Annual Report
2013

ESRB
European Systemic Risk Board
European System of Financial Supervision

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Foreword

Mario Draghi
Chair of the
European Systemic Risk Board

I am delighted to present the third Annual Report of the European Systemic Risk Board (ESRB), which was set up in 2010 as an independent body of the European Union (EU) to take charge of the macro-prudential oversight of the EU financial system. The report covers the period from 1 April 2013 to 31 March 2014.

During its third year of activity, the ESRB worked intensively to support the establishment of a new macro-prudential policy framework for Europe. It not only developed guidelines for macro-prudential authorities on how to use the macro-prudential instruments introduced under EU legislation, but also established further analytical concepts and tools for identifying systemic threats. In particular, it expanded the scope of its analytical activities beyond banks to include the insurance sector, shadow banking and financial infrastructures. Further information on the ESRB and its activities can be found on the ESRB's website.

The report has been prepared in accordance with Article 19 of the ESRB Regulation, and it will be my privilege to present it to the Committee on Economic and Monetary Affairs of the European Parliament in its new composition following the recent European parliamentary elections.

Frankfurt am Main, July 2014

Mario Draghi
ESRB Chair

Executive summary

During 2013 – the third year of operation of the European Systemic Risk Board (ESRB) – the ESRB continued to monitor the stability of the financial system of the EU against the background of a weak and uneven economic recovery. The public and private debt overhang remained large, fostering an atypical environment for many sectors of the economy. Throughout the year there was a gradual and general improvement in funding conditions for the banking sector, despite sluggish macroeconomic conditions. Pockets of vulnerabilities were identified, such as in some national real estate markets. Overall, developments in several asset classes contributed to improving conditions in the financial sector. During most of the period under review, market concerns were centred on the potential broader impact of changes in global monetary policy conditions and/or the possibility of a sudden reversal in market sentiment.

On the structural side, regulatory reforms and preparations for upcoming stress tests called for increases in banks' capital in order to boost resilience. Furthermore, a number of other legislative amendments were agreed upon, for example on banking (the SSM and BRRD), insurance (Omnibus II) and financial markets (MiFID and MiFIR), which affected the ESRB's scope of activity. The ESRB continued its work on securities financing transactions and central counterparties, two areas that it had previously acknowledged as being increasingly important for the stability of the financial system. In the insurance sector, both the impact of the low yield environment and the more immediate implications of Solvency II were focal points of the ESRB's monitoring and assessment activities.

To prevent and/or mitigate systemic threats, the ESRB may issue recommendations or warnings. In order to further develop the macro-prudential framework, the ESRB issued Recommendation ESRB/2013/1 on intermediate objectives and instruments of macro-prudential policy in April 2013. The work of the ESRB is guided by five intermediate objectives. They comprise the prevention and mitigation of systemic risks that may arise from i) excessive credit growth and leverage; ii) excessive maturity mismatch and market illiquidity; iii) direct and indirect exposure concentrations; iv) misaligned incentives with a view to reducing moral hazard; and v) financial infrastructures.

Throughout the year significant ESRB resources were allocated to the work on the operationalisation of the macro-prudential instruments provided for by the CRD and the CRR. The objective of this work was twofold: first, to refine the criteria and principles for the use of individual instruments by authorities, and, second, to further develop the toolkit of instruments and expand its scope. In March 2014 the ESRB published its principles for the use of the new macro-prudential instruments in its "Flagship Report on Macro-prudential Policy in the Banking Sector" and "Handbook on Operationalising Macro-prudential Policy in the Banking Sector". Furthermore, it established a procedural framework for the issuance of opinions/recommendations on the use of certain macro-prudential instruments under the CRD/CRR. In addition, several Member States announced their intention to make use of the macro-prudential instruments.

The implementation of the recommendation on lending in foreign currencies and the recommendation on the macro-prudential mandate of national authorities, which had previously been issued by the ESRB, was assessed in accordance with the "Handbook on the follow-up to ESRB recommendations" (published in July 2013). The results of the assessment indicated a high degree of compliance with the recommendations by the addressees.

The ESRB review, as required by Article 20 of the ESRB Regulation, is currently under way.

Section 1

Systemic risks in the financial system of the European Union

Systemic risks in the financial system of the European Union

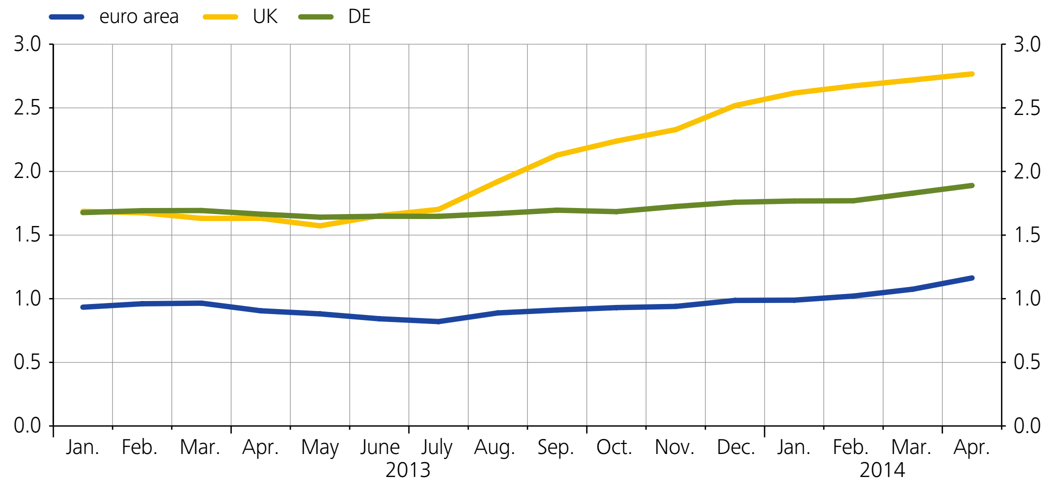
1.1 A subdued economic outlook: challenges facing a banking sector that is still fragile

1.1.1 Signs of a gradual but uneven recovery

The second half of 2013 witnessed a gradual recovery in the global economy. The cyclical rise of global economic growth out of recession was led initially by emerging markets, but ultimately relied on the United States (US). As the perception of a fiscal drag on the private sector faded, private consumption growth resumed and monetary conditions remained accommodative. In Europe, where real output growth had continued to disappoint forecasts from 2007, there was a fear of adverse macroeconomic developments in the aftermath of the sovereign debt crisis and the Cyprus bailout, and indeed, the euro area remained in recession for the first half of 2013.

The European economy started to recover in the second half of 2013, although at a relatively slow and uneven pace. The economies of most Member States of the European Union (EU) recorded weak but positive growth in gross domestic product (GDP) in the latter half of 2013. Growth forecasts for 2014 also improved (see Chart 1). Meanwhile, labour market conditions, which tend to lag real output growth, started to improve in most Member States, including those with economies under stress. Against this background, markets regained confidence in the ability of the ongoing European upswing – in addition to the structural, fiscal and institutional reforms, including in financial markets – to improve long-term growth prospects. As a result, sovereign bond yields and spreads decreased significantly, helping to mitigate the immediate concerns regarding sovereign insolvency and the sovereign-bank nexus.

Chart 1
GDP growth forecasts for 2014
(annual percentage changes)

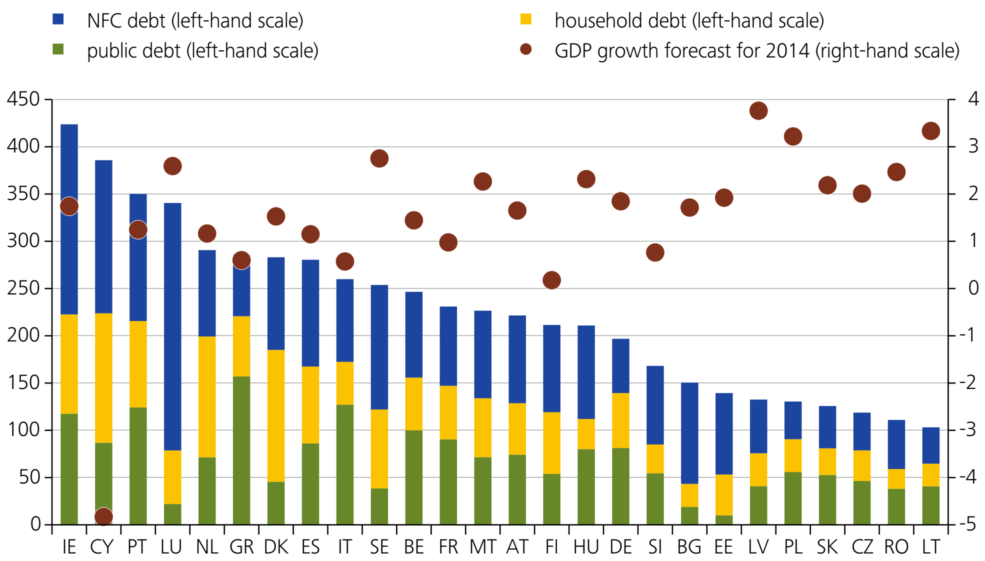


Source: Consensus Economics.

Vulnerabilities remain and warrant further attention. The outlook for output growth in the EU remained sluggish, with vulnerabilities relating to an extended period of weak macro-financial conditions being among the main risks identified by the European Systemic Risk Board (ESRB). Although the reassessment of risk premia in emerging markets during the period May-June 2013 and again in early 2014 left EU economies largely unscathed, external shocks such as those originating in Ukraine, which were affecting countries of influence, in particular Russia, became a source of concern for some Member States and economic sectors. In more structural terms, adverse feedback loops between weak banks' balance sheets, rising public sector contingent liabilities and debt sustainability issues remained sources of risk. Since these have the potential to exacerbate already tight lending standards and further worsen the economic outlook, close monitoring is warranted.

Further action is needed to deal with the public and private sector debt overhang. During the period under review Member States posted record levels of public, household and corporate debt (see Chart 2). For most of them, the ratio of household debt to gross disposable income and the debt-to-GDP ratio of non-financial corporations (NFCs) are expected to remain at 100% or higher, with further reductions in their over-indebtedness remaining largely conditional on macroeconomic developments. Hence, renewed fragmentation or adverse developments in consumer or asset prices could constrain market confidence in authorities' policy commitments.

Chart 2
Indebtedness of public and private sectors in 2012 and GDP growth forecasts for 2014
(percentages of GDP; percentages)



Sources: ECB and Eurostat.

1.1.2 A challenging environment for the EU's banking sector

While funding conditions improved substantially, the banking sector still suffered on account of weak earnings. Earnings were far below their pre-crisis levels and created a constant headwind to any efforts to improve capitalisation ahead of the implementation of the new Basel III regulatory requirements. One of the key problems for EU banks, however, was the stigma of having opaque balance sheets. Definitions of non-performing loans (NPLs) continued to be heterogeneous and the levels of forbearance were largely unknown, which posed a challenge in terms of both intra-sector comparability and the assessment of the health of the sector as a whole.

The ongoing comprehensive assessment under the Single Supervisory Mechanism (SSM) is crucial to fostering transparency and confidence. Banks' balance sheets are currently being assessed against a common yardstick, and their resilience to severe financial stress is being examined. The harmonised definitions of loan categories, as set out by the European Banking Authority (EBA),[1] and the identification of problematic loans are expected to foster investor confidence and thereby reignite private and interbank funding markets. There are strong indications that banks have been frontloading this adjustment process, which is a welcome development, but further progress is still needed.

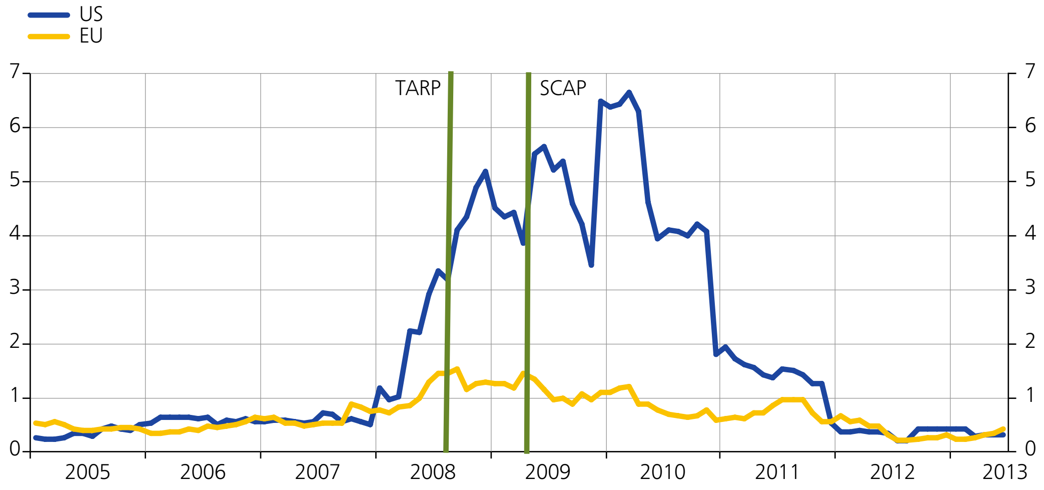
Building on the progress made in previous years, the capitalisation of EU banks continued to improve. In particular, banks continued to improve their Common Equity Tier 1 (CET1) capital ratio under Basel III, which reached around 12.3% for the sample of banks assessed on the basis of the EBA's key risk indicators.[2] While this level of capitalisation is comfortably higher than the regulatory requirement (including systemic risk buffers and buffers for systemically important banks – SIBs), issues regarding risk weights remain. Given the size of the EU's banking sector, equity issuance was rather subdued (see Chart 3), but retained earnings and the build-up of reserves were high, despite low levels of profitability.

At the same time, the EU's banking sector continued to shrink, the overall effects of which were mixed. After peaking at €33.2 trillion in the second quarter of 2012, euro area banks' unconsolidated balance sheets had fallen by 8.1% by the third quarter of 2013. Evidence suggests that this decrease was due mainly to large banks shedding their derivatives exposures, followed by the granting of fewer interbank loans. However, there was also a decline in lending to corporates and households, largely by smaller and medium-sized banks (particularly in the stressed euro area countries), which accounted for 18% of the total asset shrinkage. Finally, cross-border retrenchment contributed 12% of the overall shrinkage, as suggested by the fall in claims on non-euro area counterparties (see Chart 4).

1 The EBA published its final technical standards on NPLs and forbearance reporting requirements on 21 October 2013, which are available at www.eba.europa.eu

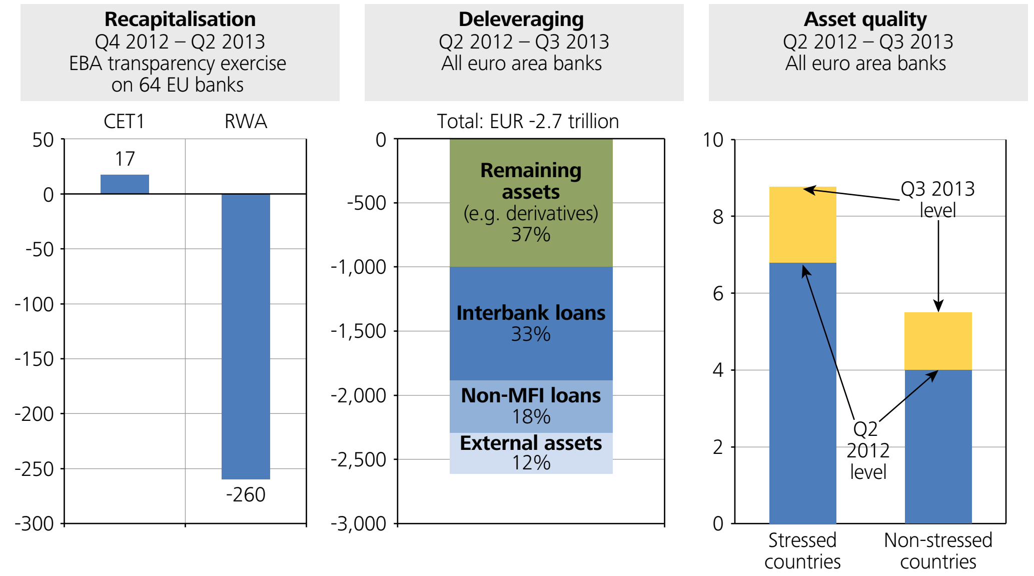
2 The EBA's Risk Assessment Reports provide a semi-annual update on risks and vulnerabilities in the EU's banking sector, based, among other data, on the EBA's key risk indicators. These reports are available at www.eba.europa.eu

Chart 3
Equity issuance
(normalised by total assets)



Sources: Dealogic ECM, ECB, FDIC and ESRB calculations.
Notes: TARP denotes "Troubled Asset Relief Program" and SCAP denotes "Supervisory Capital Assessment Program". The chart depicts equity issuance divided by total assets of the banking system. For presentational purposes, the resulting values were multiplied by 10,000.

Chart 4
The anatomy of recapitalisation
(EUR billions; percentages of NPLs/gross loans)

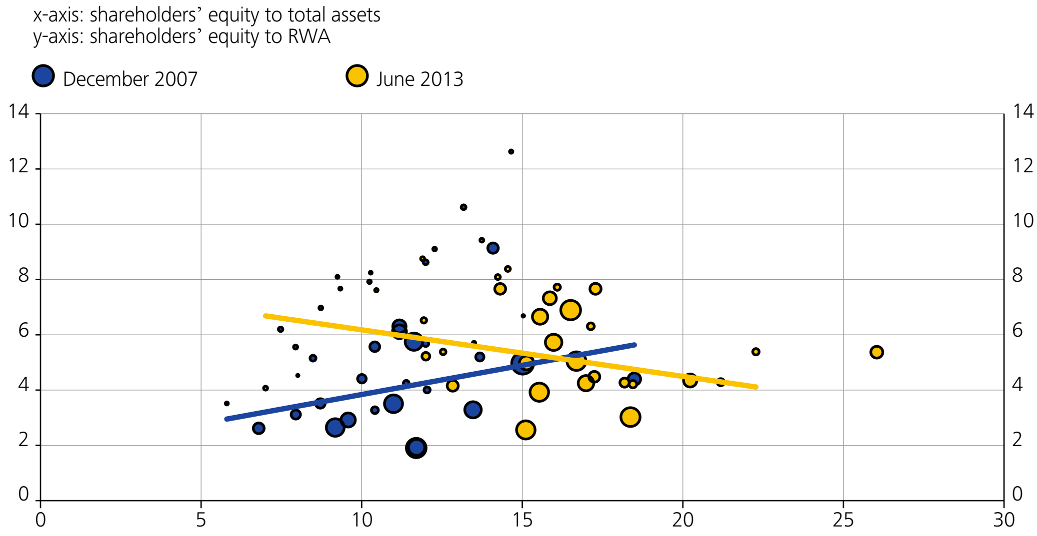


Sources: ECB and EBA.
Notes: CET1 denotes "Common Equity Tier 1" and RWA denotes "risk-weighted assets".

A significant part of the decline in risk-weighted assets (RWA) was not related to a reduction in balance sheet size, but stemmed instead from a shift towards lower or non-risk weighted assets (see Chart 5). Assessing the adequacy of banks' internal models is an integral part of the supervisory review and evaluation process, although some flexibility in the calculation of RWA under internal model-based approaches is permitted. However, existing flexibility may in some situations raise concerns as to whether related improvements in capital ratios adequately address the assessment of risk.

In the first half of 2013 NPLs of second-tier banks increased by roughly 0.5%, to stand at around 7.2%, with the coverage ratio remaining reasonably stable at 50%. With regard to large banks, NPLs hovered around an elevated level of around 6.6%. However, for 25% of these banks, doubtful loans constituted more than 15.5% of their total loans.[3] Against the backdrop of a sluggish economic environment and, in particular, the high levels of unemployment in most countries under a European Union-International Monetary Fund (EU-IMF) financial assistance programme, loan quality may deteriorate further. Given that the effects of asset quality typically lag the economic cycle, this constitutes a key risk for the entire banking sector, which could have an impact on profitability and capitalisation. Should the recovery, which is still in its early stages, continue to progress, shares of NPLs should gradually decrease. However, the high levels of NPLs can also partly reflect banks' recognition of previously forborne loans in anticipation of the comprehensive assessment by the SSM and thus the healing of balance sheets, including adequate provisioning of doubtful loans.

Chart 5
RWA and total assets
(percentages)



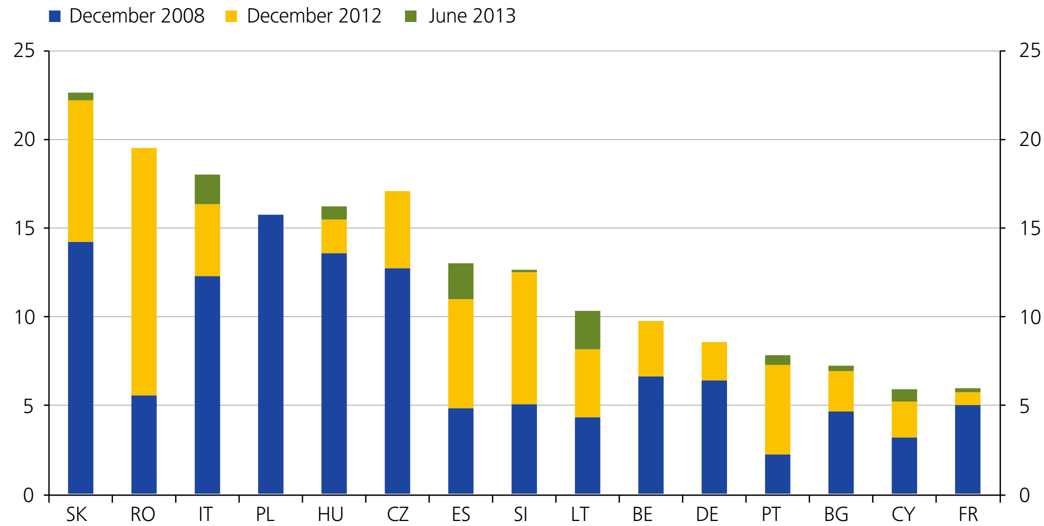
Source: Bloomberg.

3 The figures for second-tier banks are taken from the ECB's consolidated banking data (category: medium-sized banks), while those for large banks are based on the EBA's dataset on key risk indicators.

Banks' exposures to sovereign debt also warrant close monitoring. Financial market conditions improved during the period under review, fuelling the sentiment that Europe had started to emerge from the crisis. Sovereign bond yields relative to the German Bund continued to narrow (see Chart 14), and previously stressed countries have successfully issued medium and long-term bonds for the first time since 2010. Despite visible improvements in sovereign debt markets and the positive macroeconomic outlook, significant challenges lie ahead, such as putting fiscal fundamentals on a sound footing through structural reforms.

The risk of a resurgence of the sovereign debt crisis in the euro area remains a major high-impact risk to financial stability in the EU, although the likelihood of it materialising has fallen significantly. High government debt-to-GDP ratios (at levels well above 100% in several euro area countries) continue to be a key source of risk. In the stressed euro area countries, this risk could be heightened by a slow or incomplete implementation of reforms, fuelling debt sustainability concerns once again. In addition, the sovereign-bank nexus continues to give cause for concern, as banks continue to have considerable amounts of domestic sovereign debt on their balance sheets (see Chart 6). A high level of sovereign bond holdings makes banks more vulnerable to a resurgence of the sovereign debt crisis. A further deterioration in the macroeconomic outlook could reignite adverse feedback loops between banks and sovereigns, with rising public sector contingent liabilities as a result of bank credit losses and/or in response to weaker public sector balance sheets.

Chart 6
MFIs' exposures to domestic sovereign debt
(percentages)



Source: ECB.

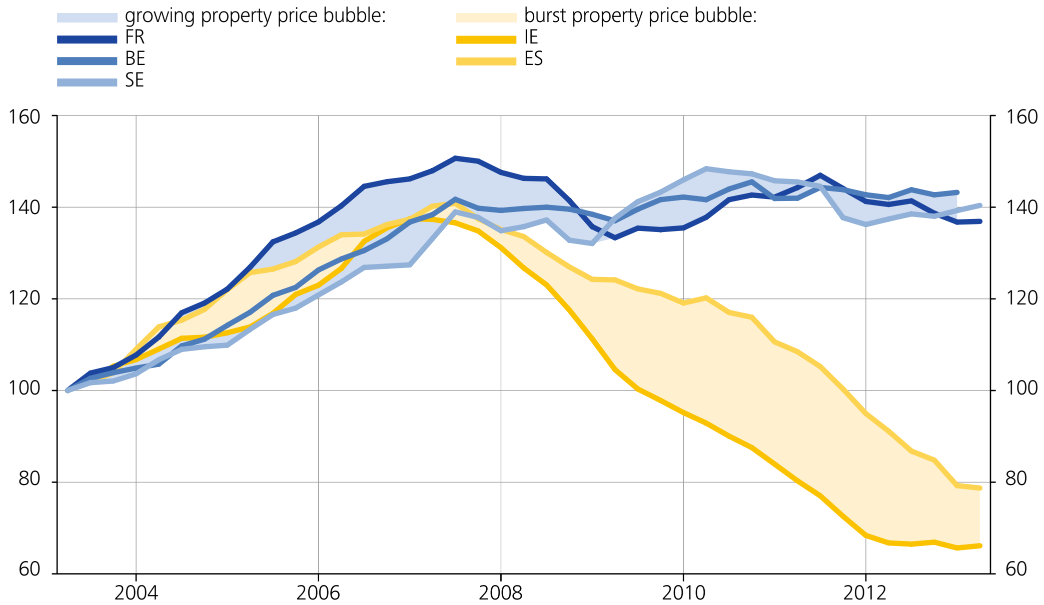
1.1.3 Diverging valuations in real estate markets

Banks' exposures to various national real estate markets and sectoral risk warranted careful monitoring. Following up on the previous year's analysis of national real estate markets, which revealed very heterogeneous developments across the EU, the ESRB still identified considerable divergence in valuation developments across the various Member States during the period under review. In some, property prices remained high or even rose further despite the crisis, raising concerns about overvaluation, while in others, property prices fell sharply (see Chart 7).

Chart 7

Heterogeneity in EU residential property markets

(real property prices; Q2 2003 = 100)

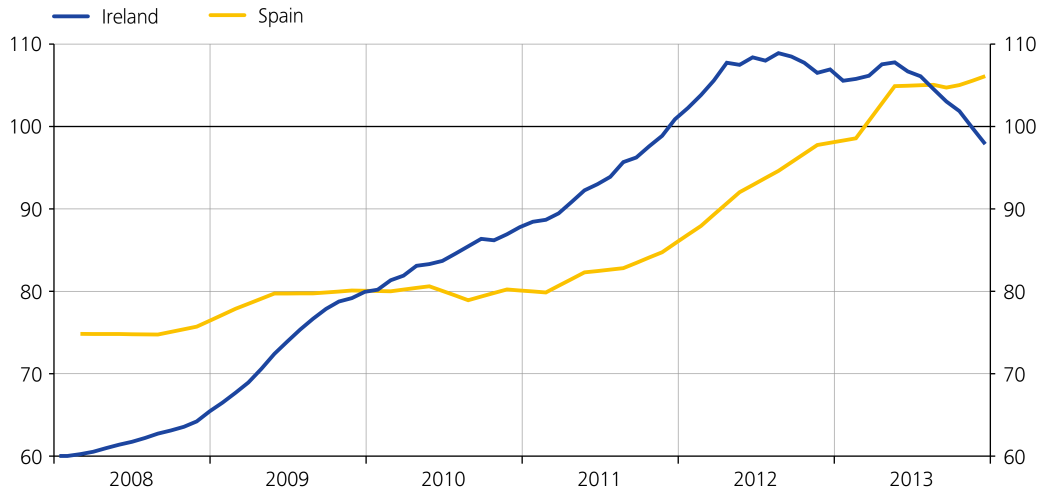


Source: ECB.

Banks' large exposures to domestic mortgages therefore constitutes a further vulnerability in their balance sheets. This problem is quite widespread and could affect both Member States that witnessed a large decline in property prices and those where prices have not yet adjusted. Apparently healthy mortgages could also be affected in loan-to-value (LTV) terms, once valuations are corrected (see Chart 8). Nonetheless, the progress made in terms of cleaning up balance sheets, recapitalisation and restructuring in Member States where property prices have adjusted has helped to restore financial stability and boost resilience to further adverse developments in real estate markets.

Despite the improvement in the macroeconomic outlook, economic and financial cycles across the EU continue to differ. The prevention and mitigation of systemic risks therefore calls for a policy approach that is also tailored to each Member State. Macro-prudential policy in overvalued markets should focus on enhancing banks' resilience and take into account the property price cycle, while in markets that have already undergone a sizeable correction, it should focus on banks' asset quality, which is already the case in some Member States.

Chart 8
The evolution of LTV ratios, as driven by a decline in property prices
(percentages; mark-to-market LTV)



Sources: NCBs and statistical offices in Ireland and Spain.

During the period under review Member States that had concerns about high debt levels and developments in their real estate markets started to take measures to improve resilience. The new capital requirements framework for the EU (the Capital Requirements Directive/Capital Requirements Regulation – CRD/CRR[4]) provides macro-prudential authorities with various policy tools to this end. In Sweden, the authorities introduced a 15% risk-weight floor on mortgage portfolios and are considering increasing it further to 25%; in Belgium, they announced a five percentage point add-on to the risk weights calculated by banks applying the internal ratings-based approach to mortgage portfolios. In the Netherlands, it was decided to gradually reduce LTV ratios by one percentage point per year. In the United Kingdom, the Bank of England decided that mortgage portfolios would no longer be eligible as a source of funding under the "Funding for Lending" scheme. Moreover, a number of Member States announced other measures, such as the systemic risk buffer and the other systemically important institution (O-SII) buffer.

1.2 The search for yield reinforcing the divergence between buoyant financial markets and weak fundamentals

During the period under review the EU financial system witnessed an ongoing search for yield and continued turbulence in emerging markets. In terms of systemic risk, the main consequence of these two related developments was the heightened risk of a "snapback" (or sudden increase) in risk premia in many segments of the fixed income market.

4 "CRD" refers to 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, while "CRR" refers to 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.

1.2.1 Announcement of US tapering causes turbulence in emerging markets

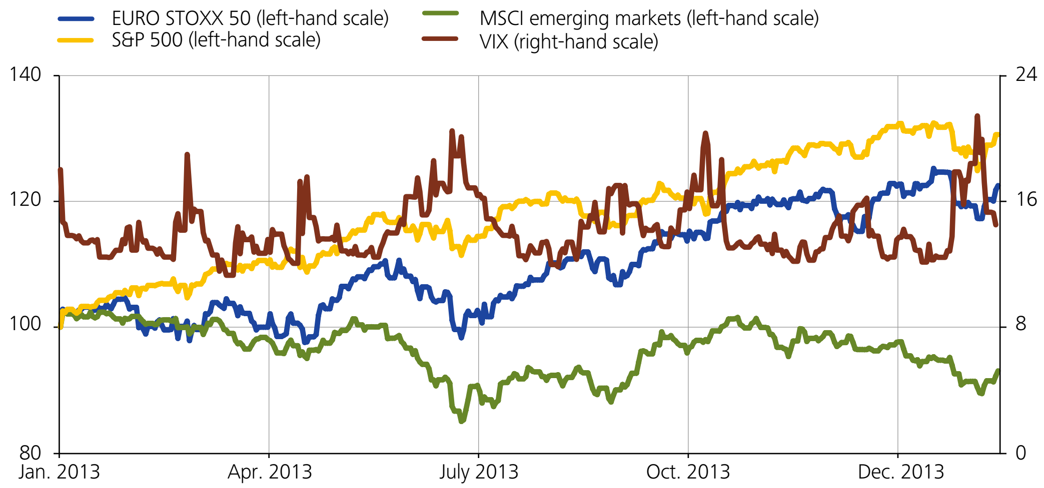
Search-for-yield behaviour intensified during the period under review on the back of increased investor confidence in an environment of improved economic fundamentals and low interest rates in major global economies. Investors increased the level of risk in their portfolios, as expected nominal returns on less risky assets were perceived as being too low. Two segments that benefited from the portfolio shifts were corporate credit markets (e.g. leveraged loans) and emerging markets. For example, the US securitisation market saw a revival of the collateralised loan obligation, which had played a key role in the sub-prime crisis. In the euro area, the global search for yield manifested itself with investors rebalancing their exposure to lower-rated sovereign debt as a result of improved economic prospects in the stressed euro area countries and lower risk aversion. Investors also increased debt holdings of banks in the stressed countries, including banks that had previously been bailed out. However, developments in the stressed euro area countries were also partly a reflection of the correction of excessive risk aversion during the height of the sovereign debt crisis.

A number of market participants were surprised by the Federal Reserve System's announcement in June 2013 that it was going to "taper" purchases under its quantitative easing programme. This announcement was the first sign of an exit from unconventional monetary policy in the United States and an indication that the period of ample liquidity might come to an end. The Federal Reserve's announcement led to a first wave of turbulence in emerging markets during the spring and summer of 2013 (see Chart 9). The stock and bond markets of a number of major emerging markets, such as Brazil and Argentina, witnessed high levels of selling. Across countries, the impact was due partly to domestic weaknesses in macroeconomic fundamentals and a reversal of previously high capital inflows (see Chart 10).

Chart 9

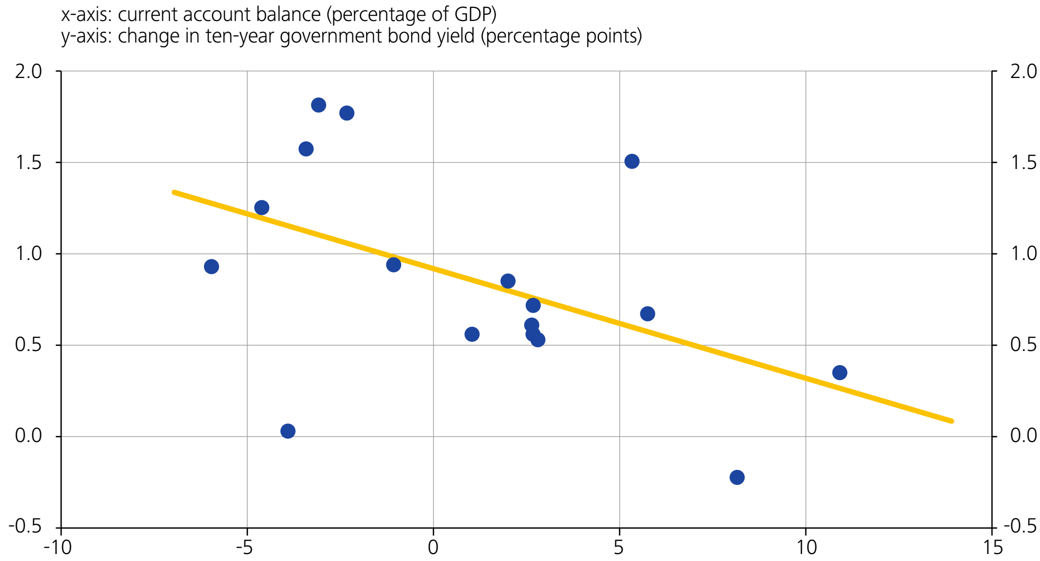
Evolution of equity markets in emerging market economies versus Europe and the United States

(index: 1 January 2013 = 100; percentage points)



Source: Thomson Reuters Datastream.

Chart 10
Current account balances and changes in ten-year sovereign bond yields in emerging markets
(percentages of GDP; percentage points)



Source: ECB calculations.
Note: Data are for the period from 21 May to 21 October 2013.

When the tapering actually began in December 2013, the market reaction was muted, even in emerging markets. The reason for this was threefold: (i) the Federal Reserve's tapering remained limited, with only a USD 10 billion reduction in monthly asset purchases; (ii) its decision to taper was accompanied by strengthened forward guidance; and (iii) important adjustments in the form of bond and equity market outflows had already been taking place in emerging markets from May 2013.

In January 2014 there was a second wave of turbulence in emerging markets, which differed from the first wave. This second wave was more closely linked to uncertainty about growth and the shadow banking sector in China, as well as to the political uncertainty and growth prospects in other countries, such as Argentina, Turkey and South Africa, which became the focus of investors' concerns. Signs of spillovers to central and eastern Europe (see Table 1) also highlighted the need for a careful management of risks related to foreign currency-denominated loan books, particularly of non-euro area banks, in line with Recommendation ESRB/2011/1[5] on lending in foreign currencies.

A new bout of instability in emerging markets materialised in February 2014, owing to increasing geopolitical strains in Ukraine, although in this case the effects remained limited to Russia, Ukraine and, to a lesser extent, Turkey. Later, stock prices, sovereign bond spreads and inflows to emerging market economies recovered strongly, as some countries adjusted their economic policy (by increasing official interest rates) and some of the previously vulnerable countries reduced their external disequilibria.

5 Recommendation (ESRB/2011/1) of the European Systemic Risk Board of 21 September 2011 on lending in foreign currencies.

Table 1

Exchange rate developments in selected countries

(percentage changes)

Exchange rate against the euro	Maximum change	Overall change
Argentinian peso	16.7	15.6
South African rand	5.0	3.1
Turkish lira	4.2	0.6
Brazilian real	3.5	1.7
Indian rupee	3.0	1.3
Hungarian forint	2.3	2.3
Polish zloty	1.6	1.6

Source: Thomson Reuters Datastream.
Note: Data are for the period 22-30 January 2014.

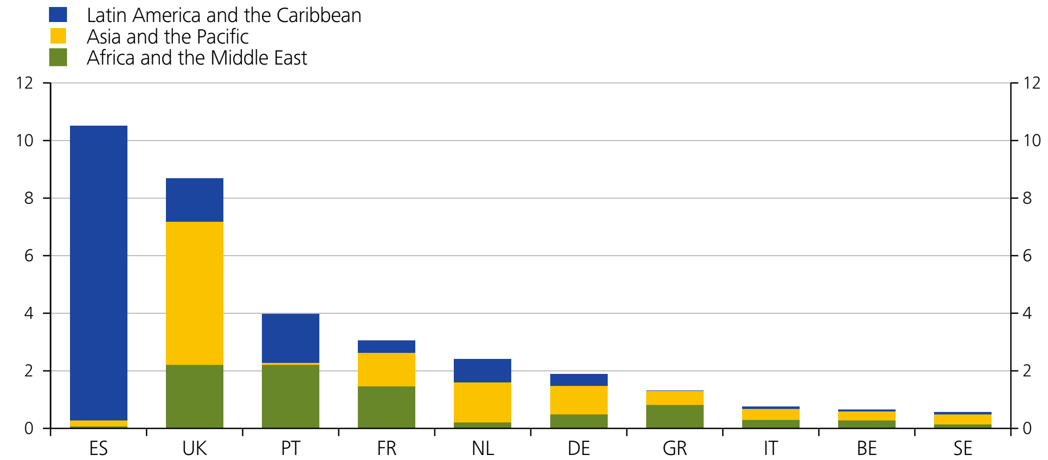
Signs of turbulence in emerging markets are of particular importance for the EU's financial system. In particular, sizeable cross-border bank exposures represent a potential transmission channel through which vulnerabilities in emerging markets could spread to Europe. According to statistics compiled by the Bank for International Settlements (BIS), EU banks' claims on emerging markets have increased steadily since 2009, mainly in Asia and Latin America. In particular, some Spanish and UK banks have large exposures to Latin America and Asia, in terms of their overall economies (at around 35% of GDP), total bank assets (see Chart 11) and contributions to profits generated in these markets (see Chart 12).

As a percentage of capital, several other banking systems also have large exposures to emerging markets. For example, those in Austria, the Netherlands, Greece, Spain and Belgium have exposures to emerging markets amounting to more than 100% of capital.

Chart 11

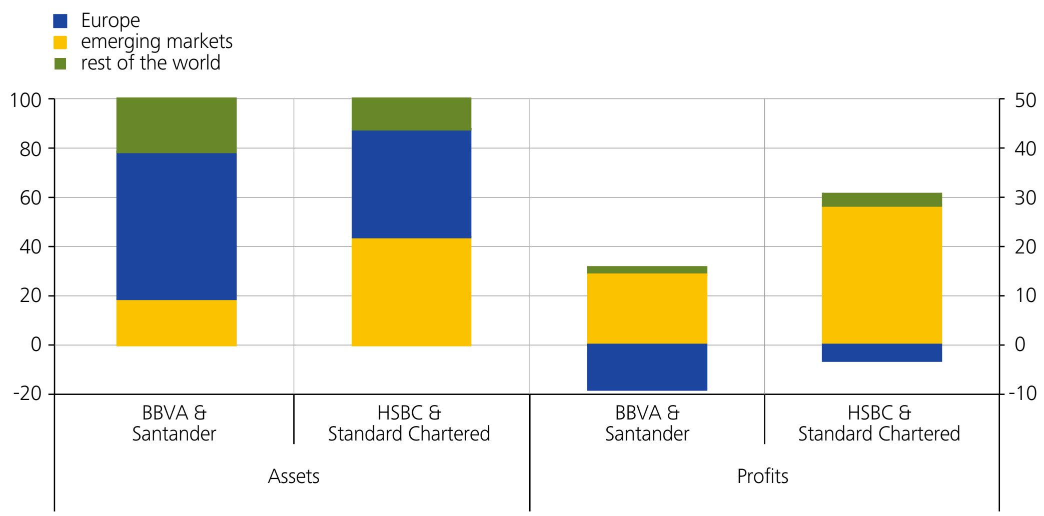
European banks' claims on emerging markets by region

(percentages of total assets)



Sources: BIS and ECB consolidated banking database.
Note: Data are for the year 2012.

Chart 12
Regional distribution of assets and profits
(percentage of total assets; USD billions)



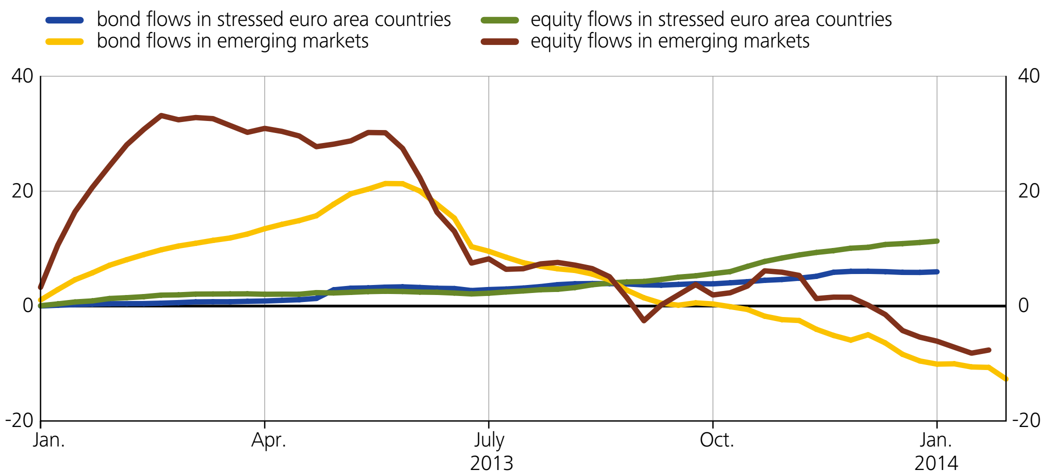
Source: SNL Financial.
Note: Data are for the year 2012, except in the case of BBVA when they refer to 2011.

Differences in business models (e.g. subsidiary-based versus branch-based; retail-oriented versus capital markets-oriented; financially independent banks versus integrated wholesale franchises) are key to assessing the risks stemming from these exposures.

1.2.2 Turbulence in emerging markets: potential trigger of a new phase in the global financial crisis

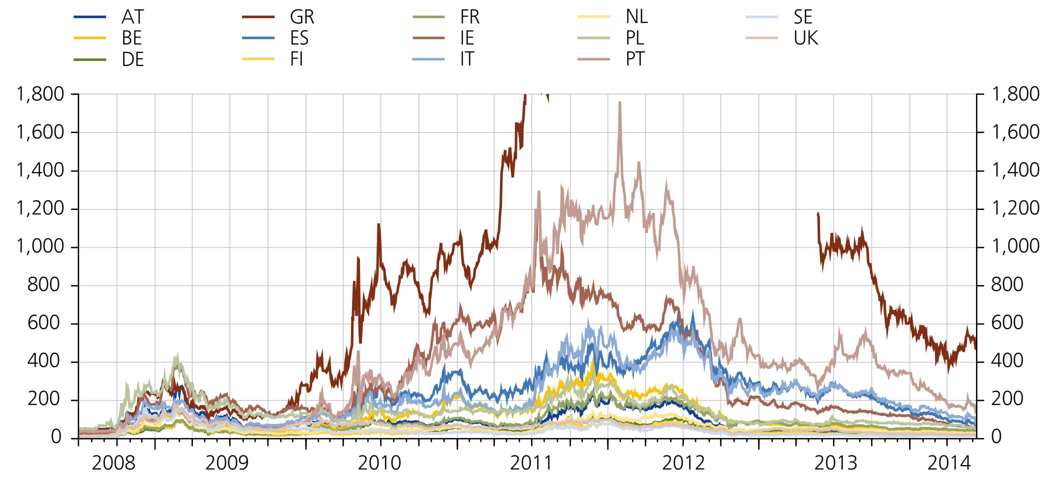
Financial markets in Europe withstood significant turbulence during the summer of 2013, mostly related to heightened uncertainty regarding the Federal Reserve System's tapering and fiscal policy. Those euro area countries under stress witnessed rising capital flows

Chart 13
Cumulated capital flows in stressed euro area countries and emerging markets
(USD billions)



Source: EPFR Global.

Chart 14
CDS premia on sovereign debt in selected EU countries
(basis points; five-year maturity)



Sources: Thomson Reuters Datastream and Credit Market Analysis.
Notes: Data are for the period from 1 July 2008 to 10 June 2014. Following the decision by the International Swaps and Derivatives Association that a credit event had occurred, Greek sovereign CDSs were not traded between 9 March 2012 and 11 April 2012. Owing to the lack of contributors, data were also not available between 1 March and 21 May 2013. For presentational reasons, this chart has been truncated.

(see Chart 13) and a noticeable decline in credit default swap (CDS) spreads (see Chart 14). Following this turbulence, valuations in euro area credit markets stabilised at the levels recorded after the sharp compression that followed the announcement by the European Central Bank (ECB) on Outright Monetary Transactions (OMTs) in mid-2012.

One factor in the EU's overall resilience continued to be the ECB's announcement of OMTs, which provide a credible backstop for holders of sovereign bonds. In relation to this, the ECB signalled that policy rates in the euro area would stay at low levels "for an extended period of time". Furthermore, the progress made with banking reforms and fiscal reforms throughout Europe contributed to the improved outlook. As mentioned in Section 1.1, the period under review saw the first signs of an improvement in Europe's economic outlook, including the exit of Ireland from its EU-IMF financial assistance programme and Spain's successful completion of the financial assistance programme for the recapitalisation of its financial institutions.

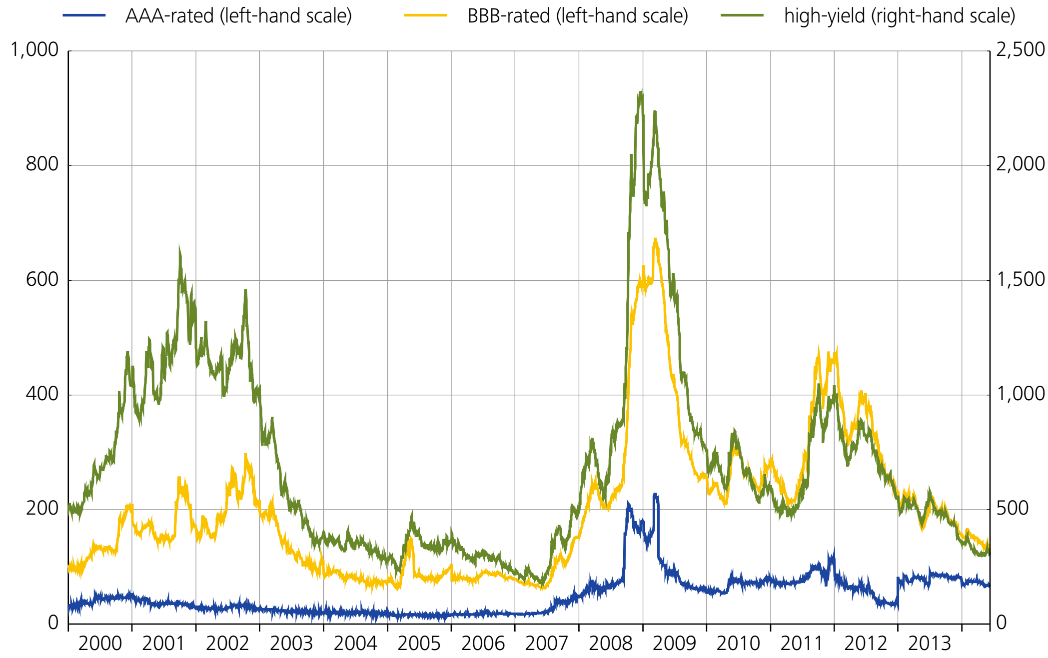
The structure of institutional investors' portfolios also played a role in limiting spillovers from turbulence in emerging markets. On the one hand, the "home bias" in European sovereign debt markets reduced the vulnerability of these markets to changes in foreign investors' behaviour. On the other hand, there were signs that international asset managers (e.g. US private equity firms) and "real money accounts" (e.g. pension funds and insurance companies) had also increased their investment in EU financial markets.

Overall, historically low yields in many markets continued to indicate potential for a snapback in interest rates. Yields and spreads in many credit market segments, including

Chart 15

Spreads on euro area corporate bonds

(basis points)



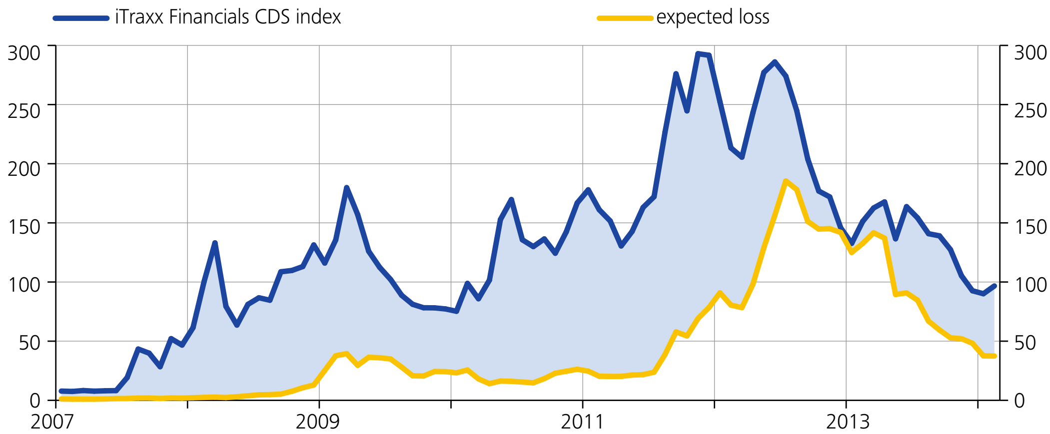
Source: Bank of America Merrill Lynch.
Note: Data are for the period from 1 January 2000 to 27 February 2014.

euro area non-financial corporate bond markets, continued to be historically low (see Chart 15). The protracted search for yield also tended to heighten sensitivity to changes in interest rates, as it first resulted in a decline in the quality of corporate bonds and a lengthening of the duration of bond portfolios.

Chart 16

Decomposition of CDS spreads

(basis points)

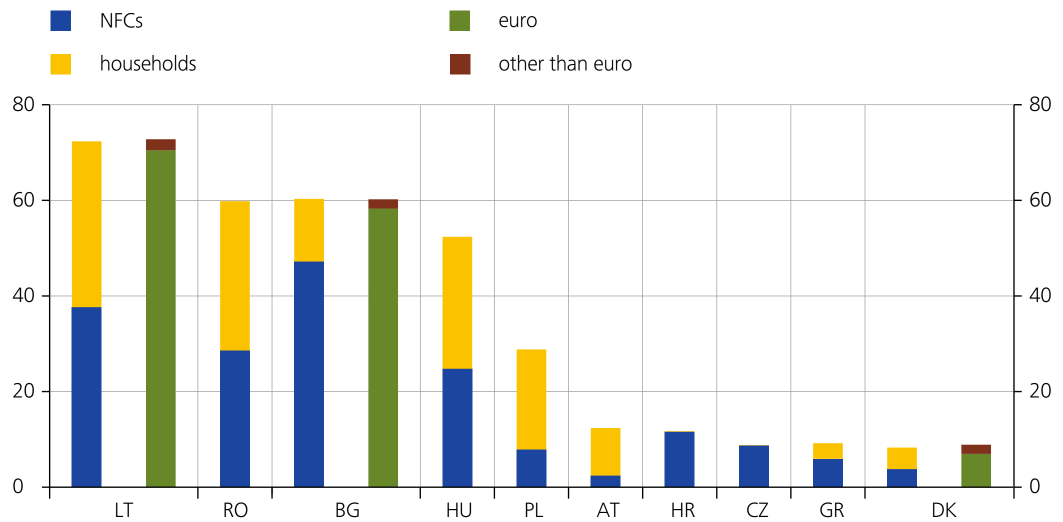


Sources: Bloomberg and ESRB calculations.

A shock that amplifies the risk aversion of market participants has the potential to rapidly drive up the level of banks' funding costs. In particular, risk premia have historically accounted for a significant part of credit spreads (in addition to expected loss). Since the peak of the sub-prime crisis in early 2009, there has been considerable volatility in the risk premia in the credit spreads of major financial institutions in the EU (see Chart 16).

In a distressed market environment, such snapbacks could have an adverse impact on capital flows, especially against the backdrop of a still fragile economic recovery. This could further exacerbate the effects of a repricing of risks. A shock to risk premia could also affect foreign currency markets, with direct implications for financial institutions relying heavily on funding in foreign currencies and/or with a large loan book denominated in foreign currencies (see Chart 17).

Chart 17
Foreign currency loans to the EU private sector
(percentages)



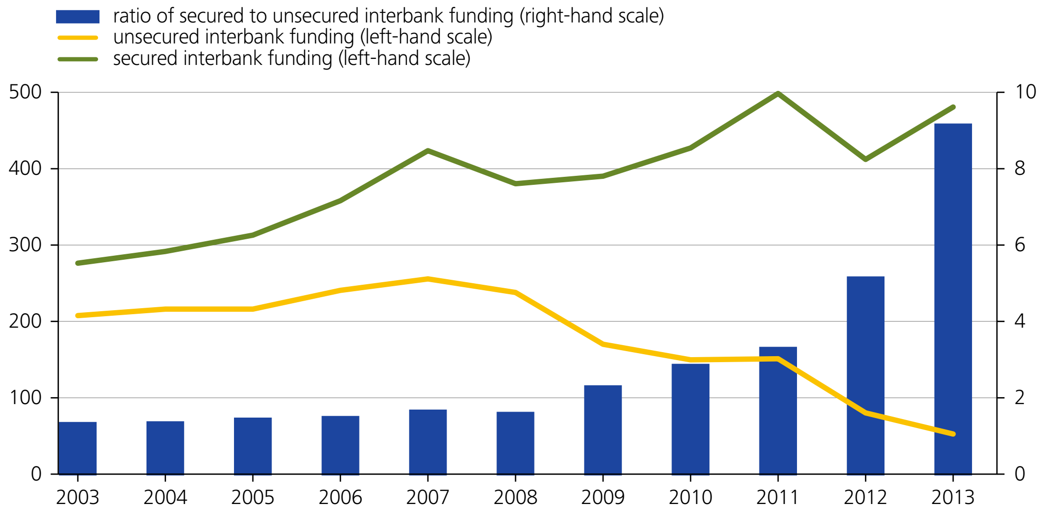
Source: ECB.
Note: For selected Member States (Bulgaria, Denmark and Lithuania), which have a fixed exchange rate vis-à-vis the euro, the additional bar shows the currency structure of their foreign currency loans.

Some measures were also introduced to contain risks stemming from lending in foreign currencies, in line with Recommendation ESRB/2011/1. For example, Austria decided to introduce guiding principles on foreign currency lending and minimum standards for the risk management and granting of foreign currency loans. The wave of turbulence in emerging markets in early 2014 had an impact on foreign exchange markets in some countries in central and eastern Europe, underscoring the need for adequate management of the risks associated with lending in foreign currencies.

A number of structural factors in the shadow banking sector further increased the risk of a sudden repricing of risk premia.

(i) **The growing importance of collateral-based financial intermediation** (see Chart 18). Secured transactions are vulnerable to sudden changes in the value of the underlying collateral, which could trigger higher margin requirements, asset fire sales and possible cross-sectoral contagion.

Chart 18
Secured versus unsecured interbank funding
(EUR billions)

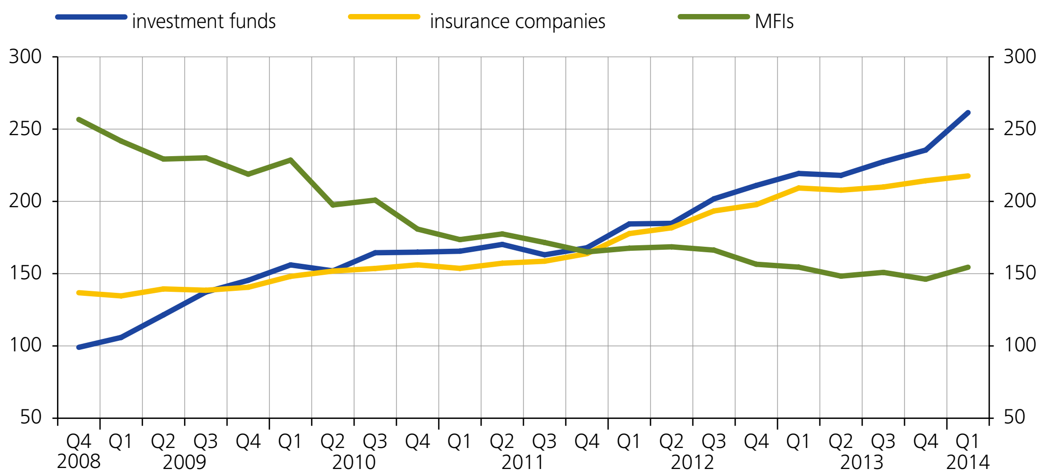


Source: ECB.

(ii) **Collateral transformation and leverage through collateral "chains".** Data collected by the ESRB in relation to securities financing transactions (SFTs) confirm that banks receive a mix of collateral, including more risky assets, and post less risky instruments with other financial institutions.

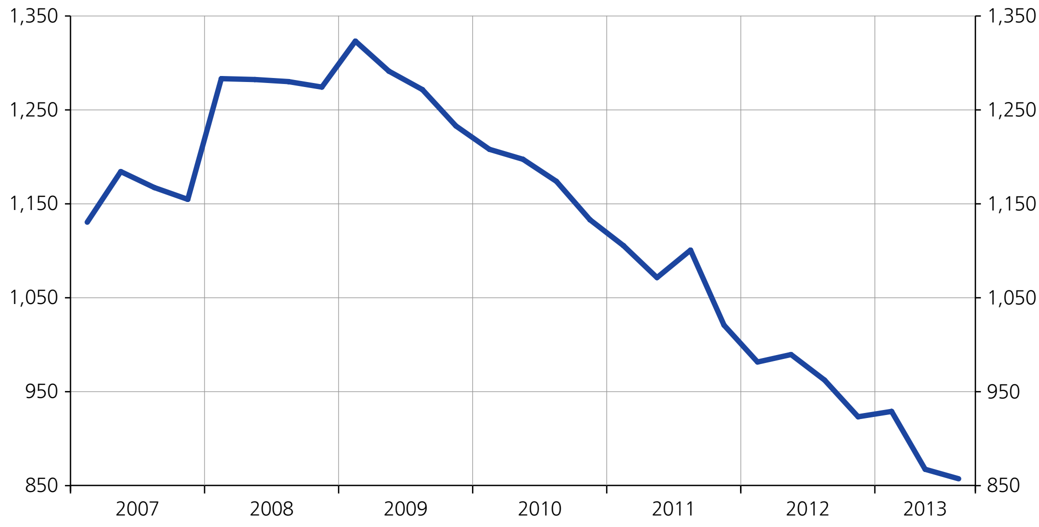
(iii) **Low inventories of market-makers.** The overall decline in the bond holdings of monetary financial institutions (MFIs) provides some indirect evidence of a reduction in market-makers' inventories (see Chart 19).

Chart 19
Euro area corporate bond holdings by investor type
(EUR billions)



Source: ECB.

Chart 20
Assets under management by euro area money market funds
(EUR billions)



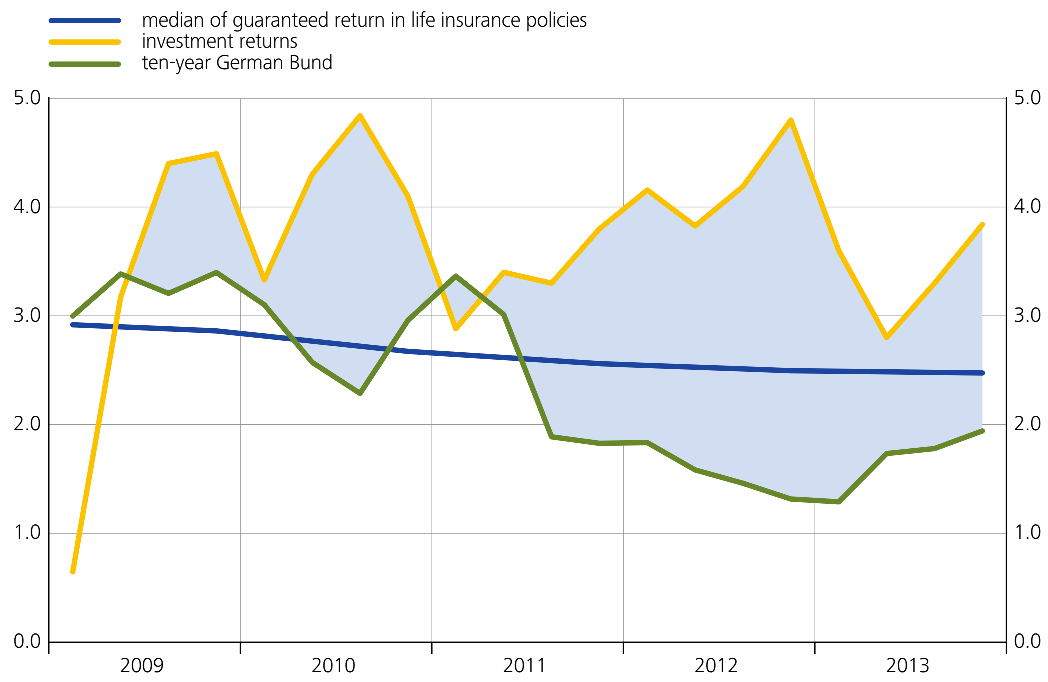
Source: ECB.

(iv) **Limited participation of money market funds in the money markets and repo markets.** Low degrees of participation also contribute to reducing market liquidity (see Chart 20).

Finally, during the period under review low yields affected the insurance sector. A key risk for the life insurance sector is the "double hit" risk, whereby insurers run the risk of a "hit" on both the assets side and the liabilities side of their balance sheets.

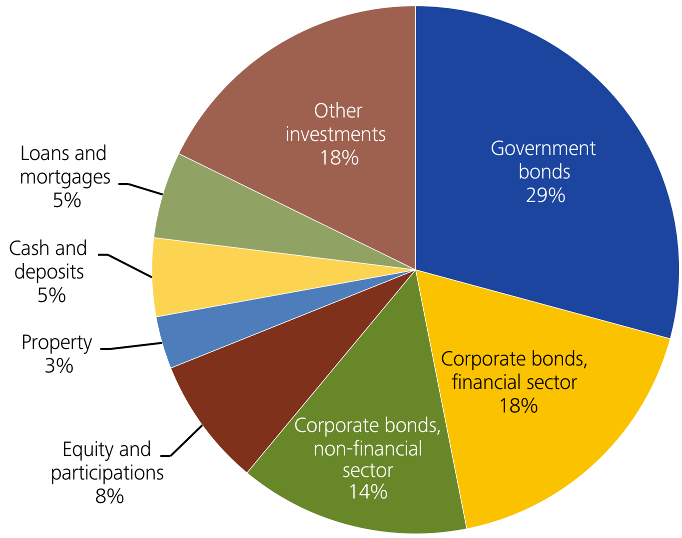
On the liabilities side, life insurance companies continued to suffer from the prolonged period of low risk-free interest rates. These low rates pushed up the market value of their long-term liabilities.
On the assets side, the low yields compressed margins between returns on investments and the guaranteed returns of policies issued. Over the past three years the average guaranteed return of life insurance policies, although it declined slowly, was well above the risk-free interest rate (as approximated by the German Bund in Chart 21). To achieve guaranteed returns and maintain margins, some insurers searched for yield by investing in riskier and less liquid assets. This is reflected in the spread between the investment returns and risk-free rates (see Chart 21). Greater investment in risky and illiquid assets made insurers vulnerable to a repricing of risk premia, although part of this can be mitigated by matching assets with liabilities. At the end of 2013 almost 70% of life insurers' investments were in categories in which such a repricing can take place (see Chart 22).

Chart 21
Guaranteed return, risk-free return and investment return
(percentages)



Sources: EIOPA (sample based on 30 large insurers in the EU and Switzerland) and ECB.
Note: The figures represent annual guaranteed rates for businesses that apply such guarantees.

Chart 22
Composition of insurers' investment portfolios
(percentages)



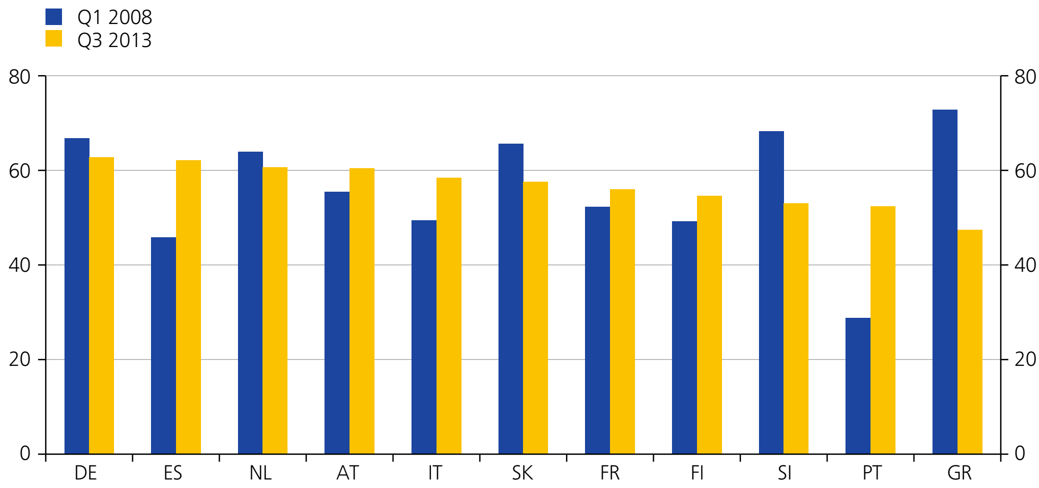
Source: EIOPA (sample based on 32 large insurers in the EU and Switzerland).
Note: Data are for the fourth quarter of 2013.

Furthermore, home bias, which is traditionally high in the insurance sector, appears to have increased in some euro area countries during the crisis (see Chart 23). A persistent home bias can result in an inefficient allocation of capital and a concentration of exposures. Using 2012 data, two groups of life insurance firms can be identified (see Chart 24): (i) life insurers in non-stressed countries, with high credit ratings because of their safe exposures, but low profitability because of the low yields on these exposures; and (ii) life insurers in stressed countries, with high yields on their exposures, but a lower credit rating given their exposure concentration at home. Now that sovereign bond spreads have narrowed considerably, it should be monitored whether this fragmentation reverses or whether such a reversal has been hampered by other factors, such as specific life policy features or the use of national discount rates for liabilities.

Chart 23

Home bias of insurers in the euro area

(domestic financial assets as a percentage of total financial assets)

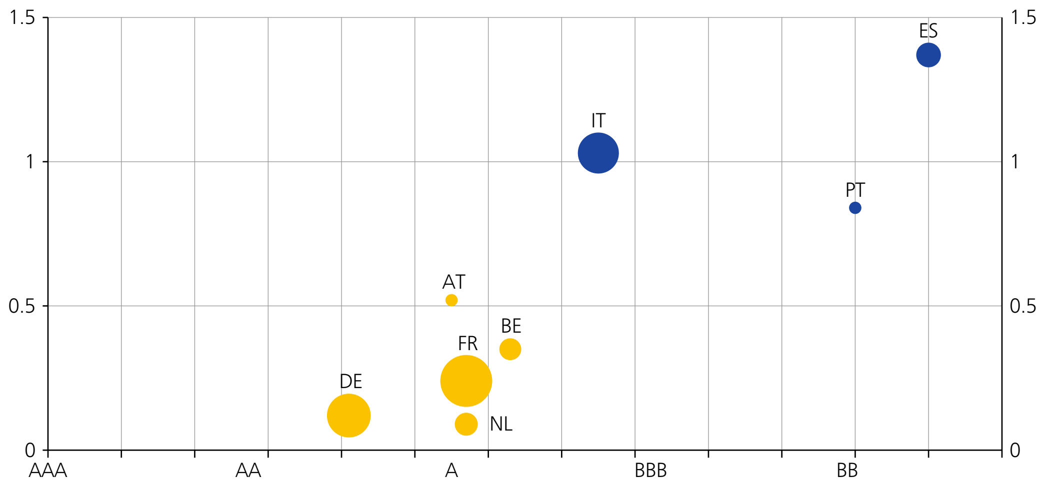


Source: ECB.

Chart 24

Return on assets versus average rating

(percentages)



Sources: ECB, EIOPA, S&P, Swiss Re and ESRB calculations.
Notes: x-axis: average of most recent ratings; y-axis: ratio of average profits to the total balance sheet of life insurers in 2012. The size of the dots reflects total written premia of life insurers in 2012. Data are based on a sample of 25 large life insurance companies. The yellow circles are for non-stressed countries and the blue circles are for stressed countries.

1.3 Regulatory reforms addressing structural vulnerabilities

The programme of regulatory reforms has been driven largely by the desire to reduce the likelihood of another crisis and limit its impact on taxpayers. The ongoing comprehensive overhaul of the institutional framework for banks, financial markets and insurance companies aims to ensure that the financial system is sufficiently resilient, even to systemic shocks. A number of reforms have already been implemented, others have been agreed upon and others are still under discussion. In addition to the reforms listed below, during the period under review the ESRB was also engaged in the assessment of the use of benchmarks, as well as the issue of loan origination by investment funds.

1.3.1 Reforming the banking sector

A key factor in the financial and economic crisis in the EU was the fragility of the banking sector. Section 1.1 outlined how an overhang of low-quality assets on banks' balance sheets has hampered the economic recovery in some areas of the EU. Firms with profitable investment opportunities have been unable to expand, owing, at least in part, to credit constraints.

To address the overhang of low-quality assets and minimise any lingering uncertainty regarding EU banks' resilience, authorities in the EU are currently carrying out a stress test of banks' balance sheets under the coordination of the EBA. The EU-wide stress test is being accompanied by an asset quality review, the aim of which is to enhance the transparency of significant banks' balance sheets by reviewing the quality of their assets. The overall aim of the exercise is to perform a "health check" on EU banks' balance sheets, triggering balance sheet repair where necessary and thereby restoring investor confidence in the resilience of the banking system to adverse market developments.

The fragility in the EU's banking sector originated in deep-seated vulnerabilities in the structure of the EU's financial system. It was exacerbated by, among other factors, a series of macroeconomic shocks, such as large falls in output and high levels of unemployment in Member States during the period 2008-09, followed by several years of stagnation. In addition to the credit losses suffered as a result of these shocks, the low profitability of banks was driven by excessive capacity in the banking sector. The EU's banking system is the largest in the world, with total assets amounting to 334% of GDP (see Chart 25). Moreover, it is highly concentrated: the increase in the size of the system since 1996 can be accounted for by the growth of the 20 largest EU banks, according to a report by the Advisory Scientific Committee (ASC).[6]

The recent report published by the ASC also finds that extensive bank lending is associated with long periods of low economic growth, greater risk-taking by banks and a higher frequency of banking crises. Furthermore, banks that engage in other financial activities in addition to ordinary lending tend to be more vulnerable to system-wide stress. These findings support encouraging greater diversification in sources of financial intermediation and ensuring the resilience of large and complex banks in particular.

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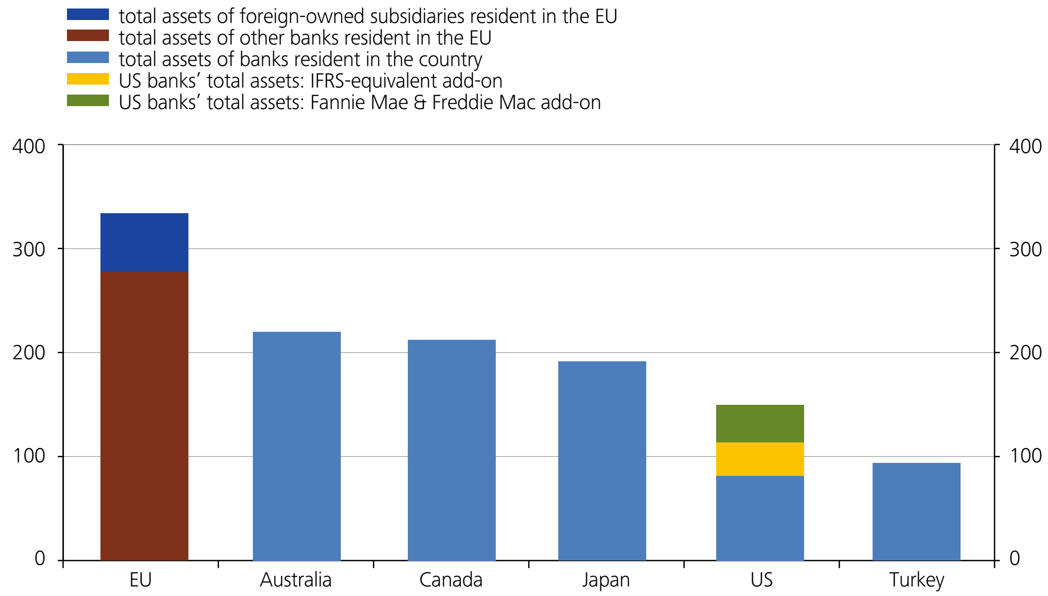
6 See "Is Europe Overbanked ?", *Reports of the Advisory Scientific Committee*, No 4, June 2014.

Chart 25
Resident banks' assets as a percentage of domestic GDP
(percentages)



Source: NCBs.
Note: Data are for the year 2013.

Significant progress was made in addressing the structural vulnerabilities in the EU's banking sector through new legislation. Over time, the cumulative impact of the legislation should increase the resilience of EU banks, particularly if the competent authorities are in a position at an early stage to use new policies. A more resilient banking sector will enable the financial sector to support innovation in the real economy more generally and in a sustainable manner.

In particular, two new pieces of EU legislation were adopted.

(i) In June 2013 the CRD IV package – comprising both the CRR and the CRD – was published. This EU legislation codifies the Basel III agreement, and provides the competent (supervisory) authorities with the legal power to impose additional prudential rules.
(ii) In October 2013 the SSM Regulation[7] – conferring supervisory powers on the ECB – was published. The SSM will bring many benefits, in particular additional coherence in banking supervision in the euro area: banks will be subject to more harmonised supervision; supervisory decisions will be imposed by a powerful regulator; and supervisory practices will be based on euro area-wide best practice standards.

In addition, EU co-legislators reached political agreement on new laws.

(i) In December 2013 the trilogue (European Parliament, EU Council and European Commission) reached political agreement on the text of the bank recovery and resolution directive (BRRD), which will enter into force in 2015. Among other things, the BRRD will

7 Council Regulation (EU) No 1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions.

give authorities the power (from 2016) to "bail-in" the eligible liabilities (including those related to unsecured creditors) of banks subject to resolution.

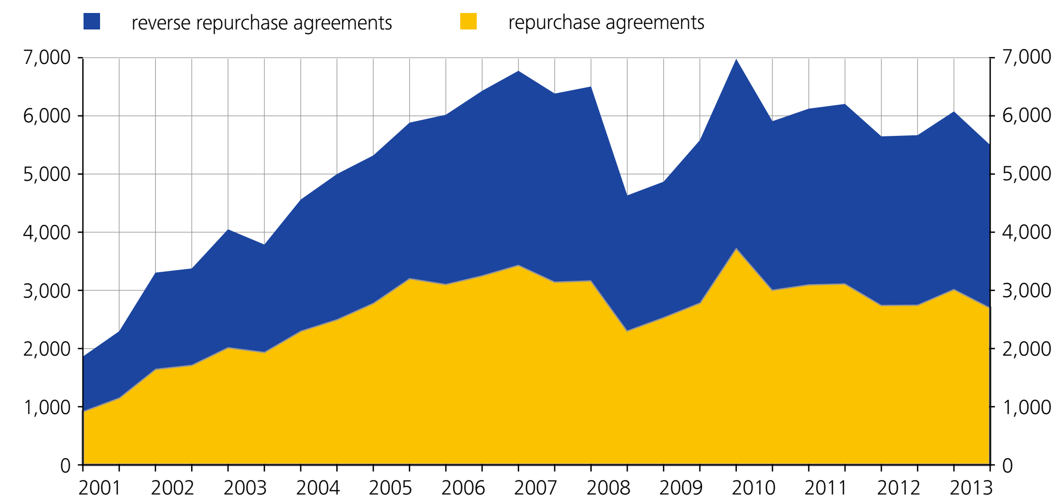
(ii) In March 2014 the trilogue reached political agreement on the Single Resolution Mechanism (SRM). Once operational, the SRM, as a complement to the SSM, will complete the creation of a banking union, ensuring more effective banking supervision and, when necessary, a more credible procedure for resolving distressed banks. The resolution procedure will be bolstered by a centralised Single Resolution Board, which will be responsible for taking decisions on whether, when and how to resolve individual banks.

In addition to these agreements, in January 2014 the European Commission adopted a proposal for a regulation to reform the structure of the EU's banking system. The proposal is based on the "Liikanen report", which was published in October 2012. In particular, the report prohibits engagement in the risky activity of proprietary trading for the biggest banks. Under the proposal, competent authorities would have the power to enforce the separation of certain trading activities from the core credit institution, in order to eliminate imminent channels of contagion. Such channels may emerge within global banks and from global banks to the financial sector and the real economy. The Commission's proposal is currently being discussed by the European Parliament and the EU Council.

1.3.2 Beyond banking: securities financing transactions

In the course of 2013 the ESRB made significant headway on assessing the potential macro-prudential risks and vulnerabilities associated with SFTs. The interconnectedness of the financial system necessitates improvements to the regulatory oversight of shadow banking entities and activities, and their interplay with the banking sector. SFTs, which encompass repurchase agreements (including buy-backs; see Chart 26) and securities lending, play a key role in this regard.

Chart 26
Outstanding repurchase agreements in Europe
(EUR billions)



Source: ICMA.

A wide range of market participants, including credit institutions, pension funds, insurance companies, asset managers, broker-dealers and investment firms, engage in SFTs in order to secure funding, invest cash or borrow specific securities or, for market-making purposes, as liquidity or securities dealers.

Consequently, widespread use of SFTs may have macro-prudential implications. This is because they may foster contagion via funding and collateral chains or between the banking system and shadow entities, or they may propagate shocks from collateral to counterparties and vice versa, highlighting the potential negative feedback loop between credit risk and market risk. Furthermore, SFTs can increase the amount of leverage in the system, especially in a buoyant market environment, which is likely to be characterised by more favourable haircuts, margins and collateral eligibility requirements. Together, those factors can exacerbate pro-cyclicality, introducing additional sources of risk into the system.

International bodies, regulators and standard-setters have repeatedly issued warnings about the potential risks of SFTs. One of the main risks associated with SFTs relates to the opacity of data. In August 2013 the Financial Stability Board (FSB) issued a report that included policy recommendations for "enhanced transparency and regulation of securities financing".[8] In its very first recommendation, the FSB indicated that SFT data gaps need to be filled by collecting "more granular data on securities lending and repo exposures amongst large international financial institutions".

The ESRB has followed closely the ongoing policy debate. The aim is to gain a better understanding of the impact that SFTs could have on financial stability in Europe. To this end, the ESRB conducted a one-off data collection exercise in the summer of 2013 (between June and September), using a sample of 38 banks and 13 of the most significant agent lenders in the EU (see Table 2).

Table 2
Collateral received and posted by instrument
(EUR billions)

Instrument	Collateral received	Collateral posted
(Reverse) repurchase agreements	2,800	3,047
Securities lending/borrowing	707	761
Derivatives	140	200
Total client assets	267	
Short sales		259
Other instruments	57	310
Total	**3,971**	**4,576**

Source: ESRB data collection exercise (2013).

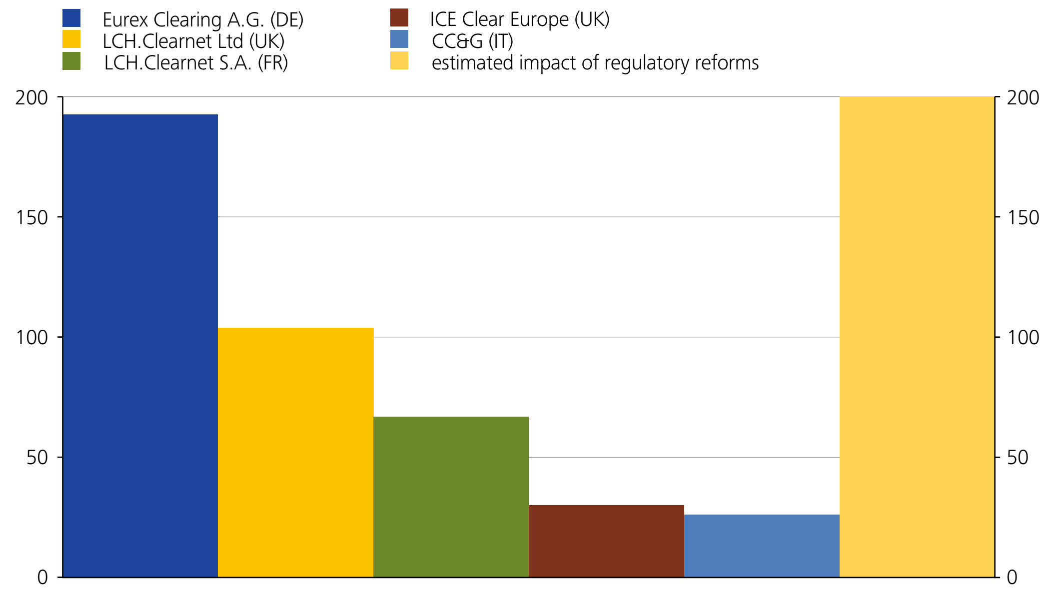
8 See the report entitled "Strengthening Oversight and Regulation of Shadow Banking" at www.financialstabilityboard.org

The data collection exercise provided key insights into the potential systemic risks of SFTs in Europe. It confirmed the importance of SFTs for both banks and other financial intermediaries, such as money market funds, hedge funds, and insurance companies and pension funds. A significant share of the assets available for lending appeared to belong to non-EU clients, which confirmed the role of SFTs in increasing interconnectedness across the globe and the associated macro-prudential risks.

The exercise also identified potential systemic risks arising from the reinvestment of the cash collateral received through SFTs. These risks relate to the observed mismatch between the maturity of the transactions that source the collateral and the maturity of those that reuse the collateral, as well as the differences in the degree of liquidity and the quality of the underlying assets. Furthermore, the data collected on non-cash collateral provided evidence of collateral transformation, as the assets received as collateral appeared to be of a lower quality than those posted by the intermediaries.

Owing to the substantive informative value of the exercise, the ESRB sees merit in repeating it at appropriate intervals in the future. The results will be incorporated into the ESRB's framework for monitoring shadow banking in Europe. Future improvements to and repetitions of this exercise, however, will take into account the effects of the recent policy measures[9] proposed by the EU in order to enhance transparency and establish supervisory reporting on SFTs.

Chart 27
Transactions cleared by European CCPs
(EUR trillions)



Source: ECB.
Note: Data for transactions cleared are for 2012.

9 On 29 January 2014 the European Commission published a Proposal for a Regulation of the European Parliament and of the Council on reporting and transparency of securities financing transactions, COM(2014) 40 final.

The ESRB is closely following the European Commission's initiative to close the data gap and has contributed to developments at the analytical level. The ESRB may also use the information acquired through the data collection exercise to provide additional technical input to the initiative from a macro-prudential perspective and facilitate interinstitutional cooperation in relation to the actual collection of data by the authorities concerned.

The data collection exercise conducted by the ESRB in 2013 also confirmed the growing importance of central counterparties (CCPs). These market infrastructures now clear a substantial amount of SFTs, with 30% of the reported transactions being cleared by a CCP (see Chart 27). Indeed, the systemic relevance of CCPs is expected to increase following the implementation, both in Europe and on a global scale, of the regulatory reforms that stipulate that certain over-the-counter (OTC) derivatives must be cleared centrally.

In the EU, the European Market Infrastructure Regulation (EMIR)[10] entered into force in 2012. The effects of the EMIR, relating to the entry into force of the clearing obligations, are currently expected to materialise in the first quarter of 2015. Consequently, the importance of CCPs from a systemic risk perspective will increase, and CCPs will therefore warrant closer monitoring and risk assessment by macro-prudential authorities and the ESRB.

1.3.3 Exposures to sovereign risk

Sovereign risk is virtually non-diversifiable and has the potential to affect the entire balance sheet structure of a bank over and beyond any direct exposure associated with its holdings of sovereign debt.[11] It can affect both the liabilities side and the assets side of a bank's balance sheet. On the liabilities side, an increase in sovereign risk can push up funding costs for banks in stressed countries, thereby limiting their access to the market and, in turn, their capacity to lend. On the assets side, sovereign risk can have an impact on macroeconomic stability, thereby affecting a bank's assets and limiting the range of investment opportunities for new lending, which then reinforces the negative effects in terms of funding.

The exposure of banks and other financial institutions to sovereign debt could also form a channel of contagion during periods of stress. The risk of contagion could potentially be exacerbated by valuation losses (as a result of credit and/or market/devaluation risk) on sovereign bond holdings and other domestic assets. Against this background, the ESRB has been following sovereign debt exposure closely in order to shed light on major developments regarding the amounts of sovereign debt held by financial institutions.

In the EU, the sovereign-bank nexus is still important, as banks continue to hold considerable amounts of domestic sovereign debt on their balance sheets (see Chart 6). In many euro area countries, the exposure of banks to euro area sovereign debt exceeds 5% of their total assets. Furthermore, in almost all euro area countries, the exposure is overwhelmingly towards the domestic issuer. It should also be noted that EU banks, particularly in the stressed countries, further increased their holdings of domestic government debt in 2013.

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10 Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories.

11 The vulnerabilities that stem from the sovereign-bank nexus mainly concern the link between sovereigns and their respective domestic (or intra-monetary union) banking systems.

Under the current regulatory framework, the treatment of sovereign debt discounts or, in some cases, ignores the possibility of default. Sovereign debt exposures are associated with very low or zero capital requirements and are exempted from the limits under the large exposures regime. However, sovereign defaults, though not as frequent as those in the private sector, have occurred regularly throughout history.[12]

Recognising the very rare occurrence, but systemic dimension of sovereign defaults, and in parallel to its analytical work, the ESRB also discussed possible policy implications for the regulatory treatment of sovereign debt exposures. While agreeing that it is important to address the root causes of sovereign risk by ensuring the resilience of public finances, the ESRB recognised that there is a danger that financial institutions could still be exposed to significant amounts of risk through their holdings of sovereign debt.

1.3.4 Implications of recent regulatory reforms for the insurance sector

The prudential regulation of insurers is also to be overhauled following the agreement on Solvency II in 2013.[13] The agreement on Solvency II paves the way for a much-needed reform of insurance regulation. New provisions regarding the market valuation of balance sheets and the risk-based calculation of capital requirements and transparency requirements are needed to ensure that vulnerabilities are addressed. To this end, rules have been complemented by transitional and structural measures under the "long-term guarantees package". The aim of this regulatory package is to dampen the impact of short-term market volatility on the insurance business, which has long-term liabilities. The impact study carried out by the European Insurance and Occupational Pensions Authority (EIOPA) sheds light on the effects of these measures on the capital positions of life insurers. From the perspective of systemic stability, the provisions of Solvency II should ensure that the insurance sector holds sufficient capital at all times and is transparent with regard to the impact of long-term guarantee measures.

The CRD/CRR and Solvency II will not only have implications in terms of financial stability for the sectors they target, but also for other sectors. For instance, Solvency II encourages insurers to invest in investment-grade bonds and covered bonds. Since insurers invest large parts of their assets in bank debt, this affects the funding costs of banks. At the same time, the CRD/CRR makes the holding of covered bonds attractive for banks. The increase in demand for covered bonds is a cause for concern in terms of financial stability, owing to the potential lack of collateral. Another example is the use of financial derivatives to hedge risks. Insurers may step up their use of derivatives to even out market valuation-based volatility in their balance sheets. As banks are the likely suppliers of such derivatives, the interconnectedness between insurers and banks may thus increase. This warrants careful use of derivatives and adequate supervisory scrutiny.

12 See Reinhart, C.M. and Rogoff, K., *This Time Is Different: Eight Centuries of Financial Folly,* Princeton University Press, 2010.

13 Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (hereinafter "Solvency II").

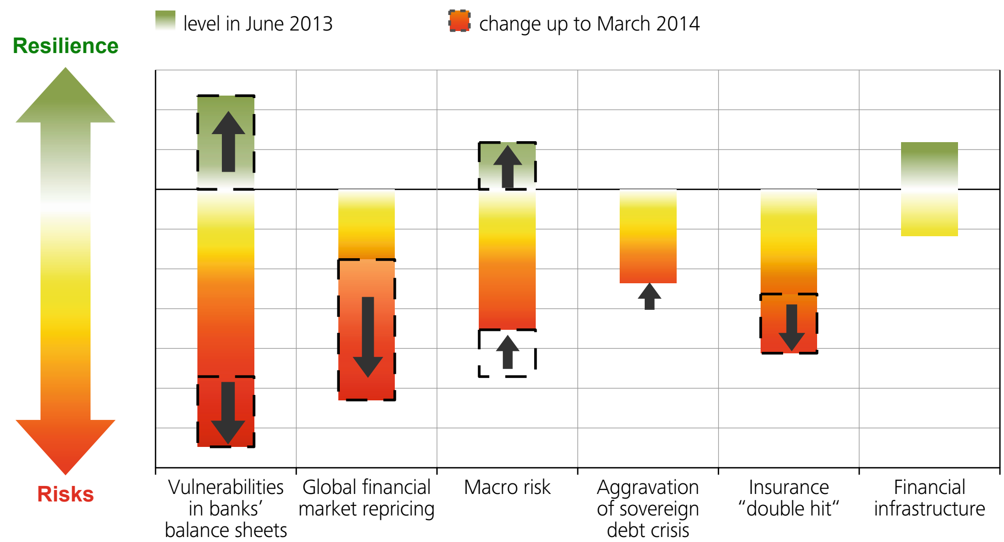
1.4 Summary of cyclical risks

ESRB risk surveillance is based on the ESRB risk dashboard[14], which consists of a common set of quantitative and qualitative indicators to identify and measure systemic risk for the EU financial sector, compiled in collaboration with the European Supervisory Authorities (ESAs). These indicators, in combination with qualitative sectoral and system-wide indicators, provide a basis for the ESRB assessment of cyclical risks. The data used for ESRB risk surveillance and assessment is provided by the ECB as part of statistical support foreseen in the ESRB Regulation[15]. The ECB supports, inter alia, the production of the ESRB risk dashboard.

From March 2013 to March 2014 the overall level of systemic risk in the EU remained at a moderate level, with notable improvements in some areas. As highlighted by Chart 28, the decomposition of systemic risk reveals a change in the main sources of risk during the period under review. The macroeconomic recovery remained weak, fragile and uneven. Inflation fell over 2013, reflecting a persistent sizeable output gap alongside other one-off commodity price changes. Nonetheless, economic activity picked up over the same period, signalling that the EU could be gradually emerging from recession.

The risk of a resurgence of the euro area sovereign debt crisis receded over 2013, although there is still the possibility of another such high-impact event occurring. Many countries made substantial progress with regard to fiscal consolidation and structural reform. For example, Ireland exited its EU-IMF financial assistance programme and Spain successfully completed the financial assistance programme for the recapitalisation of its financial institutions.

Chart 28
Summary of economic risks



Source: ESRB.

14 The ESRB risk dashboard is available at http://www.esrb.europa.eu/home.do

15 Regulation (EU) No 1092/2010 of the European Parliament and of the Council of 24 November 2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board.

Banks remain the main concern in terms of financial stability in the EU, reflecting the dominant role they play in the EU's financial system. NPLs remained at high levels. Banks' profitability – reflected, for example, in returns on average assets – is a fraction of its pre-crisis level. To a certain extent, the low profitability of banks was the result of overbanking and other structural aspects. Nevertheless, the nascent macroeconomic recovery, combined with the expected confidence-building and transparency-enhancing role of 2014's EU-wide asset quality review and stress test, could improve the short-term outlook for the EU's banking sector.

Central bank policy rates continued to be exceptionally low across the EU. This reflected the subdued outlook for inflation. In February 2014 inflation (as calculated in terms of the Harmonised Index of Consumer Prices - HICP) was below 2% in all Member States and negative in six. Continued low policy rates could have an undesirable impact on the financial sector. The value of life insurers' future liabilities, which are discounted at the risk-free rate, is high, while returns on assets are low. Across the financial sector, firms have an incentive to engage in the search for yield, since nominal return targets are sticky: there is evidence that banks tend to take on more risk when policy rates are at a low level for extended periods.

If and when policy rates increase, there is a risk that investors will quickly readjust their portfolios, moving away from risky assets and causing a snapback in risk premia. Such snapbacks materialised in the case of some emerging market assets, following changes in expectations regarding the Federal Reserve System's tapering of the quantity of assets bought under its large-scale asset purchase programme. Such tapering, however, is just one possible trigger for a snapback, as a global repricing in financial markets could also be the result of a deteriorating outlook on credit risk, lower economic growth across the globe or spillovers from major emerging markets such as China. The implications of such a portfolio rebalancing for financial stability and the real economy are uncertain, as they depend on the leverage of those investors caught on the wrong side of the shift.

Section 2

Operationalising macro-prudential policy

Operationalising macro-prudential policy

2.1 A sound framework for macro-prudential policy

2.1.1 The new capital requirements framework in the EU

The new capital requirements framework for banks in the EU – the CRD/CRR – entered into force on 1 January 2014. This marked an important milestone in the development of macro-prudential policy in the EU. The new capital requirements framework provides Member States with a set of macro-prudential instruments that will enable them to address systemic risks emanating from the banking sector.

The CRD instruments include capital buffers – the countercyclical capital buffer, the global systemically important institution (G-SII) buffer, the O-SII buffer and the systemic risk buffer. The aim of these buffers is to ensure that banks have sufficient capital of the highest quality to target specific forms of systemic risk. The CRD also provides for the macro-prudential use of instruments at the disposal of the micro-prudential supervisor when reviewing whether a bank's capital planning process is adequate in terms of covering its risks under the so-called Pillar II of the CRD/CRR. Finally, the CRR includes "national flexibility measures", which are a special set of instruments allowing national authorities to impose stricter prudential requirements in order to address systemic risks, and specific real estate-related instruments.

Different instruments provide different degrees of flexibility in their application. For example, national flexibility measures may only be used if the national authority can show that the measure is necessary, effective and proportionate, and that other specified measures do not adequately address the systemic risk at hand. The use of national flexibility measures is also subject to a notification process and, as a rule, a non-objection process, in order to safeguard the single rulebook[16] while still providing the possibility to address systemic risks that have emerged in a particular Member State. Macro-prudential policy is especially important in a currency union such as the euro area, owing to the absence of country-specific monetary and exchange rate policies.

2.1.2 The macro-prudential policy cycle

During the period under review the ESRB published its "Flagship Report on Macro-prudential Policy in the Banking Sector" (hereinafter "Flagship Report") and "Handbook on Operationalising Macro-prudential Policy in the Banking Sector" (hereinafter "Handbook"). These two publications provide the analytical basis and guidance for the use of the macro-prudential instruments available to policy-makers under the CRD/CRR, and are particularly important given the number of macro-prudential measures planned by Member States.

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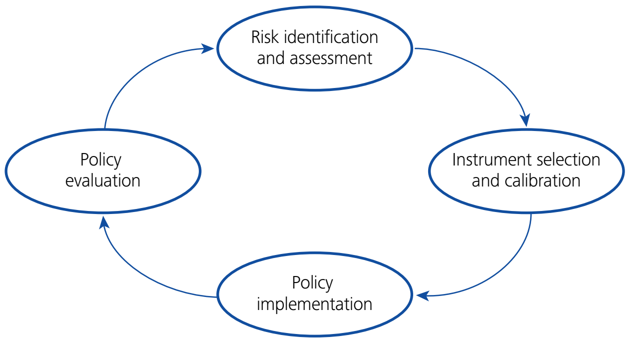
16 The aim of the single rulebook is to have a harmonised regulatory framework for the EU financial sector that would complete the Single Market in terms of financial services.

The use of macro-prudential instruments, including those now available under the CRD/CRR, needs to be embedded in a policy strategy. The Flagship Report outlines four stages in the implementation of such a strategy (see Chart 29). They are (i) the risk identification and assessment stage, where relevant indicators and indicative thresholds are used to detect and assess vulnerabilities, and help guide policy; (ii) the instrument selection and calibration stage for targeting relevant systemic risks; (iii) the implementation stage, where instruments are activated; and (iv) the evaluation stage, where the effects of the policy measures and the need for further action are assessed.

Chart 29
The macro-prudential policy cycle



Source: ESRB.

(i) Risk identification and assessment

This stage of the cycle involves the identification and assessment of risks. Information on the stage of the financial cycle is also crucial for assessing risks. In order to monitor and assess the build-up of systemic risks, it is necessary to select a set of key indicators that capture the identified sources of the risks.

During the period under review the ESRB identified key indicators and relevant thresholds for the use of the countercyclical capital buffer. Narrowing down the list of possible indicators and determining indicative thresholds for activating other instruments are important strands of the ESRB's ongoing macro-prudential work.

In this regard, closing data gaps and further improving existing statistics are particularly important for the identification and assessment of systemic risks. As macro-prudential policies could have cross-border spillover effects and require coordinated action, it is also necessary to ensure the comparability of data.

(ii) Instrument selection and calibration

This stage involves selecting and calibrating instruments to reflect the nature and level of the systemic risk. When selecting instruments, national macro-prudential authorities (NMAs) should take into account potential economic, legal and cross-border impacts.

To facilitate the selection process, the Flagship Report and the Handbook link key instruments for the banking sector to intermediate objectives of macro-prudential policy. They also analyse how the effects of using such instruments pass through the financial system and the real economy.

The macro-prudential policy stance must reflect the stage of the financial cycle and the financial structure, which can differ markedly across Member States. Moreover, banks' activities often extend beyond national borders. The selection of instruments must therefore take account of possible cross-border spillover effects, both positive and negative, and unintended consequences, including circumvention and arbitrage.

NMAs should strive to use those instruments that will result in the highest net benefit to society. This involves assessing the instruments' effectiveness in relation to their desired objectives and the social costs that they may entail as a result of restrictions on certain entities and activities. NMAs should favour instruments that are likely to have only limited negative cross-border spillover effects.

(iii) Policy implementation

The implementation stage involves a number of issues that are common to all instruments, such as how to ensure an appropriate policy stance, how to coordinate with other policy areas and how to communicate to the public.

The drawbacks of policy action, such as compliance costs and forgoing profitable opportunities, are directly visible and short-term, while the benefits, in the form of greater and more stable economic growth and lower fiscal costs, are less obvious and accrue only in the medium to longer term. Consequently, policy-makers may have a tendency to procrastinate, which is referred to as the inaction bias. In the light of this, the Handbook recommends the use of a framework of guiding or presumptive indicators. Under such a framework, the need for a tighter policy stance would be presumed when indicator values exceed certain indicative thresholds. In this way, the burden of proof shifts to those arguing in favour of an unchanged policy stance.

Macro-prudential policy interacts with other policy areas, including micro-prudential policy, monetary policy and fiscal policy, thereby reinforcing the need for coordination across policy areas. Macro-prudential policy and micro-prudential policy have different perspectives – the former focuses on the stability of the financial system as a whole, while the latter focuses on the soundness of individual financial institutions – but both are needed to put the financial system on a sound footing. Macro-prudential policy can also complement monetary policy by reinforcing financial stability and providing more targeted instruments that address some of the possible undesirable effects of monetary policy on financial stability, such as asset bubbles.

Another key aspect of the implementation of macro-prudential policy is public communication. Clear communication fosters understanding among members of the public, helps to manage expectations in the market and provides the basis for accountability. The rationale for activating or releasing a macro-prudential instrument should be clear to banks and any other stakeholders.

(iv) Policy evaluation

The last phase of the cycle is evaluation. Evaluating the impact of macro-prudential instruments against their objectives provides information on their effectiveness and efficiency. It also provides the basis for deciding whether or not the instrument needs to be adjusted, whether or not additional instruments are necessary, and whether or not the instrument has achieved its objectives. More generally, it helps to create a better understanding of how the effects of using the instrument pass through the financial system and the real economy. It also helps to improve decision-making and accountability.

Evaluation may furthermore result in the decision to release time-varying macro-prudential instruments. The release phase calls for a somewhat different set of indicators than that used in the build-up phase (when the risks are gradually accumulating). The ESRB's analysis showed that financial market prices, in particular, are helpful in judging when the use of macro-prudential instruments should be ended or scaled back. Moreover, given that the financial sector landscape is changing continuously, it is essential to complement the indicator-based analysis with additional, non-quantitative information.

2.2 Putting the policy framework to work

2.2.1 From financial stability to intermediate objectives and instruments

Since its establishment the ESRB has been involved in developing the policy framework for the effective conduct of macro-prudential oversight. In connection with this work, it has identified a number of challenges associated with linking the – generally broadly formulated – ultimate objectives of macro-prudential mandates to those of concrete action.[17]

In order to further operationalise macro-prudential oversight and respond to the challenges identified, the ESRB issued Recommendation ESRB/2013/1 on intermediate objectives and instruments of macro-prudential policy on 4 April 2013. This Recommendation links the ultimate objective of macro-prudential policy to intermediate objectives and the instruments for achieving them. The work towards the Recommendation drew on the existing theoretical financial stability literature and empirical analysis. The Recommendation comprises an indicative list of instruments and links each intermediate objective to a set of possible macro-prudential instruments on the basis of their effectiveness and efficiency.

As the entry into force of the CRD/CRR on 1 January 2014 provided Member States with macro-prudential instruments to mitigate systemic risk in the banking sector,

17 See, for example, the mandate of the ESRB, as enshrined in Article 3(1) of Regulation (EU) No 1092/2010 of the European Parliament and of the Council of 24 November 2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board: "The ESRB shall be responsible for the macro-prudential oversight of the financial system within the Union in order to contribute to the prevention or mitigation of systemic risks to financial stability in the Union that arise from developments within the financial system and taking into account macroeconomic developments, so as to avoid periods of widespread financial distress. It shall contribute to the smooth functioning of the internal market and thereby ensure a sustainable contribution of the financial sector to economic growth."

the focus of the ESRB's work in this regard was on supporting the operationalisation of the new instruments. Consequently, four intermediate objectives relevant to the safeguarding of stability in the banking sector were identified.[18] These objectives involve the prevention and mitigation of systemic risks arising from:

(i) excessive credit growth and leverage: excessive credit growth has been a key driver of financial crises in the past, with leverage acting as an amplification channel;

(ii) excessive maturity mismatch and market illiquidity: reliance on short-term and unstable funding may lead to fire sales, market illiquidity and contagion;

(iii) direct and indirect exposure concentrations: exposure concentrations make the financial system vulnerable to common shocks, either directly through their effects on the balance sheets of financial intermediaries or indirectly through asset fire sales and contagion;

(iv) misaligned incentives with a view to reducing moral hazard: this involves strengthening the resilience of systemically important institutions (SIIs), while counterbalancing the negative effects of (implicit) government guarantees.

The sections below discuss each of these individual objectives in greater detail and link them to macro-prudential instruments that can be used to achieve them. In view of the economic environment during the period under review, which was characterised by a weak and uneven recovery, the ESRB focused in particular on the intermediate objective of addressing excessive leverage and more broadly on that of misaligned incentives.

2.2.2 Addressing excessive credit growth and leverage

The first intermediate objective involves addressing excessive credit growth and leverage. Periods of excessive credit growth are a key predictor of financial crises. This is particularly the case when excessive credit growth coincides with a build-up of leverage in the private sector and unsustainable developments in real estate markets.

Excessive credit growth and leverage can lead to the pro-cyclical amplification of financial shocks to the real economy. An economic downturn following a period of excessive credit growth can lead to large losses in the banking sector and spark a vicious circle. Banks' attempts to strengthen their balance sheets by deleveraging can constrain credit supply to the real economy, which exacerbates the economic downturn and, in turn, further weakens their balance sheets.

Measures have been taken to make banks more resilient to such pro-cyclical dynamics. In December 2010 the Basel Committee on Banking Supervision (BCBS) published a number of measures to strengthen the regulation of the banking sector. One of these measures was the countercyclical capital buffer, which has been implemented in the EU through the CRD.

18 Recommendation ESRB/2013/1 on intermediate objectives and instruments of macro-prudential policy actually includes a fifth intermediate objective, namely strengthening the resilience of financial infrastructures. However, it is not discussed further here, as it is not directly relevant to the banking sector and the application of the CRD/CRR.

The countercyclical capital buffer is designed to counter pro-cyclicality in the financial system. The idea is that capital is accumulated when cyclical systemic risk is judged to be increasing. The additional capital will then boost the resilience of the banking sector during periods of stress when losses materialise. This, in turn, will help to maintain the supply of credit and dampen the impact of the downswing of the credit cycle. The countercyclical capital buffer may also contribute to limiting the build-up of excessive credit growth during the upswing of the financial cycle.

Under the CRD, the ESRB may give guidance to designated authorities on setting countercyclical capital buffer rates by issuing recommendations. In particular, the ESRB may develop principles to guide designated authorities when determining the appropriate buffer rate and provide guidance on the measurement and calculation of the credit-to-GDP gap and the calculation of the buffer guide. In addition, the ESRB may provide guidance on the variables that indicate the build-up of systemic risk associated with periods of excessive credit growth in the financial system and on the variables that indicate that the buffer should be maintained, reduced or fully released. An ESRB expert group worked on developing this guidance during 2013 and it is envisaged that a recommendation will be published in the course of 2014.

The leverage ratio is another instrument that can be used to directly address the first intermediate objective. This ratio restricts the build-up of excessive on-balance-sheet and off-balance-sheet leverage by limiting a bank's total assets (including off-balance sheet) in relation to its equity. Since the ratio is not based on risk-adjusted assets, it also provides a simple and transparent backstop to safeguard against model and measurement error in the risk-based capital requirements. Since the BCBS' leverage ratio framework and disclosure requirements were only amended in January 2014 and final adjustments to the definition and calibration are to be made by 2017, the use of the leverage ratio is not yet governed by the CRD/CRR. From 2015 institutions will be required to calculate and disclose their leverage ratio.

Credit booms in real estate markets have played an important role in major financial crises. However, the broad-based countercyclical capital buffer and leverage ratio are less well suited to addressing credit developments in particular segments of the economy, which requires additional targeted instruments. Such instruments targeted at the real estate segment can be broadly grouped into those that primarily address banks and those that are aimed at borrowers.

Real estate instruments that target banks take the form of additional capital requirements that are imposed on banks which are particularly exposed to risks emanating from the real estate sector. Exposures to the real estate sector can be treated more severely in the calculation of the capital requirements, notably through the application of higher risk weights or higher "loss given default" parameters, which, in turn, result in higher risk weights. All these capital instruments fall within the scope of the CRD/CRR, although the procedures for using them may differ.

By contrast, real estate instruments that target borrowers are outside the scope of the CRD/CRR and can therefore be used at the discretion of national authorities. These include limits on ratios such as the LTV, loan-to-income (LTI) and debt service-to-income (DSTI) ratios. The LTV ratio is used to limit the amount that can be borrowed in relation to the value of the underlying collateral, normally real estate. The LTI and DSTI ratios are used to limit the size of a loan or its debt servicing burden in relation to the borrower's income.

While limits on LTV, LTI and DSTI ratios seem to have promise as macro-prudential instruments, the lack of comparable data and harmonised definitions presents a challenge in terms of their implementation. Other challenges worth noting relate to monitoring and addressing developments in the commercial real estate sector and at the regional level (e.g. large cities versus rural areas).

Indicators that can guide the use of real estate instruments include both volume-based indicators (real estate credit) and price-based indicators (real estate prices). In particular, the combination of high growth in both real estate credit and real estate prices is a cause for concern from a macro-prudential perspective, and even more so when it is accompanied by lower lending standards (e.g. higher LTV, LTI and DSTI ratios). Indicators that capture real estate investments and credit conditions, as well as bank balance sheet indicators (to assess banks' resilience), are also useful.

2.2.3 Preventing and mitigating excessive maturity mismatch and market illiquidity

The second intermediate objective involves preventing and mitigating excessive liquidity risk in the financial system, and is closely related to the previous objective of addressing excessive credit growth and leverage. Indeed, abundant liquidity in the financial system, particularly in the form of short-term and volatile funding, can fuel unsustainable credit growth and leverage, as evidenced by the recent financial crisis.

Liquidity risk can materialise in the form of funding liquidity risk or market liquidity risk. Funding liquidity risk refers to excessive maturity mismatches between the assets and liabilities of financial intermediaries such as banks, while market liquidity risk can be defined as the inability to sell financial assets quickly without there being a substantial impact on market prices. The two forms of risk are linked and can be mutually reinforcing. The ability of market participants to trade financial assets, thus ensuring market liquidity, depends on their access to funding liquidity, which, in turn, is influenced by the market liquidity of the assets. Particularly in times of stress, there is a high correlation between market liquidity risks and funding liquidity risks.

Liquidity risk is systemic when it manifests itself as a widespread failure of banks' normal funding and refinancing channels. In turn, this may prompt the central bank to act as the lender of last resort. This type of risk is crucial to understanding the recent global financial crisis. With hindsight, it can be said that liquidity risk was neither sufficiently internalised by market participants nor sufficiently addressed by regulators and supervisors.

Banks may not have the right incentives to improve their liquidity profile since they do not fully internalise the related benefits. Indeed, as a rule, banks do not take into account the impact their actions or weaknesses may have on the wider financial system. In order to meet performance targets, they may therefore rapidly expand their balance sheets through unstable sources of funding, relying on the authorities to provide assistance if and when a crisis occurs.

The aim of liquidity regulation is to ensure that banks, in particular, are able to refinance themselves when their liabilities fall due. This can be achieved by constraining excessive maturity mismatches between assets and liabilities and by requiring banks to hold a sufficiently large buffer of liquid assets.

Efforts are well under way across the globe, in particular by the BCBS, to develop liquidity standards for banks that will help to address the aforementioned concerns. Thus far, the BCBS has introduced two standards: (i) the liquidity coverage ratio (LCR), which requires banks to hold a buffer of liquid assets, the size of which depends on a bank's maturity mismatch in a one-month period; and (ii) the net stable funding ratio (NSFR), which requires banks to restrict the extent to which they can finance illiquid assets with short-term and unstable sources of funding. At present, the CRD/CRR does not impose any specific quantitative requirements with regard to the LCR and NSFR in the EU, although banks are already required to meet liquidity coverage and stable funding requirements that have been formulated in more general, qualitative terms.

The LCR and NSFR are conceived as internationally harmonised minimum requirements based on stress scenarios. They are mandatory and remain static in normal times. During periods of stress, however, banks are permitted to deviate from the LCR and dip into their liquidity buffers.

In addition to putting individual banks on a sounder financial footing, the LCR and NSFR have macro-prudential benefits. A structural funding requirement, such as the NSFR, is the preferred instrument for addressing excessive maturity mismatches, as it has a direct impact on the financial intermediation process.

In their present format, the requirements may need to be supplemented with a macro-prudential liquidity policy. In particular, a time-varying use of the NSFR would allow banks to adjust their resilience to liquidity risk over the credit cycle, in a similar way to the countercyclical capital buffer. It would also enable longer-term structural changes in the financial system to be addressed. However, it would be premature to go down this route at the current juncture since, as yet, there are no data available on the practical use of the LCR and NSFR. Therefore, it is important that, as more data become available during the monitoring and evaluation phase of the ratios, the macro-prudential dimension of the ratios and their interaction with other policy areas are investigated in greater detail.

The loan-to-deposit ratio and the somewhat more broadly defined loan-to-stable funding ratio, which some Member States have at their disposal or have already used, can be considered as simplified versions of the NSFR. There is also empirical evidence that points to their power to predict stress events. While their simplicity and easy communication are attractive features, they are also far less comprehensive than the NSFR because they focus only on certain elements of a bank's balance sheet.

All the aforementioned instruments can be labelled as quantity-based instruments, as they impose quantitative restrictions on banks' balance sheets. Price-based instruments, by contrast, impact directly on banks' funding costs. Such instruments include imposing a levy on banks in respect of their liquidity risk, which is calculated on the basis of the reliance on short-term, volatile funding or the NSFR, or imposing a liquidity surcharge on SIIs, in particular SIBs. The liquidity surcharge could be calculated as a function of an institution's contribution to systemic liquidity risk. The FSB considers such surcharges as one of the measures that could be addressed to SIBs.

A number of market-based indicators and balance sheet indicators can be drawn on to guide the use of all these instruments. It is necessary to combine the use of indicators with expert judgement in order to activate the instruments. However, high frequency market-based indicators can play a greater role in guiding the release phase of the instruments, as they often reflect liquidity stress quickly.

2.2.4 Dealing with exposure concentrations

The third intermediate objective involves addressing exposure concentrations. Exposure concentrations make the financial system vulnerable to common shocks, either directly through balance sheet exposures or indirectly through asset fire sales and contagion.

Direct concentration risks arise from large exposures to individual clients (or a group of connected clients), specific sectors (e.g. the real estate, interbank or economic sectors) or asset classes (e.g. asset-backed securities). They are direct in the sense that a shock to a particular client, sector or asset class would affect the balance sheets of all banks with exposures to that client, sector or asset class. Indirect concentration risks arise when a shock weakens banks through contagion channels, such as interconnectedness, asset fire sales and a general drying-up of liquidity. These risks are indirect in the sense that they may stem from weaknesses in other parts of the financial sector, with repercussions for the pricing or quality of banks' assets.

Two categories of macro-prudential instrument help to address risks related to common exposures, contagion or interconnectedness, namely restrictions on large exposures and capital-based instruments.

At present, the CRD/CRR provides for a large exposures regime. It defines the exposure to an individual client or a group of connected clients as "large" if it exceeds a certain threshold expressed in terms of the bank's eligible capital. Once an exposure has been qualified as large, it is subject to additional monitoring, control and reporting requirements. Furthermore, size limits and certain exemptions are applicable to such exposures, which help to minimise the maximum loss that the bank could incur if the client or a group of connected clients defaults.

Such restrictions are also beneficial from a macro-prudential point of view, as they reduce the risk of contagion in the event of a default by a bank's client. However, for macro-prudential purposes, it may be worth considering imposing a stricter large exposures regime. For example, macro-prudential measures could include lowering the threshold for labelling an exposure as "large", removing exemptions included in the CRR (e.g. on exposures to CCPs or sovereigns) or adapting the calculation method for exposures by applying more stringent criteria for models and risk mitigation techniques. Moreover, restrictions could also be placed on exposures to an economic sector, rather than individual clients, thereby putting an upper bound on the losses incurred through client defaults in that sector.

A tightening of the prevailing large exposure restrictions can be applied as a stricter national measure (under the above-mentioned "national flexibility measures") or via the supervisory review and evaluation process (Pillar II) when it is found that a specific bank or group of banks is contributing to systemic risk through these exposures.

The imposition of stricter large exposure requirements is a quantity-based measure aimed at mitigating concentration risk and the risk of shocks propagating through the financial system. While other policy measures can also be used to this end, policy-makers may sometimes prefer to rely, at least in part, on this type of measure rather than on measures that directly affect the cost of credit, such as capital requirements.

Situations in which stricter restrictions on large exposures may be temporarily imposed include (i) an increase in interconnectedness between financial institutions, which heightens the risk of systemic contagion via direct counterparty losses or via indirect exposures through other financial institutions; and (ii) an increase in the sectoral concentration of banks' portfolios which is deemed to pose a systemic threat (e.g. concentration in a sector with only a few counterparties).

Capital-based instruments are aimed at enhancing the loss-absorbing capacity of banks to cope with shocks resulting from exposure concentrations. They include higher minimum own funds requirements, additional own funds requirements under the supervisory review and evaluation process (Pillar II), the systemic risk buffer and raising the level of the capital conservation buffer as laid down in the CRD.

There could be an increase in systemic risk if there is a deterioration in the risk profile of either all or a subset of banks exposed to similar risks. There may also be an increase in systemic risk if there is an excessive concentration of risks to a specific economic sector and if sectoral measures prove to be insufficient. Finally, greater systemic threats may also result from an excessive supply of credit that could amplify the business cycle. Such threats could also be addressed with the countercyclical capital buffer.

Indicators that help in deciding whether and when to activate these instruments include concentration indicators (e.g. according to geographical location, currency, maturity and economic sector), large exposure indicators (e.g. the ten largest exposures) and financial network indicators.

2.2.5 Addressing misaligned incentives

SIIs have misaligned incentives given the implicit government guarantees they benefit from owing to their "too big to fail" status. The CRD provides for two instruments to address this issue, namely the G-SII buffer and the O-SII buffer, both of which enhance the resilience of banks and thereby reduce the potential losses incurred by society.

The G-SII buffer is a mandatory capital buffer for banks identified as being of global systemic importance. The surcharge is set at between 1% and 3.5% of RWA and it will be phased in gradually over the period 2016-19. With regard to the application of the G-SII buffer, the CRD to a large extent prescribes the indicators and size of the buffers, in line with the BCBS' framework. The indicators are based on the following criteria: size, complexity, interconnectedness, cross-border activity and substitutability of the institution.

The O-SII buffer enables authorities to impose capital charges on domestically important institutions and other SIIs deemed not to be of global systemic importance. The CRD provides for a notification procedure and a 2% upper limit. The O-SII buffer is discretionary and can be applied from 1 January 2016. Use of the indicators for identifying O-SIIs is at the discretion of national authorities and depends on national circumstances; however, it is also subject to guidelines to be developed by the EBA. At least nine Member States are in the process of identifying O-SIIs and assigning a buffer to them.

When applying these capital buffer requirements, there is a need for cross-border coordination to avoid any unintended consequences, such as pro-cyclicality, regulatory arbitrage and leakages. Given its mandate and composition, the ESRB has a key role to play in such cross-border coordination.

2.2.6 Opinions and recommendations by the ESRB

In early 2014 the ESRB adopted a decision[19] to ensure a smooth and efficient procedure for delivering the opinions and recommendations required under the CRD/CRR. The CRD/CRR requires the ESRB to provide opinions (in respect of the systemic risk buffer) or issue recommendations (in respect of the national flexibility measures) on specific macro-prudential measures to be implemented by Member States within one month of receiving notification of any such measure. To facilitate this process, the decision covers issues such as the early exchange of information, the use of standardised notification templates and the setting up of a dedicated assessment team to prepare draft opinions and recommendations.

The Assessment Team was established in early 2014 as a permanent substructure of the Advisory Technical Committee (ATC) and is chaired by the ESRB Secretariat. It comprises representatives from the ECB, the SSM and the national central banks (NCBs) of nine Member States. Permanent observers from the European Commission and the EBA may also attend the meetings of the Assessment Team.

2.3 Looking ahead

For the ESRB, the publication of the Flagship Report and the Handbook marked a turning point, as the focus of its work shifted from establishing a well-designed policy framework in the EU to supporting its operationalisation. To this end, it was crucial that the publication of these two documents coincided with the instruments being provided for under the CRD/CRR in order to address systemic risks in the banking sector.

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19 Decision (ESRB/2014/2) of the European Systemic Risk Board of 27 January 2014 on a coordination framework regarding the notification of national macro-prudential policy measures by competent or designated authorities and the provision of opinions and the issuing of recommendations by the ESRB.

Looking ahead, the ESRB still has work to do, primarily in three areas: (i) supporting the operationalisation of macro-prudential policy across the EU; (ii) extending the macro-prudential framework to cover other instruments and financial sectors; and (iii) setting up a hub for sharing information and data on macro-prudential measures.

In order to support the operationalisation of macro-prudential policy across the EU, the ESRB will also need to further enhance its monitoring of systemic risks. To this end, it could map key risk indicators to intermediate objectives more directly, identify additional indicators that could signal the build-up of systemic risks and establish more detailed indicative thresholds to guide policy action.

Moreover, the ESRB could further develop its analytical capacity to assess the appropriateness of macro-prudential measures and their potential cross-border spillover effects. In the event of a threat or the materialisation of negative spillover effects and unintended consequences, the ESRB could advise on how they could be mitigated.

Further extending the macro-prudential framework to cover other instruments and financial sectors is particularly relevant as current regulatory reforms could result in some activities being shifted out of the banking sector. The ESRB's ongoing analysis covers, for example, the insurance sector, CCPs and shadow banking, by investigating issues such as interconnectedness and pro-cyclicality. Additional stages could include reviewing the taxonomy for macro-prudential instruments (linking objectives to indicators and instruments) in the areas in question and developing more specific risk metrics.

Setting up a hub for sharing information and data could focus on providing timely and relevant information on macro-prudential policy to the ESRB's member institutions and beyond. Such information could encompass two main categories, namely information on macro-prudential strategy and measures across the EU, and statistical data to support macro-prudential policy action. While the focus of such a hub would be primarily the EU, there would be benefits to extending it to macro-prudential bodies at the international level. Greater transparency would support the coordination of macro-prudential policy within the EU and improve its credibility and accountability.

The ESRB will also need to intensify its collaboration with national authorities and the SSM, as the latter will assume important macro-prudential tasks from November 2014.

While the ESRB will embark on new strands of work to support the operationalisation of macro-prudential policy in the EU, NMAs are also faced with challenges that need to be addressed. All NMAs should develop a policy strategy based on a sound analytical framework that links intermediate macro-prudential objectives to key indicators and instruments. In this context, and in accordance with Recommendation ESRB/2013/1, Member States should assess whether or not the set of macro-prudential instruments at their disposal is sufficient to mitigate the systemic risks in their domestic environment.

Moreover, NMAs should improve the availability, quality and comparability of the data used for macro-prudential purposes. This includes compiling adequate data on key indicators (such as the LTV, LTI and DSTI ratios), improving access to commercial real estate data, also at the regional level, and enhancing data on funding flows in the economy. In order to improve the comparability of data, which is a key feature of the Single Market, the ESRB could coordinate, in close collaboration with the ECB, the efforts of NMAs to enhance the availability of data.

From an institutional perspective, NMAs should ensure adequate coordination mechanisms with the micro-prudential authorities in their jurisdiction. This would foster a holistic approach to addressing systemic risks, including the incorporation of the macro-prudential dimension into the supervisory review and evaluation process (Pillar II).

NMAs should also promote adequate coordination mechanisms between macro-prudential authorities in the EU, including the ESRB. This is of particular relevance, as most of the macro-prudential instruments have the potential to generate cross-border spillover effects and unintended consequences.

Finally, NMAs should develop a sound communication strategy. Such a strategy should cover their mandate, powers and instruments as well as the development of a simple narrative on the analytical links between systemic risks and policy actions, and their likely transmission channels. A sound communication strategy is crucial to enhancing the credibility, effectiveness and accountability of macro-prudential authorities.

Section 3
Ensuring implementation and accountability

Ensuring implementation and accountability

3.1 Follow-up to ESRB recommendations

ESRB recommendations have no direct binding force, but are subject to an "act or explain" regime. This means that the addressees of recommendations – such as Member States, national supervisory authorities (NSAs) and European institutions – have an obligation to communicate to the ESRB and the EU Council the actions they have taken in response to a recommendation, or provide adequate justification in the case of inaction.

In July 2013 the ESRB published its "Handbook on the follow-up to ESRB recommendations", which sets out the steps to be followed by the ESRB in its assessment of the actions taken (or justification given) by the addressees in response to its recommendations. It was important to publish such a handbook because identifying the dividing line between compliance and non-compliance on the one hand, and between sufficient and insufficient justification for inaction on the other hand, is a sensitive exercise that must be based on transparent rules.

At the start of the follow-up procedure, an assessment team is set up to assess the information provided by the addressees and submit an assessment report to the ESRB's decision-making bodies.

The assessment ultimately provides the basis for the assignment of "compliance ratings". These provide a "synthetic assessment" of (i) the status of the actions taken (i.e. whether or not they are final or still planned); (ii) their content/substance (i.e. whether or not they satisfy – in full or in part – the objectives of the recommendation); (iii) their appropriateness (i.e. whether or not the implementation of the recommendation is supported by a favourable legal and economic environment, and adequate administrative resources); (iv) the risk of circumvention (i.e. whether or not the addressee could circumvent the recommendation); and (v) the completeness of the response (i.e. whether or not all elements of the recommendation have been addressed in the responses provided). In the case of inaction, the addressees are required to provide appropriate justification for their inaction, which is assessed by the team on the basis of three criteria, i.e. completeness, quality and substance.

3.1.1 Recommendation ESRB/2011/1 on lending in foreign currencies

On 31 October 2013 the General Board approved the follow-up report on Recommendation ESRB/2011/1[20] on lending in foreign currencies (hereinafter the "Recommendation"). In 2011 the ESRB had identified a number of systemic threats emerging from foreign currency lending in some Member States, which had the potential to trigger negative cross-border spillover effects.

20 Recommendation (ESRB/2011/1) of the European Systemic Risk Board of 21 September 2011 on lending in foreign currencies.

The aim of the Recommendation was to tackle risks to financial stability through a holistic approach, addressing the different components of the risks involved. To this end, the Recommendation included the following series of individual recommendations.

- To address credit risk, the Recommendation aimed at raising borrowers' awareness of the risks embedded in foreign currency lending (Recommendation A) and ensuring that new foreign currency loans are extended only to borrowers capable of withstanding severe shocks to the exchange rate (Recommendation B).
- If foreign currency lending is seen to be fuelling excessive overall credit growth, more stringent or new measures should be considered (Recommendation C).
- To tackle the mispricing of risks associated with foreign currency lending, NSAs should require financial institutions to incorporate these risks into their internal risk pricing (Recommendation D) and to hold sufficient capital under Pillar 2 of the Basel II framework (Recommendation E).
- Furthermore, NSAs should consider imposing limits on funding and liquidity risks associated with foreign currency lending, paying particular attention to currency and maturity mismatches between assets and liabilities, and the resulting reliance on foreign currency swap markets (Recommendation F).
- Member States should also contribute to impeding regulatory arbitrage by applying reciprocity vis-à-vis other Member States that have implemented measures to limit risks associated with foreign currency lending (Recommendation G).

While Recommendations A, B, C, D, E, F and G were addressed to NSAs, Recommendation E was also addressed to the EBA.

The Recommendation laid down a timeline for reporting on the action taken. For example, in the case of Recommendations A and D, the first deadline to be met by NSAs was 30 June 2012, while for the remaining recommendations the deadline was 31 December 2012. All 27 addressees submitted reports[21] and the EBA adopted the guidelines required by Recommendation E in December 2013.

Overall, the follow-up report shows that a high level of action taken was in response to the Recommendation (see Table 3). Of all the Member States 26 were considered to comply with the requirements of the Recommendation in full or at least to a very large extent. Only one Member State (Bulgaria) was considered to be only partially compliant, meaning that no Member State was considered to be non-compliant. The assessment of compliance with each individual recommendation is summarised below.

With regard to Recommendation A on the risk awareness of borrowers, 16 Member States were considered to be fully or largely compliant, while nine Member States were considered to have sufficiently explained their inaction. Bulgaria was deemed to be partially compliant, as its NSA stated that the euro should not be treated as a foreign currency under domestic prudential regulation, owing to the country's foreign exchange regime. Consequently, Bulgaria was considered to be fully compliant with regard to foreign

21 Croatia was not part of the initial follow-up assessment, but its follow-up report will be assessed at a later stage.

currency loans, but not with regard to euro-denominated loans. The inaction by France was assessed as insufficiently explained. The French NSA justified the inaction on the basis of the limited amount of foreign currency lending in France, but Recommendation A requires NSAs to take a more active stance.

The implementation of Recommendation B on the creditworthiness of borrowers was very high. Of all the Member States 14 were viewed as fully or largely compliant, while 12 were considered to have sufficiently explained their inaction, which was due mainly to low levels of foreign currency lending. Only Bulgaria was regarded as being partially compliant with this recommendation for the same reason as explained above. No Member State was viewed as non-compliant and no inaction was considered to be insufficiently explained.

With regard to Recommendation C on credit growth induced by foreign currency lending, there was widespread evidence of implementation. All Member States were considered to either be fully compliant or provide sufficient explanation for their inaction. This was due to the fact that a scenario that would lead to excessive credit growth was unlikely to occur during the period under review.

The response to Recommendation D on internal risk management was very positive. Only Bulgaria was viewed as partially compliant, for similar reasons to those mentioned in the case of Recommendations A and B.

The implementation of Recommendation E on capital requirements, which requires financial institutions to hold adequate capital to cover risks associated with foreign currency lending, was facilitated by the EBA's work. This included the launch of a consultation on draft guidelines on 23 May 2013, followed by the publication of the final guidelines on 20 December of the same year, in accordance with Recommendation E. It is likely that the draft guidelines were instrumental in 12 of the Member States being fully or largely compliant with Recommendation E. Some 13 Member States were considered to have sufficiently explained their inaction, which was due mainly to low levels of foreign currency lending. Finally, only two Member States were viewed as partially compliant (Hungary and Lithuania), owing to the fact that they did not provide for explicit capital add-ons for exposure to foreign currency in the context of Pillar 2 of the Basel II framework.

Almost all Member States fully or largely implemented the measures, or sufficiently explained their inaction in respect of Recommendation F on the monitoring of funding and liquidity risks taken by financial institutions in connection with foreign currency lending.

With regard to Recommendation G on reciprocity, the assessment found that there is still scope for action in terms of the exchange of information between NSAs. Only six Member States (Greece, Italy, Malta, Austria, Romania and the United Kingdom) were considered to be fully or largely compliant. Of the remaining Member States 19 were viewed as having sufficiently explained their inaction, with some of them, however, relying heavily on information obtained through the colleges of supervisors, while two (Belgium and Denmark) were considered to have insufficiently explained their inaction.

Table 3

Member States' compliance with Recommendation ESRB/2011/1 on lending in foreign currencies

Member State	Individual recommendations							Overall rating
	A	B	C	D	E	F	G	
Belgium	LC	LC	SE	SE	LC	FC	IE	LC
Bulgaria	PC	PC	SE	PC	LC	FC	SE	PC
Czech Republic	SE	SE	FC	SE	SE	FC	SE	FC
Denmark	SE	SE	SE	FC	FC	FC	IE	LC
Germany	LC	SE	FC	FC	SE	FC	SE	FC
Estonia	FC	SE	FC	LC	FC	SE	SE	FC
Ireland	SE	LC	FC	SE	SE	LC	SE	LC
Greece	FC	SE	SE	SE	SE	SE	FC	FC
Spain	LC	SE	SE	FC	FC	FC	SE	FC
France	IE	SE	FC	SE	SE	FC	SE	LC
Italy	LC	SE	SE	SE	SE	SE	FC	LC
Cyprus	SE	LC	FC	SE	LC	FC	SE	LC
Latvia	SE	LC	FC	LC	LC	FC	SE	LC
Lithuania	LC	LC	FC	FC	PC	LC	SE	LC
Luxembourg	FC	FC	FC	FC	FC	FC	SE	FC
Hungary	FC	FC	FC	FC	PC	FC	SE	LC
Malta	FC	FC	FC	FC	FC	FC	FC	FC
Netherlands	SE	SE	SE	SE	SE	SE	SE	LC
Austria	FC	FC	FC	FC	FC	FC	FC	FC
Poland	FC	FC	FC	FC	FC	FC	SE	FC
Portugal	FC	FC	SE	SE	SE	FC	SE	FC
Romania	LC	FC	FC	FC	FC	FC	FC	FC
Slovenia	LC	LC	SE	SE	SE	LC	SE	LC
Slovakia	FC	SE	SE	SE	SE	SE	SE	FC
Finland	SE	SE	SE	SE	SE	SE	SE	LC
Sweden	SE	LC	SE	FC	SE	SE	SE	LC
United Kingdom	SE	SE	SE	LC	SE	LC	LC	LC

Fully compliant	FC
Largely compliant	LC
Partially compliant	PC
Materially non-compliant	MN
Non-compliant	NC
Sufficiently explained	SE
Insufficiently explained	IE

In December 2013 the ESRB established a centralised hub for sharing information on the rules applicable to lending in foreign currencies in each Member State. To this end, it also created a dedicated page on its website.[22]

3.1.2 Recommendation ESRB/2011/3 on the macro-prudential mandate of national authorities

In December 2011 the ESRB adopted Recommendation ESRB/2011/3[23] on the macro-prudential mandate of national authorities (hereinafter the "Recommendation"). This Recommendation differed from that on lending in foreign currencies in two ways: first, it addressed only Member States, i.e. national legislators; and second, it was intended to enhance resilience to systemic risk by strengthening the macro-prudential institutional framework rather than to prevent or mitigate specific risks.

The main goal of the Recommendation was to create a common framework for NMAs in order to increase the effectiveness of macro-prudential policy in the EU. The Recommendation included the following series of individual recommendations.

- Recommendation A defines the macro-prudential objectives in line with the macro-prudential objectives assigned to the ESRB under the ESRB Regulation. These objectives are intended to guide the policy-making of NMAs.
- Recommendation B invites Member States to assign, in their national legislation, a single national macro-prudential mandate either to a board composed of the authorities whose actions have a material impact on financial stability or to a single institution. In the latter case, the NMA would need to cooperate closely with the NSA and other authorities whose actions have a material impact on financial stability. In both cases, the NCB should play a leading role in macro-prudential policy and the NMA should cooperate on a cross-border basis, in particular with the ESRB.
- Recommendation C requires that NMAs be tasked with risk monitoring and mitigation, and entrusted with the power to collect and share data, identify systemically relevant institutions and structures (such as systemically important financial institutions) and control macro-prudential instruments.
- Recommendation D recommends that NMAs communicate macro-prudential policy decisions and their motivations in a timely manner and that they be entrusted with the power to make public and private statements on systemic risk. Furthermore, they should remain accountable to national parliaments, with their staff being assured legal protection when acting in good faith.
- Recommendation E requires NMAs to be operationally independent, in particular from political bodies and the financial industry. Moreover, organisational and financial arrangements should not jeopardise the conduct of macro-prudential policy.

22 See www.esrb.europa.eu/mppa/html/index.en.html

23 Recommendation (ESRB/2011/3) of the European Systemic Risk Board of 22 December 2011 on the macro-prudential mandate of national authorities.

The Recommendation set two deadlines for addressees to report on the action taken. By 30 June 2012 they had to have provided the ESRB with an interim report and by 30 June 2013 they had to have implemented the Recommendation through a legal act and submitted a final report. In particular, the final report had to contain a detailed statement on whether a macro-prudential mandate had been implemented or was planned. All Member States provided the ESRB with the necessary reports. The Recommendation has triggered legislative initiatives in all Member States, although, in several cases, there have been substantial delays in the relevant implementing acts entering into force. The ESRB is currently in the process of completing its assessment.

3.1.3 Extension of the deadline for reporting on the implementation of Recommendation ESRB/2012/2 on funding of credit institutions

In December 2012 the ESRB adopted Recommendation ESRB/2012/2[24] on funding of credit institutions (hereinafter the "Recommendation"). This Recommendation includes the following series of individual recommendations, which address three main areas.

- Recommendation A covers banks' funding plans. NSAs and the EBA are recommended to monitor and assess funding risk and liquidity risk, as well as the viability of funding plans, at both the national and EU levels. In this respect, NSAs are recommended, in particular, to assess institutions' plans to reduce their reliance on public sector funding sources. They are also advised to pay special attention to the use of innovative instruments that may pose systemic risks and to consider the risks of uninsured deposit-like financial instruments that are sold to retail customers and the negative effects that they may have on traditional deposits.
- Recommendations B, C and D cover asset encumbrance. The aim of these recommendations is to ensure the comprehensive management of risks associated with asset encumbrance. In the short run, it is suggested that a concerted effort be made to further improve credit institutions' management of liquidity and funding risks where encumbrance is involved. It is also recommended that supervisors be more consistent when monitoring and assessing the levels, evolution and types of encumbrance as well as the effects of stress events on encumbrance. A recommendation on improving market transparency is also included in order to facilitate the pricing of risks related to asset encumbrance. At the same time, due care should be taken to avoid any unintended consequences of increased transparency (e.g. in connection with banks' use of central bank operations).
- Recommendation E addresses covered bonds. In view of the importance that covered bonds have gained in banks' funding structures, it is recommended that NSAs promote the implementation of best practices for the use of covered bonds. The Recommendation identifies a set of risks, relating in particular to legal uncertainties in some Member States and differences in disclosure practices. As a first step, the EBA is recommended to coordinate national efforts to promote the adoption of best practices in this regard. The

24 Recommendation (ESRB/2012/2) of the European Systemic Risk Board of 20 December 2012 on funding of credit institutions.

EBA should also consider whether or not it would be appropriate for it to use its own powers to impose such best practices, or whether to refer the matter to the European Commission for further action. As a second step, the EBA is recommended to consider whether or not there are other financial instruments, in addition to covered bonds, that encumber assets and would therefore require similar treatment.

Most recommendations (A, B, C and E) were addressed to NSAs, with the EBA playing an important coordinating role in respect of Recommendations A, C, D and E. The EBA was requested to communicate to the ESRB and the EU Council the actions taken in response to the Recommendation, and adequate justification in the case of inaction, by specific deadlines between 31 December 2013 and 31 December 2016. The corresponding timeline for NSAs is between 31 December 2013 and 30 September 2015.

Considering the importance of the preliminary work to be undertaken by the EBA,[25] the General Board of the ESRB decided on 30 December 2013 to extend the deadline by six months as a rule, and by 12 months for specific deadlines. The first of the new deadlines is 30 June 2014, which will trigger the launch of a new follow-up assessment.

3.2 Institutional aspects, reporting to the European Parliament and communication

The institutional framework of the ESRB comprises the General Board, the Steering Committee, the ASC, the ATC and the Secretariat. The General Board is chaired by Mario Draghi, President of the ECB. The Chair of the ATC is Stefan Ingves, Governor of Sveriges Riksbank, and the Chair of the ASC is Professor Marco Pagano (who was preceded by Professor André Sapir).

The day-to-day business of the ESRB is carried out by its Secretariat. The ECB ensures the Secretariat of the ESRB, thereby providing it with analytical, statistical, logistical and administrative support. The Head of the ESRB Secretariat is Francesco Mazzaferro and the Deputy Head is Andrea Maechler.

In terms of resources, in 2013 the ECB provided the ESRB with 55.0 full-time equivalent staff (of which 23.3 were employed within the Secretariat and 31.7 were dedicated to other forms of support). The direct costs incurred by the ECB amounted to €7.2 million, to which indirect costs relating to other support services shared with the ECB (e.g. human resources, IT, general administration) have to be added. Over the same period other member institutions of the ESRB provided approximately 45 full-time equivalent staff for analytical support within the context of ESRB groups and ESRB chair positions.

The ESRB is accountable to the European Parliament (see Article 19 of the ESRB Regulation). To this end, the Chair of the ESRB is invited to regular hearings before the Committee on Economic and Monetary Affairs of the European Parliament (ECON). These

25 The implementation of the Recommendation by the EBA has involved three strands of work: (i) the reporting of asset encumbrance; (ii) the monitoring of funding risk and funding risk management; and (iii) market transparency with regard to asset encumbrance.

hearings are public and can be followed on the ESRB's website, where the Chair's introductory statements are also published. During the period under review such hearings took place on 8 July 2013, 23 September 2013 and 3 March 2014. At the hearing on 8 July 2013, the ESRB Chair also presented the second ESRB Annual Report[26] to the European Parliament, which was published simultaneously on the ESRB's website.

The introductory statement of the ESRB Chair is an important tool for providing Members of the European Parliament (MEPs) with regular updates on the ESRB's outlook for systemic risk and with insights into major strands of the ESRB's work. The ESRB also strives to ensure that its policy recommendations are made public at the hearings, with a view to providing MEPs with first-hand information on the rationale for them. For example, the ESRB's work on systemic risks stemming from money market funds and specific funding features of credit institutions was presented at the hearing on 18 February 2013; the work on the review of the ESRB and the "Handbook on the follow-up to ESRB recommendations" was presented at the hearing on 8 July 2013; and the work on operationalising macro-prudential policy in the EU banking sector was presented at the hearing on 3 March 2014. In addition to the public hearings, the Chair of the ESRB holds confidential discussions on the work of the ESRB with the Chair and Vice-Chairs of ECON, when appropriate.

The ESRB continued to develop a diversified set of communication tools that can be used flexibly, depending on the message to be conveyed and the target audience. In addition to the introductory statements of the ESRB Chair before ECON, the ESRB issued press releases on the outcome of the meetings of the General Board. The ESRB also continued to publish its risk dashboard, which is a set of quantitative and qualitative indicators that are used to identify and measure systemic risk in the EU financial system. The risk dashboard is updated regularly and made available on the ESRB's website, together with its underlying data, an overview note and annexes describing the underlying methodology and indicators.

The ESRB's publications, which are available on its website, include (i) the Macro-prudential Commentaries; (ii) the Reports of the Advisory Scientific Committee; and (iii) the Occasional Papers. The views expressed in these publications are those of the authors and do not reflect the official stance of the ESRB.

26 Under Article 19 of the ESRB Regulation, the ESRB is obliged to report to the European Parliament and the EU Council by producing an annual report, which is to be presented by the Chair of the ESRB at a public hearing before ECON on the day of its publication.

Table 4

Recommendations, commentaries, reports and papers published on the ESRB's website between 1 April 2013 and 31 March 2014

3 March 2014

The ESRB Handbook on Operationalising Macro-prudential Policy in the Banking Sector

3 March 2014

Flagship Report on Macro-prudential Policy in the Banking Sector

5 November 2013

"Central counterparties and systemic risk", *Macro-prudential Commentaries*, No 6

4 November 2013

ESRB Recommendation on lending in foreign currencies (ESRB/2011/1): Follow-up Report – Overall assessment

17 September 2013

"Assessing contagion risks from the CDS market", *Occasional Paper Series*, No 4

17 September 2013

"The consequences of the single supervisory mechanism for Europe's macro-prudential policy framework", *Reports of the Advisory Scientific Committee*, No 3

16 September 2013

"The Structure and Resilience of the European Interbank Market", *Occasional Paper Series*, No 3

8 July 2013

Annual Report 2012

8 July 2013

Handbook on the follow-up to ESRB recommendations

8 July 2013

High-Level Group Report on the ESRB Review

20 June 2013

Recommendation (ESRB/2013/1) of the European Systemic Risk Board of 4 April 2013 on intermediate objectives and instruments of macro-prudential policy

3.3 Review of the ESRB

The legislation establishing the European System of Financial Supervision (ESFS) states that a review of the ESRB and of the ESAs had to be carried out by the European Commission within three years of the legislation entering into force. In accordance with the ESRB Regulation, the review of the ESRB had to be conducted by 17 December 2013.

In September 2012 the ESRB started its own preparations for putting forward its views on the review as the European Commission had indicated its intention to begin the review by the end of 2012, in connection with the work on the establishment of the SSM. To assist the members of the General Board in preparing the ESRB's contribution to the review, a high-level group was set up, comprising the Vice-President of the ECB Vítor Constâncio, the Chair of the ATC Stefan Ingves and the then Chair of the ASC, André Sapir.

In December 2012 the high-level group delivered its first draft report, which was based on extensive consultation of the ESRB's member institutions (including through a workshop for special representatives of the institutions that was held on 29 October 2012). Following the political agreement reached by the European Council in December 2012 on the SSM, the high-level group was given the mandate by the General Board to also consider the possible implications of the SSM for the ESRB, in consultation with the European Commission. On 26 April 2013 the Commission launched a consultation on the ESFS, including the ESRB.

On 8 July 2013 the ESRB put forward its views on the review in a letter signed by the ESRB Chair Mario Draghi. The letter referred to the report of the high-level group and the main outcome of the discussions on the report that had taken place at the meeting of the General Board on 20 June 2013. The report included (i) details on the progress made by the ESRB on its various strands of work; (ii) recommendations for possible improvements, both to the ESRB Regulation and to processes that it does not cover; and (iii) conclusions on the possible implications of the SSM for the ESRB. Both the letter and the report are available on the ESRB's website.

In March 2014 the European Parliament issued its stance on the review of the ESRB, calling for a strengthening of the ESRB's role in the monitoring of the EU's financial system. The corresponding report by the European Commission is scheduled to be published in the summer of 2014.

Abbreviations

BE	Belgium	LU	Luxembourg
BG	Bulgaria	HU	Hungary
CZ	Czech Republic	MT	Malta
DK	Denmark	NL	Netherlands
DE	Germany	AT	Austria
EE	Estonia	PL	Poland
IE	Ireland	PT	Portugal
GR	Greece	RO	Romania
ES	Spain	SI	Slovenia
FR	France	SK	Slovakia
HR	Croatia	FI	Finland
IT	Italy	SE	Sweden
CY	Cyprus	UK	United Kingdom
LV	Latvia	US	United States
LT	Lithuania		

ASC	Advisory Scientific Committee
ATC	Advisory Technical Committee
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
BRRD	bank recovery and resolution directive
CCP	central counterparty
CDS	credit default swap
CET1	Common Equity Tier 1
CRD	Capital Requirements Directive
CRR	Capital Requirements Regulation
EBA	European Banking Authority
DSTI	debt service-to-income
ECB	European Central Bank
ECON	Committee on Economic and Monetary Affairs of the European Parliament
EIOPA	European Insurance and Occupational Pensions Authority
EMIR	European Market Infrastructure Regulation
ESA	European Supervisory Authority
ESFS	European System of Financial Supervision
ESRB	European Systemic Risk Board
EU	European Union
FC	fully compliant
FDIC	Federal Deposit Insurance Corporation
FSB	Financial Stability Board

GDP	gross domestic product
G-SII	global systemically important institution
HICP	Harmonised Index of Consumer Prices
ICMA	International Capital Market Association
IE	insufficiently explained
IMF	International Monetary Fund
LC	largely compliant
LCR	liquidity coverage ratio
LTI	loan-to-income
LTV	loan-to-value
MC	materially non-compliant
MEP	Member of the European Parliament
MFI	monetary financial institution
MiFID	Markets in Financial Instruments Directive
MiFIR	Markets in Financial Instruments Regulation
NC	non-compliant
NCB	national central bank
NFC	non-financial corporation
NMA	national macro-prudential authority
NPL	non-performing loan
NSA	national supervisory authority
NSFR	net stable funding ratio
OMT	Outright Monetary Transaction
O-SII	other systemically important institution
OTC	over-the-counter
PC	partially compliant
RWA	risk-weighted assets
SCAP	Supervisory Capital Assessment Program
SE	sufficiently explained
SFT	securities financing transaction
SIB	systemically important bank
SII	systemically important institution
SRM	Single Resolution Mechanism
SSM	Single Supervisory Mechanism
TARP	Troubled Asset Relief Program

Address
Kaiserstrasse 29
60311 Frankfurt am Main
Germany

Telephone
+49 69 1344 0

Website
http://www.esrb.europa.eu

Fax
+49 69 1344 6000

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