investment funds, which aims to scale up the impact of national initiatives by opening single market opportunities to social enterprises.

Alongside SMEs and the social economy, other parts of the economy are vital for restoring growth. This is for example the case of long-term investments such as in the infrastructure sector. The large amounts of capital needed to realise infrastructure projects require the largest possible pool of investors that can only be reached at the level of the EU. The possibility to raise capital throughout the EU to be invested in long-term projects is key for facilitating the financing of such long-term projects. Allowing fund managers to fully benefit from the single market opportunities in order to boost investments was therefore one of the core objectives of the **European Long-term investment Funds (ELTIFs)** proposal. This proposal (July 2013<sup>212</sup>) introduces a new investment fund framework designed for investors who want to put money into companies and projects for the long term. It aims at opening new sources of financing to long term projects and private companies.

#### **4.7 INTEGRITY OF FINANCIAL MARKETS AND CONSUMER AND INVESTOR CONFIDENCE**

In addition to enhancing the stability of the financial system, the financial reform agenda comprises a number of measures to enhance the integrity of financial markets. This includes the measures to counter market abuse (section 4.7.1) as well as a broad set of provisions to enhance the protection and confidence of (retail) consumers and investors in financial markets (section 4.7.2). The reforms also include important measures to address shortcomings in the credit rating process (4.7.3) and the measures to enhance the reliability of financial information (section 4.7.4 covers accounting standards and 4.7.5 audit market reforms).

Furthermore, in February 2013 the Commission adopted a proposal for a Directive to update the legislative framework for the prevention of the use of the financial system

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<sup>211</sup> Regulation (EU) No 346/2013 of the European Parliament and of the Council of 17 April 2013 on European social entrepreneurship funds.

<sup>212</sup> COM (2013) 462.

for the purpose of money laundering and terrorist financing.<sup>213</sup> The overarching objective for the revision of the anti-money laundering (AML) framework is to protect the financial system and the single market from abuse by criminals seeking to launder illicit proceeds, or from terrorists seeking to fund terrorist activities or groups. These measures contribute to protecting the soundness, proper functioning and integrity of the financial system, but are not further discussed in this report.

#### **4.7.1 Countering market abuse**

Regulatory reform was needed to counter abuse more effectively, which include insider dealing and market manipulation. Insider dealing consists of a person trading in financial instruments when in possession of price-sensitive inside information in relation to those instruments. Market manipulation occurs when a person artificially manipulates the prices of financial instruments through practices such as the spreading of false information or rumours and conducting trades in related instruments.

Recent developments in financial markets have significantly increased the possibility to manipulate these markets, for example on new trading platforms or using automated trading and high-frequency trading technologies. At the same time, national authorities often lack effective sanctioning powers, and in some EU countries, criminal sanctions are not even available for certain insider dealing and market manipulation offences.

Based on the total market turnover of equity markets, total market abuse has been estimated at EUR 13 billion per year.<sup>214</sup> In addition to these costs, market abuse undermines market integrity and investor confidence, with further potential repercussions for financial stability.

For example, if the misuse of inside information is not sanctioned, investors will lose confidence in the market and they will be willing to pay less for financial instruments. Companies with the reputation of insiders misusing their information will see their share prices fall and their cost of raising capital increase. Investor confidence in these companies will also drop. Considering that confidence losses quickly spill over, investors may withdraw from the wider market, driving up the cost of capital for other companies, which ultimately damage the prosperity of the economy.<sup>215</sup>

Since the start of the crisis, several high-profile cases of manipulation of financial benchmarks involving many of the largest EU banks resulted in record fines of several billion euros for these wrong-doings. Perhaps the most prominent example is that of the manipulation of interbank rate benchmarks (LIBOR and EURIBOR), which serve as reference rates for enormous volumes of contracts, including consumer loans and home mortgages. For example, an estimated EUR 500 trillion worth

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<sup>213</sup> COM(2013) 45 final.

<sup>214</sup> Capital Markets CRC Limited, Enumerating the cost of insider trading, unpublished, 2010, p. 8. These estimates are extracted from section 6.8 and annex 12 of the impact assessment on the MAR/CSMAD proposals:

[http://ec.europa.eu/internal\\_market/securities/docs/abuse/SEC\\_2011\\_1217\\_en.pdf](http://ec.europa.eu/internal_market/securities/docs/abuse/SEC_2011_1217_en.pdf)

<sup>215</sup> Example on the effect of insider dealing on capital markets from FMA: <http://www.fma.gv.at/en/companies/stock-exchange-securities-trading/special-topics/insider-dealing-effects-on-the-capital-market.html>

contracts are referenced to LIBOR and EURIBOR globally, including about 40 % of household loans in the euro area which are based on variable rates (see Box 4.7.1). Since June 2012, when the investigations started, a number of banks have been found liable for rate-rigging and settled for record amounts of fines. Moreover, criminal charges are being brought against the relevant traders.<sup>216</sup> There are also ongoing investigations by the European Commission into the potential manipulation of commodity price assessments for oil and biofuels used to reference the prices of spot contracts and to clear derivative contracts in the markets for these commodities.<sup>217</sup> Another case of potential manipulation became apparent in summer 2013, this time involving the alleged manipulation of foreign exchange (FX) rates, and already led to a series of staff being placed on leave or suspended at many of the global banks that dominate the FX market. There are also recent allegations of manipulation of the London gold fix, which according to an academic research paper could have been manipulated during the last decade.<sup>218</sup>

### **New EU measures to counter market abuse**

The Commission proposed a new regulation on market abuse and a directive on criminal sanctions for market abuse in October 2011 (MAR/CSMAD<sup>219</sup>). The objective is to ensure that regulation keeps pace with market developments, to strengthen the fight against market abuse across commodity and related derivative markets, and to reinforce the investigative and sanctioning powers of regulators. Following the uncovering of the manipulation of LIBOR, EURIBOR and other financial benchmarks, the Commission modified these proposals to make the manipulation of benchmarks a prohibited and criminal activity under the market abuse regime in July 2012<sup>220</sup>. A political agreement on both these proposals was reached by the European Parliament and the Council in December 2013. The files were approved by the European Parliament in September 2013 and February 2014, and formally adopted by the Council in April 2014.

In response to the cases of benchmark manipulation, the Commission further adopted a proposal for a regulation on benchmarks which aims to enhance the robustness and reliability of financial benchmarks, facilitate the prevention and detection of their manipulation and improve their supervision<sup>221</sup>. This proposal reflects the standards for benchmark setting agreed at international level by the IOSCO members and endorsed by the FSB and the G20.<sup>222</sup>

<sup>216</sup> Charges against individual traders have been brought up in the UK and the Netherlands among other jurisdictions: <http://www.bbc.com/news/business-18671255>, <http://www.ft.com/intl/cms/s/0/8d1e0978-7c94-11e3-b514-00144feabdc0.html#axzz2uFNHGmoX>

<sup>217</sup> There is an ongoing investigation by the European Commission services into a possible cartel in relation to the alleged submission of distorted prices by contributors to some of Platts oil and biofuels products published prices in order to manipulate those. See [http://europa.eu/rapid/press-release\\_MEMO-13-435\\_en.htm](http://europa.eu/rapid/press-release_MEMO-13-435_en.htm)

<sup>218</sup> See <http://www.bloomberg.com/news/2014-02-28/gold-fix-study-shows-signs-of-decade-of-bank-manipulation.html>

<sup>219</sup> COM(2011) 651 and COM(2011) 654.

<sup>220</sup> COM(2012) 421 and COM(2012) 420.

<sup>221</sup> COM/2013/0641.

<sup>222</sup> IOSCO Principles for Financial Benchmarks: <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD415.pdf>

In addition, commodity markets have become increasingly global and interconnected with derivative markets, leading to new possibilities for cross-border and cross-market abuse. The scope of the existing market abuse regulation has therefore been extended to market abuse occurring across both commodity and related derivative markets. It clarifies that such market abuse is prohibited, and reinforces cooperation between financial and commodity regulators.

Taken together, the reform measures will strengthen the fight against abusive market practices and reinforce sanctioning powers against offenders. This will enhance the integrity in financial markets and contribute to greater consumer and investor confidence.

**Box 4.7.1: Investigations against market manipulations**

**Manipulation of LIBOR, Euribor and Tibor (Tokyo interbank offered rate)**

Since June 2012, investigations into the manipulation of major unsecured interbank reference rate benchmarks (IBORs) such as LIBOR, Euribor and Tibor, have been ongoing worldwide. Large financial institutions including Barclays, UBS, RBS, ICAP and Rabobank have been found liable for attempted manipulation of IBORs by the UK, US and Dutch financial authorities and agreed to pay fines totalling around USD 3.7 billion in the settlements so far.<sup>223</sup> The Directorate General for Competition of the European Commission in December 2013 imposed a fine of EUR 1.7 billion on eight financial institutions for participation in illegal cartels in relation to LIBOR and Euribor.<sup>224</sup>

LIBOR, Euribor and Tibor reference returns and payments for enormous volumes of derivative contracts, commercial and personal consumer loans, home mortgages and other transactions (approximately USD 360 trillion financial instruments are priced by reference to LIBOR and up to USD 190 trillion to Euribor).<sup>225</sup> Civil claims against banks involved in the manipulation of these benchmarks are also expected.<sup>226</sup> Certain contributing banks have left the setting panels for these reference rates because continued participation exposes them to reputational and regulatory risk, as well as to large fines.

<sup>223</sup> “On 27 June 2012, the FCA fined Barclays Bank plc £59.5 million for misconduct relating to LIBOR and EURIBOR. On 19 December 2012, the Financial Services Authority (FSA), the FCA’s predecessor, fined UBS AG £160 million for significant failings in relation to LIBOR and EURIBOR, and on 6 February 2013, the FSA fined The Royal Bank of Scotland plc £87.5 million for misconduct relating to LIBOR. On September 2013, the FCA fined ICAP Europe Limited £14 million and on October 2013 it fined Rabobank with £105 million”: <http://www.fca.org.uk/news/the-fca-fines-rabobank-105-million-for-serious-libor-related-misconduct>

“The CFTC has now charged five global financial institutions for LIBOR manipulative schemes, with nearly USD 1.8 billion in penalties imposed by the Commission alone”: <http://www.cftc.gov/PressRoom/PressReleases/pr6752-13>

<sup>224</sup> EC press releases: [http://europa.eu/rapid/press-release\\_SPEECH-13-834\\_en.htm](http://europa.eu/rapid/press-release_SPEECH-13-834_en.htm) and [http://europa.eu/rapid/press-release\\_IP-13-1208\\_en.htm](http://europa.eu/rapid/press-release_IP-13-1208_en.htm)

See also: <http://www.ft.com/intl/cms/s/0/8a6a4b02-463d-11e3-9487-00144feabdc0.html#axzz2khc8HgXB>

<sup>225</sup> Approximately USD 350 trillion of notional swaps and USD 10 trillion of loans are indexed to LIBOR. Measured by the notional value of open interest, the CME Eurodollar contract is the most liquid and largest notional futures contract traded on the CME and in the world. Euribor is used internationally in derivatives contracts, including interest rate swaps and futures contracts. According to the Bank for International Settlements, OTC interest rate derivatives, such as swaps and forward rate agreements (“FRAs”), comprised contracts worth over USD 187 trillion in notional value at the end of 2012:

<http://www.cftc.gov/ucm/groups/public/@lrenforcementactions/documents/legalpleading/enfrabobank102913.pdf>

<sup>226</sup> See, for example, <http://www.ft.com/intl/cms/s/0/eed0cf58-486d-11e3-8237-00144feabdc0.html#axzz2khc8HgXB>

These investigations into the manipulation of IBORs have evidenced the existence of conflicts of interest which combined with the use of discretion and inappropriate governance and controls in the setting of these rates made possible their manipulation. The lack of transparency over the setting process, including of their methodology and input data, and the poor corporate ethics of some contributors were also key factors in their manipulation. For example, it appears that the main motivations behind the attempts to manipulate the benchmark rates were either to avoid signalling to markets credit issues of the relevant financial institution (by contributing unsecured interbank lending rates lower than the actual ones during financial stress periods) or to profit from trades on derivatives referenced to these benchmarks (by manipulating the reference rates prior to settlement). This was facilitated by the lack of governance and controls in place at the relevant banks to manage these conflicts of interest. Also, the benchmark setting process allowed manipulation because of the discretion it gave the contributing banks and the lack of transparency.

Inappropriate governance, controls and transparency over the benchmark setting process by the benchmarks' administrators are determinant factors, as evidenced by the recommendations of the 'ESMA-EBA report on the administration and management of Euribor'<sup>227</sup> and the 'Wheatley Review of LIBOR',<sup>228</sup>.

### **FX investigations**

At least six authorities worldwide, the European Commission, Switzerland's markets regulator Finma and the country's competition authority Weko, the UK's Financial Services Authority, the Department of Justice in the US and the Hong Kong Monetary Authority, are investigating whether traders in some of the world's biggest banks colluded to manipulate benchmark rates in the USD 4 trillion daily foreign exchange market. The investigations are examining areas such as the WM/Reuters FX rates following allegations that banks allegedly attempted to manipulate benchmarks and trade ahead of customers. In view of these serious concerns, the FSB set up a Foreign Exchange Benchmark Group on 14 February which will undertake a review of FX benchmarks and will analyse market practices in relation to their use and the functioning of the FX market<sup>229</sup>.

It appears that FX traders colluded with counterparts to front-run client orders and manipulated the WM/Reuters rates by pushing through trades before and during the 60-second windows when the benchmarks are set. This practice seems to have occurred almost daily over a long period of time<sup>230</sup>. As in the IBOR case, the existence of conflicts of interest (potential for large gains by front running client orders and manipulating the WM/Reuters FX rates) and the inappropriate governance and controls to manage those at contributor level, combined with the exercise of discretion by traders on which orders to place during the benchmarks setting window, may have had a key role in their manipulation.

### **Price assessments for oil and biofuel**

There are also ongoing investigations by the European Commission into the potential manipulation of commodity price assessments for oil and biofuels used to reference the prices of spot contracts and to clear derivative contracts in the markets for these commodities.<sup>231</sup> There are concerns that the companies may have colluded in reporting distorted prices to a price reporting agency to manipulate the published prices for oil and biofuel products. Again, potential conflicts of interest at contributor level are key. The companies reporting prices to PRAs are also the users of their price assessments and they could, for example, profit on trading derivatives for a product (e.g. oil) by colluding to manipulate its price assessment. Thus, the administrators of these benchmarks and their contributors should have effective governance and controls in place to minimise and manage conflicts of interest and to detect potential manipulation attempts.

### **London gold fix**

<sup>227</sup> [http://www.esma.europa.eu/system/files/eba\\_bs\\_2013\\_002\\_annex\\_1.pdf](http://www.esma.europa.eu/system/files/eba_bs_2013_002_annex_1.pdf)

<sup>228</sup> Wheatley Review of Libor: <http://www.fsa.gov.uk/doing/events/wheatley-review-libor>

<sup>229</sup> FX benchmark group by the FSB: [https://www.financialstabilityboard.org/press/pr\\_140213.htm](https://www.financialstabilityboard.org/press/pr_140213.htm)

<sup>230</sup> Please see press report on: <http://ftalphaville.ft.com/2013/06/12/1533132/trading-market-making-speculation-or-manipulation-who-knows-anymore/>

<sup>231</sup> There is an ongoing investigation by the European Commission services into a possible cartel in relation to the alleged submission of distorted prices by contributors to some of Platts oil and biofuels products published prices in order to manipulate those. See [http://europa.eu/rapid/press-release\\_MEMO-13-435\\_en.htm](http://europa.eu/rapid/press-release_MEMO-13-435_en.htm)

The potential manipulation of the London gold fix was exposed by the media already in 2013 and the allegations gained strength in February 2014, following an academic research paper by Professor Rosa Abrantes-Metz, University's Stern School of Business and Albert Metz, managing director at Moody's Investors Service, which has not been published yet.<sup>232</sup> According to this research paper, "unusual trading patterns around 3 p.m. in London, when the so-called afternoon fix is set on a private conference call between five banks of the biggest gold dealing banks, are a sign of collusive behaviour". The paper also concludes "the structure of the benchmark is certainly conducive to collusion and manipulation, and the empirical data are consistent with price artificiality". The German regulator BAFin launched an investigation into gold-price manipulation already in 2013 and, at the time of writing, the UK Financial Conduct Authority was examining how gold prices were set.<sup>233</sup>

#### 4.7.2 Protecting consumers and retail investors

Failures in adequate financial consumer protection can be considered to be both triggers and magnifiers of the financial crisis:<sup>234</sup> practices, such as abusive loan origination, mis-selling, conflicts of interest, inadequate complaints handling, transfer of foreign currency risk, and exploiting the vague and complex terms and conditions of contracts all have increased the level of indebtedness of households.

Many households accumulated risks that they were not aware of or did not understand in the run up to the crisis. When the crisis unfolded these factors could only amplify the consequences. The financial crisis has had massive direct and indirect implications for EU households (see chapter 3), including in their role as taxpayers involved in bail-out processes but as well via its impact on growth, employment, earnings, disposable income, public finances, the provision of public services, both expected public and private pensions, savings rations and financial and non-financial wealth.

In countries where there were real estate bubbles before the crisis and where greater quantities of debt were built up in the run up to the crisis, many households ended up with negative equity. Also, in some Member States, particular consumer credit problems were created by the availability of erstwhile 'cheap' foreign currency loans. Due to exchange rate effects, many consumers ended up in a debt spiral with significant personal consequences.

Increased levels of household indebtedness are a particular policy concern.<sup>235</sup> EU-SILC survey data shows that, in 2011 and across the EU area as a whole, one in almost nine households (11.4 %) were in arrears with payments on rent/mortgage, utility bills or hire-purchase/loan agreements. These averages conceal a wide variation in the levels and nature of the financial difficulties being faced by households in individual countries.

Concerns do not just apply in relation to consumer debt, but also in relation to other financial products. The financial crisis has shown that the consequences of taking unexpected risks and facing consequent losses can be devastating for consumers, also because investments in financial products often form the backbone of a consumer's life savings.

<sup>232</sup> See <http://www.bloomberg.com/news/2014-02-28/gold-fix-study-shows-signs-of-decade-of-bank-manipulation.html>

<sup>233</sup> See FT press report at <http://www.ft.com/intl/cms/s/0/081b5a80-a90a-11e3-9b71-00144feab7de.html?siteedition=intl#axzz2wEL0IZMr>

<sup>234</sup> See Melecky and Rutledge (2011).

<sup>235</sup> <http://www.bristol.ac.uk/geography/research/pfrc/news/pfrc1301.pdf>

A study trying to assess the EU-wide scale of mis-selling concluded that around 60 % of sales in a mystery shopping exercise across all EU markets might be deemed 'unsuitable'.<sup>236</sup> The study identified problems linked to non-compliance with existing point of sale rules and also noticed that a significant proportion of advice focused on products that are less regulated at the point of sale, indicating a possible form of regulatory arbitrage. The study found further problems with the disclosures concerning the products recommended to clients.

A national markets survey by the Joint Committee of the European Supervisory Authorities highlighted **numerous problems arising from the selling of complex products** with potentially volatile outcomes to retail consumers.<sup>237</sup> In addition to earlier large-scale mis-selling episodes such as the mis-selling of Payment Protection Insurance (PPI) in the UK, with remediation costs amounting to some EUR 15 billion, Table 4.7.1 below lists cases of actual or suspected mis-selling to retail customers across a wide range of countries.

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<sup>236</sup> SWD(2012) 187

<sup>237</sup> See Annex to the Joint Committee of the European Supervisory Authorities (2013), "Joint Position of the European Supervisory Authorities on Manufacturers' Product Oversight & Governance Processes", 28 November 2013.

Table 4.7.1 **Retail mis-selling of financial products across the EU**

| TYPE OF PRODUCT                                                                                                                                                                                                                                                                | COUNTRY                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| Highly (and increasingly) complex products, such as structured products                                                                                                                                                                                                        | Belgium, Denmark, Estonia, Germany, Italy, Latvia, Spain |
| Complex hedging products designed to protect borrowers on flexible rate mortgages                                                                                                                                                                                              | Latvia, Spain                                            |
| Self-certified and interest only mortgages                                                                                                                                                                                                                                     | UK                                                       |
| Mortgage insurance products                                                                                                                                                                                                                                                    | Poland                                                   |
| Loans to individuals that are exposed to exchange rate risks, the extent of which is often unknown to the consumer                                                                                                                                                             | France, Hungary                                          |
| Unregulated collective investment schemes, which invest in assets that are not always traded in established markets, are therefore difficult to value, may be highly illiquid, and have risks to capital that are generally opaque                                             | UK, Germany                                              |
| Units in funds based on hedging strategies                                                                                                                                                                                                                                     | Belgium                                                  |
| Product wrapping which prevents consumers from comparing features, prices and charges and thus from making well-informed investment decisions                                                                                                                                  | Finland                                                  |
| Banks placing financial instruments such as hybrid products with their own retail clients, where the risks were in some cases not disclosed or sufficiently explained and some consumers claim that they were given the impression that the investment was a protected deposit | Spain, UK                                                |
| Insurance products linked to complex underlying structures                                                                                                                                                                                                                     | France                                                   |
| Expensive and opaque unit-linked insurance and pension products                                                                                                                                                                                                                | Netherlands                                              |

Source: KPMG (2014) based on Joint Committee of the European Supervisory Authorities (2013).

In addition, some banks may have mis-sold interest rate swaps to SMEs and municipalities in the UK, Germany and Italy. Box 4.7.2 provides some further evidence of cases of mis-selling and irresponsible lending in select EU Member States.

There are **multiple causes for these failings**,<sup>238</sup> including: organisational culture; revenue push at clients' expense; ineffective governance and controls; poorly designed processes; inadequate training; and underinvestment in IT systems. These failings have resulted in large costs for many financial institutions, including: fines; redress costs and settlement payments; investment in staff, systems and other resources; and reputational damage (see also chapter 6).

<sup>238</sup> See also KPMG (2014).

**Box 4.7.2: Examples of mis-counselling, mis-selling and irresponsible lending and borrowing**

The UK has experienced large scale mis-selling of Payment Protection Insurance products by some of the country's largest banks. The resultant regulatory action has led to a substantial compensation scheme amounting to more than £13 billion (as of January 2014).<sup>239</sup>

In the UK, non-income verified (NIV) mortgages, designed initially to meet the needs of the self-employed, propagated well beyond this initial target group. By the time the mortgage market reached its height in 2006-2007, 45 % of all mortgages were advanced on a NIV basis<sup>240</sup>. According to the discussion paper of the FSA, no other country assessed by them for comparative purposes featured a similarly significant NIV market segment, with the exception of the USA and Ireland, both of which have experienced a boom in mortgage credit and house prices followed by a severe reduction in both.

According to Bloomberg<sup>241</sup> in Spain the mis-selling of higher-yielding securities to customers used to low-risk bank deposits affected as many as 686,296 retail investors holding about EUR 22.5 billion of preferred shares sold by banks as of May 2011, according to Spain's stock market regulator CNMV. Preferred shareholders, unlike depositors, are not insured against losses, which materialized with the MoU requisite of burden sharing measures from hybrid capital holders and subordinated debt holders for banks receiving public capital.

Forex loans are related to a variety of macro risks: increased probability of credit booms, elevated credit and funding risks, impediments to monetary policy and enhanced potential for cross-border spill overs<sup>242</sup>. In addition, it implies a transfer of currency risk from banks to its consumers. In 2012, in Bulgaria, Hungary, Latvia, Lithuania and Romania 60 % or above of loans to non-financial corporations were extended in, or indexed to, foreign currencies.

Miscounseling scandals in Germany on certain financial products (e.g. 'open-ended real estate funds' and 'PRIIPS') have been estimated to result in EUR 30 billion of losses per year for consumers.<sup>243</sup> In the area of insurance, losses in relation to life and pension insurance products sold in Germany have been quantified to amount to EUR 160 billion during the last decade<sup>244</sup>.

Denmark has experienced cases of large scale mis-selling to inexperienced and risk-averse retail investors of highly complex structured products, and of units in funds based on hedging strategies. Belgium as well as Finland have identified issues with the increasing complexity of products, such as structured products in Belgium or product wrapping in Finland, which prevents consumers from comparing features, prices and charges and, thus, from making well-informed investment decisions.<sup>245</sup>

Consumers of financial services suffer from severe informational problems. Most consumers find financial products complex. Many financial decisions require making inter-temporal trade-offs and also require assessing risk and uncertainty. Decisions are further complicated by the fact that it is difficult to learn about financial products, also because some of the financial decisions are made infrequently (e.g. taking out a mortgage to buy a house). This makes the general case for policymakers to intervene to protect consumers.

<sup>239</sup> <http://www.fca.org.uk/consumers/financial-services-products/insurance/payment-protection-insurance/ppi-compensation-refunds>

<sup>240</sup> [http://www.fsa.gov.uk/pubs/discussion/dp09\\_03.pdf](http://www.fsa.gov.uk/pubs/discussion/dp09_03.pdf)

<sup>241</sup> <http://www.bloomberg.com/news/2012-07-11/spanish-bank-bailout-means-forcing-losses-on-cooks-pensioners.html>

<sup>242</sup> Macro-prudential Commentaries, Lending in foreign currencies as a systemic risk. Piotr J. Szpunar and Adam Głogowski, ESRB, December 2012.

<sup>243</sup> Germany's public TV channel ZDF, ZDF 'Zoom', 30.1.2013.: <http://www.zdf.de/ZDFzoom/Beraten-und-Verkauft-26321688.html>

<sup>244</sup> [http://www.vzhh.de/versicherungen/151189/Oehler\\_Studie\\_Paper.pdf](http://www.vzhh.de/versicherungen/151189/Oehler_Studie_Paper.pdf)

<sup>245</sup> These and other cases are listed in Annex to the Joint Position of the European Supervisory Authorities on Manufacturers' Product Oversight & Governance Processes, 28 November 2013.

## **Reform measures to enhance consumer and retail investor protection<sup>246</sup>**

The most efficient consumer protection comes from the prevention of occurrence of excesses, similar to those, which had been experienced in the run up of the last crisis. Thus, the new EU regulatory framework developed in response to the crisis focusses on enhancing the stability of the financial system, e.g. through measures on solvency, liquidity and risk-management practices, resolution and crisis management, and on improved transparency in financial markets, and thus has comparatively few consumer-specific regulations. Put differently, many of the rules discussed in the previous sections to improve stability in the system also inherently benefit consumers (e.g. higher solvency rules and better risk management procedures reduce the risk of losses to the customers of financial services). So do the rules countering market abuse and enhancing the reliability of financial benchmarks.

However, important legislation that specifically targets improved (retail) consumer and investor protection have also been proposed or already adopted and will enter into force progressively. In addition, the existing general framework protecting consumers unfair commercial practices acts as a safety for consumers purchasing financial services. The Unfair Commercial Practices Directive (2005/29/EC) prohibits misleading and aggressive practices when marketing financial products. The recent Communication and Report on the application of the Directive concluded that there was a need to step up its enforcement in certain sectors, including in particular financial services.<sup>247</sup>

Moreover, as part of the establishment of the ESAs, prominence was given to consumer protection: the three ESAs are also tasked with enhancing consumer protection in the EU.

Since most of the sector-specific legislation is not yet in force, it is too early to observe any benefits in the market. However, the potential benefits in the form of reduced consumer harm from mis-selling and other misconduct are large. The measures, discussed in more detail below, are expected to contribute to improved market outcomes for consumers, leading to wider benefits in terms of increased consumer confidence.

The Commission is an active contributor to the different international workstreams. Work in the field of consumer protection is based on the principles endorsed by the G20, although the Commission's approach is more targeted and prescriptive.

The importance and the relevance of adequate consumer protection have been recognised by the G20: Finance Ministers and Central Bank Governors called in February 2011 the OECD, the FSB and other relevant international organisations to develop common principles on consumer protection in the field of financial services. The adopted principles relate to: legal, regulatory and supervisory framework; role of

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<sup>246</sup> The following only includes the legislative measures adopted or proposed as at end 2013 and does not capture the more recent developments in the area of private pensions: on 27 March 2014, the Commission adopted a proposal to revise the existing 2003 Directive on Occupational Pension Funds (also known as Institutions for Occupational Retirement Provision or IORPs). The Commission conducted also in 2013 preparatory work for a possible legislative initiative on personal pensions.

<sup>247</sup> Communication "On the application of the Unfair Commercial Practices Directive – Achieving a high level of consumer protection – Building trust in the Internal market" of 14 March 2013 (COM(2013) 138 final), accompanied by a Report (COM(2013) 139 final).

oversight bodies; equitable and fair treatment of consumers; disclosure and transparency; financial education and awareness; responsible business conduct of financial services providers and authorised agents; protection of consumer assets against fraud and misuse; protection of consumer data and privacy; complaints handling and redress; and competition.

A new international organisation of financial consumer protection supervisory authorities was also established in November 2013. The new organisation (to be known as FinCoNet) replaces the informal network of supervisory authorities which has existed for a number of years and builds on the work already started by that network. FinCoNet will focus on banking and credit consumer protection issues and intends to collaborate with other international bodies and contribute to advancing the G20's financial consumer protection agenda.

### ***More responsible lending: The Mortgage Credit Directive***

The Directive on credit agreements relating to residential property (also known as Mortgage Credit Directive – MCD), which was published on 28 February<sup>248</sup>, seeks to enhance responsible mortgage lending. Member States will have until March 2016 to transpose the Directive into national law.

#### ***Problems in the market***

Two thirds of bank loans in the EU are mortgage loans. Yet, as the recent crisis has shown, property markets are prone to booms and busts. The financial crisis was partly triggered by lax property lending practices in the US. Some EU Member States experienced housing booms and busts, with consequences for the countries' financial solvability. An important problem identified in the impact assessment was inadequate creditworthiness assessments.<sup>249</sup> To prevent a repetition, it is of utmost importance to ensure that responsible lending practices are applied consistently across the EU. Consumers have, for instance, been found to overestimate their income or underestimate their commitments in up to 70 % of mortgage applications.

The impact assessment also identified a series of problems linked to the provision of information to consumers. It demonstrated that the information consumers receive in the context of a credit agreement negotiation is often considered 'insufficient, untimely, complex, non-comparable and unclear', that advertising and marketing are often non-comparable, unbalanced, incomplete and unclear and that inappropriate advice may have been given to consumers, while the purchase of a property (often financed by mortgage credits) is likely to be the most important financial decision a consumer takes during his or her lifetime.<sup>250</sup>

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<sup>248</sup> Directive 2014/17/EU of the European Parliament and of the Council of 4 February 2014 on credit agreements for consumers relating to residential immovable property and amending Directives 2008/48/EC and 2013/36/EU and Regulation (EU) No 1093/2010.

<sup>249</sup> For details, see impact assessment, SEC(2011) 356.

<sup>250</sup> The impact assessment also showed that ineffective, inconsistent or non-existent admission and supervision regimes for credit intermediaries and non-credit institutions providing mortgage credits had the potential to create an uncompetitive environment and limited cross-border activity. This results in a situation where consumers are therefore likely not to always obtain the best/cheapest credit agreement offers.

### *Summary of the MCD measures*

To ensure responsible lending practices, the Directive establishes for the first time EU-wide creditworthiness assessment standards for the granting of mortgage credits. Creditors will have to conduct a thorough assessment of the ability for the consumer to repay the loan before granting any credit. Such assessment will need to be documented and based on relevant sources. In addition, the creditor will only make the credit available to the consumer where the results of the creditworthiness assessment indicates that the obligations resulting from the credit agreement are likely to be met in the manner required under that agreement.

Regarding information to consumers, the Directive enhances transparency of offers as creditors will be obliged to inform consumers via a European standardised information sheet (ESIS) of all relevant characteristics of the credit on offer at pre-contractual stage, including inherent credit risks, e.g. those attached to variable interest rates or foreign currency loans. Consumers will be able to compare offers and shop around for the most suitable offer on the market. Specific provisions on advertising, adequate explanations and standards for advisory services are also introduced by the Directive to ensure proper information to the consumer. In addition, staff dealing with clients will need to possess appropriate knowledge and competences and creditors and credit intermediaries will have to respect conduct of business rules e.g. on remuneration.

The measures in the MCD are also a first step towards the creation of a genuine single European mortgage market. Credit intermediaries that comply with the minimum standards will benefit from the passport and can thus easily branch out into other Member States. Access to credit register data across borders is also facilitated for all creditors. Such measures are likely to increase the availability of cross-border credit products and will lead to heightened competition, which benefit consumers.

### ***Enhanced deposit guarantee: Review of the DGS Directive***

A Deposit Guarantee Scheme (DGS) acts as a safety net for bank account holders in case of bank failures. If a bank is closed down or is unable to repay depositors due to a deteriorated financial situation, depositors are entitled to compensation by the scheme up to a certain coverage level. A 1994 Directive<sup>251</sup> ensured that all EU Member States have Deposit Guarantee Schemes in place and imposed a minimum coverage level of EUR 20 000 per depositor and per bank.

However, when the 2008 crisis started the existing EU system of Deposit Guarantee Schemes revealed itself to be fragmented. Member States applied different coverage levels which limited the benefits of the internal market for banks and depositors and could aggravate the situation in times of stress. Moreover, schemes were heterogeneously financed and proved to be underfunded. In order to restore confidence in the financial sector, in March 2009 the EU quickly reacted by amending the 1994 Directive to increase the minimum coverage level from EUR 20 000 to EUR 100 000.

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<sup>251</sup> Directive 94/19/EC of the European Parliament and of the Council of 30 May 1994 on deposit-guarantee schemes.

In order to complete the work, on 12 July 2010 the Commission proposed a more comprehensive recast of the 1994 Directive<sup>252</sup>. The proposal was approved at the April 2014 European Parliament plenary session, following the political agreement between the co-legislators in December 2013.

### *Problems with current arrangements*

No bank, whether sound or ailing, holds enough liquid funds to redeem all or a significant share of its deposits on the spot. This is why banks are susceptible to the risk of bank runs if depositors believe that their deposits are not safe and try to withdraw them all at the same time, which can seriously affect the whole economy. If, despite the high level of prudential regulation and supervision, a bank has to be closed, the relevant DGS reimburses depositors up to a certain ceiling (the coverage level). Currently there are around 40 DGSs in the EU, but these are characterised by a number of problems that reduce the effective extent of depositor protection<sup>253</sup>:

- The scope of protection differs between countries (e.g. in terms of covered products and eligibility).
- There can be delays in payout procedures, which could undermine the essential purpose of the DGS: depositors might run on banks before the DGS is triggered rather than wait for it to make the pay-outs if the statutory delay is too long.
- Funding is often inadequate: a DGS needs adequate financing in order to be credible and effective in its function. As noted above, the crisis fully revealed the lack of adequacy both in the prominent case of Iceland and in the failure by Member States to allocate additional resources to their DGSs even when mandating unlimited coverage.
- There are differences in the involvement of the DGS in bank resolution operations where, instead of liquidating a bank and paying out depositors, there is an orderly winding up and continuous access is ensured, for example by transferring deposits to a bridge bank or a private purchaser (see also section 4.2.5).
- There is no European framework for cross-border cooperation: currently, the DGS Directive foresees that depositors at branches of EU banks are covered by the home-country DGS. This can prove cumbersome for depositors of branches of a bank from another EU Member State.

### *Summary of the measures*

The amendments to the DGS Directive encompass a number of key consumer protection measures:

- The coverage level is fixed at EUR 100 000, as already introduced in 2009. Also, the scope of protection is harmonised.

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<sup>252</sup> COM/2010/0368.

<sup>253</sup> For details, see impact assessment, SEC(2010) 834.

- The pay-out deadline is to be reduced gradually from the current 20 working days to seven working days in 2024, without depositors having to submit an application.
- Financing of the DGS is enhanced, by introducing risk-based ex-ante contributions from banks, with ex-post contributions in case of shortfall. Voluntary mutual lending between DGSs is introduced, together with the possibility of alternative funding arrangements.
- Additional measures are taken to improve the cross-border operations of the DGS and facilitate access to deposit guarantee in the case of depositors holding deposits in branches of banks from other EU Member States.

Together, these measures are expected to better protect depositors' wealth and strengthen their confidence in banks. This in turn also helps reduce the risk of bank runs and thereby enhances stability in the banking sector (i.e. it complements the measures discussed in section 4.2).

### ***Enhanced retail investor compensation: Review of the Investor Compensation Directive***

Investor Compensation Schemes (ICS) are currently established in all EU Member States under the 1997 Directive on ICS<sup>254</sup>. The schemes are designed to protect investors where firms or employees have committed fraud or made operational mistakes which cause client assets to be lost and the firm is unable to pay compensation. They are financed by investment firms, but the method of financing is left to Member States' discretion. The schemes must cover at least EUR 20 000 per investor and pay-outs must be made within three months of the establishment of the eligibility and amount of the claim.

#### *Problems with current arrangements*

Notwithstanding this framework, a number of frauds in Member States have resulted in important losses to small investors.<sup>255</sup> In particular, the compensation minimum threshold of EUR 20 000 was never adjusted to reflect the increased exposure of European investors to financial instruments; furthermore, there have been some cases in which the ICS had insufficient funds to pay claims, or pay-out delays proved too long; finally, the treatment of investors needed to limit distortions with respect to deposits, which are covered up to EUR 100 000 under the DGS Directive.

#### *Summary of the measures*

In July 2010, the Commission adopted a proposal amending the existing ICS Directive<sup>256</sup> to:

- Update the level of coverage from the EUR 20 000 minimum to a harmonised level of EUR 50 000;

<sup>254</sup> Directive 97/9/EC of the European Parliament and of the Council of 3 March 1997 on investor-compensation schemes.

<sup>255</sup> See impact assessment, SEC(2010) 845.

<sup>256</sup> COM(2010) 371.

- Extend the scope of protection to losses due to the behaviour of third party custodians which hold assets and funds on behalf of investment firms, and to depositaries and sub-custodians of unit holders in collective investment schemes;
- Reduce pay-out delays by requiring that ICS pay partial compensation based on an initial (provisional) assessment of the claim if the pay-out delay exceeds 9 months; and
- Enhance scheme financing by mandating ex-ante funding and introducing a limited last-resort mechanism whereby national schemes can borrow from schemes in other Member States under strict conditions.

Taken together, these measures are expected to enhance the level of retail investor protection afforded by ICS and thereby strengthen consumer confidence in financial markets.

***Better retail investor protection: Revision of the Markets in Financial Instruments Directive (MiFID II)***

Enhancing consumer protection in investment services is one of the main objectives of the current MiFID (see also section 4.3.1).<sup>257</sup> Hence, it includes specific requirements to increase levels of protection for retail clients, mainly related to: preventing and managing conflicts of interests; safeguarding client assets and client reporting; acting in the best interest of the client and providing fair and clear information; and carrying out suitability or appropriateness tests. This is in addition to other requirements under MiFID such as those for authorisation and effective supervision, transparency and competition which also have a positive impact on consumer protection. However, those requirements have been reinforced and enhanced under MiFID II to address certain issues in investment services which are not sufficiently or effectively addressed by the current MiFID.

*Problems in the market*

The financial crisis has shown that the consequences of taking unexpected risks and facing consequent losses can be devastating for consumers, as often investments form the backbone of a consumer's life savings. Weak governance and controls combined with the existence of conflicts of interest and inappropriate incentives in the investment services sector have been exposed by recent cases of mis-counselling and mis-selling of financial products (see table 4.7.1), which have greatly undermined confidence in financial markets.

Besides, insufficient product transparency and asymmetries of information for financial products often lead to ordinary investors having great difficulties in comprehending and using the information provided, as disclosures given are often overly complex, obscure, lengthy and difficult to use. Given an EU retail investment

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<sup>257</sup> The current MiFID was transposed in November 2007 and provides harmonised regulation for investment services in the EU. Its main objectives are increase competition and consumer protection in investment services: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32004L0039:EN:NOT>

market with a value of up to EUR 10 trillion, buying wrong or unsuitable products can quickly become a major problem.

The evidence above shows that the consumer protection regime under MiFID did not effectively prevent cases of mis-selling, mis-counselling and insufficient product transparency.

The following problems have been identified:<sup>258</sup>

- Uneven coverage of service providers and uncertainty around execution-only services: currently investment firms providing certain services only at national level may be exempted from the requirements under MiFID provided that they are subject to national rules. Issuance of financial instruments is not covered by MiFID. Also, financial products classified as non-complex under MiFID are allowed to be sold without undergoing any assessment of the appropriateness of the given product.
- Lack of clarity and of strict requirements on the provision of investment advice: under MiFID, intermediaries providing investment advice are not expressly required to explain the basis on which they provide advice (e.g. the range of products they consider and assess). Thus, there is a lack of clarity concerning the kind of service provided, and requirements are often not adapted to the provision of that specific service by the intermediary, including those on governance and management of conflicts of interest. One study indicates that, at present, investment advice is unsuitable roughly half of the time.<sup>259</sup>
- Not clearly articulated framework for inducements: the MiFID rules for incentives from third parties require inducements to be disclosed and to be designed to enhance the quality of the service to the client. However, these requirements have not always proven to be very clear or well-articulated for investors, and their application has created some practical difficulties and concerns.<sup>260</sup>
- Inadequate requirements on advice to non-retail clients: in MiFID, the level of investor protection decreases from retail clients to professional and eligible counterparties, the underlying principle being that larger entities have access to more information and benefit from higher expertise. The financial crisis showed that in practice a number of non-retail investors, notably local authorities, municipalities and corporate clients, suffered losses due to being mis-sold complex financial instruments the risks of which they did not fully understand.

These issues may lead to the current MiFID framework for investor protection not being effective in preventing consumers being mis-counselled or mis-sold financial products which are not appropriate for them, or making sub-optimal investment choices based on insufficient information with the consequences as explained above.

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<sup>258</sup> See the impact assessment, SEC(2011) 1226 final.

<sup>259</sup> Synovate (2011), "Final Report, prepared for: European Commission, Directorate-General Health and Consumer Protection", recently assessed the quality of advice across the EU based on a mystery shopping exercise. Weaknesses emerged in the ability of advisors across the EU to recommend suitable products to investors. Another study by Decision Technology Ltd, N Chater, S Huck, R Inderst (2010), "Consumer Decision-Making in Retail Investment Services: A Behavioural Economics Perspective", Final Report, November, sought behavioural economics insights on different factors relevant to investor decision making.

<sup>260</sup> Responses to Questions 15-18 and 20-25 of the European Commission Request for Additional Information in Relation to the Review of MiFID, CESR/10-860, 29 July 2010, p 6

### *Summary of the measures*

In addition to the measures already discussed in section 4.3.1 to strengthen financial markets and infrastructures, the revised MiFID package (MiFID II<sup>261</sup>) contains a number of specific measures to enhance consumer and investor protection. In particular, MiFID II introduces better organisational requirements in order to enhance governance and controls in relation to consumer protection, such as an increased role of management bodies in this area, enhanced client asset protection and standards for product governance so that product manufacturers design and document products in a way that better reflects investor needs.

The new regime also provides for strengthened conduct rules for investment firms to prevent and manage conflicts of interest, such as an extended scope for the appropriateness tests and reinforced information to clients. Independent advice is clearly distinguished from non-independent advice, and limitations are imposed on the receipt of commissions (inducements) to align incentives.

The specific problems, as described above, have been addressed as follows:

- The scope of MiFID II has been broadened in order to include financial products, services and entities which are currently not covered (e.g. structured deposits), and the conditions for services where investors receive less protection from firms have been limited.
- Stricter requirements for portfolio management, investment advice and the offer of complex financial products such as structured products have been set and managers' responsibility has been introduced for all investment firms. Besides, advisers declaring themselves as independent will need to match the client's profile and interests against a broad array of products available in the market. Independent advisers and portfolio managers will be prohibited from making or receiving third-party payments or other monetary benefits.
- A stringent framework for inducements has been set up. In order to prevent potential conflicts of interest, independent advisors and portfolio managers will be prohibited from making or receiving third-party payments or other monetary gains.

Information to different categories of clients has been enhanced, particularly when complex products are involved. MiFID II also introduces harmonised powers and conditions for ESMA (and to EBA for structured products) to prohibit or restrict the marketing and distribution of certain financial instruments in well-defined circumstances. MiFID II has been agreed by the co-legislators and was approved by the European Parliament in April 2014. Once it comes in to application in 2016, it is expected that it will enhance consumer and investor protection in financial services and contribute to restoring consumer confidence in financial markets.

### ***Improved distribution and advice on insurance products: Revision of the Insurance Mediation Directive (IMD II)***

Whereas MiFID regulates the selling process in the case of investment services and products, the Insurance Mediation Directive<sup>262</sup> (IMD) aims to enhance distribution

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<sup>261</sup> COM(2011) 656 and COM(2011) 652.

<sup>262</sup> Directive 2002/92/EC of the European Parliament and of the Council of 9 December 2002 on insurance mediation.

and advice in the insurance market, covering all insurance product from general insurance products to those containing investment elements. In July 2012, the Commission proposed a revision of the IMD (IMD II<sup>263</sup>).

### *Problems in the market*

Consumers often are not aware of the risks associated with purchasing insurance. In fact, surveys show that more than 70 % of insurance products are sold without appropriate advice, while accurate professional advice is crucial in the insurance sector.<sup>264</sup>

Due to the fact that current EU legislation does not deal in detail with the sale of insurance products, the rules regulating it differ substantially across the Member States. The rules also currently apply only to insurance intermediaries, leaving out of the scope insurance undertakings that sell directly to customers.

### *Summary of measures*

The current IMD is a minimum harmonisation directive and the practical application of its provisions varies a lot between Member States. Some Member States already apply consumer protection standards that go much further than the requirements in the IMD. The proposed IMD II seeks to raise minimum standards of consumer protection all over Europe.

IMD II also aims at setting similar standards for the sales of insurance products through insurance intermediaries and those sold by insurance undertakings or other market players so as to ensure that similar selling rules apply to everyone that sells insurance products: from insurance agents, brokers and insurance companies to car rentals and travel agents. Moreover, it aims to set more common standards between insurance intermediaries and insurance companies selling life insurance policies with investment elements and intermediaries selling investment products.

IMD II has strong links to consumer protection provisions in other financial services legislation, such as MiFID II (see above),<sup>265</sup> the Mortgage Credit Directive (see above) and the Proposal for a Regulation on Key Information Documents (KIDs)<sup>266</sup> for investment products (see below). IMD II aims at being coherent with those provisions as much as possible.

In summary, the revised IMD contains provisions to ensure that:

- sales standards apply equally to direct sellers (insurance companies) as well as insurance intermediaries (agents, brokers);

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<sup>263</sup> COM(2012) 360.

<sup>264</sup> See impact assessment, SWD (2012) 192 final.

<sup>265</sup> For example, the relevant parts in the MiFID II proposal, which lay down conduct of business and conflict of interest rules for financial instruments, served as a benchmark in drafting the relevant parts in the IMD II proposal. The aim is to limit regulatory arbitrage by having consistent selling rules regardless of whether they are sold by an insurance intermediary, an insurance company, or an investment firm.

<sup>266</sup> COM(2012) 352.

- sales of insurance complementary to the supply of other services are regulated;<sup>267</sup>
- the risk of conflicts of interest are addressed more effectively, including disclosure of remuneration by intermediaries;
- sales standards for advised and non-advised sales are strengthened;
- enhanced requirements apply to life insurance products with investment elements, covering sales standards, conflicts of interest and rules on remuneration;
- a delegated act to be adopted by the Commission is to specify the steps that insurance intermediaries and insurance companies should take in order to prevent conflicts of interest between themselves and their customers (see MiFID II<sup>268</sup>);
- professional qualifications of insurance intermediaries are adequate and their knowledge is regularly updated;
- procedures for the out-of-court settlement of disputes are strengthened and streamlined to the Directive on Alternative Dispute Resolution<sup>269</sup>;
- special information requirements apply where insurance undertakings adopt the practice of tying or bundling products together;
- effective, proportionate and dissuasive administrative sanctions and measures by competent authorities in respect of breaches are applied; and
- supervision of cross-border insurance business is improved.

Although not yet adopted by the co-legislators, it is expected that IMD II, once in force, will enhance consumer protection in the insurance sector by creating common and higher standards for insurance intermediaries and reducing the risks of mis-selling of insurance products.

***Better information for retail investors: Proposal for a Regulation on Key Information Documents (KIDs) for investment products***

The legislative proposal for a regulation on key information documents (KIDs) for investment products was proposed by the Commission in July 2012<sup>270</sup> and was approved at the last plenary of the current Parliament in April 2014, following the political agreement between the EU co-legislators. It forms part of a legislative package aiming to boost consumer confidence by ensuring well-regulated markets in

<sup>267</sup> Less burdensome information, registration and organisational requirements would however apply.

<sup>268</sup> Article 98a

<sup>269</sup> Directive 2013/11/EU of the European Parliament and of the Council of 21 May 2013 on alternative dispute resolution for consumer disputes and amending Regulation (EC) No 2006/2004 and Directive 2009/22/EC (Directive on consumer ADR).

<sup>270</sup> [http://ec.europa.eu/internal\\_market/finances-retail/docs/investment\\_products/20120703-proposal\\_en.pdf](http://ec.europa.eu/internal_market/finances-retail/docs/investment_products/20120703-proposal_en.pdf)

packaged retail and insurance-based investment products (PRIIPs). The PRIIPs initiative is wider than the KIDs regulation and also includes the measures in MiFID and IMD which cover distribution and advice ('selling processes') in relation to investment and insurance products. The KIDs regulation focuses on product transparency.

### *Problems in the market*

There is a great variety of investment products being targeted at retail customers, combining different legal forms often with similar underlying investment propositions. Yet in general terms all of these products seek to address a relatively simple investor need: capital accumulation (in other words, taking on risk so as to have the potential for beating the risk-free rate of return, as may be represented by a pure deposit account).

The complexity of many of the proposed financial products makes these difficult to understand and to compare in particular to retail investors. They are often less financially literate than many professional investors and have few opportunities to learn from experience in retail investment markets as they typically do not engage repeatedly in investment activities, but do so only in relation to certain specific and widely-spaced life events (inheriting money, or investing towards a specific future liability or goal, such as buying a house, retirement or family planning).

The quality of the information provided is also often very low. Disclosures can be difficult to compare, overly long, and over-loaded with legal disclaimers. The basic features of products may be difficult to see, and their risks obscured under difficult to understand detail. Costs are often opaque, so that the real-world performance that might be realistically expected becomes hard to discern.

This is in part a regulatory failure: European and national regulation on product disclosures already applies to most products, yet Union and national law has often developed on a largely sectoral basis, at different speeds and with different outcomes in mind and to different levels of harmonisation. Such a regulatory patchwork can increase administrative costs and potentially encourage regulatory arbitrage, incentivising choices of product structures to take advantage of less onerous requirements.

Lack of good quality information facilitating retail investor understanding and easy comparison of financial products leads to investor detriment through mis-sales, to an unlevel playing field between industry sectors, and to the erection of barriers to the further development of the internal market.

### *Summary of the measure*

The regulation will improve the quality of information that is provided to consumers when considering investments. The new, innovative disclosure document – the Key Information Document (KID) – specifically aims at helping retail investors. The proposal is focused on 'packaged' products – notably all retail investment funds, insurance-based investments (such as unit-linked life and 'with profit' insurance contracts used for savings and investment purposes in many markets), and all retail structured products.

The KID covers the main features of investment products in plain language that is easy to understand to non-professionals. Notably, the information on risks and costs shall be straight-forward, though without over-simplifying complex products. The KID should make clear to every consumer whether or not they could lose money with a certain product.

The KID must be short, to the point and follow a common standard as regards structure, content, and presentation. In this way, consumers will be able to use the document to compare different investment products and ultimately choose the product that best suits their needs. The standardisation of information should also aid consumer education efforts.

Given that this document is to be used for any kind of packaged product notwithstanding the legal wrapping, retail investors will be able to compare products that give them exposure to the same markets via different wrappers and thereby appreciate the different benefits these encompass. For instance an investor wishing to participate in stock markets will be able to more easily compare the advantages and disadvantages of doing so via a UCITS fund, a structured product or insurance-based investment product.

The legislation will ensure that every manufacturer of investment products (e.g. investment fund managers, insurers, banks) will have to produce such a document for each of their investment product. Further the proposal makes sure that the KID is provided to the retail investor in timely manner, so that the investor can make use of it – along with other pre-contractual information documents – to make an informed investment decision.

The KIDs proposal has only recently been agreed upon by the co-legislators (the vote on the agreed text took place in European Parliament in April 2014), so it is too early to assess its use and impact in the market. However, the measure is expected to improve the quality of investor decision-making and reduce the amount of mis-selling of investment products. As set out in more detail in the underlying impact assessment, product information the average retail investor can actually understand and use for comparisons is fundamental for empowering consumers. Given the potential scale of mis-selling of investment products, small changes in investor behaviours and their investment decisions could have a huge impact: even if product disclosure were taken to contribute only 1 % to changes in investor behaviour, it has been estimated that this could still amount to around a EUR 10 billion reduction in holdings of unsuitable products (or EUR 4 billion, if UCITS, already subject to KID requirements, are subtracted).<sup>271</sup>

### ***Better protection of investors in retail investment funds: Amendments to the UCITS Directive***

In July 2012, the Commission presented a proposal to enhance the protection of investors in retail investment funds, referred to as undertakings for collective investment in transferable securities (UCITS)<sup>272</sup>, by amending the UCITS Directive. The UCITS 5 strengthens the rules applying to the funds' depositaries (i.e. the asset-

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<sup>271</sup> See impact assessment, SWD(2012) 187.

<sup>272</sup> COM(2012) 350.

keeping entities of the funds), introduces new rules on the remuneration policies of fund management companies, and strengthens the sanctioning regimes applicable to management companies and depositaries.

### *Problems in the market*

The assets of a UCITS fund are entrusted with a depositary for safe-keeping. However, currently, there is little clarity on the institutions that are eligible to act as a depositary, and different depositary standards can lead to differential levels of investor protection. Moreover, current rules are unclear when it comes to the delegation of the custody function, and there are no rules on due diligence checks and monitoring of the delegate (sub-custodian).

Importantly, the liability in the case of loss is unclear, and liability standards are different in different Member States. The potential consequences of these divergences came to the fore with the Madoff fraud, which hit the headlines in December 2008.<sup>273</sup>

The brokerage operation of Bernard Madoff in the US was revealed as a giant Ponzi scheme resulting in the largest investor fraud ever committed by one individual. Huge sums that were allegedly invested by Bernard Madoff turned out to have vanished with no corresponding securities in Mr Madoff's investment fund.

The consequences of the Madoff scandal are not confined to the US. The issue has been particularly acute in some EU Member States. One particular fund that acted as a 'feeder fund' for Madoff recorded losses of around USD 1.4 billion due to Madoff investments which turned out to be fictitious.<sup>274</sup> In this case, both the management of investments and custody in relation to the assets that belong to the fund were delegated to entities operated by Madoff. The large scale of the Madoff fraud essentially went undetected for a long period because the depositary responsible for the safekeeping of the fund assets delegated custody over these assets to another entity run by Bernard Madoff, the US broker "Bernard Madoff Investment Securities".

The Madoff scandal revealed general uncertainties within the UCITS framework in relation to the depositary's liability in case of delegation of custody to a sub-custodian. While in some Member States, the depositary was immediately liable to return assets in custody as a consequence of fraud at the level of the sub-custodian, in other Member States the situation is less clear and still subject to litigation.

As a separate problem, the financial crisis revealed that the remuneration and incentive schemes of the UCITS managers is, at least partly, based on the short term performance of the fund, which fails to take proper account of the risk in the portfolio. Such remuneration structures create incentives to increase the level of risk in a fund's portfolio in order to increase the potential returns. However, the higher level of risk can expose the fund investors to higher potential losses that might materialize in the medium-term to long-term.

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<sup>273</sup> See impact assessment, SWD(2012) 185

<sup>274</sup> A 'feeder fund' is essentially a vehicle that collects investors' money and then provides these monies to another financial service provider, usually a broker or another fund, so that the latter can design and execute an investment strategy.

Finally, there are significant divergences in sanctioning regimes across the Member States, which also bear consequences for the enforcement of rules and hence for the effective level of investor protection (see also chapter 5.1).

### *Summary of the measures*

The revised UCITS, also approved at the last plenary of the current Parliament in April 2014 following the political agreement between the co-legislators, addresses these problems by ensuring, inter alia, that the depositary's duties and liability are clear and uniform across the EU, that there are clear rules on the remuneration of UCITS managers, and that there is a common approach to sanction regimes. Taken together, the proposed measures will enhance the level of investor protection in UCITS funds.

In relation to the depositary, the proposed harmonised eligibility rules mean that only a credit institution or an investment firm can act as depositary. Also, delegation of functions is only possible under strict conditions and if the delegate satisfies certain minimum prudential, organisational and conduct requirements. Moreover, the depositary is liable to return instruments when they are lost in custody and also remains liable in case of delegation.

In relation to remuneration practices, the measures adopted by the proposal require remuneration policies for all staff that can impact the UCITS fund's risk profile. In addition, remuneration policies and the actual remuneration of relevant staff must be disclosed to investors.

Finally, in relation to sanctions, the proposal introduces minimum rules on type and level of administrative measures and administrative sanctions.

### ***Safer payments: Revision of the Payment Services Directive (PSD II)***

In July 2013, the Commission published a legislative proposal for a revision to the existing Payment Services Directive (PSD II)<sup>275</sup>.

### *Problems in the market*

The way European citizens shop and pay is radically changing. Almost every account holder in the EU possesses a debit payment card and some 40 % also own a credit card. Some 34 % of the EU citizens already shop on the internet (2011 data) and more than 50 % possess a smartphone, which in principle allows them to enter into the world of mobile payments.<sup>276</sup>

It is already possible to purchase almost every good and service online, with some economy sectors – like travel industry – making most of their sales on the internet. Mobile payment services are increasingly offering access not only to the digital content, but to the physical goods, with e.g. mobile ticketing and car parking services roll out across Europe and the terminals allowing for mobile payments being installed in the traditional shops. These changes require certain adjustments to the existing

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<sup>275</sup> COM/2013/0547.

<sup>276</sup> See impact assessment, SWD (2013) 288 final.

legal framework for payments in the EU, so as to increase the security of payment transactions and better protect payments data.

### *Summary of the measures*

With the proposed PSD II, the scope of the existing Directive is extended to cover new types of service providers (third-party payment service providers, TPPs) and new services (payment initiation services) as payment services. These services facilitate the use of online banking and allow for low-cost internet payments outside the framework of credit cards. This should increase consumer choice when paying online. The scope is also extended to payments when either the payer or the payee is located outside the EU, which should contribute in particular to making money remittances to non-EU countries fairer and possibly cheaper, as a result of higher transparency. Furthermore, intra-EU payments in all currencies will be covered, thus better protecting the consumer.

Banks and all other payment service providers, including TPPs, will need to enhance the security of online transactions, and apply strong customer authentication for payments (e.g. use dynamic, one-off transaction confirmation codes). Obligatory risk management rules and incident reporting for security risks is introduced. The EBA is tasked to issue guidelines and draft regulatory standards on the security of payments transactions.

The new Directive will also ensure that consumers are better protected against fraud, possible abuses and payment incidents (e.g. in case of disputed and incorrectly executed payment transactions). They will face only very limited losses – maximum 50 EUR - in cases of unauthorised card payments. Finally, in case of consumers using TPP services, high protection is ensured for private financial data, security rules are established and clear liability for the transaction is ensured.

In addition to increasing payment security, the PSD II is expected to enhance competition in the payments market, in particular by facilitating new entry and reducing market access hurdles, which in turn benefits consumers (see section 4.8).

The proposal was put forward in the so-called “Payments Package”, which also includes the proposal for a regulation on interchange fees for card-based payment transactions (“MIF Regulation”)<sup>277</sup>. Applying surcharges on card payments by merchants will become prohibited for all consumer cards, in accordance with MIF Regulation.<sup>278</sup>

### ***Access to basic bank accounts: The Payment Accounts Directive***

The Directive on Payment Accounts, presented by the Commission in May 2013<sup>279</sup> and approved at the April 2014 plenary session by the European Parliament after agreement between the co-legislators, seeks to enhance access to a payment account with basic features (including the provision of a debit card) for EU consumers

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<sup>277</sup> COM/2013/0550.

<sup>278</sup> The possibility for merchants to surcharge for the use of payment cards (and other means of payment) will be limited already by Article 19 of the Consumer Rights Directive (2011/83/EU), which must be transposed and made applicable in national laws by 13 June 2014.

<sup>279</sup> COM/2013/0266.

regardless of their residence and regardless of their financial situation. It also aims at simpler switching of bank accounts and enhanced transparency of bank fees.

### *Problems in the market*

Full participation in modern society is difficult without payment account. Yet 56 million Europeans over the age of fifteen have for various reasons currently no access to a payment account.<sup>280</sup> A separate problem is the current lack of transparency and comparability of bank fees. Also, price levels for a simple payment account can differ significantly from one Member State to another, varying between EUR 0 and EUR 256, which seems incompatible with a competitive single market in financial services. Consumers currently have difficulties switching bank accounts, both nationally and across border. Moreover, they are often unable to open a payment account when they are not residents of the country in which the provider is located.

### *Summary of the measures*

The Payment Accounts Directive will grant Europe's consumers the right to a basic payment account. This will allow all consumers to make and receive payments, shop online, and pay utility bills (telephone, gas, electricity). Consumers will receive a payment card.. Overdraft may be provided as an optional service if the customer wants it. In this case, a maximum amount and duration of the overdraft may be defined at national level. Member States will have to designate a sufficient number or all credit institutions to offer a basic account on their territory. The basic payment account should either be free of charge or come at a reasonable cost to be determined by Member States. Moreover, all EU consumers will have the possibility to open and use a bank account anywhere in the EU. This is particularly relevant for highly mobile citizens (e.g. students, workers, pensioners, etc.) who aspire to take full advantage of free movement within the single market.<sup>281</sup>

The Directive will also introduce more transparency and comparability in the payment account sector. To allow consumers to more easily compare the types of products and services offered by banks, the Directive will establish the use of standardised terms with respect to the most representative services offered on a payment account. This standardisation will empower consumers to better compare prices for payment account services both locally, nationally and cross-border. The standardisation will also result in heightened consumer choice and new business opportunities for banks in the single market. However, the initiative is not expected to render all products and services uniform. Particular local and national bank products and services to which consumers are accustomed will continue to co-exist. Also, payment service providers will offer to consumers a set of documents, including a price list for relevant products and services, an ex post list of the services used in the course of the year and a glossary, containing all the relevant information on the fees they pay on their

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<sup>280</sup> See impact assessment, SEC 2013/250.

<sup>281</sup> Payment service providers will be able to refuse to open an account, however only if the consumer already has an account in the Member State concerned or fails to comply with the Anti-Money-Laundering due diligence test. Moreover, the directive allows Member States to define specific cases at national level which may justify the refusal of a basic account. These include, for example, abuses of the right to access basic accounts by the consumer. Also, Member States may require that consumers show a genuine interest to open a basic account, provided that such condition does not prejudice the exercise of the consumers' fundamental freedoms guaranteed by the Treaty.

accounts. To further help consumer, the Directive establishes principles to guarantee that comparison websites are available, which contain reliable information on the fees charged by different providers. The website supplier can either be private or public, but needs to be independent. Finally, consumers should be informed about the price of each individual component of a packaged account.

Better comparability would be of no use if the consumer cannot switch easily between payment accounts. Fees do not necessarily constitute the biggest hurdle for changing a payment account. Consumers feel often discouraged to switch accounts due to burdensome administrative procedures and for fear of being held liable for non-executed debit payments. The Directive will therefore establish a streamlined step by step switching process for consumers who switch accounts between two providers located in the same Member State, where responsibilities are shared between the receiving and the current payment service provider. Consumers are guaranteed that their accounts will be switched at national level in a maximum of 12 business days.<sup>282</sup> In addition, consumers who hold a payment account with a provider and want to open another account in a different country will benefit from assistance by the providers to facilitate the process. Any financial loss for the consumer that results directly from delays or mistakes by a payment service provider needs to be made up for by the payment service provider.

Overall, the Directive will, once transposed, ensure that every EU resident has a right to a basic payment account. Consumers will also benefit from a high degree of market transparency of bank fees and from the possibility to switch their payment accounts more easily, including across borders.

#### **4.7.3 Addressing the weaknesses of credit rating agencies**

The financial crisis revealed significant weaknesses in the methods and models used by credit rating agencies (CRAs).<sup>283</sup> In particular, the CRAs failed to sufficiently consider the risks inherent in more complicated financial instruments (notably, structured finance products backed by risky sub-prime mortgages<sup>284</sup>). It is now widely acknowledged that this failure, combined with investors' often "blind" reliance on those ratings,<sup>285</sup> significantly contributed to the crisis. This problem was amplified by

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<sup>282</sup> With the consumer's consent, the remaining positive balance will be transferred to the new account and the previous account will be automatically closed. Any closing fees must comply with the Payments Service Directive (EC/2007/64), but the consumer may however also decide to preserve his or her previous account.

<sup>283</sup> Even before this crisis, CRAs were already coming under close scrutiny, and public authorities were aware of the pivotal role played by CRAs in the financial system. For example, CRAs had been criticised for their slowness to respond to the strains that ultimately gave rise to the Asian crisis in 1997/8, and the high-profile failures of Enron, WorldCom and Parmalat.

<sup>284</sup> By December 2008, structured finance securities accounted for over USD 11 trillion. The lion's share of these securities was highly rated by rating agencies. More than half of the structured finance securities rated by Moody's carried a AAA rating—the highest possible credit rating. In 2007 and 2008, the creditworthiness of structured finance securities deteriorated dramatically; 36 346 tranches rated by Moody's were downgraded. Nearly one-third of downgraded tranches bore the highest "AAA" rating. See Benmelech and Dlugosz (2010).

<sup>285</sup> For example, Adelino (2009) shows that in the case of mortgage-backed securities, investors only considered information published by the ratings agencies for AAA-rated tranches (for lower-rated tranches, proprietary information was also taken into account).

the fact that regulators and supervisors required institutional investors to invest into rated securities.

A number of key underlying problems can be identified as explanations for why the pre-crisis system based on self-regulation by the CRAs themselves failed to work properly: The market is highly concentrated and dominated by three agencies (Fitch, Moody's and S&P), as shown in Table 4.7.2, so there is limited scope for competition on the quality of the ratings produced. There are also misaligned incentives and clear conflicts of interest.

- First, CRAs are paid by the issuers or sellers of the financial instruments, rather than by the buyers who face the lack of information and knowledge. Consequently, the issuer may threaten to shop elsewhere for a better rating, if the CRA does not accommodate to the issuer's expectations. Since CRA revenues are predominantly driven by rating fees paid by issuers, the revenue incentives are such that ratings may be biased upwards so as to meet issuer's expectations and thereby gain or keep its business. Also, CRAs sell multiple and often interdependent products and services. The issuer may hence put additional pressure on the CRA by conditionally promising more business.
- Second, credit rating agency rating changes amplify procyclicality and cause systemic disruptions in some circumstances. This is exacerbated by important overreliance on external credit ratings by financial market participants. One of the underlying reasons for this over-reliance was the introduction over time of references to external credit ratings in some financial services regulation which reduced incentives for financial institutions to conduct their own credit risk assessment and rely exclusively and blindly on credit ratings.
- Third, model risk is particularly important for structured finance products, given their complexity and absence of pre-crisis experience. The decades-long experience in deep and liquid corporate and sovereign debt markets has proven to be of limited value for rating complex, untested, OTC financial instruments. CRA ratings have been too narrowly focussed on default risk and expected loss (first moment of loss distribution). Market and tail risk was not reflected (second and higher moments of the loss distribution), leading to the situation that AAA senior CDO tranches were able to pay out higher returns than equally rated AAA corporate bonds.

Despite their major impact on financial markets and the key role of credit ratings in the prudential regulation of financial institutions, CRAs have not been subject to any formal control and surveillance in Europe, neither at national nor at European level.

### **The new EU regulations on CRAs**

The new EU regulations on CRAs<sup>286</sup> contain a range of different measures that overall aim to ensure the independence and integrity of the rating process and to

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<sup>286</sup> The first EU Regulation on Credit Rating Agencies (Regulation (EC) No 1060/2009 on credit rating agencies) was adopted in 2009 and entered into force in December 2010. The Regulation was amended in May 2011 to adapt it to the creation of the European Securities and Markets Authority (ESMA) which has been attributed all supervisory powers over CRAs since July 2011 (Regulation (EU) No 513/2011, amending Regulation (EC) No 1060/2009 on credit rating agencies). Finally, in 2013, a third

enhance the quality of the ratings issued. In particular, since July 2011, the European Securities and Markets Authority (ESMA) has been responsible for registering and supervising CRAs, which now need to fulfil a number of conduct rules to reduce conflicts of interest and improve the transparency of the ratings process. Additional requirements came into force in June 2013 that, *inter alia*: reduce the reliance on credit ratings by requiring financial institutions to strengthen their own risk assessment and not to rely solely and mechanistically on credit ratings; make CRAs more transparent and accountable when rating sovereign states; and make CRAs liable in cases of gross negligence or intentional infringements of the rules. The rules also seek to improve the independence of the ratings process by introducing mandatory rotation for certain complex structured financial instruments and requiring issuers to engage at least two agencies for rating such instruments. Moreover, all available ratings will be published on a European Rating Platform, available as from June 2015, so as to improve the comparability and visibility of ratings. This in turn is expected to encourage investors to make their own credit risk assessment and also contribute to the diversity in the ratings industry.

In addition, in the course of the sovereign debt crisis it became evident that there was a need for an independent EU structure with adequate resources and capacity or a new European CRA that would issue credit ratings for sovereign issuers to provide market participants with a greater variety of opinions on the credit worthiness of issuers. Sovereigns would then get an additional rating from an independent and public source with a strong signalling effect to financial markets. However, some concerns were raised with regard to the credibility of a publicly funded body, particularly as it would assess the creditworthiness of sovereign issuers which provide for its funding.

In a recent report,<sup>287</sup> ESMA identified some deficiencies in sovereign rating processes, which could pose risks to the quality, independence and integrity of the ratings and of the rating process. Deficiencies were highlighted regarding independence and avoidance of conflicts of interests; confidentiality of sovereign rating information; timing of publication of rating actions; and resources allocated to sovereign ratings. At this stage, ESMA has not determined whether any of the report's findings constitute a breach of the CRA Regulation, and may take action as appropriate in due course. Taken into account the findings in the last ESMA report, the Commission will reassess the feasibility of both an independent EU structure and European CRAs, as a follow-up of the implementation of the new reform package

The rules contained in the new regulations are proportionate and will enhance the independence and integrity of the rating process as well as improve the quality of the ratings issued and contribute to more diversity in the rating industry.

First of all, new rules were adopted in response to the FSB principles to reduce public authorities' and financial institutions' reliance on credit rating agency ratings.<sup>288</sup> Concerns were raised by some stakeholders on risks of mere removal of all references without any alternatives in places. Therefore, the new rules encourage financial

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regulation on CRAs was adopted to reinforce the regulatory framework and deal with remaining weaknesses (Regulation (EU) No 462/2013, amending Regulation (EC) No 1060/2009 on credit rating agencies). The discussion in this study focuses on the three Regulations as a whole, without distinction.

<sup>287</sup> Deficiencies in the sovereign rating process are reported in ESMA (2013).

<sup>288</sup> See Financial Stability Board (2010),

institutions to strengthen their own credit risk assessment processes and not to rely solely and mechanistically external credit ratings.<sup>289</sup>

As regards the new sovereign rating rules, which require the publication of ratings to follow a calendar, CRAs are concerned that they cannot conduct ratings whenever they consider this necessary. The final rules impose the calendar on a “comply or explain” basis only, i.e. CRAs can decide to adopt ratings on other timing if appropriately justified and explained. This seeks to find the balance between enhancing the predictability of the timing of the ratings and ensuring accurate and timely ratings.

As regards the CRA liability rules, CRAs perceive a risk of being sued for “wrong ratings” which could result in very big civil claims. However, in the final rules, liability has been limited to gross negligence and intentional violations of the rules, and investors must demonstrate damage due to the reliance on the wrong rating. This is deemed a proportionate civil liability regime.

As regards the mandatory rotation of CRAs, on the one hand, rotation makes the market more dynamic and provides opportunities for smaller CRAs in the rating agency, thereby improving competition. On the other hand, industry stakeholders have argued that rotation of CRAs would limit the free choice of issuers to choose the CRA of their preference and also create switching costs. The final rotation rule has therefore been restricted in scope to a subcategory of structural finance instruments only, which may be considered a test and leaves scope for further extension of the rules at a later stage, if deemed necessary upon future review.

Finally, to enhance CRA independence, the final rules impose limits on shareholdings in CRAs. While some have argued that CRAs do not choose their shareholders and that there should be no intervention in the ownership structure, there are clearly conflicts of interest if a CRA rates the financial instruments of an important shareholder. The CRA rating may not be as independent as it would otherwise be. There are also concerns that the investing shareholder could obtain preferential information of future upgrades or downgrades of financial instruments. In any case, the final rules impose limitations for substantial shareholdings only (5 % or 10 % depending on the provisions).

The new CRA regulations do not directly require changes to the issuer-pays model of CRAs. Instead, the regulations seek to limit the adverse consequences that arise from this and other structural features in the market. Going forward, the Commission will review the situation in the credit rating market and, according to the regulations, is required to prepare a report to that effect by July 2016.

## **Evidence of changes in market structure**

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<sup>289</sup> These principles were introduced in sectoral legislation in the banking, insurance and the asset management sector. Additionally, national authorities are encouraged to monitor the use of contractual references to credit ratings by financial institutions and the ESAs have been requested to review their guidelines and technical standards to ensure compliance with the FSB principles. In addition, the Commission will continue reviewing the use of references to external credit ratings in EU law that trigger or have the potential to trigger sole or mechanistic reliance. The Commission will report by end of 2015.

As regards already observable changes in the structure of the market, in addition to the big three, a number of distinctly smaller CRAs have already emerged in Europe, and their number has further increased after the introduction of EU legislation. ESMA registration information shows that 19 out of the 22 CRAs are small and medium-sized.<sup>290</sup> However, to date, these new market players often remain small in terms of scope. They tend to operate with a clear focus on specific industry sectors (e.g. the insurance industry), financial market segments (e.g. municipal bonds) or specific geographical area. This is unlike the big three agencies, which cover the whole range of rating classes considered.

The three largest CRAs have a market share of 94 % if measured by the total number of ratings outstanding in 2013, somewhat down from the 97 % share in 2008 (Table 4.7.3). The market share is lower if measured in terms of new issues during 2012 and 2013 (85 %), suggesting declining concentration and increase market participation by smaller CRAs. Concentration levels vary by issuer segment. It is particularly pronounced for the structured finance and covered bonds ratings categories, in spite of few new entrants operating in those two segments, whereas it is less marked in the non-banking corporate category. Looking at new ratings only, the large CRAs covered 50 % of the overall corporate ratings. The structured finance and covered bonds rating classes, however, remain dominated by the large CRAs, which had covered practically 100 % of the EU market until the financial crisis, with only a small number of new participants emerging since.<sup>291</sup>

Table 4.7.2: **Market share of the three largest CRAs**

|                         | By outstanding ratings |             | By new issues     |
|-------------------------|------------------------|-------------|-------------------|
|                         | 2008 S2                | 2013 S1     | 2012 S1 – 2013 S1 |
| Total corporate         | 86 %                   | 82 %        | 53 %              |
| <i>of which:</i>        |                        |             |                   |
| - Insurance             | 65 %                   | 70 %        | 43 %              |
| - Other                 | 87 %                   | 83 %        | 73 %              |
| financials              |                        |             |                   |
| - Non-financials        | 94 %                   | 85 %        | 49 %              |
| Sovereign               | 82 %                   | 86 %        | 60 %              |
| Structured finance      | 100 %                  | 96 %        | 84 %              |
| Covered bonds           | 100 %                  | 99 %        | 94 %              |
| <b>All rating types</b> | <b>97 %</b>            | <b>94 %</b> | <b>85 %</b>       |

Source: ESMA (2014), "ESMA report on trends, risks and vulnerabilities", no. 1.

Smaller CRAs identified reputation and insufficient visibility towards the investors' and issuers' community as the most important barriers to entry and expansion in the market. The CRA reforms contain provisions to tackle these barriers by helping smaller CRAs to build up their reputation and be more visible on the market. Among other measures, the registration and supervision by ESMA will act as a quality label, ensuring that minimum standards are met and helping a new CRA to build credibility;

<sup>290</sup> See ESMA (2013)

<sup>291</sup> The greater level of concentration in these rating classes can be explained by a number of factors, such as the need for appropriate governance and specialist skills, including dedicated processes and methodologies, legacy and/or long-standing relationships, including access to proprietary information. See ESMA (2014).

there will be a European Rating Platform which will contain all available ratings; and there is a requirement for issuers to consider smaller agencies when obtaining double ratings.

The final impact and effectiveness of these and other provisions on the CRA market is too early to assess, also because some provisions will only become effective going forward and technical standards remain to be developed. However, it is expected that the new CRA regulations will increase the independence and integrity of the ratings process and enhance the overall quality of the ratings.

#### **4.7.4 Enhancing accounting standards<sup>292</sup>**

Insufficient information on off-balance sheet financing, too late impairment of financial assets and the lack of guidance on fair value measurement have contributed to increase the financial crisis. This is the reason why the G20 required to the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB) to review their standards to enhance accounting requirements.

The EU institutions do not develop international accounting standards. Rather, the EU decided to adopt the International Financial Reporting Standards (IFRS) in 2002 and has since endorsed new standards and amendments, drafted by the International Accounting Standards Board (IASB). Nevertheless, the Commission and its technical advisor, the European Financial Reporting Advisory Group (EFRAG), have regular contacts with the IASB to promote European interests in the accounting standard setting.

In 2011 and 2012, the Commission endorsed:

- New standards on consolidation (IFRS 10, 11 and 12)<sup>293</sup> to improve the consolidation of securitisation vehicles and the disclosures on off-balance sheet financing relating to unconsolidated participations in "structured entities" like securitisation vehicles or asset-backed financing.
- A new standard on fair value measurement (IFRS 13) providing a single definition of fair value measurement, enhancing transparency by requiring additional disclosure and offering clearer and more consistent guidance on the application of fair value measurement in inactive markets.

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<sup>292</sup> Measures described relate mainly to accounting developments in response to the crisis. Separately, at EU level, there has been a review of the Accounting Directives which apply to limited liability companies in Europe that are not in the scope of IFRS. The new Directive simplifies the preparation of financial statements for small companies, thereby reducing their administrative burden. The Commission also adopted a proposal on EU companies' transparency and performance on environmental and social matters.

<sup>293</sup> Commission Regulation (EU) No 1254/2012 of 11 December 2012 amending Regulation (EC) No 1126/2008 adopting certain international accounting standards in accordance with Regulation (EC) No 1606/2002 of the European Parliament and of the Council as regards International Financial Reporting Standard 10, International Financial Reporting Standard 11, International Financial Reporting Standard 12, International Accounting Standard 27 (2011), and International Accounting Standard 28 (2011).

- Amendments to improve the disclosure requirements devoted to the transfer of financial assets (amendment to IFRS 7)<sup>294</sup>.

The review of the standard applicable to financial instruments (IAS 39) is still ongoing, which should improve the current requirements on impairment of financial assets that was criticised during the crisis. The IASB is also developing a real IFRS standard on insurance<sup>295</sup>, which is key for European insurance entities in order to get common accounting requirements to enhance comparability and transparency of their financial statements.

These new standards are expected to enhance the overall transparency and comparability of financial statements, not only within the EU but also worldwide as IFRS are global standards.

The Commission also launched in 2014 an evaluation of the IAS regulation. This evaluation aims to 1) assess how the IAS regulation has been applied over the last 10 years and 2) review the European organisation in accounting matters to strengthen its influence towards the IASB in standard setting. The conclusions of this evaluation are expected by the end of this year.

#### **4.7.5 Improving the audit process**

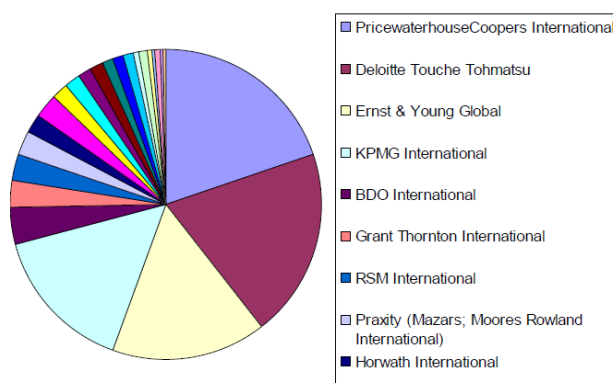
High-quality and reliable audits are an integral part of the financial reporting environment to ensure credible financial statements on which investors, managers and supervisors can rely. However, not only since the crisis, there has been unease about the value of audit reports and their quality, independence and consistency. A number of financial institutions failed only months after they had been given clean audit reports. Audit inspections by national authorities confirmed significant weaknesses in audit reports. For example, in Germany, 25 % of the inspections of audit firms with a client base comprising financial institutions and listed companies led to disciplinary proceedings during 2007 and 2010. In the UK, 11 % of audits were assessed as requiring significant improvement at major firms. In the Netherlands, the regulator identified weaknesses in 29 of the 46 audits reviewed in the context of its regular inspections and concluded that the quality of audits must fundamentally improve at the largest audit firms.

Chart 4.7.1: **Concentration in the audit market**

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294 Commission Regulation (EU) No 1205/2011 of 22 November 2011 amending Regulation (EC) No 1126/2008 adopting certain international accounting standards in accordance with Regulation (EC) No 1606/2002 of the European Parliament and of the Council as regards International Financial Reporting Standard 7.

295 The existing standard mainly refers to national accounting principles and rules.



Notes: Based on global revenue in 2009.

Source: Commission Services impact assessment on audit reform

FTSE 250 the average is 36 years. In more extreme cases, companies have used the same auditing company for more than 100 years. In Germany, two thirds of the DAX 30 companies have not changed their auditor for the last 20 years. The problems are exacerbated given the structure of the audit market, which is dominated by the 'Big Four' accounting firms (chart 4.7.1).

### The EU audit reforms

To address these and other concerns, in November 2011, the European Commission adopted proposals to clarify the role of auditors and introduce a number of stringent rules, in particular to strengthen the independence of auditors and bring greater diversity into the audit sector.<sup>296</sup>

One key proposal in this regard is the mandatory alternation (rotation) of auditors. If auditors stay too long with the same client, their independence is likely to be undermined and, as a result, their professional scepticism is reduced. Rotation reduces this risk by limiting the length of professional relationships. At the same time, however, and as argued by critics of the reforms, auditor rotation imposes costs and may decrease audit quality due to the loss of client knowledge in the first year after the change of auditor. The recently adopted rotation requirement seeks to balance the benefits against the costs by allowing for long enough periods of audit engagements (final agreement rotation after 10 years, which under certain conditions could go up to 24 years). This is long enough to motivate auditors to invest into knowing their clients and imposes a reasonable cost by requiring companies to carry out tenders every ten years. In addition, the loss of knowledge in the first year of the engagement after the rotation is compensated by the preparation of a hand-over file from the outgoing auditor.

Other rules to enhance independence and diversity in the market include, among others, mandatory tendering for audit mandates, the prohibition of clauses requiring services of the major auditing companies only, strengthened audit committee's within companies and the prohibition for audit firms to provide certain non-audit services to

<sup>296</sup> The reform comprises two legal instruments a Directive (amending the existing audit directive) with rules applicable to the whole audit market and a regulation with stricter rules applicable only to PIEs (Public Interest Entities - financial institutions, insurance companies and listed companies).

the same client (a black list of prohibited non-audit services is introduced). In addition, the rules seek to better coordinate and strengthen the supervision of auditors in the EU.

The measures, taken together, seek to address current weaknesses in the EU audit market and will help restoring confidence in the financial statements of companies. After provisional agreement between the Parliament and the Member States was reached in December 2013, the proposal was approved by the European Parliament in April 2014.

Some of the positive impacts will take several years in order to take effect in the market (i.e. rotation of auditors). A first indication of a positive impact of the reform is the fact that several listed companies in the UK that had very long relationships with their auditors have recently decided on a voluntary basis to put their audit services out for tender, and some have already changed their auditors. This is only indirectly related to the EU audit reform, as it is consistent with and supporting the outcome of the separate investigation by the UK Competition Commission into the UK audit market. The increased rotation (whether voluntary or mandated) brings some dynamics into the market, which can be expected to have a positive impact on audit independence and potentially also on audit quality to the extent that the new auditor will be reviewing with a fresh eye the work of the outgoing auditor.

Overall, the measures are expected to improve auditor independence and the quality of statutory audits in the EU. Combined with improved accounting requirements, the measures will thereby help restore the reliability of and confidence in financial statements, in particular those of banks, insurers and large listed companies.

#### **4.8 EFFICIENCY OF THE FINANCIAL SERVICES SECTOR**

Many of the reforms discussed so far that contribute to financial stability, financial integration and market integrity also improve the efficiency of the financial system. This section is therefore kept short and only highlights some of the main mechanisms by which the new reforms help enhance efficiency in the financial system.

In an efficient financial system, financial intermediation helps allocating capital to its most productive use, transaction costs are minimised, financial services are priced adequately to reflect their risk and social costs and the expected returns on financial instruments adequately reflect their risk.

In this respect, the set of banking reforms that work jointly to reduce the implicit subsidy enjoyed by too-big-to-fail banks (in particular CRD IV package, BRRD and structural reform) improve efficiency by **reducing the distortions caused by the implicit subsidy**. The subsidy allowed the benefiting banks to grow their balance sheets and engage in risky activities beyond what would have been possible if funding costs had not been implicitly subsidised by taxpayers (see box 4.2.5 for quantification). To the extent that the reforms are successful in reducing the subsidy, this will ensure that bank funding costs are more risk-reflective and that resources are directed to uses that are more productive from a societal point of view as opposed to those that maximise bank returns but at a societal costs (see also box 6.1.1 in chapter 6).

Another example relates to the **risk-based prudential framework** for financial institutions. While the CRD IV package improves existing risk-based requirements by making them better capture all the relevant risk elements in the banking sector, Solvency II will for the first time introduce a risk-based prudential framework for the EU insurance sector. Combined with improved risk management standards, this induces financial institutions to internalise the risk of their activities and contributes to more efficient (risk-reflective) pricing of financial services and products.

The various measures aiming at **increasing the transparency of the financial sector** via enhanced disclosure and reporting requirements will reduce information asymmetries and thereby enhance the efficiency of the financial system. These include, for example, the flagging of short sales (in the short-selling regulation), reporting obligations to trade repositories (EMIR, proposed SFT regulation), the improved disclosure regime for issues in the Prospectus Directive, the increased transparency on algorithmic trading activities and trading in commodity derivatives markets (MiFID), and reporting and disclosure requirements in the area of investment funds. Stricter disclosure requirements to supervisors will facilitate monitoring of exposures and enable supervisory authorities to identify and assess emerging risks at an early stage. Transparency will also be beneficial for financial institutions and will contribute to better internal risk management practices. Finally, and importantly, transparency improves monitoring by the market and will lead to better-informed decisions by investors and consumers.<sup>297</sup>

In addition, the different legislative measures in the area of financial markets and infrastructure seek to **enhance efficiency along the whole securities trading chain**, covering pre-trading (Prospectus Directive), trading (MiFID, MAD/R, Transparency Directive) and post-trading, including clearing (EMIR) and settlement (CSDR). The measures seek to improve transparency, remove burdensome barriers to reduce trading costs and enhance the resilience of financial market infrastructures. The measures also prepare the ground for further initiatives increasing the efficiency, e.g. the Target 2 Securities (T2S) project, which will consolidate settlement across all countries in Europe.<sup>298</sup>

The resulting benefits have been estimated to be significant. Focusing mainly on the CSDR, the Regulation is expected to translate into lower costs for investors.<sup>299</sup> The

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<sup>297</sup> The reforms also enhance **non-financial transparency** of the certain large financial companies and groups will be significantly enhanced as well following the Commission's proposal of April 2013 to amend the existing accounting directive to improve companies' transparency on social, environmental and diversity matters. Large public-interest entities with more than 500 employees will be required to disclose in their management reports information on policies, risks and outcomes as regards environmental matters, social and employee-related aspects, respect for human rights, anti-corruption and bribery issues, and diversity on boards of directors. This includes listed companies as well as some unlisted companies, such as banks, insurance companies, and other companies that are so designated by Member States because of their activities, size or number of employees.

<sup>298</sup> T2S will offer synergies with the CSD Regulation and eventual harmonisation of securities law in the EU. T2S is also expected to spur competition amongst CSDs, which should promote better service quality, more efficient pricing and innovation to the benefit of all market participants. As a matter of fact, it is expected that EMIR and T2S, in combination with other EU regulation in the area of settlement, would deliver similar benefits in the area of clearing and settlement to the ones MiFID delivered for the trading landscape. If T2S proves to be efficient, it should offer significant economies of scale. It is then likely that most securities traded in Europe would be settled in T2S.

<sup>299</sup> For details, see impact assessment, SWD(2012) 22 final.

Commission Services draft working document on post-trading from 2006 estimated between EUR 2 billion and EUR 5 billion of aggregate excess cost of post-trading for investors.<sup>300</sup> Furthermore, EUR 700 million of cost reductions could be achieved through market consolidation.<sup>301</sup> Moreover, T2S is expected to further reduce both domestic and cross-border costs (see section 2.7). The T2S economic impact assessment of 2008 estimates cost savings from T2S of EUR 145 million to EUR 584 million. For investors, the CSDR is expected to reduce significantly the current gap between the costs of purely domestic and cross-border operations. It will not only reduce costs relating to CSDs (1.5 % of total costs of transaction and custody)<sup>302</sup> but also costs relating to intermediaries (including custodian banks) (22 % of total costs) by simplifying and reducing levels of securities holding.<sup>303</sup> The issuers will benefit from the reduction of CSD costs in relation to securities issuing and the management of their relationships with the investors. They will also benefit from a choice between various CSDs: they can issue their securities in a CSD of their choice according to the location of their investors, enabling them better access to investors.

A combination of different reform measures help to further enhance efficiency by **improving the competitive functioning of the financial sector**. The competition measures work through different mechanisms, including:

- **opening access to market infrastructures**—access provisions contained in MiFID II, EMIR and the CSD Regulation reduce existing barriers to access to trading venues, CCPs and CSDs, respectively, and thereby enhance competition along the whole securities trading chain;
- **promoting entry in other markets**— in the concentrated markets of CRAs, the reforms aim to promote competition by enhancing visibility of new entrants through registration and authorisation and the creation of a European Rating Platform for the publication of available credit ratings and by requiring issuers to consider using a small CRA in case they would employ more than one rating agency. In other areas, the reforms often contain waivers to the rules for small firms (or additional measures for the largest firms),<sup>304</sup> so as to reduce the relative burden for small firms and facilitate market entry by new firms;

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<sup>300</sup> [http://ec.europa.eu/internal\\_market/financial-markets/docs/clearing/draft/draft\\_en.pdf](http://ec.europa.eu/internal_market/financial-markets/docs/clearing/draft/draft_en.pdf)

<sup>301</sup> These numbers give an indication of orders of magnitude but are probably overstated due to the fact that the gap between CSD cross-border and domestic costs has already started to decrease since 2006.

<sup>302</sup> The costs borne by investors to the CSDs are relatively modest. For example, the costs incurred by an investment fund in relation to CSD services amounts to about 1.5 % of its total costs of custody and transaction, excluding costs linked to the management of the fund. The rest is allocated as follows: the CCPs (1%), banks in securities depositories (22 %), trading venues (4.5 %) and market intermediaries (71 %). See Oxera (2011).

<sup>303</sup> The possibility for issuers to issue directly in a CSD in another Member State and provisions strengthening the links between CSDs is expected to reduce the chain of custody.

<sup>304</sup> By imposing additional requirements on the larger TBTF firms, the reforms improve the relative position of small and medium-sized firms in the market or new entrants. An example is the capital surcharge for systemically important banks or the structural reform proposals that restrict certain trading activities in these banks. As a result of these measures, smaller competitors or new entrants not subject to the requirements may gain market share. Of course, should the activities of these banks also become too important and risky, they would in turn be submitted to the stricter rules, as would be the case for the TBTF banks.

- **facilitating market exit**—A competitive and dynamic market does not only require easy market entry but also that inefficient or failing firms can easily exit the market. Better resolution tools (BRRD) for banks that are easier to resolve (CRD IV package, structural reform) reduce barriers to exit and thereby enhance competition;
- **reducing implicit subsidies** —financial institutions that are perceived as being too big to fail and therefore benefit from an implicit taxpayer subsidy have a competitive advantage over those that do not. The package of banking reforms aimed at addressing the TBTF problem (in particular CRD IV package, BRRD and structural reform) helps correct these competitive distortions;<sup>305</sup>
- **reducing information asymmetries**—various transparency and disclosure requirements aim to reduce the informational disadvantage of consumers of financial services and thereby put them in a stronger position vis-à-vis providers (e.g. MiFID, CRD IV package, IMD 2, UCITS, MCD and PRIIPS); and
- **improving competition in payment systems**—The revised Payment Services Directive (PSD II) is expected to bring more competition to the electronic payments market, providing consumers with more and better choices between different types of payment services and service providers. Until now, entering the market of payments was complicated for third-party payment providers,<sup>306</sup> as many barriers were preventing them from offering their solutions on a large scale and in different Member States. With these barriers removed, many more new players are expected to enter new markets and offer cheaper solutions for payments to more and more consumers throughout Europe. Furthermore, PSD II will contribute to the reduction of charges paid by consumers for card payments.<sup>307</sup>

In addition, the measures discussed above in section 4.6 on financial integration also contribute to competition and efficiency in the market, by levelling the playing-field and **facilitating EU cross-border activities**. For example, the creation of new

<sup>305</sup> The level-playing field argument also applies across Member States. Banks in Member States that are in a better position to stand behind their domestic banks are likely to benefit from a larger implicit subsidy than banks in weaker Member States. Thus, weak banks in a strong Member State may not be sufficiently disciplined by the market place and are at a competitive disadvantage compared to banks that are potentially stronger but based in a weaker Member State. In addition to the measures aimed at reducing the TBTF problem, the Banking Union will help break the link between domestic banks and sovereigns and thereby contribute to improved cross-border competition within the euro area.

<sup>306</sup> During the past years new actors have emerged in the area of internet payments offering consumers the possibility to pay instantly for their internet bookings or online shopping without the need for a credit card (around 60 % of the EU population does not possess a credit card), establishing a payment link between the payer and the online merchant via the payer's online banking module. These innovative and often less costly payment solutions are already offered in a number of Member States (e.g. Sofort in Germany, Ideal in the Netherlands, Trustly in Scandinavia). However, these new providers are not yet regulated at the EU level. The new rules will cover these new "third party payment providers" (TPPs) and the "payment initiation services" they offer, addressing issues which may arise with respect to confidentiality, liability or security of such transactions.

<sup>307</sup> In all cases where the card charges imposed on merchants will be capped, in accordance with the complimentary multilateral interchange fees (MIF) Regulation, merchants will no longer be allowed to surcharge consumers for using their payment card (see section 4.7.2).

passports in the asset management sector (mainly the manager passport provided by AIFMD, but also the passports provided by EuVECA, EuSEF and the one proposed in EuLTIF) are adding to the existing single market for UCITS funds the possibilities for fund managers to market non-UCITS investment funds throughout the EU without additional national burdens.

Regulation imposes costs, and there is a risk that regulatory reform reduces the efficiency of the financial system and impedes its ability to carry out the key functions that are necessary in a well-functioning modern economy and that contribute to economic growth. Chapter 6 discusses the costs in more detail. However, it should be noted that the reform proposals were generally drafted with the aim of addressing and **correcting market (and regulatory) failures** that impeded the efficient functioning of the financial system. This focus on market (and regulatory) failures follows the principles of good regulation and minimises the risks and costs associated with regulatory intervention. Also, **proportionality** is a fundamental principle embedded within all the Commission proposals.<sup>308</sup>

While a major focus of the financial reform agenda has been to restore stability of the financial system, careful consideration has also been given to ensure that this does not unduly undermine economic growth. Recognising the vital role that financial markets play in supporting the economy, it has been particularly important to strike a balance between strengthening requirements to ensure financial stability and allowing a sufficient and sustainable flow of finance to the economy to support growth and investment.

An efficient financial system **ensures access to finance** for all financial market participants at fair prices. For all reform measures the impact on small and medium-sized enterprises (SMEs) has been considered and various measures specifically aim at addressing specific problems, in particular in the area of access to finance, faced by SMEs. **SMEs** are the backbone of our economy and contribute more than half of the total value added in the non-financial business economy.<sup>309</sup> SMEs have historically faced significant difficulties in accessing funding to grow. These difficulties have been reinforced during the crisis given their reliance on bank financing. Faced with significant bank deleveraging and fragmented financial markets in the EU, this environment has led to a considerable divergence of conditions for access to finance from country to country. As set out in an action plan in 2011 to address the financing problems faced by SMEs,<sup>310</sup> the EU financial framework has been adapted considerably over the last three years. Measures include:

- **Reducing the administrative burden and reporting requirements for SMEs:**
  - o The Accounting Directive simplifies the preparation of financial statements for small companies. The Directive reduces and limits the amount of information to be provided by small companies to satisfy regulatory requirements. The "think small first" approach of this Directive will enable companies to prepare profit and loss accounts,

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<sup>308</sup> See Article 5 TEU.

<sup>309</sup> Structural Business Statistics (Eurostat)

<sup>310</sup> See [http://ec.europa.eu/enterprise/policies/finance/files/com-2011-870\\_en.pdf](http://ec.europa.eu/enterprise/policies/finance/files/com-2011-870_en.pdf).

balance sheets and notes that are more proportionate to their size and to the information needs of the users of their financial statements. Of course, any small company remains entitled to provide more information or statements on a voluntary basis;

- o The Market Abuse Regulation (MAR) adapts the disclosure requirements for issuers on SME markets to their needs. For instance, the issuers on such markets will be subject to tailored rules for the requirement to draw up lists of insiders. Issuers on SME markets will also benefit from the clarification of the scope of the reporting obligations in relation to managers' transactions and the new provisions with respect to the thresholds which trigger the obligation to report such manager's transactions;
  - o The Commission delegated act of 30 March 2012 to the amending Prospectus Directive implemented proportionate disclosure regimes aiming to increase the efficiency of the Prospectus regime by reducing administrative burdens for issuers where they were considered to be disproportionate. The reduction of disclosure requirements has been carefully calibrated in order to reach the right balance between the reduction of the administrative burden for the issuers and the need to preserve a sufficient level of investor protection;
  - o The revised Transparency Directive of 22 October 2013 abolishes the requirement to publish quarterly financial information with the aim to reduce the administrative burden for listed companies and encourage long term investment.
- **Creating a dedicated trading platform (SME growth markets) to make SME markets more liquid and visible** (MiFID II). In addition, SME growth markets benefit from certain **exemptions in the CSDR** (e.g. more flexible requirements on settlement and buy-in period) to better serve the needs of these markets,
  - **Addressing the issue of SME risk weighting in the bank capital framework** (CRD IV package) There are specific treatments for exposures to SMEs under both the standardised approach as well as under the internal rating-based approach to calculate capital requirements. Furthermore, the CRD IV package includes a correcting factor that lowers the capital requirements related to credit risk for exposures to SMEs.
  - **Addressing the issue of SME risk weighting in the prudential framework for insurance businesses** (Solvency II). Risk weights of relevance for SMEs are being reviewed in the preparation of the delegated acts for Solvency II, based on advice from EIOPA (see also section 6.5.1). Possible adjustments might include, inter alia, a less onerous treatment of certain types of investment funds which are newly-created by EU legislation (EuLTIFs, EuSEFs and EuVEECAs) as well as investments in closed-ended, unleveraged alternative investment funds (e.g. certain private equity funds); a more favourable treatment of high-quality securitisation (see also section 7.6); and amendments to the treatment of unrated bonds and loans.

- **Introducing new EU investment fund frameworks** for investment in venture capital (EuVECAs) and in social entrepreneurship funds (EuSEFs). The proposal on European Long-term Investment Funds (EuLTIFs) further aims to facilitate the long-term financing of SMEs.

Further measures, also in the context of ensuring the long-term financing of the EU economy are currently being explored (e.g. crowdfunding). Improving access to finance and developing alternative financing sources is a key area of focus for ongoing work, as set out in the March 2014 Communication on long-term financing of the European economy (see box 4.8.1).

**Box 4.8.1: Communication on long-term financing of the European economy<sup>311</sup>**

The Commission adopted a Green Paper on the long-term financing of the European economy on 25 March 2013<sup>312</sup> that opened a three month public consultation. Its purpose was to initiate a broad debate about how to foster the supply of long-term financing and how to improve and diversify the system of financial intermediation for long-term investment in Europe. Responses to the consultation contributed to further assessment by the Commission of the barriers to long-term financing, with a view to identifying possible policy actions and feeding the overall debate on this at European and international level.

One year later, on 27 March 2014, the Commission published the follow-up to this work: a Communication on long term financing of the European economy proposing a set of actions of actions to mobilise private sources of finance, make better use of public finance, further develop European capital markets, improve SMEs' access to financing, attract private finance to infrastructure and enhance the framework for sustainable finance. An action plan to implement the reforms will be put into place.

**Private sources of long-term financing:** The support of responsible bank lending and the fostering of non-bank sources of financing, such as institutional investors, including insurance companies, pension funds, traditional or alternative investments funds, sovereign funds and foundations is crucial. While banks will continue to play a significant role, the diversification of funding is important in the short run to improve the availability of financing, as well as in the long run, to help the European economy achieve its goal of sustainable growth. Actions in this area include incentives to stimulate long-term investment by insurers in the delegated act for Solvency II, and examining the opportunities presented by the creation of a single market for personal pensions. The legislative proposal for new rules on occupational pension funds, adopted on the same day as the communication, should also contribute to more long-term investment

**Public funding:** The public sector is a key contributor to gross capital formation in the form of tangible and intangible investment. Efforts are needed to enhance the transparency and efficiency in the use of public funds, to maximise the return on public investment, its contribution to growth and its ability to leverage private investment. Through the EU Semester process the Commission will continue to monitor the fiscal policies of the EU28, including the quality of public expenditure and compliance with the Excessive Deficit Procedure. In addition, a wide focus, which addresses the activities of national promotional banks and export credit agencies, is needed. Actions in this area will involve providing guidance on general principles for national promotional banks and to increase cooperation between them and with the European Investment Bank (EIB); and to explore ways of promoting better coordination and cooperation among national credit export schemes.

**Financial markets:** Policy will be developed to diversify European financing channels. European capital markets are relatively underdeveloped and are currently insufficient to fill the funding gap created by bank deleveraging (see section 6.4.1). Appropriate financial instruments are also required to allow financial markets to play an active and effective role in channelling funds into long-term investment. This includes innovative financial instruments linked to the key challenges of sustainable growth in Europe, including specific instrument to address infrastructure, climate and social challenges. Actions in this area include a review of the Prospectus Directive and analysis on the role of covered

<sup>311</sup> COM(2014) 168 final

<sup>312</sup> COM(2013) 150 final

bonds and private placement in the single market. Further work will be carried out on the differentiation of “high” quality securitisation products with a view to ensuring coherence across financial sectors and exploring a possible preferential regulatory treatment compatible with prudential principles (see section 7.6).

**SME finance:** A key issue for SME finance is facilitating the transition from start-up to SME to mid-cap, i.e. a transition up the so-called “funding escalator”. As they progress through their life cycle, SMEs use a combination of financing sources and often find it challenging to transition from one mix to another. Between the different stages of growth, companies can face “financing gaps” and “education gaps”. This is particularly prevalent at the early stage and at the growth stage, due in part to limited venture capital funding in Europe. The actions set out in the communication include improving credit information on SMEs, reviving the dialogue between banks and SMEs and assessing best practices on helping SMEs access capital markets.

A separate communication has been presented on the issue of *crowdfunding*,<sup>313</sup> following the public consultation. It will aim to raise awareness and information disclosure; promote industry best practices and facilitate the development of a quality label; monitor the development of crowdfunding markets and national legal frameworks. As this is an emerging source of finance, it will be important that a regular assessment of whether any form of further EU action – including legislative action – is necessary to support the growth of crowdfunding.

**Infrastructure finance:** In addition to the already announced measures as part of the Project Bond Initiative, further action will look at increasing the availability of information on infrastructure investment plans and improving the credit statistics on infrastructure loans.

**Cross-cutting measures:** The ability of the economy to channel funds to long-term financing is also dependent on a number of cross-cutting factors, including corporate governance, accounting, taxation and legal environments. The general business and regulatory environment is important for domestic as well as cross-border investment.

For example, discrepancies between the insolvency laws of Member States and inflexibilities in these laws create high costs for investors, low returns to creditors and difficulties for businesses with cross-border activities or ownership across the EU. These inefficiencies affect the availability of funding as well as the ability of firms to get established and grow, with particular impact on SMEs. In March 2014, the Commission issued a recommendation on best practice principles to enable the early restructuring of viable enterprises and to allow bankrupt entrepreneurs to have a second chance.

Other actions for this workstream will include work on corporate governance to increase shareholders’ and investors’ engagement; on accounting standards; and on tax and legal issues.

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<sup>313</sup> COM(2014) 172 final