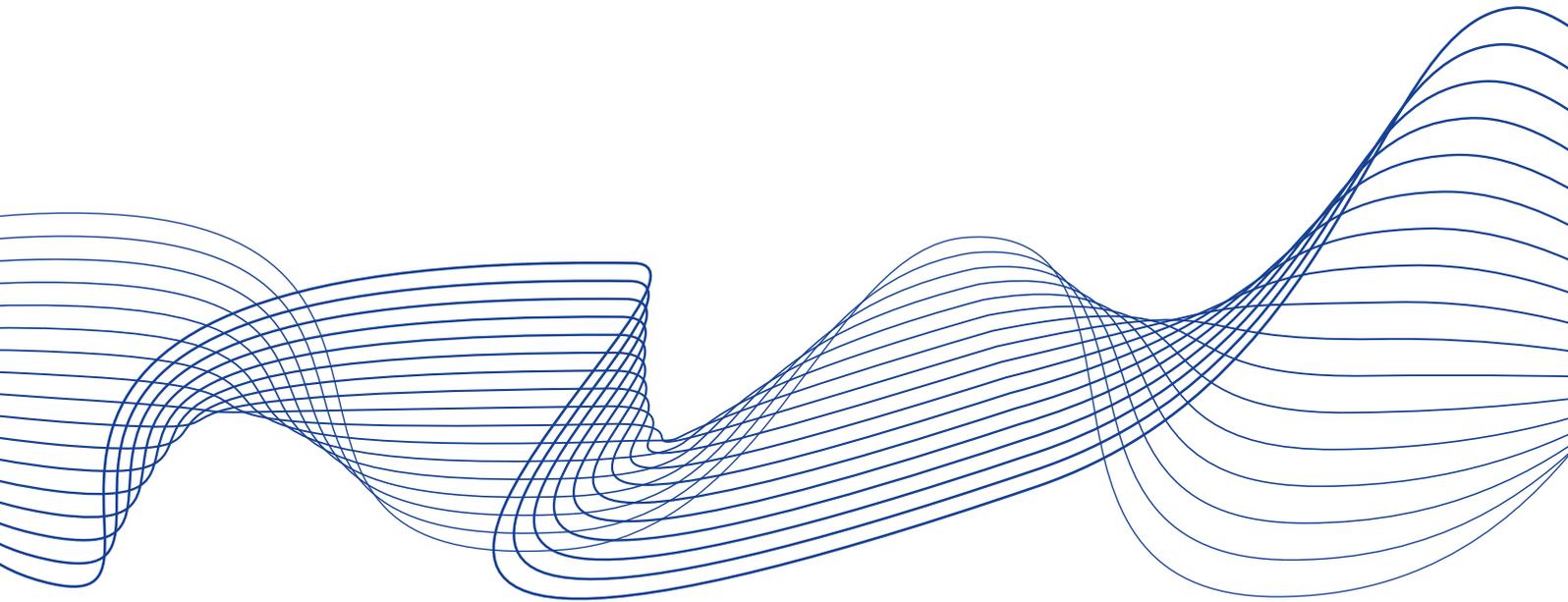


**Annual Report**  
2014



**ESRB**  
European Systemic Risk Board  
European System of Financial Supervision

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## Foreword



*Mario Draghi,  
Chair of the  
European Systemic Risk Board*

This is the fourth Annual Report of the European Systemic Risk Board (ESRB), which covers the period between 1 April 2014 and 31 March 2015. With the entry into force of the new EU legislation on banking (CRD IV/CRR), this is also the first period during which macroprudential authorities had the possibility to make discretionary use of macroprudential tools in the European Union. The ESRB had played a key role by recommending that national authorities be established, suggesting that they should be assigned a clear and complete policy mandate and that they should elaborate strategies to prepare for policy action whenever needed. The first phase of the establishment of macroprudential policies in Europe has thus been concluded. Only a few Member States have not yet passed such legislation and I would like to urge them to follow up on the ESRB recommendations.

This Annual Report offers a first institutional overview of around 90 policy actions by Member States, notified to the ESRB in the review period. Half of them are of a more procedural nature, while the other half consists of fully fledged policy measures, preventively addressing vulnerabilities. The ESRB has provided authorities with a forum to exchange their early experiences of the implementation of macroprudential policies. In parallel, the ECB has been given the possibility to complement these national measures, thereby creating a framework which should help to avoid a bias towards inaction.

Addressing vulnerabilities in the banking sector is however not sufficient, especially at a time when challenging conditions are creating common vulnerabilities across financial market segments, and the authorities intend to establish a capital markets union. Work has advanced on better understanding the risks of contagion at the level of the whole financial system, against the backdrop of a rapidly growing shadow banking sector. At the same time, intricate structural issues which have marked the financial crisis over the last years still need to be tackled, and their global nature means they will have to be addressed from a medium-term perspective: this is the case, for instance, for the incentives created by the current regulatory treatment of sovereign exposures, to which the ESRB has devoted a special report.

Finally, I would like to very warmly thank Professors Martin Hellwig, André Sapir and Marco Pagano, as well as the other members of the Advisory Scientific Committee, for their support to the ESRB over the last four years. Their mandate ended in March 2015.

Frankfurt am Main, July 2015

A handwritten signature in blue ink that reads "Mario Draghi". The signature is fluid and cursive.

Mario Draghi  
ESRB Chair

## Executive summary

The period covered by this Annual Report has been marked by the first signs of normalisation of economic activity in Europe, after a long period of crisis. The underlying weakness of the economy, the prolonged period of low inflation and the resulting low level of interest rates have nevertheless affected the macro-financial environment negatively, exposing all sectors of financial markets to new challenges. In particular, the sustainability of current levels of asset prices is increasingly dependent upon a stronger economic recovery, and the search for yield continues to expose investors to a risk of global financial market repricing. Events in Greece have revived risks related to the sustainability of public finances, albeit with few signs of market price contagion during the period under review. Tensions regarding the conflict in Ukraine add to the overall uncertainty. Some new concerns have also emerged about the perceived insufficient degree of market liquidity in some financial market segments, against the background of some episodes of excessive short-term volatility. The effects of the low interest rate environment on financial stability need to be monitored closely in order to enable macroprudential policy and/or financial regulation to react swiftly to safeguard financial stability.

On the positive side, important results have also been achieved. The asset quality review and the comprehensive assessment of significant banks in the euro area, as well as the EBA stress test across the European Union, to which the ESRB contributed with a severe adverse scenario, have made headway towards a stronger and more resilient banking sector, thereby leading to an improvement in banks' market valuations. The EIOPA stress test – also based upon an adverse scenario prepared by the ESRB – highlighted structural vulnerabilities in the insurance sector which were previously hidden by the Solvency I standards, thus opening the way for further policy action by EIOPA to accompany the entry into force of the Solvency II regime. The implementation of the EMIR legislation is also creating the basis for the entry into force of clearing obligations, something to which the ESRB contributed with opinions to ESMA.

More structural issues of concern have been identified, such as the low profitability levels of banks, insurance companies as well as pension and investment funds in the current market conditions, the implementation of new resolvability requirements for banks (and, looking ahead, for other financial market agents, like insurance companies and central counterparties), and the broader systemic impact of conduct risks within the banking sector and beyond. Special attention has also been given to the regulatory treatment of sovereign exposures, on which the ESRB has worked over the last three years. The ESRB analysis has aimed to: (i) produce a reasoned catalogue of the provisions offering a privileged treatment to sovereign exposures in banking and insurance legislation globally and at the EU level; (ii) collect evidence on these exposures and try to identify triggers for market behaviour; and (iii) analyse policy options from among a very broad set of possible medium-term interventions, listing the pros and cons of each of them. The ESRB has undertaken this work in order to contribute to a more structural resolution of the negative feedback loops between the state of public finances and the health of the banking and insurance sectors, which have made it particularly difficult and onerous to address the financial crisis over the last years. It is crucial that reforms be implemented credibly and effectively to address this problem in the medium to long run.

Special attention has been devoted in this period to analysing the first use by EU Member States of the new macroprudential tools contained in the EU legislation. One country (Sweden) has already introduced the counter-cyclical capital buffer, while another one (Belgium) has made use of the so-called flexibility clause contained in Article 458 of the Capital Requirements Regulation, thereby tightening risk weights on certain real estate exposures. The latter required the issuance of an ESRB opinion. A few EU Member States have been particularly active, using a combination of different instruments. An issue on which further work is needed is the coordination among macroprudential authorities, also to consider the cross-border impact of their measures, and the reciprocation of macroprudential measures among themselves to avoid regulatory arbitrage and preserve a level playing field. Progress has been made on macroprudential instruments in two respects: (i) the identification of a common set of rules and indicators for setting counter-cyclical capital buffer rates (including a formal ESRB recommendation to designated authorities); and (ii) the use of macroprudential add-ons to the leverage ratio, on which a new chapter has been added to the ESRB Handbook published in 2014.

Regarding the assessment of the implementation of past ESRB recommendations, the overall evaluation continues to be positive. As already mentioned, the recommendations on the macroprudential mandate (ESRB/2011/3) and on the intermediate objectives and instruments of macroprudential policy (ESRB/2013/1) have met with broad compliance, which is now being reflected in the implementation of policies. The successful application of the ESRB recommendation on lending in foreign currencies (ESRB/2011/1) has helped countries to attenuate the potentially very sizeable impact of the sudden appreciation of the Swiss franc in January 2015. The ESRB recommendation on US dollar funding (ESRB/2011/2) has also been largely implemented, subject to the agreed proportionality criteria.

Finally, the new Advisory Scientific Committee (ASC) has been appointed, through the statutory procedure which permits interested parties to present their candidature. The new Chair of the ASC is Professor Philipp Lane of Trinity College Dublin. The two Vice-Chairs are Professor Marco Pagano of the University of Naples Federico II and Professor Javier Suarez of the Center for Monetary and Financial Studies (CEMFI) in Madrid.

# Section 1

## Systemic risks in the financial system of the European Union

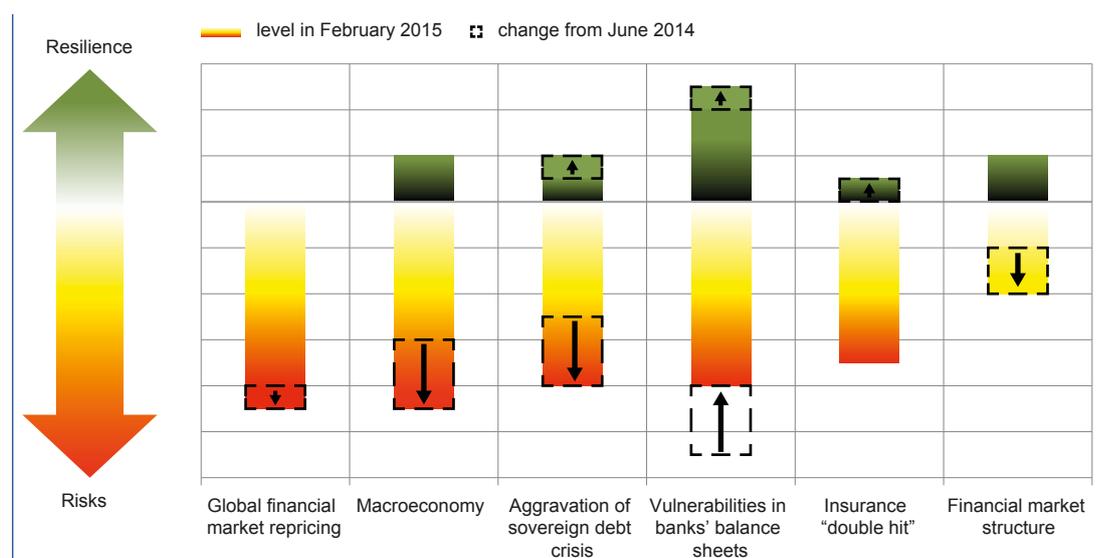
This section provides an overview of systemic risk developments in the EU. It begins by providing an overview of the ESRB’s current risk outlook for the EU financial system and changes to the risk outlook since the previous Annual Report was issued. It then analyses the systemic risks related to the macro-financial environment and financial intermediaries on the basis of recent developments and current trends.

### 1.1 Overview of risks

The ESRB has identified six main risks to financial stability in the EU. These risks are related to (i) global financial market repricing, (ii) the macroeconomy, (iii) the aggravation of the sovereign debt crisis, (iv) vulnerabilities in banks’ balance sheets, (v) insurers’ vulnerability to the risk of a simultaneous sharp fall in asset prices and prolonged low risk-free interest rates (insurance “double hit”), and (vi) the financial market structure. These risks are highly interlinked, and the materialisation of one risk factor may trigger the emergence of others.

In the light of economic, market and institutional changes, the ESRB has adjusted its risk outlook since the publication of its previous Annual Report (see Chart 1). In the ESRB’s view, risks related to the macro-financial environment (global financial market repricing, the macroeconomy, an aggravation of the sovereign debt crisis, and the financial market structure) are more pronounced than they were a year ago. At the same time, the ESRB sees an improvement in the resilience of the banking and insurance sectors. This subsection summarises the rationale for these changes.

Chart 1  
The ESRB’s risk outlook



Source: ESRB.

**Current conditions incentivise risk-taking and contribute to asset price increases, raising the risks associated with a global financial repricing scenario.** Asset price developments in EU credit and equity markets may signal excessive valuation. This is also the case for real estate prices in several Member States. A sudden drop in asset prices may have systemic consequences, such as the disruption of credit provision to the real economy or even the failure of financial institutions. This could set back the current fragile economic recovery.

**The EU's macroeconomy remained on a low growth path over the review period.** Output growth was tepid, while inflation turned negative. Low nominal growth reduces the capacity of households, businesses and sovereigns to pay down their debt burden, which is high in many parts of the EU. Although some "green shoots" of a meaningful recovery began to appear at the beginning of 2015, the prospect of a persistently weak macroeconomy remains the most substantial driver of other systemic risks.

**The risk of a re-aggravation of the sovereign debt crisis also increased over the review period, reflecting political uncertainty in Greece.** However, the resilience of the EU financial system to such a risk has also strengthened. Supported by accommodative monetary policy, the sovereign bond yields of stressed countries remained relatively flat over the first quarter of 2015, although Greek yields rose in the presence of political uncertainty.

**The tensions in Ukraine have contributed to rising uncertainty with regard to the geopolitical environment in the region.** So far, systemic risk for the EU as a whole has not materialised and spillover risks would affect Member States and banking groups heterogeneously. There are no immediate and serious signs of disorder in the functioning of banking and financial markets in the EU that can be directly attributed to exposures to Russian counterparties. Nevertheless, a continuous aggravation of Russia's vulnerabilities could heighten possible spillover risks, especially for individual Member States and banking groups. The situation is therefore subject to ongoing monitoring.

**The banking sector continued to improve its resilience, but low profitability remained a challenge and credit provision faltered.** The EU-wide asset quality review and stress-test exercises incentivised banks to raise capital and helped to clean up banks' balance sheets, enhance transparency and build confidence. At the same time, large stocks of problematic assets and low profitability continued to weigh on banks and their ability to provide credit to the real economy.

**In the insurance sector, many insurers need to build up additional resilience.** The insurance stress test confirmed insurers' vulnerability to a "double hit" scenario. The test clarified to insurers and supervisors which insurers need to build up resilience to this risk. The sector's resilience has been revised upwards given this increased clarity. The risk has not been reduced, however, as the risk of a reassessment of risk premia persists and interest rates have continued to decline. In fact, risk-free rates have dropped below the curve of the most severe scenario in the 2014 EIOPA stress test and are now well below the median guaranteed return offered to policy-holders. This may provide further incentives for risk-taking.

**Changes in the market structure might have significantly altered market liquidity and raised financial stability concerns.** The price impact of any abrupt reassessment of risk premia could be amplified by more vulnerable market liquidity. Indeed, driven by structural factors, the ability and willingness of market participants to provide liquidity may have been reduced, in particular in less liquid market segments (e.g. corporate bonds). In this situation, markets could be taken by surprise

because a sudden increase in demand for liquidity may not be matched. Furthermore, while the increased importance of central counterparties is a welcome development, it may pose new challenges for macroprudential authorities owing to concentration risk and possible contagion. The ESRB will therefore assess risks related to market liquidity and the financial infrastructure in more detail in 2015.

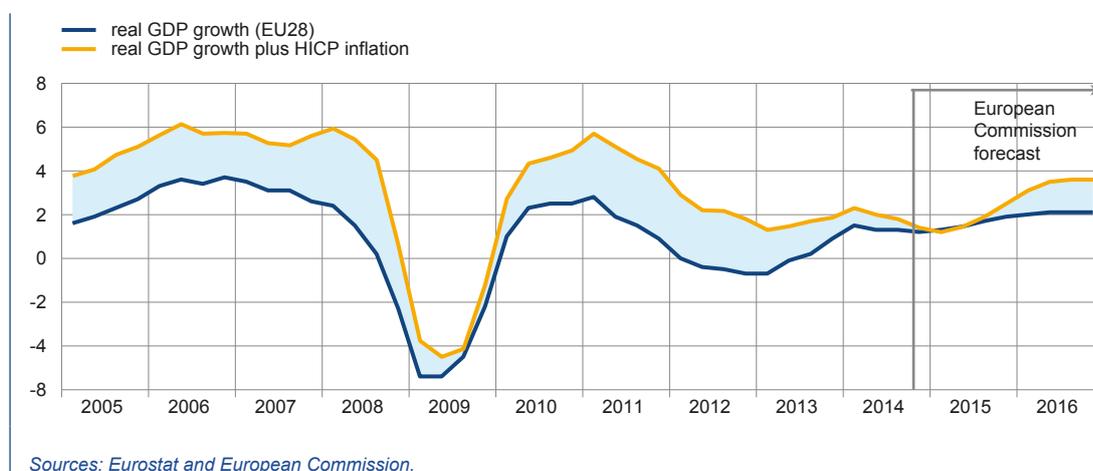
## 1.2 The macro-financial environment has become more challenging

### 1.2.1 The “new normal” of low growth, low inflation and low interest rates creates a difficult environment for the financial sector

**The EU economy remained on a low growth path in 2014.** Real GDP grew by 1.3% in 2014, representing a mild rebound from zero growth in 2013, but nevertheless remaining substantially below the trend growth rate of 2.5% observed between 1995 and 2007 (see Chart 2). If this trend had continued from 2008 until the end of 2014, the EU’s annual output would have been about 13% higher. Thus, it is crucial that structural reforms be implemented swiftly, credibly and effectively as this will increase future sustainable growth, raise expectations of higher incomes, encourage firms to increase investment, and bring forward the economic recovery.

Chart 2  
GDP growth in the EU

(annual percentage changes)



**Over the same period, inflation and inflation expectations fell.** In part, this reflected the decline in oil prices. Inflation in the EU – measured as the year-on-year change in Eurostat’s Harmonised Index of Consumer Prices (HICP) – stood at -0.1% in March 2015, having fallen from 0.6% in March 2014. As inflation fell, medium-term inflation expectations started to fall somewhat lower than historical averages and central banks’ targets. These declines were most pronounced in the euro area, where the five-year forward HICP inflation swap rate five years ahead fell from 2.1% in March 2014 to a low of 1.5% in mid-January 2015, before recovering somewhat to 1.7% in March 2015.

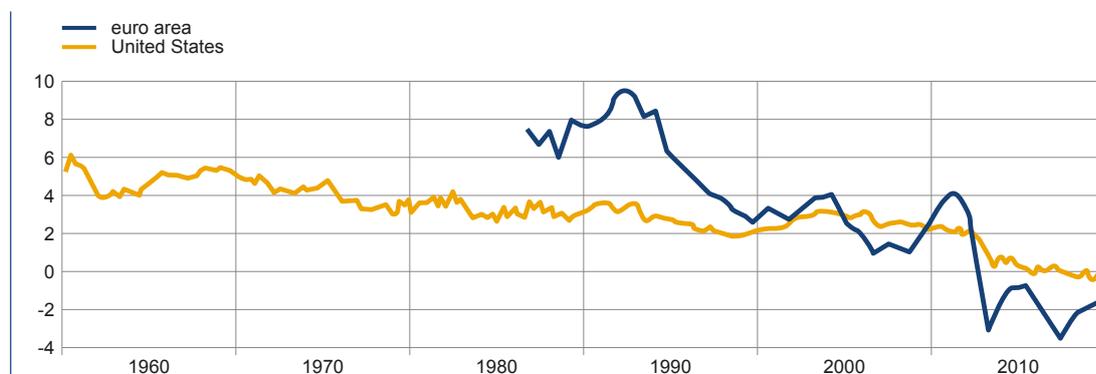
**Additional monetary policy accommodation pushed yields further down.** In response to the developments in inflation and in the inflation outlook, several central banks in the EU, and most notably the ECB, undertook further monetary policy-easing measures. In particular, the ECB launched

purchases of public sector debt securities, which compressed swap rates and bond yields further. At the end of the review period, many financial market instruments (euro area OIS swaps, covered bonds and sovereign bonds in some EU countries) were trading at negative yields. This reflected very low benchmark rates, as well as a substantial reduction in risk premia. As a result, yields in the euro area and the United States diverged further.

**As a result of the sluggish macroeconomy and the surprise drop in inflation, nominal GDP growth in the EU is very low.** Lower than expected nominal GDP growth raises financial stability concerns owing to its interaction with state-independent financial obligations, such as debt, which are fixed in nominal terms. In an environment of low nominal growth, these fixed obligations represent an “overhang” which drags on consumption and investment.<sup>1</sup> In the worst case scenario, and in the absence of credible mechanisms to restructure obligations, this debt overhang could generate a disorderly cascade of defaults.

**Several indicators from the first quarter of 2015 suggest that the macroeconomic recovery in the EU will gradually gain strength, as foreseen in the European Commission’s spring 2015 forecast.** Purchasing managers’ indices from across Europe point to an expansion in manufacturing activity, although consumer spending – particularly in the euro area – continues to lag behind. Looking ahead, expansionary monetary policy should help to support aggregate demand, albeit within the constraints of the zero lower bound. However, substantial downside risks remain, in particular with respect to political uncertainty and geopolitical tensions, coupled with excessive endogenous

Chart 3  
Short-term natural real interest rate  
(percentages)



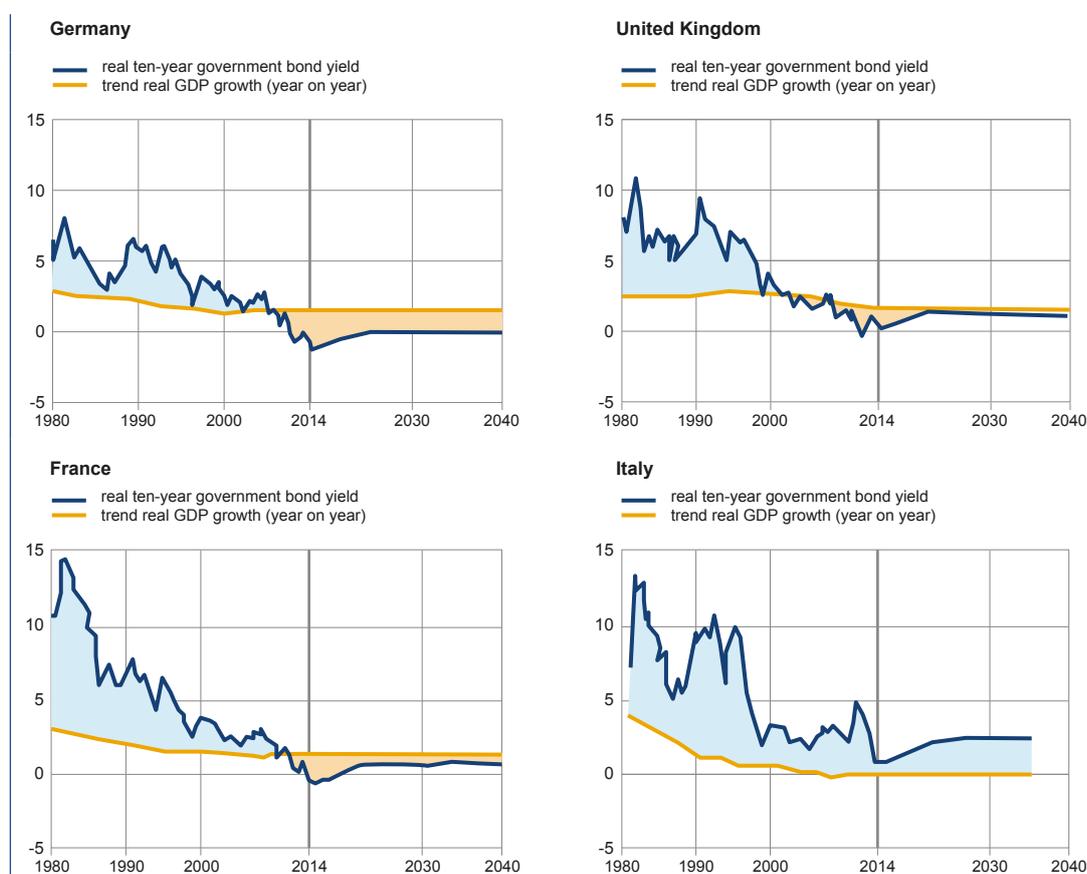
Sources: Euro area data are based on an update and modification to Mesonnier and Renne (2007; see footnote 3). US data are from the Federal Reserve Bank of San Francisco, based on Laubach and Williams (2003; see footnote 2).  
Note: The chart depicts the natural real interest rate, i.e. the estimated rate consistent with low and stable inflation and full employment over the medium term. It covers the period from the first quarter of 1961 to the second quarter of 2014.

<sup>1</sup> To appreciate the economic significance of such a debt overhang, consider a typical household in the EU deciding how much to borrow in 2007. Nominal income for the median EU household with two working-age adults and no dependants was about €30,000 in 2007, according to Eurostat. On the basis of past experience, a typical household might reasonably have expected its real income to continue to grow at about 2.5% and inflation to average 2% – such that nominal income would have been expected to rise to €41,000 in 2014, as compared with Eurostat’s actual figure of about €33,000. This gap between expected and actual income inhibits households’ ability to pay down fixed nominal debt obligations, thereby reducing their marginal propensity to consume and increasing their risk of default. Similar considerations apply to other sectors of the economy, including non-financial corporations and governments, in addition to the financial sector itself. An economy-wide debt overhang therefore has profound macroeconomic and macro-financial implications in an environment of very low nominal growth. Lenders had the same optimistic expectations as borrowers regarding the evolution of future incomes. The lesson for lenders should be to remain prudent even when the economy returns to strong growth. ESRB Recommendation 2011/1 on lending in foreign currencies calls for such prudent behaviour.

risk-taking in parts of the financial sector. The fact that the additional monetary policy accommodation has reduced financial market pressure should not lead to a delay in the necessary structural and fiscal reforms or in the reduction of debt overhangs.

**Notwithstanding these “green shoots” of economic recovery, the experience over 2014 demonstrated that the real interest rates consistent with low and stable inflation and full employment – the so-called “natural rate” – are historically low.** This natural interest rate has been in decline in both the euro area and the United States for the past two decades (see Chart 3). According to calculations based on the methodologies of Laubach and Williams<sup>2</sup> and Mesonnier and Renne<sup>3</sup>, the

**Chart 4**  
**Real long-term government bond yields (actual and market expectations) versus the trend real GDP growth rate**  
*(percentages)*



Sources: Bloomberg, Consensus Economics, Bank of England, Federal Reserve Bank of St Louis, and Antolin-Diaz, J., Drechsel, T. and Petrella, I., “Following the Trend: Tracking GDP when Long-Run Growth is Uncertain”, Fulcrum Asset Management Research Papers, 2014.

Notes: The trend real GDP growth for Germany and the United Kingdom for the period 1980-2040 is based on estimations by Antolin-Diaz, Drechsel and Petrella. The projection for the period 2014-2040 of the real ten-year government bond yield is based on market expectations for the nominal bond yield and for inflation, as derived from forward swap rates. The area between the dark blue line and the yellow line is shaded grey when the interest rate is greater than the growth rate, and pale yellow when the interest rate is less than the growth rate.

2 Laubach, T. and Williams, J. C., “Measuring the Natural Rate of Interest”, *The Review of Economics and Statistics*, 85(4), 2003, pp. 1063-70.

3 Mesonnier, J. S. and Renne, J. P., “A time-varying “natural” rate of interest for the euro area”, *European Economic Review*, 51(7), 2007, pp. 1768-84.

euro area's natural real interest rate in the second half of 2014 is estimated to have been around -1.5% – although this estimation, like its US counterpart, is subject to parameter and model uncertainty.

**In the course of 2014, markets priced in an increasingly higher likelihood that very low or negative natural real interest rates would persist for an extended period.** For example, forward markets imply that the real long-term government bond yields of Germany, France and the United Kingdom are expected to be close to zero for decades to come (see Chart 4). This environment of persistently low rates implies a greater role for macroprudential policy, as discussed in Section 1.2.3.

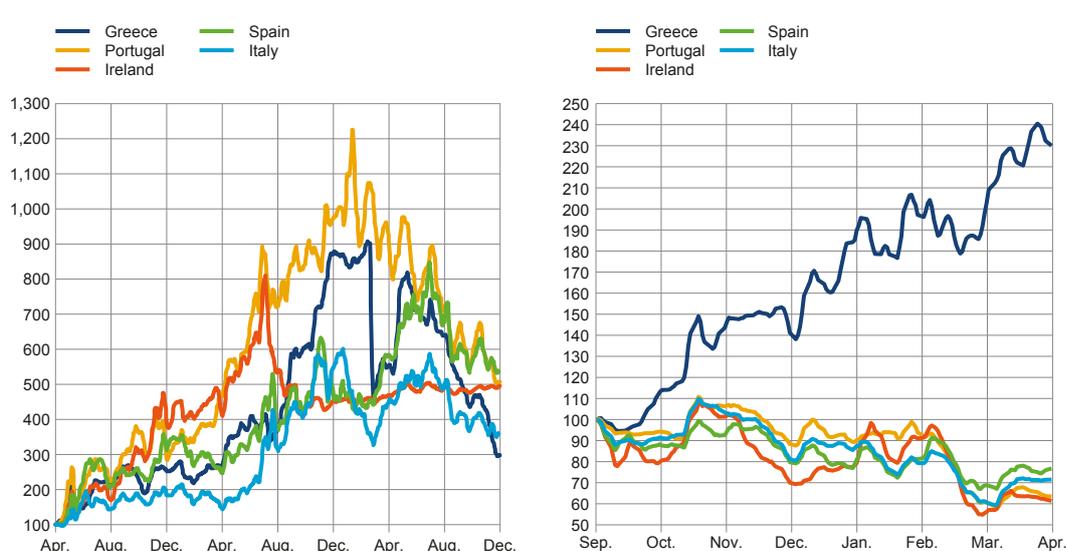
## 1.2.2 Developments in Greece aggravated sovereign risk, but contagion to other EU countries remains contained

**The risk of a re-aggravation of the sovereign debt crisis increased over the review period, reflecting political uncertainty in Greece.** Asset prices in Greece fell sharply following the dissolution of the parliament. At the end of March 2015 ten-year Greek government bond yields stood at about 11.5%, up from 7.7% in November 2014. The share prices of Greece's four largest banks declined on average by about 40% over the first quarter of 2015. In addition, there has been a substantial outflow of deposits from Greek banks.

**However, there has been limited evidence in market prices of contagion from Greece to other highly indebted sovereigns.** In 2011-12 yields in Greece, Portugal, Italy, Ireland and Spain were highly correlated with one another. Since December 2014, however, the rise in Greek government bond yields has not spread to the other countries in this group (see Chart 5), with demand for primary market issuance remaining buoyant. In addition, the probability of a simultaneous default of two or more EU sovereigns has not risen as it did in 2011-12 (see Chart 6).

Chart 5  
Market price contagion

(spread between German ten-year government bonds and other ten-year government bonds; five-day average; index: 1 April 2010 = 100 (left panel); index: 1 September 2014 = 100 (right panel))



Source: ECB.

Chart 6  
**Probability of simultaneous default of two or more EU sovereigns**  
 (percentages)



Sources: Bloomberg and ECB calculations.

Note: Underlying calculations are based on Lucas, A., Schwaab, B. and Zhang, X., "Conditional and joint credit risk", Working Paper Series, No 1621, ECB, 2013.

**There are numerous possible explanations for the lack of market price contagion following the Greek election.** Financial institutions across the EU have reduced their exposure to the Greek sovereign and other Greek entities. In addition, there have been several important improvements to the crisis management framework of the EU, and particularly within the euro area.<sup>4</sup> Moreover, since 2012 many Member States have made significant progress in improving their primary budget balance, and in certain cases in implementing structural reforms to improve productivity. This progress is reflected in the successful exit of several EU countries from financial assistance programmes.

### 1.2.3 The low interest rate environment continued to fuel a search for yield

**A search for yield in the low interest rate environment may lead to excessive risk-taking and contribute to asset price increases.** Although expansionary monetary policy is warranted from a price stability perspective, it could have negative side effects for financial stability. Historical experience shows that heightened risk-taking and elevated asset prices increase the probability and impact of a sudden "snap-back" in the pricing of risk.<sup>5</sup> Such scenarios could adversely affect the capital and funding positions of financial institutions and lead to negative feedback loops by decreasing market liquidity (see Section 1.3). It is foremost the role of financial regulation and macroprudential policy to prevent such destabilising scenarios.

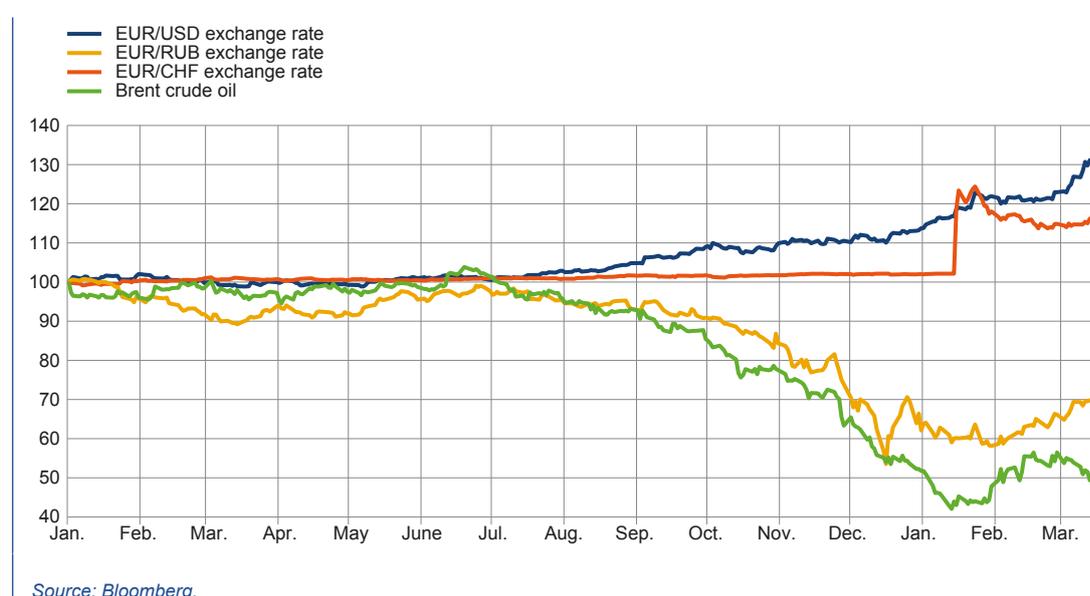
4 For example, the European Stability Mechanism provides access to a financial assistance programme for euro area countries; the Single Supervisory Mechanism improves the credibility of banking supervision (as demonstrated by the successful completion of the comprehensive assessment); and the Bank Recovery and Resolution Directive provides a framework for the orderly resolution of banks.

5 See Brunnermeier, M. and Schnabel, I., "Bubbles and Central Banks: Historical Perspectives", Gutenberg School of Management and Economics, 2015. This paper identifies 24 major bubbles over the past 400 years and finds that expansive monetary policy preceded these bubbles in almost all cases.

**The EU financial system has proved resilient to recent events in foreign exchange and oil markets.** Over the year under review, a number of policy decisions caused rapid price movements in specific markets (see Chart 7). First, the decision of the Swiss National Bank to discontinue the Swiss franc's peg to the euro resulted in a sharp appreciation of the Swiss franc. Second, Russia's foreign policy coupled with increased uncertainty about Russia's economic outlook led to a continued depreciation of the rouble.<sup>6</sup> Third, oil prices declined on the back of OPEC's ongoing commitment to a generous production ceiling: the price of a barrel of Brent crude oil fell from around USD 110 in July 2014 and stood at USD 55 at the beginning of April 2015. Finally, the diverging monetary policy stances of the ECB and the US Federal Reserve had a strong impact on the EUR/USD exchange rate. While none of these events caused any broader repricing of risk, they provide stark reminders of how policy decisions or unexpected events could trigger a "snap-back" scenario.

**Chart 7**  
**Movements in oil prices and selected exchange rates**

(index: 1 January 2014 = 100)

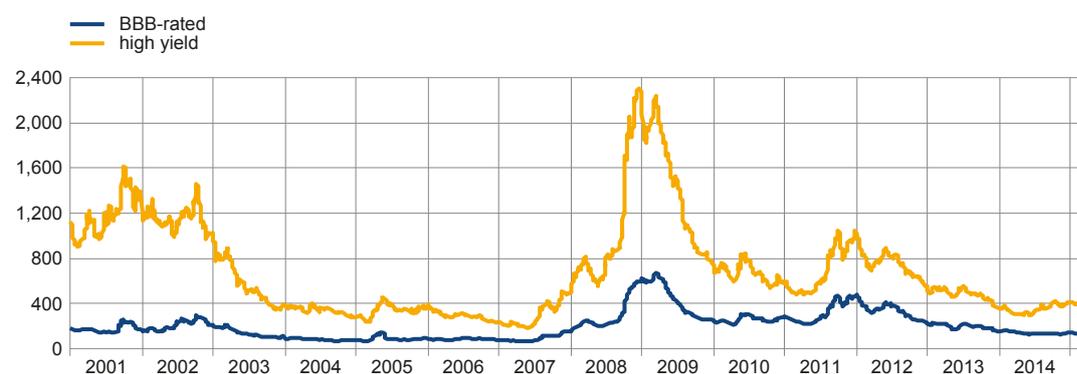


**There may be signs of excessive valuations in EU credit and equity markets.** Yields and spreads in many credit market segments in the EU continue to be historically low (see Chart 8). This includes euro area non-financial corporate bond markets, but also more specialised markets such as syndicated loans, payment-in-kind notes and EU banks' subordinated bonds. Equity prices have also continued to rise. The price-to-realised-earnings ratio of a composite of EU equities (a standard measure of over or undervaluation) currently stands at 17.0. This is substantially higher than the trough of 6.9 that was reached in February 2009, and is also above the average of 13.9 recorded for the period 2002-14 (see Chart 9).

<sup>6</sup> See the annex to the ESRB's letter to the European Commission on the macroprudential effects of the restrictive measures imposed on Russian entities following the developments in Ukraine, 26 January 2015.

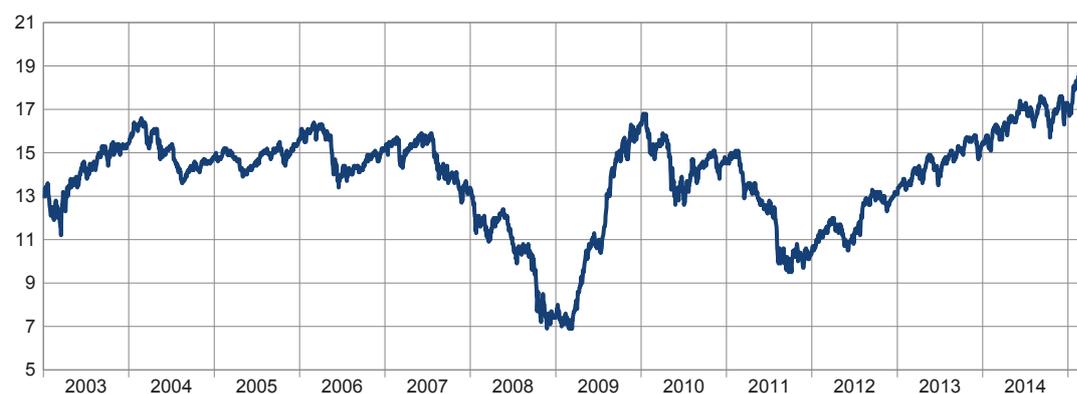
Chart 8  
**Option-adjusted spreads on euro area corporate bonds**

(basis points)



Source: ESRB risk dashboard.

Chart 9  
**EU equity price/earnings ratio 2002-14**



Sources: ESRB risk dashboard and Thomson Reuters Datastream.

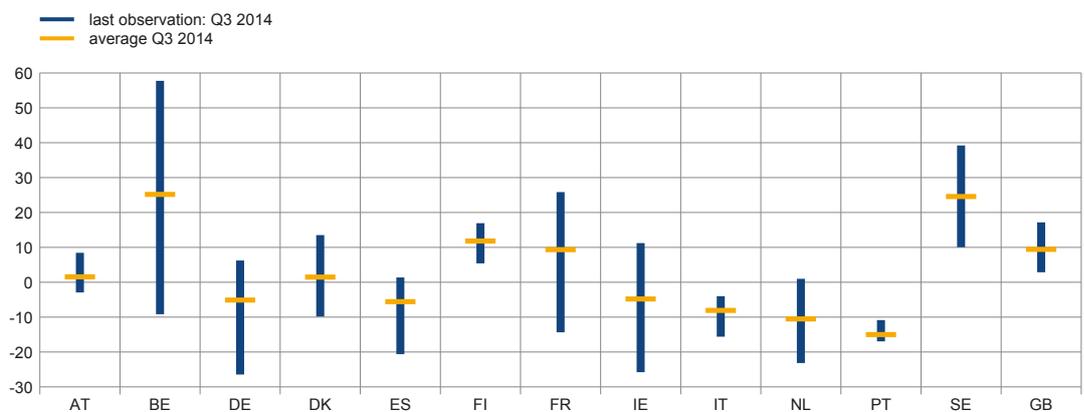
**Real estate values seem elevated in many EU Member States, implying a risk of a sudden repricing.** Residential real estate in particular appears to be overvalued in some countries; in France, Belgium and Sweden, for example, real house prices rose by 30% between 2004 and 2007, and have remained stable throughout the crisis. This picture is corroborated by estimates of overvaluation (see Chart 10). While low interest rates uphold collateral values in the form of house prices and support the debt servicing capacity of borrowers, they may increase vulnerability to future price drops and interest rate increases.<sup>7</sup> Such developments could trigger feedback loops vis-à-vis banks and the macroeconomy. In the light of these risks, the authorities in some countries (Belgium, Estonia, Hungary, Ireland, Norway, Slovakia, Sweden and the United Kingdom) announced changes to policies with respect to residential mortgages (see Section 3.1.2).

<sup>7</sup> The experience of Japan in the 1990s demonstrates the dangers of such an environment. Japanese banks to a considerable extent chose to “evergreen” loans (rolling over debt at near-zero interest rates with no or only limited repayment of the principal) instead of writing off those loans (lowering capital in the process). This delayed the restructuring of the financial sector and promoted the emergence of “zombie” (or non-viable) firms with detrimental effects on competition and investment. For more details, see, for example, Caballero, R.J., Hoshi, T. and Kashyap, A.K., “Zombie Lending and Depressed Restructuring in Japan”, *American Economic Review*, Vol. 98(5), 2008, pp. 1943-77.

Chart 10

**Estimates of over and undervaluation of residential real estate in selected EU countries**

(percentages; distribution of estimates and average)



Source: ESRB risk dashboard.

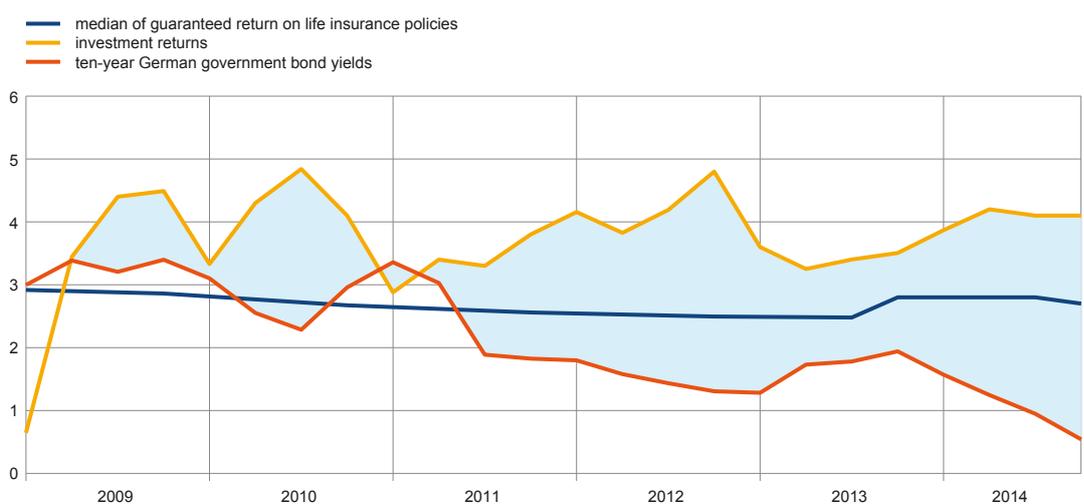
Notes: Estimates are based on four different valuation methods: the price-to-rent ratio, the price-to-income ratio and two model-based methods. For more details, see Box 3, Financial Stability Review, ECB, June 2011. For each country, the blue bar represents the range of estimates calculated as the interval between the minimum and the maximum.

**Additional risk-taking among financial institutions needs to be monitored.** If market players do not adjust their return targets to the “new normal” of very low rates, then they must search for yield by increasing their risk-taking. Likewise, promising nominally fixed returns is problematic when interest rates shift downwards and remain low for a prolonged period of time. Insurance companies (see Chart 11), pension funds, constant net asset value money market funds and some hedge funds, whose products often offer fixed returns, must search for yield to obtain the promised return. Such behaviour may be adopted not only by investors with formal or informal return targets; other investors may anticipate this behaviour and also take on additional risk (“rational herding”).

Chart 11

**Comparison of insurers’ guaranteed returns with risk-free rate and investment returns**

(percentages)



Sources: EIOPA and Bloomberg.

Note: The risk-free rate is proxied by the rate on ten-year German government bonds.

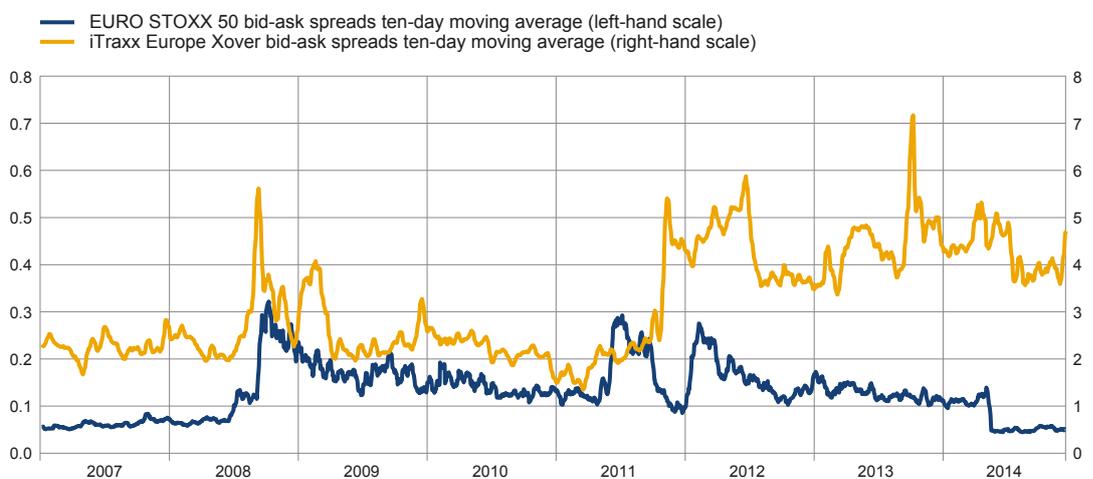
## 1.2.4 Changes in the structure of the financial market give rise to financial stability concerns

Structural changes in market liquidity may pose a risk to financial stability and warrant macroprudential action. In addition, while the increased importance of central counterparties is a welcome development, it may pose new challenges for macroprudential authorities owing to concentration risk and possible contagion.

### Insufficient market liquidity may amplify price changes

**Structural changes in the supply and demand of liquidity services could amplify the effects of a repricing of risks.** Market liquidity seems to be increasingly split, with ample liquidity for most homogeneous securities but much less for heterogeneous securities.<sup>8</sup> This is visible in large differences in bid-ask spreads (see Chart 12).<sup>9</sup> If market liquidity is insufficient to absorb sudden spikes in the demand or supply of certain securities, this may lead to order imbalances and generate substantial losses. This may exacerbate the effects of a repricing of risks. Since this is one of the key financial stability risks identified by the ESRB, market liquidity risks will be assessed in greater detail in 2015.

Chart 12  
**Bid-ask spreads for certain homogeneous and heterogeneous securities**  
(percentages)



Sources: European Securities and Markets Authority and Royal Bank of Scotland.

Notes: The EURO STOXX 50 is a stock index for the euro area. The iTraxx Europe Xover index is used as a proxy for bid-ask spreads on corporate bonds. It comprises 60 equally weighted credit default swaps on the most liquid sub-investment grade European corporate entities.

<sup>8</sup> Homogeneous securities include most government bonds, large cap equities and standardised derivatives, whereas corporate bonds, small cap equities and asset-backed securities are often considered heterogeneous. For example, while a company would typically issue just one or two lines of equity, it might issue numerous types of corporate bond. The bonds might differ in issue size, maturity, credit rating and their ranking in a company's capital structure. There are some 150,000 unique corporate bonds in Europe, as compared with 6,000 unique equities. See *Shifting sands: how a banking retrenchment is reshaping Europe's corporate bond market*, Pictet Asset Management, 2014.

<sup>9</sup> See also *Global Financial Stability Report*, International Monetary Fund, October 2014 and *Financial Stability Review*, ECB, November 2014.

### **The ability and willingness of market participants to provide liquidity has been reduced.**

A number of regulatory, competitive and technological developments have decreased market-makers' willingness and ability to act as counterparties for immediate trading needs.<sup>10</sup> First, liquidity provisioning is increasingly coming to be viewed as a stand-alone profit centre, and less as a client service that adds to the franchise value of banks and broker-dealers. Second, regulatory changes have increased inventory management costs for certain instruments, typically encouraging liquidity providers to concentrate on more homogeneous instruments in liquid markets. In line with this development, banks tend to allocate less capital to their market-making activities and reduce their inventories by cutting back on their holdings of, in particular, less liquid assets.<sup>11</sup>

### **Structural changes in the asset management industry have increased pro-cyclicality in the demand for market liquidity.**

The global market share of passive or tracking funds, including exchange traded funds (ETFs), has risen from 8% in 2003 to 15% in 2014.<sup>12</sup> In order to rebalance their portfolio holdings of the underlying assets in line with the benchmark indices they track, these funds typically sell assets with falling prices and buy assets with rising prices.<sup>13</sup> In addition, liquidity transformation is increasing in investment funds; open-ended mutual funds and ETFs that promise investors daily or instant liquidity are proliferating, while a rising share of global assets under management are invested in less liquid asset classes such as corporate debt. Furthermore, changes in institutional investors' liability structure, regulation, trading behaviour and accounting methods lead to additional pro-cyclicality in the demand for liquidity.<sup>14</sup>

### **The move towards mandatory clearing underlines the need for a robust framework for central counterparties**

**A broad range of OTC derivative classes should be subject to clearing by central counterparties (CCPs).** Since the start of the financial crisis, regulatory initiatives have strengthened the resilience of the market infrastructure. The G20 agreed in 2009 that all standardised OTC derivatives should be cleared by CCPs. In the EU, this agreement has been transposed through the European Market Infrastructure Regulation (EMIR).<sup>15</sup> When a CCP is authorised to clear certain classes of OTC derivatives, the competent authority notifies the European Securities and Markets Authority (ESMA). Within six months of receiving this notification, ESMA must, after conducting a public consultation and consulting the ESRB, submit to the European Commission draft regulatory technical standards that specify, among other things, the classes of OTC derivatives that should be subject to the clearing obligation.

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10 Technological changes seem to have also induced market-makers to focus on more liquid asset classes. Automated/high frequency trading strategies have increased the efficiency of inventory management, in particular in liquid markets, by enabling market-makers to rotate inventories and unwind positions more quickly than in the past. For less liquid markets, these strategies are less applicable. See "Market-making and proprietary trading: industry trends, drivers and policy implications", *CGFS Papers*, No 52, Committee on the Global Financial System, November 2014.

11 The effect of this is visible on the balance sheets of traditional market-makers; since the financial crisis, euro area banks' holdings of non-financial corporations' debt securities have fallen from €250 billion (over 40% of debt securities outstanding) to €150 billion (less than 13% of debt securities outstanding).

12 See *Steering the Course to Growth*, Boston Consulting Group, Global Asset Management, 2014.

13 See, for example, Sullivan, R. N. and Xiong, J. X., "How Index Trading Increases Market Vulnerability", *Financial Analysts Journal*, Vol. 68, No 2, 2012.

14 See *Procyclicality and structural trends in investment allocation by insurance companies and pension funds*, Bank of England and the Procyclicality Working Group, July 2014.

15 Article 5(2) of Regulation (EU) No 648/2012 of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories.

**In general, central clearing can reduce systemic risk.** The broad application of mandatory central clearing of standardised OTC derivatives in line with the policy agreed in 2009 by the G20 has clear merits. Recourse to central clearing reduces systemic risk by improving counterparty credit risk management, allowing multilateral netting, reducing uncertainty about participants' exposures, and increasing the transparency of market activity.

**ESMA consulted the ESRB on the clearing obligation for three asset classes of OTC derivatives in 2014.** The ESRB supported the clearing obligation for all three asset classes of derivatives: interest rate derivatives, credit default swaps and foreign exchange non-deliverable forwards. In confirming its support for the clearing obligation, the ESRB suggested, among other things, shorter implementation periods and an expansion of the coverage of the clearing obligation to currencies not already covered in the ESMA proposal.

**After the first round of the bottom-up approach has been completed, a more proactive top-down approach to identifying classes of OTC derivatives to be subject to central clearing should be considered.** ESMA can notify the Commission of classes of derivatives that should be subject to clearing obligations on its own initiative after consulting the ESRB and, where appropriate, the competent authorities of non-EU countries. Active use of this process will make the G20 reform programme more effective provided that a comprehensive and reliable set of data is available.

**The clearing obligation will only reduce systemic risk if CCPs are properly designed and managed and are closely supervised by competent authorities.** Acknowledging the effectiveness of the existing regulation in enhancing the resilience of individual CCPs<sup>16</sup>, the ESRB underlines the importance of putting in place a comprehensive regulatory framework for the recovery and resolution of CCPs. This is fundamental to containing the risks associated with the unlikely but possible event of a CCP experiencing financial distress. A significant step was taken in 2014 at the global level with the publication of a report by the Committee on Payments and Market Infrastructures and the International Organization of Securities Commissions on "Recovery of financial market infrastructures" and the Financial Stability Board's report on "Key Attributes of Effective Resolution Regimes for Financial Institutions".

**The ESRB is also assessing the efficiency of margin requirements to limit pro-cyclicality and the need to define additional intervention capacity in this area.** The outcome of the assessment will form part of the ESRB's contribution to the EMIR review to be conducted by the European Commission in 2015. The introduction of mandatory clearing, the analysis of systemic resilience via stress tests, and the monitoring of financial market structure developments are new approaches in the area of central clearing. By strengthening and re-evaluating EU-wide regulation, as well as introducing additional safeguards against systemic risks, these measures contribute to a more resilient financial market infrastructure and in turn help to ensure the smooth functioning of the financial markets.

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<sup>16</sup> At the EU level, CCPs are regulated under EMIR, which implements the global CPSS-IOSCO Principles for Financial Market Infrastructures into European legislation.

### 1.3 Financial intermediaries increased their resilience, but continue to face challenges

#### 1.3.1 Banks' resilience improved but profitability remained low

**Together with the start of the Single Supervisory Mechanism (SSM), the publication of the results of the comprehensive assessment – more specifically, the asset quality review (AQR) and the EU-wide stress test – was the most significant event for the banking sector in 2014.** The exercise was unprecedented in its size, coverage and rigour. It identified an aggregate shortfall of €24.6 billion for 24 banks; ten of which had already filled their capital gaps by the time of publication of the final results.<sup>17</sup>

**The AQR and the EU-wide stress test were an important step in cleaning up banks' balance sheets, enhancing transparency and building confidence.** Harmonised definitions were introduced for previously diverging concepts and balance sheets were assessed using a uniform methodology and a common scenario developed by the ESRB (see Box 1). The initiatives also increased transparency on banks' sensitivity to a severe but plausible shock and incentivised banks to improve their capital position via retained earnings and capital issuance. Indeed, despite weaker profitability, EU banks succeeded in raising their Common Equity Tier 1 (CET1) ratio in the first three quarters of 2014 to 12.1% from 11.6%. All in all, significant uncertainties regarding risks in the EU banking sector and the sector's resilience to adverse developments were removed, helping to improve transparency, confidence and market discipline. Moving forward, there is a need for caution against over-reliance on internal models for risk management and regulatory capital.

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#### Box 1

##### The ESRB and recent stress tests pertaining to the EU financial system

**Stress tests are important macroprudential tools.** They can help ensure the resilience of financial institutions and systems to adverse macro-financial developments. By creating transparency about remaining vulnerabilities and how such vulnerabilities are to be addressed, they can increase confidence in individual financial institutions and the financial system as a whole.

**The ESRB plays a key role with regard to stress tests in the European Union.** In particular, the EU regulations establishing the European Banking Authority (EBA) and the European Insurance and Occupational Pensions Authority (EIOPA) require them, in cooperation with the ESRB, to initiate and coordinate EU-wide assessments of the resilience of financial institutions to adverse market developments, including through stress testing.<sup>18</sup>

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17 See <https://www.eba.europa.eu/documents/10180/669262/2014+EU-wide+ST-aggregate+results.pdf>. The comprehensive assessment largely overlapped with the European Banking Authority's stress test exercise and reported a capital shortfall of €25 billion for 25 banks, with a shortfall of just €9.5 billion after the inclusion of capital-related actions undertaken in 2014 (<http://www.ecb.europa.eu/pub/pdf/other/agggregatereportonthecomprehensiveassessment201410.en.pdf>).

18 See Regulation (EU) No 1093/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Banking Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/78/EC; Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/79/EC; Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC.

**The ESRB published the adverse scenario for the 2014 EBA stress test at the end of April 2014.**

The scenario reflects the systemic risks that the ESRB assessed as representing the most pertinent threats to the stability of the EU banking sector at that time. These risks were (i) an increase in global bond yields amplified by an abrupt reversal in risk assessment, especially towards emerging market economies, (ii) a further deterioration of credit quality in countries with feeble demand, (iii) stalling policy reforms jeopardising confidence in the sustainability of public finances, and (iv) the lack of necessary bank balance sheet repair to maintain affordable market funding.<sup>19</sup>

**The adverse scenario encompassed a range of shocks which could trigger a materialisation of risk.**

These included global financial market shocks, negative demand shocks in the European Union and elsewhere, EU-specific negative supply shocks, shocks to real estate prices and a foreign exchange rate shock affecting economies in Central and Eastern Europe. In the European Union, the scenario led to a cumulative deviation of EU GDP from the baseline level provided by the European Commission of -2.2% in 2014, -5.6% in 2015, and -7.0% in 2016. The EU unemployment rate was higher than its baseline level, by 0.6 percentage points in 2014, by 1.9 percentage points in 2015, and by 2.9 percentage points in 2016.<sup>20</sup>

**The ESRB also contributed to the EIOPA stress tests for the EU insurance sector and defined benefit pension funds.**

The first of these exercises tested the resilience of the insurance sector to a “double hit”, based on two adverse financial market scenarios, developed by EIOPA in cooperation with the ESRB. Depending on the scenario involved, 27% or 44% of the insurers participating, including the largest ones, would not meet their Solvency II capital requirement.<sup>21</sup> In addition, the ESRB provided adverse macro-financial scenarios for the exercise to test the resilience of defined benefit pension funds, which was subsequently launched in May 2015.

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**Moreover, more needs to be done for banks to be able to provide credit to the real economy without constraints.** The AQR revealed the extent to which banks tend to overvalue book values and understate non-performing assets. Banks will therefore have to continue to clear their balance sheets of the large stock of problem assets revised upwards under the AQR.<sup>22</sup> The AQR also found that lower-capitalised banks were more likely to report a higher share of misclassified loans and run business models that are relatively more sensitive to adverse shocks (see Chart 13). Hence, going forward, many banks will need to substantially strengthen their risk management and governance structures. Furthermore, under fully-loaded Basel III rules, the stress test resulted in significantly more banks falling below minimum capital requirements. Thus, while only a few banks failed outright, many more were shown to have a slim capital buffer, particularly given future regulatory requirements.

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19 Further details are available at [http://www.esrb.europa.eu/pub/pdf/other/140430\\_Adverse-scenario\\_2014-EBA-stress-test.pdf?fa74dcc374574e186b8824af8677ff4c](http://www.esrb.europa.eu/pub/pdf/other/140430_Adverse-scenario_2014-EBA-stress-test.pdf?fa74dcc374574e186b8824af8677ff4c)

20 Further details on the results of the 2014 EU-wide stress test are available at <http://www.eba.europa.eu/-/eba-publishes-2014-eu-wide-stress-test-results>

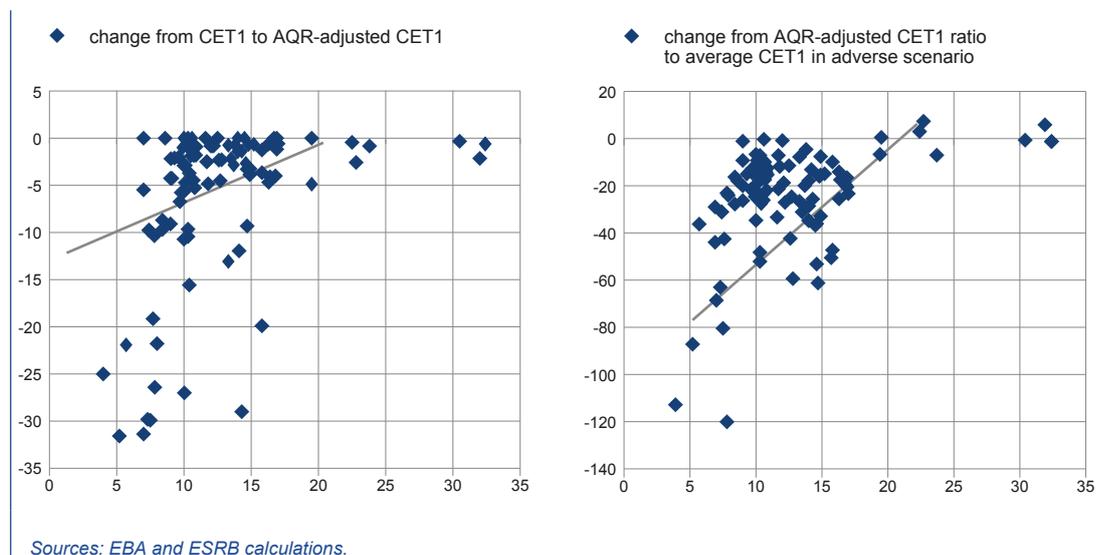
21 See the reported entitled “EIOPA Insurance stress test 2014” of 28 November 2014.

22 The AQR focused on the 130 largest euro area banks, finding that their non-performing exposures increased by €136 billion to a total of €879 billion.

Chart 13

**CET 1 ratios and relative impacts of AQR adjustments and the adverse scenario**

(percentages; x-axis: AQR-adjusted CET 1 ratio)



**In addition to ensuring sufficient CET1 levels, banks should also increase their capacity to absorb losses in a gone-concern situation.** Bank losses should first and foremost be borne by the owners and unsecured creditors of a failing bank. At present, requirements relating to the gone-concern loss-absorbing capacity of banks are in the regulatory pipeline. Nevertheless, supervisors should ensure that banks already build up additional capital buffers based on instruments with (ideally) automatic loss absorption, i.e. conversion or write-down features. These buffers would help bridge the period until the harmonised bail-in tool becomes available in all Member States.<sup>23</sup>

**Furthermore, low profitability and overcapacity continued to weigh on banks.** While the banking sector strengthened its resilience, European banks have still faced low levels of profitability, both in structural and cyclical terms. Bank profits continued to fluctuate well below their pre-crisis levels and fared comparatively worse than in the United States.<sup>24</sup> Profits were also negatively impacted by the materialisation of misconduct risk (see Box 2). Moreover, the persistence of subdued profits underscored the structural dimension of low profitability. The ESRB's Advisory Scientific Committee published a report in June 2014 that analysed the size of the European banking sector, concluding that the sector is oversized and needs to shrink.<sup>25</sup> Although the balance sheets of EU banks have contracted by €4.0 trillion (a figure which represents 9.4% of total assets) since their peak in September 2012, this downsizing process has partly reversed since the first half of 2014 (see Chart 14) and the sector remains large compared with its international counterparts, even after accounting for structural differences between financial systems. In this respect, a more diversified financial system in which market-based financing complements bank lending is likely to contribute more to real economic growth and lower the systemic risk arising from the banking sector.

23 EU Member States are expected to implement the harmonised bail-in framework by the beginning of 2016.  
 24 Please refer to the October 2014 edition of the "Global Financial Stability Report" published by the International Monetary Fund (<http://www.imf.org/external/pubs/ft/gfsr/2014/02/pdf/text.pdf>).  
 25 For more details, see "Is Europe Overbanked?", Advisory Scientific Committee Report No 4, June 2014. This report is available at [https://www.esrb.europa.eu/pub/pdf/asc/Reports\\_ASC\\_4\\_1406.pdf](https://www.esrb.europa.eu/pub/pdf/asc/Reports_ASC_4_1406.pdf)

Chart 14  
**Bank deleveraging in the European Union**

(percentages; cumulative changes in the total assets of monetary financial institutions, excluding the ESCB)



Source: ECB.

**As an aside, the impact of the low interest rate environment on banks' profitability remains unclear.** In general, an accommodative monetary policy is expected to affect banks positively by reviving the real economy. The asset price increases associated with an expansive monetary policy also benefit banks' profitability. Meanwhile, low interest rates have led to historically low funding costs for banks. In addition, low lending rates have translated into low debt service costs and helped to contain non-performing loans. However, many banks have seen their lending rates fall faster than their deposit rates, resulting in further compressed interest margins and a corresponding negative impact on profitability. Interest income has certainly declined in recent years – in 2014 only around 50% of European banks reported net interest income above the levels registered in 2009, shortly after the outbreak of the financial crisis.<sup>26, 27</sup>

**The continued weakness of the banking sector raises questions about its capacity to provide credit to the real economy.** Despite signs of an economic recovery and a gradual revival in loan demand, growth of bank lending to the private non-financial sector in the euro area has been much less promising. In the third quarter of 2014, bank lending for the euro area as a whole decreased by 0.8% year-on-year; the decline was particularly high for Ireland, Portugal, Spain, Italy and Greece, standing at 2.5%.<sup>28</sup> In some Member States, however, bank lending conditions were softer, as credit standards for all loan categories continued to ease (see Chart 15). Although still relatively tight from a historical perspective, they are expected to loosen further.

26 Source: SNL Database.

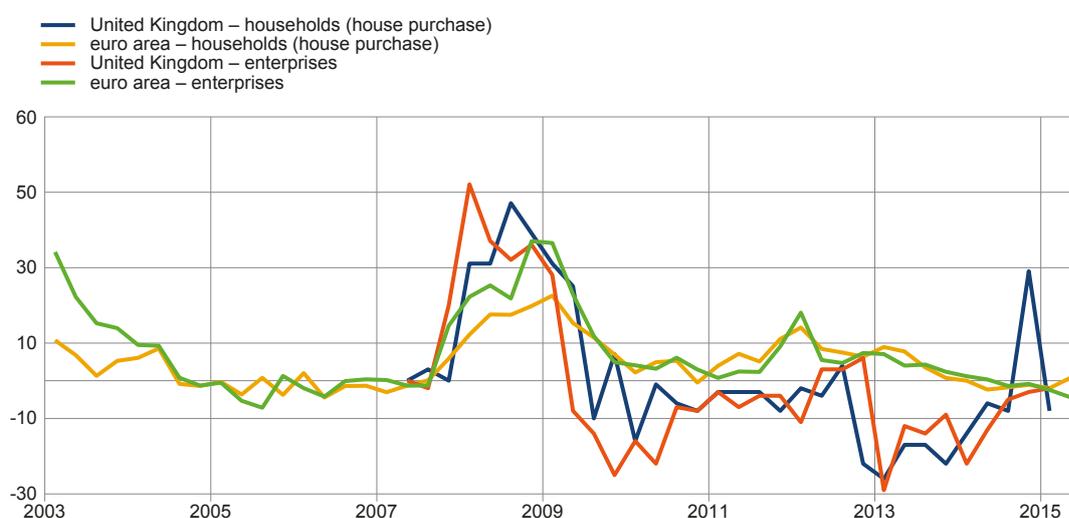
27 Apart from effects on profitability, the low interest environment could incentivise banks to invest in riskier, higher-yielding assets. Although the robust regulatory framework may help limit this search for yield, supervisors should monitor future developments closely.

28 Source: BIS Database.

Chart 15

**Changes in credit standards for loans to enterprises and to households for house purchase in the euro area and the United Kingdom**

(weighted net percentages; Q1 2003 - Q2 2015)



Sources: ECB and Bank of England.

Notes: Weighted net percentages of banks contributing to the tightening of standards over the previous three months. For the United Kingdom, data are only available from the second quarter of 2007 and are weighted according to the market share of the participating lenders. The net percentage balances on secured credit availability to households in the United Kingdom have been inverted.

Box 2

**Misconduct risk in the EU banking sector**

**The last five years have witnessed an increase in the number and scale of operational risk cases linked to misconduct, as well as the related penalties applied to banks (see the chart).**

Misconduct is a criminal act and includes mis-selling of financial products, violation of national and international rules and regulations (e.g. tax rules, anti-money laundering rules and economic sanctions) and manipulation of financial markets. It imposes large costs on society and should be prevented by all means. The penalties applied in misconduct cases rightly serve as a correcting mechanism. But the penalties may themselves entail systemic risks that could impose additional costs on the financial system in general. For example, past fines and ones in the near future are expected to erase all the capital issued by EU global systemically important banks during the last five years. The CET1 ratios of these banks would be, on average, around 2 percentage points higher without such fines.<sup>29</sup>

**Misconduct can lead to the provision of fewer financial services and reduce market confidence.**

This is because it may result in banks withdrawing from financial markets and activities (on a mandatory or voluntary basis), thereby causing a direct loss of financial services for the end user. It may also damage confidence in financial markets and institutions in general – a vital element for the proper functioning of the financial system. The latter is particularly important, given that market

<sup>29</sup> The text here is based on information from the CCP Research Foundation, Financial Times, Credit Suisse, Morgan Stanley and Dealogic, as well as ESRB calculations.

confidence was severely affected by the emergence of the global financial crisis and events thereafter.

**The character of misconduct risk and the increasing size of fines create uncertainty about the business model and solvency of banks.**

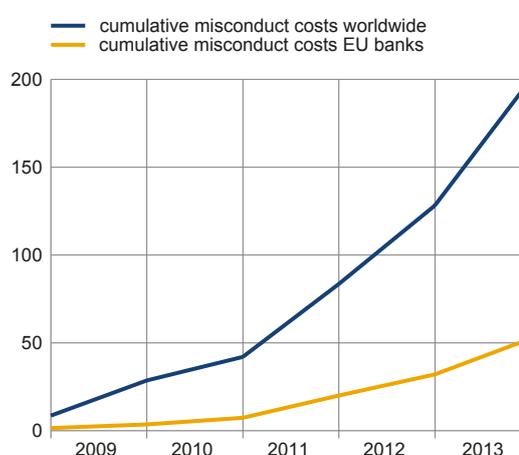
Misconduct issues often arise as tail events across markets and in systemically important banks. Therefore, a large part of the sector can be hit by the penalties imposed, leaving it more vulnerable to other shocks. In addition, misconduct costs may rise in times of crisis, for example, mis-selling is likely to appear when prices fall. As such, it may have a procyclical impact, as was recently the case.

**The ESRB has identified a number of actions in order to address these systemic risks:**

- (i) prevent misconduct by requiring banks to strengthen operational risk management and to adopt behaviour, practices and internal control and compliance mechanisms that are conducive to limiting the opportunities for misconduct;
- (ii) promote improved coordination between the relevant authorities at the international level, such as the Financial Stability Board (FSB) and the Basel Committee on Banking Supervision (BCBS);
- (iii) explore extending the Legal Entity Identifier (LEI) scheme to a larger range of counterparties<sup>30</sup>;
- (iv) ensure that supervisory review and evaluation processes and Pillar 2 supervision take into account the potential systemic effects of any misconduct under operational risk; and
- (v) include misconduct costs adequately in future stress tests.

Chart  
**Cumulative misconduct costs incurred by banks since 2009**

(EUR billions)



Sources: CCP Research Foundation, Financial Times, Financial Conduct Authority and ESRB calculations.  
Note: Misconduct costs refers to fines, settlements and redress costs.

**1.3.2 EU-wide stress test signalled the need to further strengthen insurer capital**

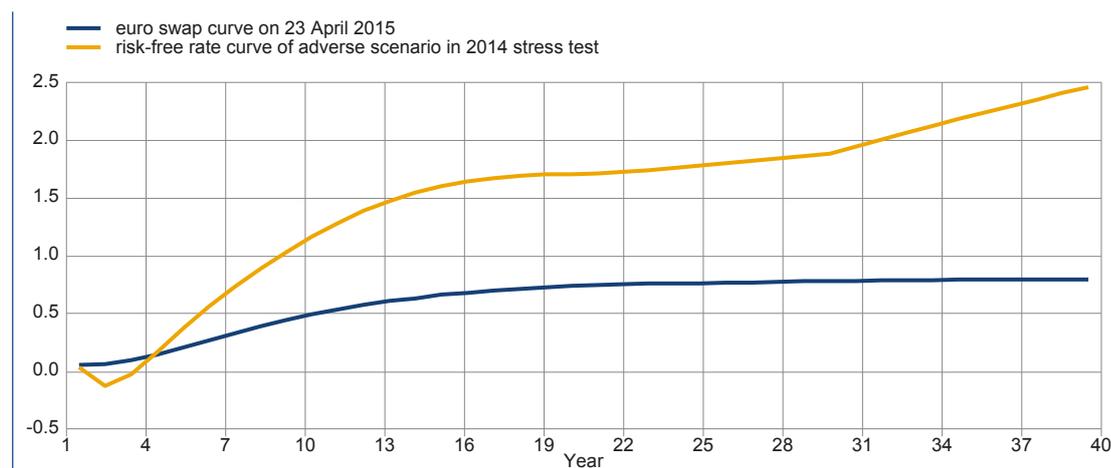
**The current macroeconomic environment of low interest rates and high volatility is difficult for life insurers.** The risk of a global repricing of financial assets persists (see Section 1.2.3), which inevitably has implications for insurers’ future asset values. In addition, interest rates declined further for all maturities and currencies during the past year. Low risk-free interest rates have a negative impact on EU life insurers’ solvency by typically inflating the value of their long-term liabilities to a greater extent than the value of their assets. Low rates also make it difficult for life insurers to achieve guaranteed returns, which amount to 2.5% on average.<sup>31</sup> Hence, there is a very real possibility that current market developments could hit both the assets and the liabilities side of the balance sheet – a “double hit” for insurers.

30 The ESRB’s analysis has been forwarded to the FSB, BCBS and the Legal Entity Identifier Regulatory Oversight Committee in order to achieve progress on this front.

31 See the December 2014 “Financial Stability Report” of EIOPA.

**A significant part of the insurance sector would be severely hit by the tested scenarios.** The stress test conducted by EIOPA in 2014 revealed that many insurance companies in the European Union do not yet have sufficient resilience to adverse financial market conditions (see Box 1). In the meantime, the risk-free rate, as proxied by the euro swap curve, has fallen well below the rates tested in the most severe scenario of EIOPA's 2014 stress test (see Chart 16). This suggests that one aspect of the adverse scenario is already materialising.

**Chart 16**  
**The current risk-free rate compared with the risk-free rate curve of EIOPA's 2014 stress test**  
*(percentages)*



Sources: EIOPA and ESRB.

Notes: The current risk-free rate is proxied by the euro swap curve. The adverse scenario does not include any Long-term guarantee package-related adjustments. No credit risk adjustment has been applied to the euro swap curve. If these adjustments were to be included, the gap between the curves would widen.

**Insurers may shift their investments in a way which is not always beneficial for financial stability.** So far insurers have responded to the prevailing macroeconomic environment in two ways: first, by seeking higher returns in the alternative investments segment and slightly increasing the proportion of higher-yield bonds;<sup>32</sup> a search for yield which may itself exacerbate the risk of a repricing in global financial markets. And, second, by investing more in sovereign bonds (see Chart 17).<sup>33</sup> Increased holdings of government bonds make insurers vulnerable to the risk of an aggravation of the European sovereign debt crisis. This is especially the case if the risk premia for Italian and French sovereign bonds rise, as these together account for almost 50% of the total government debt holdings of EU insurers.<sup>34</sup>

**A sudden reassessment of risk premia may reduce the role of insurers as providers of financing for long-term investments in the real economy.** In fact, two thirds of insurers would see a need for restructuring within six months should the adverse scenarios materialise.<sup>35</sup> Such restructuring would be realised not only through an increase in capital, but also through changes in the investment portfolio.

32 See the November 2014 "Financial Stability Review" of the ECB and the December 2014 "Financial Stability Report" of EIOPA.

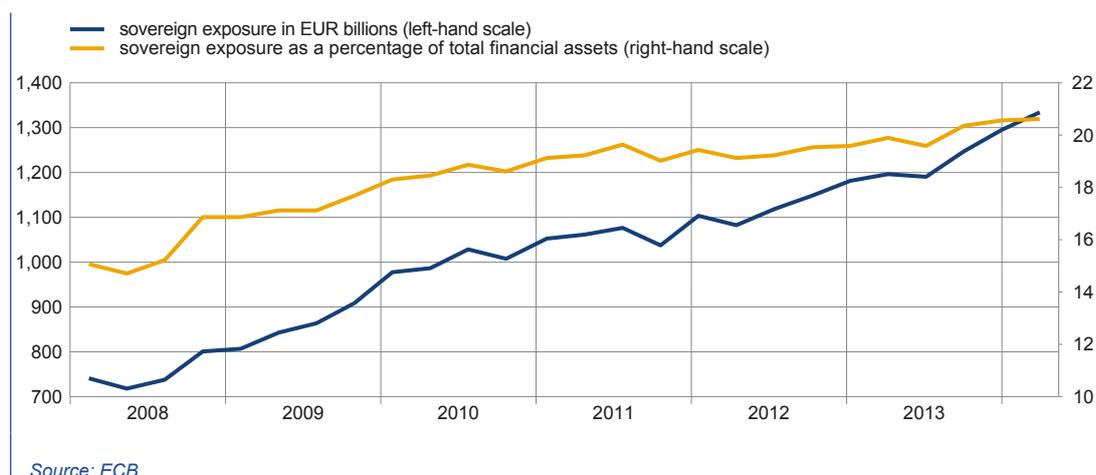
33 Please refer to "ESRB report on regulatory treatment of sovereign exposures", ESRB, March 2015.

34 See Table 3 of the report entitled "EIOPA Insurance stress test 2014".

35 See pages 68-75 of the report mentioned in footnote 34.

Chart 17

**Sovereign exposures of insurance companies in the euro area**



In the event that risk premia are suddenly reassessed, insurers may initiate fire sales of assets and thus exacerbate the downward pressure on asset prices. They may also retreat from markets for long-term corporate bonds and asset-backed securities and invest their funds (or even more funds) in “safe haven” sovereigns. This would be an undesirable development in terms of market liquidity and investment growth in the European Union.

**1.3.3 The rapidly growing shadow banking sector requires further monitoring**

**The financial crisis has underlined the importance of shadow banking vis-à-vis the stability of the financial system.** It highlighted certain weaknesses, in particular, the reliance on short-term funding (mostly wholesale/secured funding), poor lending standards owing to incentive problems in securitisation markets, and a general lack of transparency on leverage and maturity mismatches. Flawed credit risk transfer and transformation proved to have the potential to trigger runs in securitisation markets and fire sales, spread risk across webs of interconnected exposures in wholesale funding markets, and contributed to the drying up of funding from money market funds. The public sector then extended support to a range of shadow banking entities, including funds which provided liquidity, and (re)insurance firms that had issued excess credit guarantees. Consequently, there was a clear case for improving both the assessment of the risks to financial stability and the policy frameworks dedicated to managing them.

**Against a backdrop of low yields and increasing banking regulation, the global shadow banking system has grown rapidly.** It is now close to its pre-crisis peak in terms of size relative to GDP (120% in 2013 compared to 124% in 2007).<sup>36</sup> The euro area and the United States have the largest shadow banking sectors, followed by the United Kingdom. Investment funds are the largest sub-sector of the shadow banking system, which also includes broker-dealers, securitisation vehicles, financing companies and other miscellaneous entities. In the European Union, the shadow banking sector

36 See the 2014 “Global Shadow Banking Monitoring Report” of the Financial Stability Board. Note that shadow banking sector growth also reflects significant balance sheet valuation effects.

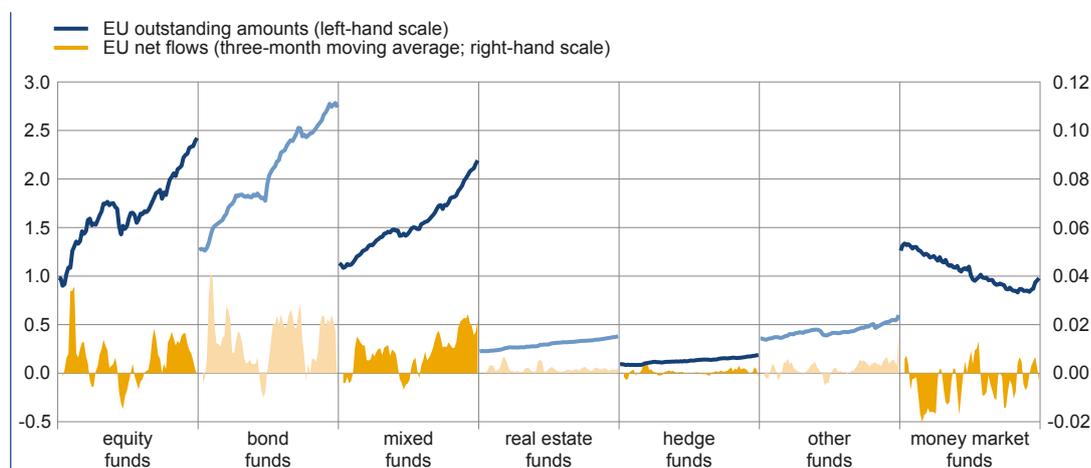
broadly accounted for €32 trillion or 36% of the EU financial sector in the third quarter of 2014, based on the “investment funds and other financial institutions” category in national accounts data.

**Systemic risks in the shadow banking sector often relate to market activities.** While scoping exercises for the shadow banking sector rely primarily on entity-based approaches (reflecting the reliance on national accounts)<sup>37</sup>, shadow banking risks also relate to a range of activities involving market interactions and externalities and are typically recorded off-balance sheet. These risks arise, for example, when exposures are acquired through derivatives (e.g. synthetic leverage), or when exposures involve secured funding (including across borders) or secondary market trading (see Section 1.2.4 on changes in the financial market structure). To analyse the main risks related to securities financing transactions (SFTs), the ESRB collected data on the (re)use of cash and non-cash collateral in 2014. The results emphasised the size of the SFT market and provided initial evidence on maturity risk, leverage and cross-border linkages, thereby underlining the importance of this market in terms of macroprudential monitoring.<sup>38</sup>

**Financial stability risks may also arise from the asset management industry, which continues to grow rapidly and has undergone major structural change.** In 2014 the industry’s assets under management increased by 16%, exceeding €11.0 trillion. This was in line with the positive trend observed in recent years, even during the financial crisis (see Chart 18).<sup>39</sup> Thus, the asset management industry, as a provider of a broad range of investment tools, plays an increasingly important role in the financial system, influencing financial asset pricing and liquidity conditions and

**Chart 18**  
**Net asset values of, and net inflows into, euro area investment funds**

(EUR trillions; Q1 2009 - Q4 2014)



Source: ECB.

Notes: This chart is based on available EU data and does not include Bulgaria, Croatia, Denmark, Sweden and the United Kingdom. The outstanding amounts of shares were affected by the new definition of money market funds (the previous one was revised in line with ESMA) introduced towards the beginning of 2012.

37 See the report mentioned in footnote 36.

38 See “Securities financing transactions and the (re)use of collateral in Europe: An analysis of the first data collection conducted by the ESRB from a sample of European banks and agent lenders”, *Occasional Paper Series*, No 6, ESRB, September 2014. In this context, please note that there is also an ongoing legislative initiative in this area, which should result in the introduction of an EU regulation on reporting and transparency of securities financing transactions.

39 This trend, however, varied across asset classes and was not observed for money market funds, given the low yield environment.

...serving as an alternative source of finance and credit for the economy. The industry has undergone major structural changes in recent years: extending its cross-border reach and activity across asset classes (particularly vis-à-vis less liquid assets); experiencing a process of market concentration; and increasing its reliance on passive management. The financial stability risks emanating from this sector may result from the observed search for yield<sup>40</sup> (see Section 1.2.3), expanding credit financing and loan origination by investment funds, and increased vulnerability owing to greater interconnectedness in asset, secured funding and derivative markets.

**With rising systemic risk, the shadow banking sector needs further monitoring.** To that end, and building on the FSB's monitoring methodology<sup>41</sup>, the ESRB has made progress in its capacity to monitor and assess risks in the shadow banking sector. More specifically, the ESRB will monitor risks related to the activities of non-banks, i.e. the exposures arising from maturity/liquidity transformation, leverage and credit risk transfer and interconnectedness with traditional banks.

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### Box 3

#### **The ESRB risk dashboard and related statistical deliverables**

**The risk dashboard is a key communication instrument of the ESRB and an important element in meeting the accountability requirements vis-à-vis the public at large.** It is produced with the active support of the ECB, and published on a quarterly basis on the ESRB's website together with an overview note and annexes describing the underlying methodology and indicators. The ESRB risk dashboard is included in the ECB's Statistical Data Warehouse, which also compiles information on the indicators and statistics related to the work of the ESRB.

**The risk dashboard is a set of quantitative and qualitative indicators of systemic risk in the EU financial system.** As such, it encompasses a number of risk categories and considers risks from both a sectoral and a system-wide perspective. The evolving nature of risks in the EU financial sector requires a regular review of its content. A team of experts was established to further develop the risk dashboard, and thus to ensure that it keeps providing the most relevant statistical information to support the monitoring of systemic risks and vulnerabilities. The last enhancement of the risk dashboard took place in 2014.

**Complementing the risk dashboard, the ESRB's risk surveillance and risk analysis was also supported by regular statistical deliverables.** The ECB continued to regularly produce a macroprudential review that presents detailed statistical information on the different dimensions of systemic risks faced by the national and EU financial systems. This macroprudential review has been further complemented by a summary assessment of risks faced by the banking systems of Member States, which focuses in particular on national peculiarities.

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40 As indicated by Chart 18, bond funds have registered significant inflows in recent years, primarily geared towards higher-yielding asset classes (this follows a prolonged period of low interest rates). Such investments, typically in emerging markets, have proved particularly sensitive to changes in market conditions, as observed in the second quarter of 2013.

41 Please refer to the FSB's "Progress Report on Transforming Shadow Banking into Resilient Market-Based Financing" (November 2014) and other policy initiatives related to non-banks, as well as the IMF's latest "Global Financial Stability Review" and research publications.

## Section 2

# ESRB report on the regulatory treatment of sovereign exposures

**In March 2015 the ESRB published the “Report on the regulatory treatment of sovereign exposures”.** The ESRB has worked on this subject since it set up a special expert group in 2012, consisting of representatives of both the Advisory Scientific Committee and the Advisory Technical Committee. The report was approved by the General Board of the ESRB at its December 2014 meeting.

**Preferential regulatory provisions have created incentives for excessive risk-taking by the financial sector in terms of their exposure to domestic sovereigns.** The report explains the international requirements set by the Basel agreements, offers an overview of EU legislation in force, discusses the systemic implications of excessive investment in sovereign exposures, provides an empirical analysis of existing data and elaborates on a diverse set of policy options, delivering a quantitative impact assessment for some of them.

**In the European Union, the relevant banking provisions are mainly included in Regulation EU No 575/2013 (the Capital Requirements Regulation, or CRR).** The legislation sets out different provisions for the standardised and internal ratings-based (IRB) approaches pertaining to the risk weight to be applied to sovereign assets at central government level, and public sector entities at subnational level. Under the standardised approach, external ratings are taken into account when assigning the risk weights. However, exposures to Member States’ governments and central banks denominated and funded in the domestic currency of that central government and central bank are assigned a risk weight of 0%. This exception to the general rule is extended automatically, for each jurisdiction of the euro area, to the sovereign assets of the other euro area countries. The preferential treatment is also extended to sovereign bonds issued by non-euro area EU Member States, provided that no exchange rate risk is involved (e.g. sovereign bonds denominated in euro issued by non-euro area EU Member States). This latter exception applies until the end of 2017, after which it will be progressively phased out. With regard to the IRB approach, banks calculate risk weights by making use of internal models, which leads to different risk weights, depending on their estimates. This means that the IRB approach allows for a more meaningful differentiation of sovereign risk based on a credit institution’s internal measures and does not automatically imply a zero risk weight, even for highly rated sovereigns. However, the “permanent partial use” of the standardised approach provided for in the EU legislation allows credit institutions – provided that the competent supervisory authorities agree – to make use of the standardised approach with the zero risk weight for their domestic sovereign exposures. Finally, the EU legislation also exempts all sovereign exposures from the large exposure limit of 25% of own funds if assigned a risk weight of 0%.

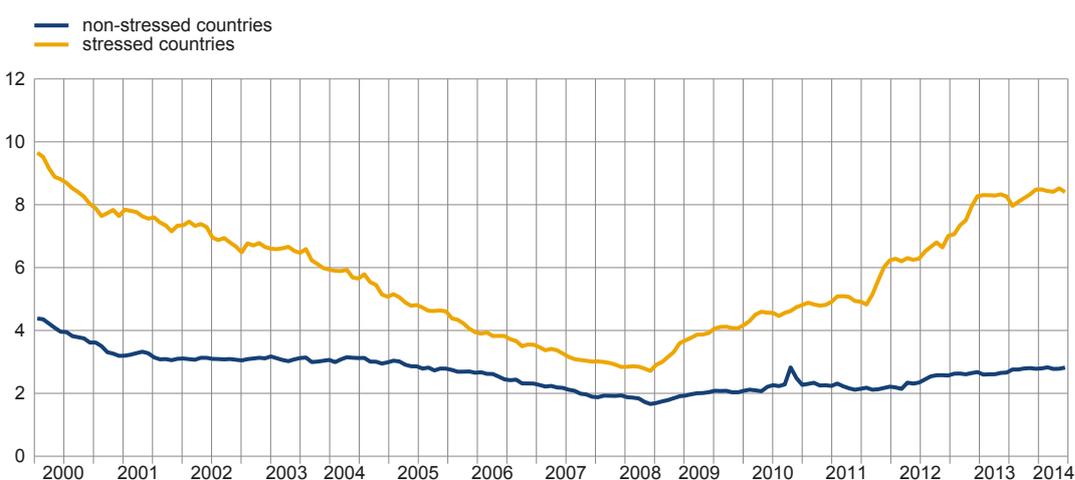
**Looking ahead, the leverage ratio, which comes into force in 2018, will potentially be an initial regulatory constraint on unrestricted sovereign asset holdings.** However, this will require a change in EU legislation. In the meantime, leverage ratio obligations have been imposed domestically by some Member States. Sovereigns were also subject to risk treatment – albeit with different modalities – by the European Banking Authority in the 2011 and 2014 stress tests and in the 2011 capital exercise.

**In the area of insurance, the EU requirements are contained in Directives 2009/138/EC and 2013/58/EU (known as Solvency II).** Solvency II enters into force on 1 January 2016 and will be based on the principle of a market-consistent balance sheet, where both assets and liabilities are valued at market value. The Omnibus II Directive amends and completes Solvency II (notably with the “long-term guarantee package” on the treatment of insurance products with long-term guarantees). Also in this case, the legislation differentiates between a standard formula and internal models. With regard to the standard formula, insurance corporations are required to hold capital for their exposures when they compute the module of the solvency capital requirement for interest rate risk. They are, however, exempted from holding capital for sovereign exposures in domestic currency in the spread risk and concentration risk modules. The use by insurance corporations of internal models, which is subject to the prior authorisation of supervisors, will shed light on the assessment by the largest insurance corporations of the riskiness of sovereign assets.

**Assigning a zero risk weight to sovereign exposures may create incentives for excessive risk-taking, unless those exposures indeed bear no risk.** The objective of the regulation is to ensure adequate loss-absorption capacity and to provide proper incentives for risk choices. The achievement of this objective may be compromised if zero risk weights are assigned to assets that are in fact risky. A review of past developments, including those since the euro area sovereign debt crisis, shows that sovereign assets cannot be considered as being free of default risk. Markets and authorities have become increasingly aware that sovereign assets may indeed be risky, and that the connections between domestic sovereign risks and the risks associated with assets in the domestic economy are strong and numerous. However, it is generally agreed that the development of major economic and fiscal imbalances that led to the sovereign crisis in Europe was due, among other factors, to significant weaknesses in EU economic governance. In this sense, some significant measures have been introduced to strengthen economic governance in the EU.

Chart 19

**Domestic sovereign debt holdings of banks in certain stressed countries<sup>1)</sup> versus those of banks in certain non-stressed euro area countries<sup>2)</sup> as a percentage of their total assets, June 2000-September 2014**



Source: SDW.

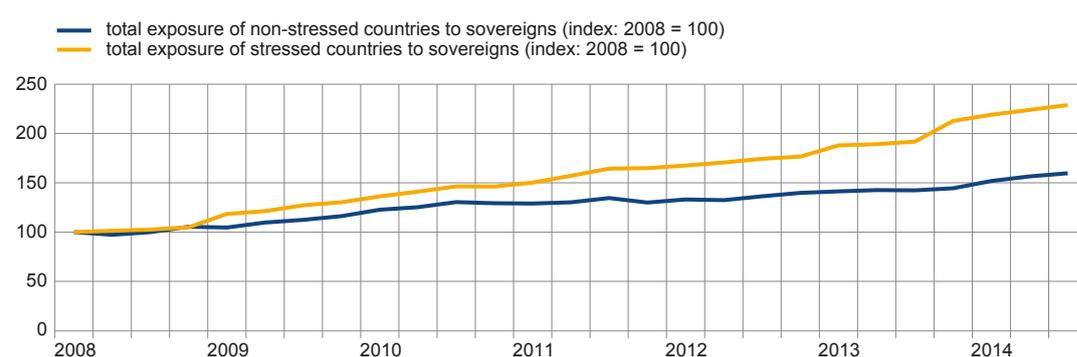
1) Greece, Ireland, Italy, Portugal and Spain.

2) Austria, Belgium, Finland, France, Germany and the Netherlands.

**An aggravation of sovereign risk may lead to a direct and indirect deterioration in the balance sheets of banks and insurers.** This may result from direct holdings of government debt or exposures via credit default swap positions. The market perception of a financial intermediary may worsen, leading to a negative impact on its cost of issuing debt. Capital losses for banks and on marked-to-market assets for insurance corporations may lead to an erosion of the capital base and a downgrading of financial companies' ratings. Further losses may come from the deterioration in collateral values resulting from the application of higher haircuts. More generally, the events in recent years have shown that the negative feedback loops between sovereigns and the financial sector have been one of the most difficult vulnerabilities to address.

**Domestic sovereign exposures of the banking sector increased in both stressed and non-stressed countries during the sovereign crisis, though these increases were larger in the former (see Chart 19).** Prior to 2008, and starting from different levels, the share of domestic sovereign assets in bank balance sheets decreased at a faster pace in countries with higher debt levels, possibly pointing to a diversification of sovereign debt holdings across Europe. With the shock of the financial crisis, the share of domestically held sovereign assets in total bank balance sheet assets increased rapidly, reaching levels last seen in the early 2000s for stressed countries, while increasing more gently for non-stressed countries.

Chart 20  
**Evolution of the total exposure to sovereign debt of insurers in certain stressed and non-stressed euro area countries**



Source: ECB.

**Data for insurance corporations (available from 2008 onwards) also point to differing developments.** In general, and taking all EU Member States into consideration, the share of domestic government debt securities in insurance corporations' balance sheets increased by almost 80% between 2008 and 2014, compared with an increase of around 20% for total financial assets. Chart 20 shows that the increase was sharper for stressed euro area countries than for non-stressed euro area countries.

**There are competing, though not mutually exclusive, interpretations of these developments.** According to an initial hypothesis (the "carry-trade hypothesis"), banks and insurance corporations in stressed countries have increased their sovereign debt holdings to maximise profits. They achieved this by benefiting from the increasing spread between the short-term cost of funding from the ECB and the level of sovereign bond yields. This occurred at the exact time those sovereigns were subject to the most severe tensions, thereby exposing the banks involved in the carry trade to the risk of suffering

severe losses. According to this interpretation, prudential regulation – permitting banks and insurance corporations to increase their risk positions without improving their loss absorbency in parallel – has been the direct source of systemic vulnerability and needs to be corrected. Another hypothesis (the “deficit-absorption hypothesis”) explains the increase in exposures as a direct consequence of the deterioration in macroeconomic fundamentals, which leads to larger fiscal deficits and higher debt issuance, thereby requiring banks and insurance corporations to act as residual buyers. According to this interpretation, it is not immediately obvious that a change in prudential regulation would have an impact on the behaviour of the financial sector.

**With regard to empirical evidence, the report includes two types of econometric estimate:** first, a multivariate time-series analysis of country-level data and, second, a return-based method with bank-level equity returns data. Unfortunately, this second database does not include information on banks’ actual sovereign debt holdings. The first method examines how aggregate domestic bank sovereign exposures in selected euro area countries correlate with (i) the yield on the domestic ten-year government bond and the yield on the ten-year Bund and (ii) two macroeconomic variables, namely the domestic industrial production index and the domestic unemployment rate. The correlation with yields tests the carry-trade hypothesis, while the correlation with macroeconomic variables tests the deficit-absorption hypothesis. Evidence from the first method is stronger for the first hypothesis when a cointegration relationship between banks’ sovereign holdings and sovereign yields is considered: banks react to increases in spreads by increasing their holdings of domestic sovereign debt. However, this relationship becomes weaker when the model is extended to a multi-country joint setting which allows for cross-country shocks. Furthermore, the evidence in favour of carry trades turns out to hinge on the cointegration assumption, which is econometrically and economically controversial. In contrast, the macroeconomic variables have a more robust impact on banks’ sovereign debt holdings. The second method leads, however, to weaker and more selective evidence in favour of the carry-trade hypothesis.

**In order to assess possible policy responses, the ESRB has considered a framework which takes into account the need to increase resilience and limit systemic risks as a whole, while ensuring appropriate levels of funding for the economy and consistency with the EU legal framework (see Box 4).** Any policy proposal – including the preservation of the status quo – confronts policy-makers with important trade-offs. Therefore, the report follows the methodology of discussing the pros and cons of each proposal, without defining a list of priorities (see Box 5 for a list of the proposed policy options).

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#### Box 4

#### **Framework for assessing policy options**

#### **Main policy objectives**

##### **1) Increase the resilience of the financial sector to sovereign risk over the economic cycle**

The measure should increase banks’ and insurers’ resilience to sovereign risk, which includes insolvency risk (credit risk), market risk arising from repricing of risk, and liquidity risk. To be effective, the increase in resilience should be stable over time, avoiding pro-cyclical effects.

##### **2) Limit systemic risks at the EU-wide level**

The net effect of the measure, by addressing some of the manifestations of sovereign risk, should be a reduction of the systemic risk in the EU. Therefore, the measure should not engender unintended consequences with a potential EU-wide impact and/or end up amplifying existing sources of systemic risk.

### 3) Ensure appropriate availability and pricing of funding for the economy as a whole

The measure should be consistent with the use of public and private sector debt as a stable source of funding for the economy as a whole across the business cycle.

#### Main requirements

##### 1) Consistency with other prudential regulation

The measure should be consistent with other prudential rules, particularly those affecting the treatment of sovereigns, at both the global and EU level.

##### 2) Not hindering or interfering with fiscal, monetary and financial integration policy in the EU

The design of prudential regulation in the EU should be coherent with the range of policies that are being implemented to improve the EU in terms of its fiscal, monetary and policy integration.<sup>1</sup>

##### 3) Not hindering or interfering with the free movement of capital in the EU, thereby ensuring a level playing field

Measures that increase the barriers to free movement of capital run counter to a deeper EU common market and may be in breach of the TFEU.

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**Policy proposals affecting EU banks' Pillar I capital requirements under the standardised and IRB approaches are intertwined because of the "permanent partial use" rule, which permits IRB banks to make use of the standardised approach.** If the standard Basel requirements are applied, the report proposes alternatives to the sole use of credit ratings, e.g. subjecting all sovereign exposures to mark-to-market rules. Alternatively, it may be possible to impose a non-zero risk weight floor (e.g. of 10%) for sovereign exposures under both the standardised and IRB approaches. The report includes a quantitative impact assessment to evaluate additional capital requirements if Basel rules are implemented or if a 10% risk weight floor is imposed. In both cases, capital needs and the increase in loss-absorption capacity would be relatively modest (not exceeding €10 billion for the European Union as a whole).

**Other policy proposals on bank capital include imposing capital requirements on non-diversified sovereign portfolios or introducing a time-varying macroprudential capital buffer across the board.** These would increase the loss-absorption capacity of the entire sector anti-cyclically in upswing phases and release capital in situations of fragility. Measures pertaining to Pillar II (supervisory review) and Pillar III (disclosure) might also be considered.

**Regarding policy proposals on the application of diversification requirements to banks, the exemption of banks' sovereign exposures from the Basel diversification requirements could occur totally or partially.** Capping the amount of sovereign assets that banks can accumulate would help to minimise the negative feedback loop between sovereigns and banks, thus increasing banks' resilience to sovereign risk. Obviously, it would be necessary to make sure that – as a consequence of the same diversification rule – banks from other EU Member States would take the place of domestic banks in funding sovereigns. To encourage diversification of sovereign credit risk, it might be possible, for instance, to define a weighted basket of sovereign debt holdings according to the countries' GDP. Alternatively, it might be feasible to apply a risk-sensitivity factor to the large exposure limits.

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<sup>1</sup> Measures that increase the asymmetries within the EU are likely to interfere with this aim.

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Box 5

**Potential policy options**

The potential policy options and areas for reform that have been identified and analysed include the following.

**Banking sector regulations**

1. Stricter Pillar 1 capital requirements for sovereign exposures:
  - (a) removing the domestic carve-out in the standardised approach;
  - (b) introducing a non-zero risk-weight floor for sovereign exposures in the standardised approach;
  - (c) reducing mechanistic reliance on external credit ratings in the standardised approach;
  - (d) setting a minimum (regulatory) floor in the internal ratings-based (IRB) approach.
2. Diversification requirements (fully or partially removing the exemption of sovereign exposures from the large exposures regime and introducing a capital requirement for concentration risk).
3. Coverage of sovereign exposures in macroprudential regulation (i.e. a flexible tool that would allow policy-makers to change the capital requirement on sovereign debt to vary over the cycle).
4. Enhanced Pillar 2 requirements (through recommendations for stress tests and/or qualitative guidance on diversification).
5. Enhanced Pillar 3 disclosure requirements on banks' sovereign exposures (e.g. by implementing mandatory templates for disclosure).
6. Regulation of liquidity risk, including alternative approaches to treating central government debt in liquidity regulation.

**Insurance sector regulations**

1. Maintaining the Solvency II approach.
2. The inclusion of sovereign exposures in the concentration and spread risk modules of the solvency capital requirement standard formula.
3. Enhanced Pillar 2 requirements.
4. Enhanced Pillar 3 disclosure requirements on insurers' sovereign exposures.

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**On bank liquidity, the Basel III framework extends the preferential treatment of sovereigns to liquidity requirements, recognising that sovereign bonds are the most liquid asset class.** It requires that at least 60% of the high-quality liquid assets, which are used as the numerator of the

liquidity coverage ratio, be held in a category of assets which includes zero risk-weight sovereigns. It also exempts domestic government debt from the diversification requirements. The report considers an alternative approach, instead taking into account a definition of liquid assets based on market conditions, though important caveats are also noted.

**Concerning policy proposals on insurance companies, the EU legislation entering into force on 1 January 2016 already includes the weighting of sovereign assets in the interest rate risk module used to compute the solvency capital requirement (SCR).** The report examines the possibility of extending it – in the medium term through a revision of Solvency II – to the two other modules used in calculating the SCR: the concentration risk module and the spread risk module. The quantitative impact assessment, subject to several caveats, reveals that the impact would be very uneven across countries, with a sizeable EU-wide impact (of between €35 billion and €80 billion).

**None of the policy options discussed in the report have been conceived and drafted as a formal ESRB recommendation to the EU legislator or to national authorities.** Considering the role of sovereign debt as an anchor in the financial system and its importance as a highly liquid asset, a broader assessment of the impact of potential changes to the current regulatory framework would have to take into account a number of aspects, including the need to avoid pro-cyclical effects, as well as more structural, general equilibrium considerations. The report aims to foster an informed policy discussion on the medium-term policy response to the systemic vulnerabilities caused by excessive risk-taking in sovereign debt. The report was presented to the Economic and Monetary Affairs Committee of the European Parliament when ESRB Chair Mario Draghi appeared before it on 23 March 2015. It has also been presented to a number of specialist working groups, gathering together representatives of EU institutions and EU Member States, including the Financial Stability Table of the Economic and Financial Committee (EFC), the Financial Services Committee and the EFC Sub-Committee on EU Sovereign Debt Markets. Discussions on whether the current regulatory provisions should be reconsidered are also being held at the global level within the Basel Committee on Banking Supervision.

**Given the sensitivity and the potential impact of any change in regulation, rules concerning transition need to be considered carefully.** Any changes in regulation, particularly regarding Pillar 1, should involve appropriate transition periods and a gradual phase-in. This should give the regulated institutions sufficient time to adapt and ensure that the impact of the change on markets, as well as sovereigns that rely on financial institutions and markets for funding, is properly smoothed.

## Section 3

# Policy measures addressing systemic risks

**This section reviews the ESRB's work in the area of macroprudential policy.** It starts by considering initial experiences with macroprudential policy under the new capital requirements framework for banks.<sup>1</sup> It then turns to the guidance the ESRB is developing in specific areas of macroprudential policy, such as the counter-cyclical capital buffer, the leverage ratio and real estate instruments. Next, it reviews the ESRB's ongoing work of linking its risk analysis to its macroprudential policy analysis. The section concludes by giving an initial outlook on work that will be taken up by the ESRB in the future as regards the use of macroprudential instruments beyond the banking sector.

### 3.1 Initial experiences with macroprudential policy under the new capital requirements framework

#### 3.1.1 Introduction

**The ESRB Flagship Report and the Handbook provide a framework for macroprudential policy-making in the EU.** In the previous Annual Report, the ESRB “Flagship Report on Macroprudential Policy in the Banking Sector” (hereafter “Flagship Report”) and “The ESRB Handbook on Operationalising Macro-prudential Policy in the Banking Sector” (hereafter “Handbook”) were presented in some detail. These two publications provide the analytical basis for, and guidance on, the use of macroprudential instruments available to policy-makers under the CRD/CRR and beyond. The new EU prudential rules for banks were a landmark event for macroprudential policy as they gave the national authorities in the EU a new set of policy instruments with which to address financial stability risks more effectively. They also conferred on the ESRB a number of new tasks, including developing guidance and issuing opinions on the use of certain instruments, as well as participating in the consultation on the next CRD/CRR review. This section reports on some of the initial experiences under the new framework.

**The ESRB has started to publish a catalogue of macroprudential measures on its website.**

In the Flagship Report, the ESRB announced that it would serve as a central hub for collecting and disseminating information about macroprudential policy measures in the EU. A list of such measures was published on the ESRB's website for the first time during the period under review and will be updated periodically. This list is largely based on notifications of measures sent to the ESRB and, therefore, may not necessarily be exhaustive. The list has been complemented with overview tables on the counter-cyclical capital buffer rates applicable in the Member States. The list and the tables provide the basis for analysing initial experiences with macroprudential policy in the new setting. They also contribute to greater transparency as regards macroprudential policy actions by Member States.

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<sup>1</sup> This discussion on the initial experiences is based on the ESRB report “A review of macro-prudential policy in the EU one year after the introduction of the CRD/CRR”, which was published in June 2015.

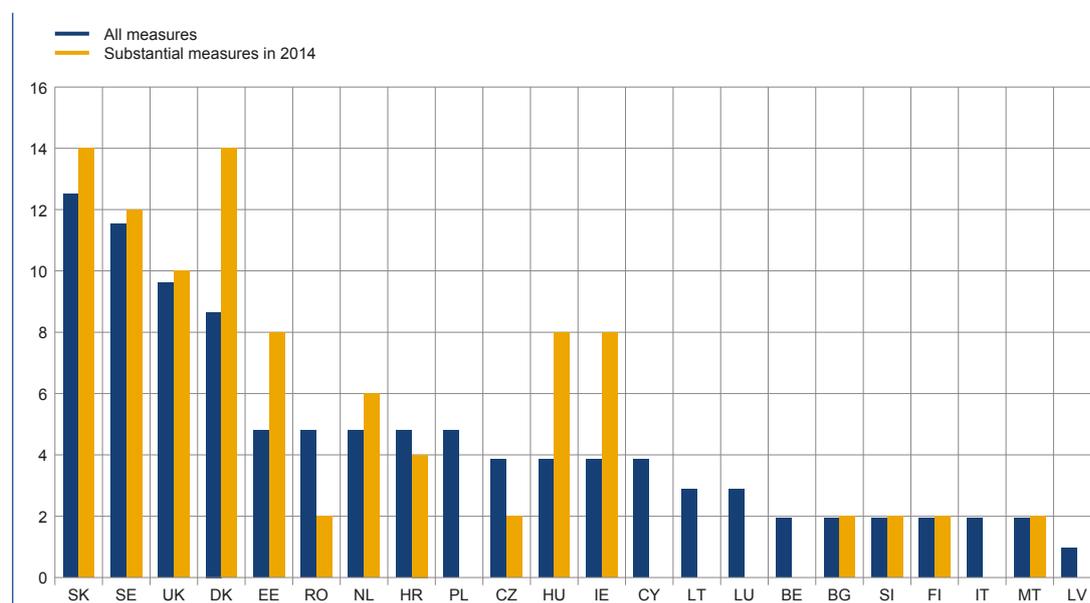
The initial experiences with the new framework were also useful for the ESRB in providing input to the European Commission on two macroprudential issues. The first such issue was whether the European Commission should use its power to impose stricter prudential requirements to address increased EU-wide risks. The second issue was whether the macroprudential provisions in the EU capital requirements framework are sufficient to mitigate systemic risks in the EU.

### 3.1.2 A review of the initial experiences

#### a) General overview

Many Member States implemented macroprudential policy measures in 2014. Around 100 measures were taken in 2014, roughly half of which can be considered as substantial. Chart 21 shows that, while some Member States were very active (e.g. Sweden, Slovakia, the United Kingdom and Denmark), for others, no measures were recorded (e.g. France, Germany, Poland and Spain). These differences may be related to the different phases of the financial cycle in which Member States find themselves, diverse views on the role of macroprudential policy, whether or not a national macroprudential authority has already been established in the Member State concerned, and whether macroprudential measures were already activated before the introduction of the CRD/CRR.

Chart 21  
Relative frequency of use of measures by Member State  
(percentages)



Source: ESRB.  
Notes: Measures adopted or announced in 2014. Substantial measures exclude measures of a more procedural/administrative nature (e.g. early introduction of the capital conservation buffer, decision to keep the counter-cyclical capital buffer rate unchanged).

The real test for inaction bias in macroprudential policy could be still to come. Quite a number of the reported measures were aimed at preserving the regulatory situation as it was prior to the introduction of the CRD/CRR and, therefore, did not result in any new requirements. Some Member

States also used the trough of the financial cycle to introduce measures that, at this juncture, are not yet binding, but that may have a greater impact when the cycle moves again from trough to peak.

**Member States also made active use of instruments outside the CRD/CRR framework.** Around half of the measures recorded are governed by EU law (i.e. use of capital instruments), whereas the rest have been adopted as measures based on national law, such as caps on loan-to-value (LTV) ratios.

**In general, national authorities rarely analyse in sufficient detail the potential cross-border effects of national macroprudential measures and the use of reciprocity remains very limited.**

The ESRB therefore decided to carry out further work in these areas (see Section 3.2.4). Reciprocation refers to the application of a (equivalent) measure adopted by a country by other Member States for the activity of their banks in the country that took the initial measure. Reciprocation can be useful as it fosters a level playing field and reduces the risk of a measure's effectiveness being eroded by the activities of foreign entities. The CRD/CRR sets out a few cases in which reciprocity is compulsory, but as a rule reciprocity is voluntary. In the review period, there were only a few cases in which a measure was reciprocated on a voluntary basis; there were no cases in which the ESRB was asked by a Member State to issue a recommendation inviting other Member States to reciprocate a measure.

**Most measures aim to address excessive credit growth and leverage.** Recommendation ESRB/2013/1 of 4 April 2013 on intermediate objectives and instruments of macroprudential policy identifies five such intermediate objectives.<sup>2</sup> Eight out of ten substantive measures have an intermediate objective of preventing and mitigating excessive credit growth and leverage. Addressing misaligned incentives and maturity mismatches or market illiquidity come a distant second and third place.

## **b) Measures to address excessive credit growth and leverage**

**A wide variety of measures have been used to address the intermediate objective of preventing and mitigating excessive credit growth and leverage.** In the measures adopted, the use of the counter-cyclical capital buffer and the capital conservation buffer clearly dominate (see Chart 22). However, the chart also shows that, when using as a basis the measures that are deemed economically substantial, rather than all recorded measures, this conclusion is somewhat biased.

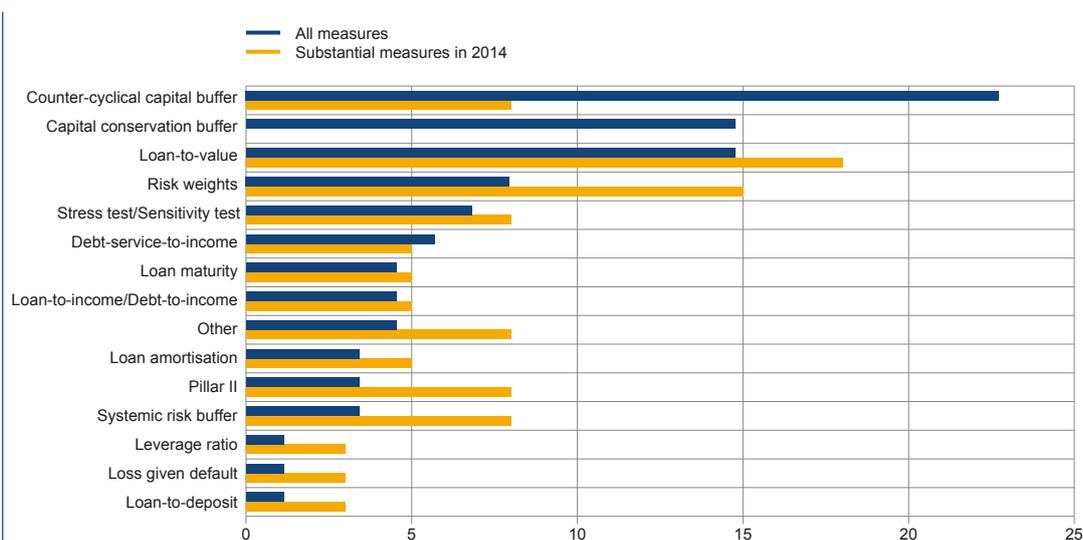
**The counter-cyclical capital buffer is the pre-eminent instrument to address risks from excessive credit growth.** Six Member States opted for an early introduction of the counter-cyclical capital buffer. Almost all of them set the buffer rate at 0%; the exception being Sweden, which set the rate at 1%. The counter-cyclical capital buffer is one of the macroprudential instruments in which, up until now, limited, voluntary reciprocity has been observed.

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<sup>2</sup> These are: (i) to mitigate and prevent excessive credit growth and leverage, (ii) to mitigate and prevent excessive maturity mismatch and market illiquidity, (iii) to limit direct and indirect exposure concentrations, (iv) to limit the systemic impact of misaligned incentives with a view to reducing moral hazard, and (v) to strengthen the resilience of financial infrastructures.

Chart 22  
**Relative frequency of use of various types of measures for addressing credit growth and leverage**

(percentages)



Source: ESRB.

Note: Measures adopted or announced in 2014.

**Many Member States took measures to address concerns about developments in the real estate sector.** A number of sector-specific measures were taken in 2014 and they all related to the real estate sector. Most of the measures targeted the residential real estate sector (mortgage lending), but there were also a few initiatives related to the commercial real estate sector. Given the importance of real estate instruments, the ESRB decided to carry out further work in this area (see Section 3.2.3).

**About half of the real estate measures are based on the CRD/CRR and the rest on national law.** The CRD/CRR measures all relate to increases in risk weights, although technically this can be achieved in different ways (e.g. as a Pillar II measure, by raising minimum “loss given default” parameters, or as a national flexibility measure). The most frequently used measure outside the CRD/CRR is the LTV limit. The variety of measures adopted may point to an experimentation process that occurs in the early development stages of a macroprudential policy framework. Although national authorities sometimes cite cyclical reasons as a justification for the measures taken, the reasons may also be of a structural nature.

**LTV caps are often used in combination with affordability measures.** These affordability measures include caps on loan-to-income (LTI) ratios, caps on debt-service-to-income (DSTI) ratios, stress tests and sensitivity tests, as well as loan maturity and amortisation requirements. Since LTV caps focus on the collateral underlying the mortgage loan and the affordability measures on the repayment capacity of the debtor, they can be considered as complementary measures. There is therefore merit in having both types of instruments in place at the same time, during both parts of a credit cycle.

### **c) Measures to address misaligned incentives with a view to reducing moral hazard**

#### **Concerns about misaligned incentives are commonly addressed through capital buffers.**

Concerns about misaligned incentives that result in increased moral hazard often originate from large and complex banking groups. In order to address such concerns, national authorities generally use supplementary capital buffers. The CRD/CRR offers a wide set of available capital buffers and, whereas their end effect is the same (i.e. more capital), the conditions and procedures for their use are very different.

#### **The buffers for global (G-SIIs) and other systemically important institutions (O-SIIs) are the most appropriate instruments to address systemic concerns resulting from these institutions.**

A few Member States have already announced measures related to the buffer for O-SIIs (such as identifying these institutions and setting the buffer rates), although under the CRD/CRR the measures will only be available from 2016. In practice, therefore, the systemic risk buffer is sometimes used as a substitute for the O-SII buffer because the latter is not yet available and its level is capped, whereas no such cap exists for the systemic risk buffer.

**The systemic risk buffer is used for a variety of reasons, reflecting the broad set of non-cyclical risks it can address.** Seven Member States chose to introduce the systemic risk buffer for a variety of reasons related to the specific features of their economy and banking sector as well as the presence of systemically important institutions. Buffer rates can be uniform or differentiated according to groups of banks; they can apply to the whole banking sector or to a subset of banks. When the systemic risk buffer is applied to a small subset of banks, there is the issue of its delineation with the O-SII buffer.

**Sometimes buffer requirements were introduced with the aim of preserving the regulatory situation prior to the CRD/CRR.** Under the minimum harmonisation approach that existed before the CRD/CRR, several Member States had imposed capital requirements that were stricter than the minimum requirements under EU law. Some of the measures taken under the CRD/CRR, such as the use of the systemic risk buffer and the early introduction of the capital conservation buffer, were aimed at keeping these stricter requirements in place.

**There are different views among Member States as regards the macroprudential use of Pillar II.** The CRD/CRR provides for the macroprudential use of Pillar II and even requires that Pillar II measures be considered before the systemic risk buffer and national flexibility measures under Article 458 of the CRR can be considered. In supervisory practice, however, there are differences across Member States: some make very active use of Pillar II to impose additional capital buffers for macroprudential reasons, whereas others see it as an exclusively microprudential instrument.

### **d) Measures to address excessive maturity mismatch and market illiquidity**

**A few Member States took measures to address liquidity concerns.** These measures often took the form of liquidity ratios, such as a “liquidity coverage ratio” or a “net stable funding ratio”, but specifically targeted non-domestic currencies.

### 3.1.3 Opinions and recommendations of the ESRB under the CRD/CRR

**The ESRB was formally required in only one case under the CRD/CRR to issue an opinion on the use of an instrument by a Member State.** The CRD/CRR requires the ESRB to provide opinions on specific macroprudential measures to be implemented by Member States within one month of receiving a notification of such measure. In the reporting period, the ESRB was only once required to issue such an opinion under the national flexibility package (Article 458 of the CRR). The opinion related to a draft measure by Belgium aimed at addressing the increased systemic risk originating from mortgage loans to Belgian residents covered by residential real estate in Belgium. The stricter national measure consisted of implementing a 5 percentage point add-on to the risk weights applied by banks that use the internal ratings-based approach to calculate regulatory capital requirements for such loans.

**The procedures put in place by the ESRB to deliver an opinion within one month proved to be effective.** In line with Decision ESRB/2014/2 of 27 January 2014, a dedicated assessment team prepared a draft ESRB opinion and supporting material on the envisaged measure, assessing its rationale and merit against the criteria specified in the CRR. In Opinion ESRB/2014/1 of 30 April 2014, the ESRB concluded that the stricter measure was justified, suitable, proportionate, effective and efficient. It further concluded that the stricter measure did not have a negative impact on the internal market that outweighs the financial stability benefits resulting from a reduction of the macroprudential or systemic risk identified. The opinion and supporting material were subsequently published. Taking into account the ESRB and EBA opinions, the European Commission decided on 28 May 2014 not to propose to the EU Council an implementing act to reject the draft measure by Belgium. Belgium could therefore adopt the envisaged measure either for a period of up to two years or until the macroprudential or systemic risk ceases to exist, whichever occurs first.

### 3.1.4 Input by the ESRB on the question of whether the European Commission needs to impose stricter EU-wide prudential requirements

**The European Commission has the power to impose, for a period of one year, stricter prudential requirements for exposures to address increased risks that arise from market developments inside or outside the EU that affect all Member States (Article 459 of the CRR).** The Commission is required, with the assistance of the ESRB, to submit to the European Parliament and the EU Council a report on market developments potentially requiring the use of this power. The Commission therefore approached the ESRB Chair in October 2014 regarding the potential use of Article 459 of the CRR.

**In a letter to the European Commission of January 2015, the ESRB concluded that, at that juncture, there was no need to use this power.** Based on its experience with the identification and categorisation of systemic risks, the ESRB concluded that it had not yet seen circumstances where the Commission would need to exercise this power. Indeed, for the main risks discussed by the ESRB over the past year, actions had already been taken at national and European levels.

**However, the ESRB also stressed the importance of this provision in the capital framework.** Since this provision provides the possibility to prevent and mitigate macroprudential risks affecting all Member States, it is a useful complement to other macroprudential instruments applicable to individual

Member States. The use of this power might be particularly useful in the case of systemic fragilities in financial markets and indirect contagion in its various forms (e.g. through asset price correlations and fire sales).

### 3.1.5 Input by the ESRB to the consultation on the next CRD/CRR review

**The ESRB provided advice on a review of the macroprudential provisions in the EU capital requirements framework.** In accordance with Article 513 of the CRR, the European Commission was requested to report by end-2014 to the European Parliament and the EU Council on the review of macroprudential provisions in the CRD/CRR. As part of this review, the ESRB was asked by the Commission for advice on whether these provisions were sufficient to mitigate systemic risks in the EU sectors, regions and Member States. The ESRB provided its advice on 30 April 2014, which was also published.

**The advice concluded that the current rules contained many elements needed for a sound macroprudential framework in the EU and that a small number of revisions would further increase the effectiveness of the toolkit.** The main areas for possible revisions include the O-SII buffer, the systemic risk buffer, the legal sequencing order in the assessment of instruments, the coordination between micro- and macroprudential authorities, and some changes to administrative procedures.

- **The O-SII buffer.** The cap currently in place for the O-SII buffer should be removed. On condition that the use of the systemic risk buffer is limited to all banks, as explained in the next point, the O-SII buffer should be allowed to be used for institutions with common business models and/or correlated risk that could, on an aggregate basis, pose systemic risks to financial stability.
- **The systemic risk buffer.** Provided that the cap for the O-SII buffer has been removed, as mentioned above, the definition of the systemic risk buffer should be revised. This revision should allow this buffer to be used for all banks and subsets of exposures, but not a subset of banks. Moreover, the systemic risk buffer should not be used to address risks emanating from G-SIIs or O-SIIs. Furthermore, multiple levels for the systemic risk buffer can be used to address distinct structural risks. Finally, the systemic risk buffer should be applied in addition to the maximum G-SII and O-SII buffers.
- **Legal sequencing order in the assessment of instruments.** This order should be changed so that national authorities do not need to consider Pillar II measures before applying the systemic risk buffer and the measures under the national flexibility package (Article 458 of the CRR).
- **Coordination between micro- and macroprudential authorities.** A number of areas have been identified where coordination between micro- and macroprudential authorities should ensure that the most appropriate instrument is used, thereby avoiding the double counting of risks.

Finally, a further review of the macroprudential provisions in the EU capital requirements framework should be considered once more experience has been gained with the current toolkit.

## 3.2 Developing guidance on the use of instruments

### 3.2.1 The counter-cyclical capital buffer

**Excessive credit growth can lead to the pro-cyclical amplification of financial shocks to the real economy.** An economic downturn following a period of excess 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 banks' 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 aimed at strengthening the regulation of the banking sector. One of these measures was the counter-cyclical capital buffer (CCB).

**The CCB 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 CCB may also help to limit the build-up of excessive credit growth during the upswing of the financial cycle.

**The CCB has been implemented in the EU through CRD IV, which has assigned a number of tasks to the ESRB.** In particular, under Article 135 of the CRD, the ESRB is tasked with developing 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, Article 135 also tasks the ESRB with providing 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. Furthermore, under Articles 138 and 139 of the CRD, the ESRB may give guidance to designated authorities on the appropriate CCB rate for exposures to third countries, with the aim of achieving coherence across the buffer settings for those countries across the EU.

**The ESRB discharged its responsibilities under Article 135 of the CRD in June 2014.** Specifically, the ESRB General Board approved a recommendation (Recommendation ESRB/2014/1) at its meeting of 18 June 2014, which was subsequently published. The ESRB also published an occasional paper entitled "Operationalising the countercyclical capital buffer: indicator selection, threshold identification and calibration options", which describes in detail the data, models and analysis underpinning Recommendation ESRB/2014/1.

**The ESRB is developing guidance for designated authorities in the EU on setting CCB rates for exposures to third countries.** This guidance, pursuant to Articles 138 and 139 of the CRD, applies when relevant third country authorities have not set a CCB rate or have set insufficient rates in order to protect banks in the EU from the risk of excessive credit growth in that country. This guidance could take the form of the ESRB issuing specific recommendations – on a case-by-case basis – to designated authorities in the EU on the setting of a specific buffer rate for exposures to a specific third

country at a specific point in time and/or general guidance to Member States to achieve consistency in the setting of CCB rates for exposures to third countries.

**Close cooperation is envisaged with international regulatory bodies, such as the BCBS and the relevant authorities of third countries.** The ESRB has initiated work to operationalise its legal mandate under Articles 138 and 139 of the CRD. This includes establishing criteria for the identification of third countries to which EU financial institutions have material exposures (“material third countries”) and identifying ways to monitor and analyse the build-up of cyclical risks in material third countries.

### 3.2.2 The leverage ratio

**The leverage ratio envisaged in the EU as of 2018 should reduce banking sector leverage, which has been pro-cyclical at an aggregate level in almost all Member States.** With average risk weights tending to fall in credit booms and rising in downturns, the ratio is expected to reduce pro-cyclicality by tackling uncertainty, model risk and aggregate financial system risks linked to overall balance sheet size. As such, it will complement the instruments related to risk weights, designed to ensure that there is sufficient capital for banks to absorb unexpected losses and continue lending in periods of stress.

**The ESRB’s work adds a macroprudential perspective to the leverage ratio to safeguard financial stability and prevent the build-up of systemic risks.** In particular, in Recommendation ESRB/2013/1, the ESRB identified the prevention of excessive credit growth and leverage as intermediate macroprudential objectives and highlighted the macroprudential use of the leverage ratio as one of the possible instruments. The ESRB’s efforts dovetail with the ongoing analyses by the EBA and the BCBS on minimum leverage requirements and potential flexibilities; wider work is underway internationally on the risk-weighting framework.

**The possible macroprudential add-ons to the leverage ratio should address systemic risk from both a structural and a cyclical perspective.** The structural perspective focuses on the role of the leverage ratio in containing systemic risks from misaligned incentives and too-big-to-fail issues at systemically important institutions. As these institutions should be more resilient because of their systemic importance, consideration should be given to supporting increases in risk-weighted capital buffers for these institutions with increases in their leverage ratio. The cyclical perspective focuses on the role of the leverage ratio in tackling systemic risks from excessive credit and leverage. A static leverage ratio could, in principle, be supported by an active counter-cyclical use, whereby a buffer that is built up could help both to build resilience and mitigate exuberance, with subsequent release when risks recede, or to prevent harmful deleveraging when banks incur losses.

**The ESRB has published a chapter on the macroprudential use of the leverage ratio in its Handbook<sup>3</sup>.** Apart from introducing the concept of macroprudential add-ons to the leverage ratio, the chapter addresses the interaction of the ratio with macroprudential risk-weighted capital buffers. In particular, given that macroprudential risk-weighted capital buffers can vary according to the systemic importance of institutions, differences in structural risks and time-varying risks, the leverage ratio might be used to maintain their complementary roles and the balance of the overall capital framework. The ultimate objective of the publication is to enhance coordination and provide guidance to macroprudential authorities in the EU on considerations and design issues related to the macroprudential use of the leverage ratio, without undermining their ability to determine their own policy stance.<sup>4</sup>

### 3.2.3 Real estate instruments

**The real estate sector is a critical area for macroprudential policy.** Unfavourable developments in the real estate sector have often played a significant role in major financial crises in the past. The ESRB therefore devoted a separate chapter of its Handbook to the use of real estate instruments. Under this guidance, many Member States also started to activate those instruments over the reporting period (see Section 3.1.2).

**The ESRB accordingly continued its analytical and policy work on the use of real estate instruments.** This work covered the following main areas:

- arriving at a better understanding of the structural features of Member States' real estate markets, which are particularly relevant for assessing emerging risks in these markets and for effective macroprudential policy-making;
- exploring ways of further improving the availability and comparability of actual data on sources of risk in national real estate markets, including LTV ratios, LTI ratios and DSTI ratios, as well as indicators related to terms and conditions of real estate loans;
- taking stock of emerging approaches for the use of real estate instruments with the aim of developing best practices, for example as regards the selection, activation and calibration of instruments.

**The work covered both the residential and commercial real estate sectors.** Both sectors demonstrate very different characteristics, which is relevant for macroprudential policy-making. For example, financing of commercial real estate typically makes greater use of cross-border, non-bank and non-recourse financing. Default rates on commercial real estate loans also tend to be higher than those on residential real estate loans. Furthermore, the commercial real estate sector is also

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3 "The ESRB Handbook on Operationalising Macroprudential Policy in the Banking Sector, Addendum: Macroprudential Leverage Ratios", June 2015.

4 The application of the leverage ratio in the macroprudential context should also draw on the ongoing work of the EBA and the BCBS, which mainly focuses on calibration issues, and will require coordination with the provisions of the CRR, given that the full harmonisation of the ratio is envisaged as of 2018.

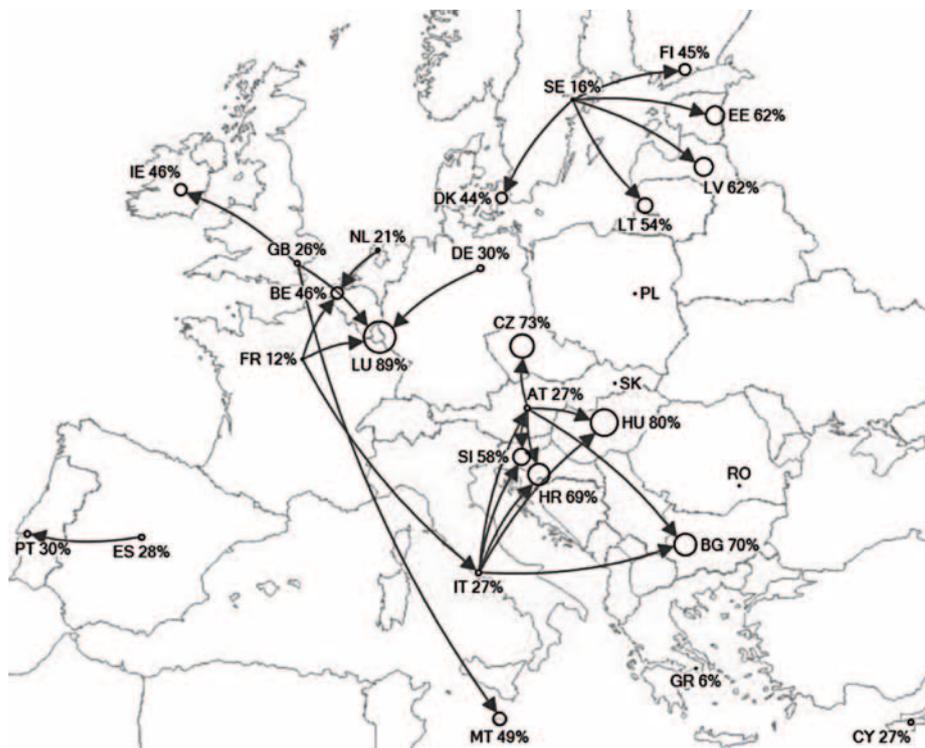
much more heterogeneous. Data gaps are significant for both real estate sectors, but particularly for commercial real estate. All these elements indicate that both real estate sectors require a differentiated approach as regards macroprudential policy.

### 3.2.4 Addressing the cross-border dimension of macroprudential policy

**Banking services in the EU are regularly provided by foreign banks.** For instance, loans to the real economy are often extended by credit institutions operating directly across borders or via subsidiaries and branches<sup>5</sup>. Such cross-border loans account for a significant share of overall loans originating from within the EU for many borrowers, including Luxembourg, Hungary, the Czech Republic and Bulgaria (see Chart 23). But also for some lenders (e.g. Luxembourg, Spain, Sweden and Austria), these loans amount to a sizeable share of their loan portfolios (see Chart 24). Cross-border services are mostly

Chart 23

#### Cross-border loans to the real economy: who are the largest borrowers?



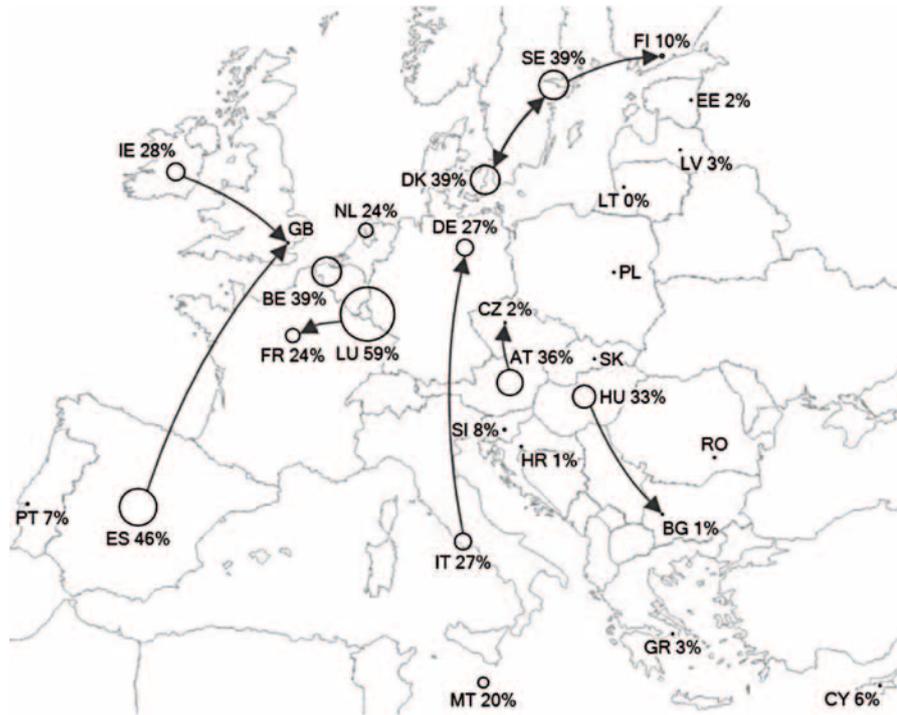
Source: EBA (Q2 2014).

Notes: The data cover the largest banking groups in the EU, under EBA/DC/090rev1. The data are reported at the highest level of consolidation in a Member State. The size of the nodes and percentages correspond to the loans extended by banks **from** other EU countries (either directly across borders or through subsidiaries and branches) as a share of total EU loans (domestic and other EU). For a given country, the larger the bubble, the more it **borrow**s from the rest of the EU. The arrows indicate the largest cross-border lending activities from a **borrower** perspective. Arrows are shown when the loans **from** other EU countries as a share of total EU loans (domestic and other EU) are greater than 15%. The chart does not take into account the origin of the funding backing these loans.

<sup>5</sup> Loans are classified as cross-border loans if they are extended by branches or subsidiaries of foreign banks or if they are extended directly across borders, irrespective of where the funding backing these loans is raised, from across borders or locally, as in the case of Bulgaria.

Chart 24

**Cross-border loans to the real economy: who are the largest lenders?**



Source: EBA (Q2 2014).

Notes: The data cover the largest banking groups in the EU, under EBA/DC/090rev1. The data are reported at the highest level of consolidation in a Member State. The size of the nodes and percentages correspond to the loans extended by banks to other EU countries (either directly across borders or through subsidiaries and branches) as a share of total EU loans (domestic and other EU). For a given country, the larger the bubble, the more it lends to the rest of the EU. The arrows indicate the largest cross-border lending activities from a lender perspective. Arrows are shown when the loans to other EU countries as a share of total EU loans (domestic and other EU) are greater than 10%. The chart does not take into account the origin of the funding backing these loans.

provided through branches or subsidiaries. In fact, the market share of subsidiaries is substantial in most Member States, and branches also account for a significant market share in many Member States, particularly in the Baltic region (see Chart 25).

**Some of the financial services provided by foreign banks fall outside the scope of national macroprudential measures.**

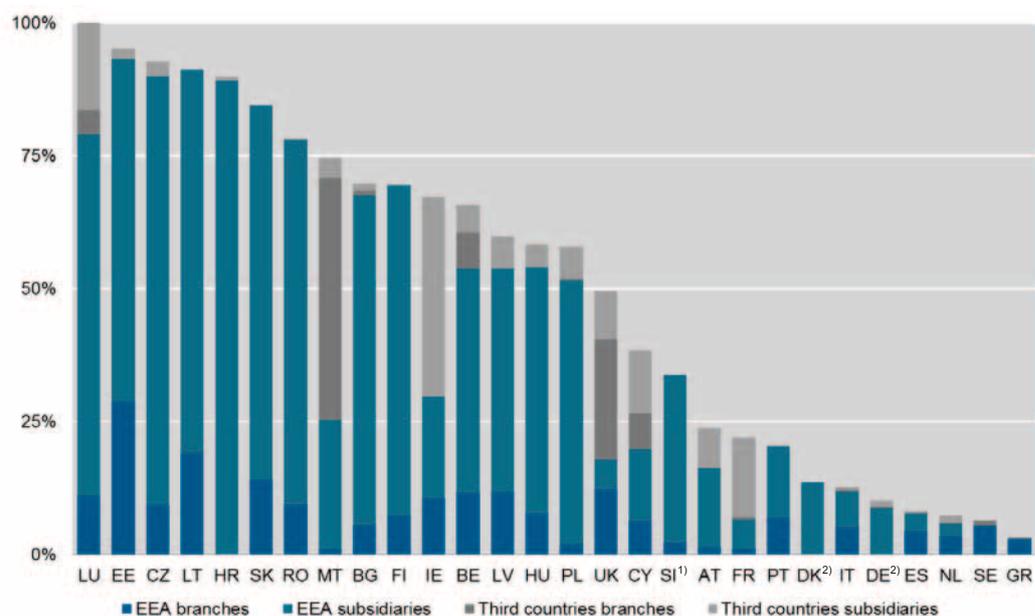
Measures taken by Member States generally apply to domestic banks and subsidiaries of foreign banks, but not to the branches of foreign banks or to services that are provided directly across borders. As a result, depending on the domicile of the financial services provider, a different set of (macro) prudential requirements may be applicable to the same risk exposure in one country.

**This loophole may lead to unintended consequences.** These can take the form of (i) leakages and regulatory arbitrage; (ii) external effects on other Member States; and (iii) an uneven playing field.

- **Leakages and regulatory arbitrage.** Branches of foreign banks and foreign banks providing services directly across borders are not affected by national measures and can continue to provide their services without respecting the macroprudential requirements. In addition, banks can actively re-route their activities through these channels to circumvent national measures. Leakages and regulatory arbitrage have the potential to severely undermine the effectiveness of national measures.

Chart 25  
**Market share of foreign credit institutions in the EU**

(as percentages of total assets)



Source: EBA (2013).

1) For Slovenia, data on third country branches and subsidiaries are not available.

2) For Denmark and Germany, data on EEA branches are not available.

- **External effects on other Member States.** Despite being exposed to the same risks as domestic banks and subsidiaries of foreign banks, branches of foreign banks and foreign banks providing services directly across borders will not be forced to build resilience against these risks by means, for example, of national capital measures. Once these risks materialise, banks' buffers may prove insufficient, with negative repercussions on their home financial systems.
- **Uneven playing field.** In the light of, for example, activated capital buffers, branches of foreign banks and foreign banks providing services directly across borders may use their competitive advantage over domestic banks and subsidiaries of foreign banks to increase their market share.

**To mitigate these unintended consequences, close cooperation – through reciprocity – is required between national macroprudential authorities.** Reciprocity means that a Member State applies the same or an equivalent macroprudential measure that is set by another Member State to its own institutions. Reciprocity thereby expands the application of measures in one Member State to branches of foreign banks and banks providing services directly across borders.

**At present, the reciprocity framework relies mostly on voluntary actions.** With a few exceptions, the CRD/CRR framework foresees voluntary reciprocity for most instruments. The most notable exception is the CCB, for which the CRD mandates reciprocity up to a buffer rate of 2.5%, in line with Basel III.<sup>6</sup> Under

6 From the end of the transitory phase, i.e. as of 2019, reciprocity of the CCB will be mandatory up to a buffer rate of 2.5% and voluntary above (Articles 130, 135-140 and 160 of the CRD). In addition, higher real estate risk weights and stricter lending criteria (Article 124 of the CRR) as well as higher minimum exposure-weighted average loss given defaults (Article 164 of the CRR) are directly applicable to all exposures targeted by the national measure, irrespective of the domicile of the service provider, and are therefore reciprocated automatically.

Recommendation ESRB/2014/1, higher buffer rates should be reciprocated. Reciprocity of instruments that are not harmonised under EU legislation, such as LTV or LTI caps, is completely voluntary.

**Apart from being voluntary, the scarce use of reciprocity so far also mirrors conceptual and implementation issues.** For instance, analytical tools still need to be developed to assess the materiality of the cross-border dimension of macroprudential measures. Furthermore, measures should, in principle, be reciprocated with the same instrument. However, because of differences in procedural burden or current unavailability (see Section 3.1), Member States sometimes choose to implement a measure with a tool that was not necessarily intended for that use under the CRD/CRR framework. In such a case, reciprocity with the same instrument may not be warranted. In addition, several instruments that have been frequently used are not harmonised at the EU level (e.g. LTV and LTI caps). The same instrument may therefore not be available for reciprocation in another Member State. Procedures for reciprocity – such as who to notify, when and how – have also not been defined at the EU level.

**To remove these obstacles, the ESRB is currently working on forming a common approach to reciprocity in the EU.** An analytical framework is being developed by which Member States can assess the potential cross-border dimension of their national macroprudential measures. In addition, common principles are being established to guide reciprocity. Finally, procedures for reciprocation are also being clarified and harmonised.

### 3.3 Bridging risk analysis and policy analysis

**The ESRB has undertaken work on risk identification and assessment as part of its ongoing initiatives to develop policy strategies for the effective conduct of macroprudential oversight.** This work has resulted in the creation of an analytical tool for risk assessments based on the ESRB's intermediate objectives of macroprudential policy, as set out in Recommendation ESRB/2013/1. The analytical tool complements the ESRB's work on the use of macroprudential instruments, as reflected in its Flagship Report and Handbook, which linked possible macroprudential instruments under the CRD/CRR to intermediate objectives on the basis of their effectiveness and efficiency.

**Heat maps are being developed, based on selected indicators and thresholds, to detect and assess potential country-specific vulnerabilities.** These heat maps provide signals of a potential build-up of vulnerabilities that may require further analysis and potential changes in policy stances, when country-based indicators breach pre-defined thresholds. In line with the ESRB's broad remit of preventing or mitigating risks to the financial system as a whole, the scope of this analytical work extends beyond banking and seeks to integrate the ESRB's prior analytical work across different sectors of the financial system and the real economy. It thereby complements the ongoing work on developing macroprudential instruments that go beyond the banking sector (see Section 3.4).

**Improvements in the quality and availability of data are needed to ensure adequate macroprudential analysis.** The development of heat maps has also identified a number of data gaps and areas where further improvements to existing statistics are particularly important for the identification and assessment of systemic risks. This also concerns the comparability of data between Member States. The ESRB will continue to work with relevant stakeholders to ensure that the quality and availability of data are sufficient for macroprudential analysis, including ex post assessments of measures' effectiveness and efficiency.

### 3.4 Looking ahead

**Macroprudential policy that goes beyond banking is lacking so far.** While the scope of macroprudential policy is the financial system as a whole, it has so far been operational primarily for banks at the EU level. The ESRB is undertaking work on macroprudential instruments to broaden the scope of macroprudential policy to financial markets, infrastructure and other types of financial institutions or activities, such as shadow banking and insurance.

**New instruments for non-banks may yield further insights into the overall macroprudential framework.** Exploring macroprudential policy for financial markets, infrastructures, shadow banking and insurance also involves revisiting the macroprudential framework of intermediate objectives established by the ESRB in 2013. As foreseen in Recommendation ESRB/2013/1, the current framework may need to be adjusted or complemented in order to provide a sufficient basis on which to extend macroprudential policy beyond banking.

**An overarching policy framework beyond banking could give authorities guidance about which instruments to prioritise for further development.** This framework should account for existing rules within the applicable set of legislation<sup>7</sup> and for relevant policy initiatives in this area.<sup>8</sup> Examples of instruments that were already mentioned in Recommendation ESRB/2013/1 include haircuts and margins imposed by supervisory authorities to curb financing booms and dampen the contraction of secured funding in downturns.

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7 Including rules from the Markets in Financial Instruments Directive (MiFID), the Alternative Investment Fund Managers Directive (AIFMD), Undertakings for the collective investment in transferable securities (UCITS) and EMIR that may be relevant from a macroprudential perspective.

8 For example, the ESRB responded in 2014 to a request from the Central Bank of Ireland in the area of loan origination by investment funds.

## Section 4

# Ensuring implementation and accountability

### 4.1 Follow-up to ESRB recommendations

**ESRB recommendations have no direct binding power, but are subject to an “act or explain” regime.** This means that the addressees of recommendations – such as Member States, NSAs, national macroprudential authorities 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 to provide adequate justification in the case of inaction.

**The Handbook on the follow-up to ESRB recommendations (hereinafter the “Handbook”), which was published in July 2013, constitutes an operational guide for addressees on how to assess the implementation of ESRB recommendations.** The Handbook specifies the procedures for following up recommendations as laid down in Article 17 of the ESRB Regulation.<sup>1</sup> An assessment team is established to assess the implementation of each ESRB recommendation. The assessment procedure comprises seven phases: (1) introduction and timelines; (2) creating assessment teams; (3) collecting information on addressee compliance; (4) assessing addressee compliance – criteria and ratings; (5) dialogue with the addressees; (6) drafting the follow-up report for decision-making by the General Board; and (7) communicating the results of assessments.

**Currently the Handbook is being reviewed in order to take into account the experience gained during the assessments undertaken for the recommendations outlined below.** The main proposals include: (1) more emphasis on the pre-assessment phase, which is key for addressees and assessors in terms of the correct implementation and assessment of the recommendations; (2) multi-directional communication between the parties covered by the assessment and thus involved in the reporting; and (3) making the Handbook more user-friendly by including a clear methodology and rules for grading.

**The following paragraphs outline the assessments conducted throughout the year of the ESRB’s recommendations.** The first two recommendations are of a structural nature, and the remainder aim to prevent and mitigate systemic risks.

#### 4.1.1 Recommendation ESRB/2011/3 on the macroprudential mandate of national authorities

**On 22 December 2011 the ESRB adopted Recommendation ESRB/2011/3 on the macroprudential mandate of national authorities.** It was addressed to Member States, i.e. national legislators, to enhance resilience to systemic risk by establishing a common macroprudential institutional framework.

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<sup>1</sup> Regulation (EU) No 1092/2010 of the European Parliament and of the Council of 24 November 2010 on European Union macroprudential oversight of the financial system and establishing a European Systemic Risk Board, OJ L 331/1.

**Recommendation ESRB/2011/3 has triggered legislative initiatives in all Member States.**

However, in the majority of these countries, the legislative process was still in progress on 1 July 2013.<sup>2</sup> Therefore, the General Board decided to extend the deadline for the entry into force of the recommended measures to 28 February 2014.<sup>3</sup>

**Table 1**  
**Addressees' compliance with the ESRB Recommendation on the macroprudential mandate of national authorities**

Country	Recommendations <sup>1)</sup>					Overall
	A	B	C	D	E	
Austria	FC	LC	LC	FC	LC	LC
Belgium	LC	PC	LC	LC	FC	LC
Bulgaria	LC	LC	LC	PC	PC	LC
Croatia	FC	FC	FC	FC	FC	FC
Cyprus	LC	PC	LC	LC	FC	LC
Czech Republic	LC	FC	FC	FC	FC	FC
Denmark	LC	LC	LC	LC	FC	LC
Estonia	LC	PC	LC	LC	FC	LC
Finland	MN	MN	MN	LC	FC	PC
France	LC	LC	LC	FC	LC	LC
Germany	LC	FC	FC	FC	LC	FC
Greece	FC	FC	LC	PC	FC	LC
Hungary	FC	FC	FC	LC	FC	FC
Ireland	LC	LC	LC	PC	LC	LC
Italy	PC	PC	PC	PC	PC	PC
Latvia	LC	LC	LC	LC	FC	LC
Lithuania	LC	LC	LC	LC	FC	LC
Luxembourg	LC	PC	LC	LC	PC	LC
Malta	FC	FC	FC	PC	FC	LC
Netherlands	PC	PC	LC	LC	LC	LC
Norway	LC	PC	LC	MN	PC	PC
Poland	MN	PC	PC	MN	PC	PC
Portugal	FC	FC	FC	LC	FC	LC
Romania	LC	LC	LC	LC	LC	LC
Slovakia	LC	LC	LC	FC	FC	FC
Slovenia	FC	FC	FC	FC	FC	FC
Spain	PC	MN	PC	PC	FC	PC
Sweden	LC	LC	LC	FC	FC	LC
United Kingdom	FC	LC	FC	FC	FC	FC

FC	fully compliant
LC	largely compliant with minor discrepancies
PC	partially compliant
MN	materially non-compliant

1) Recommendations: A – Objective; B – Institutional arrangements; C – Tasks, powers, instruments; D – Transparency and accountability; E – Independence.

2 The deadline for implementation of Recommendation ESRB/2011/3 was 30 June 2013, while the implementing measures were expected to be in force no later than 1 July 2013.

3 Decision ESRB/2014/3 of the European Systemic Risk Board of 18 June 2014 on the extension of the deadline included in Recommendation ESRB/2011/3 of 22 December 2011 on the macroprudential mandate of national authorities.

**The ESRB finalised its assessment of Recommendation ESRB/2011/3 and published the follow-up report on the ESRB's website in mid-2014.**<sup>4</sup> The Recommendation has helped in establishing institutional competence at the national level and improving the effectiveness of the macroprudential function. In general, the ESRB is satisfied with the degree of implementation; seven countries were graded as being fully compliant, and seventeen were deemed to be largely compliant with minor discrepancies. Only five countries were assessed as partially compliant owing to either legislative processes that had not been finalised or deviations from the ESRB's advice (see Table 1 above). To date only five Member States have not yet finalised implementation, namely Italy, Luxembourg, Poland, Romania and Spain.

#### **4.1.2 Recommendation ESRB/2013/1 on intermediate objectives and instruments of macroprudential policy**

**On 4 April 2013 the ESRB adopted Recommendation ESRB/2013/1 on intermediate objectives and instruments of macroprudential policy on the minimum operational framework necessary to implement macroprudential policies at the national level.** Identification of intermediate objectives also makes macroprudential policy more operational, transparent and accountable, and provides an economic basis for the selection of instruments.

**Under Recommendation ESRB/2013/1, authorities were asked to identify strategies and use a common set of intermediate objectives.** This has helped them in discussions with parliaments and governments regarding the implementation of macroprudential policy at a national level. An indicative list of instruments was put forward, which included – but was not limited to – those envisaged in the CRD IV/CRR that Member States could assign to macroprudential authorities in order to pursue the identified intermediate objectives, while not restricting Member States from applying further instruments.

**Some sub-recommendations were due for implementation by the end of 2014.** These consisted of sub-recommendations on intermediate objectives to macroprudential authorities, on macroprudential instruments to Member States and on single market and EU legislation to the European Commission. The first assessment of implementation is underway. Member States and macroprudential authorities are requested to report regularly to ensure effectiveness and efficiency.

#### **4.1.3 Recommendation ESRB/2011/1 on lending in foreign currencies**

**On 21 September 2011 the ESRB issued its first Recommendation<sup>5</sup> to ensure that banks and supervisors understand the risks of extending a large part of their lending in a foreign currency to unhedged borrowers.** Foreign exchange lending was most prevalent in central and eastern European countries. High levels of foreign exchange lending can have systemic consequences for

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<sup>4</sup> See [http://www.esrb.europa.eu/pub/pdf/recommendations/2014/ESRB\\_2014.en.pdf?0ca0d90ca1ad2e12a1de2ee53c1ed16f](http://www.esrb.europa.eu/pub/pdf/recommendations/2014/ESRB_2014.en.pdf?0ca0d90ca1ad2e12a1de2ee53c1ed16f)

<sup>5</sup> Recommendation of the European Systemic Risk Board of 21 September 2011 on lending in foreign currencies, OJ C 342, 22/11/2011, p.1.

countries where the lending leads to a build-up of substantial currency mismatches on non-financial private sector balance sheets.

**Recommendation ESRB/2011/1 has translated into further policy action at the EU level (by the EBA) and at the national level in all countries where this risk was material.** The EBA has issued a guideline on how to transpose foreign exchange risks in Pillar II requirements. National measures due to be implemented by 31 December 2012 have been published by the ESRB on its website.<sup>6</sup> As a new Member State, Croatia was granted an extension with regard to implementation to 31 December 2013 and was assessed together with sub-recommendation E.2 addressed to the EBA. Both addressees were assessed overall as being fully compliant (see Table 2).

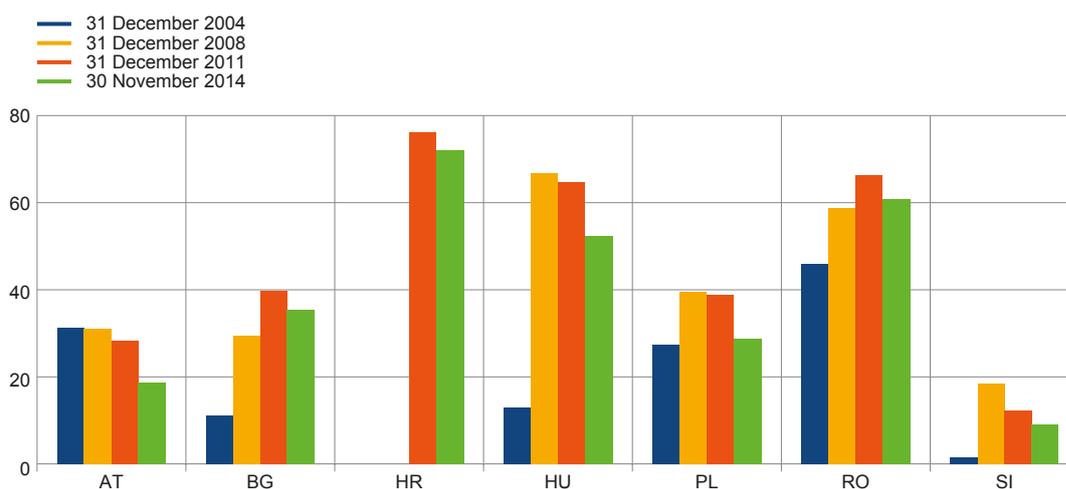
Table 2  
Addressees' compliance with the ESRB Recommendation on lending in foreign currencies

Addressee	A.1	A.2	A	B.1	B.2	B.3	B	C	D	E.1	E.2	F	G.1	G.2	G	Overall
Croatia	FC	FC	FC	FC	LC	SE	LC	FC	FC	FC		FC	SE	SE	SE	FC
EBA											FC					FC

FC fully compliant  
LC largely compliant with minor discrepancies  
SE inaction sufficiently explained

The ESRB investigated the economic results and the effectiveness of Recommendation ESRB/2011/1. This ESRB Recommendation delivered benefits in addressing risks related to foreign exchange lending in parts of the EU, particularly in those jurisdictions with a high level of foreign

Chart 26  
Share of foreign currency lending to total lending to households  
(percentages)



Sources: ECB and ESRB calculations.

Notes: Share of foreign currency loans to total loans. Bulgaria has a fixed exchange rate regime vis-à-vis the euro.

6 See <http://www.esrb.europa.eu/mppa/cbmd/html/index.en.html>

currency loans to households. Most recent data indicate a gradual reduction in stocks of households' foreign exchange exposures following this Recommendation, once national measures were put in place to mitigate risk related to foreign currency lending (see Chart 26).

**Member institutions confirmed that Recommendation ESRB/2011/1 was material in addressing risks related to foreign currency lending.** Although, many authorities had been introducing national measures to reduce the flow of foreign currency lending prior to the ESRB issuing this Recommendation, they nevertheless recognised that the ESRB's initiative supported their efforts to facilitate implementation and enforcement of existing measures. Furthermore, some authorities suggested that Recommendation ESRB/2011/1 was instrumental in triggering formal action and new regulatory initiatives at the national level.

## Box 6

### Macroprudential implications of the sudden appreciation in the Swiss franc

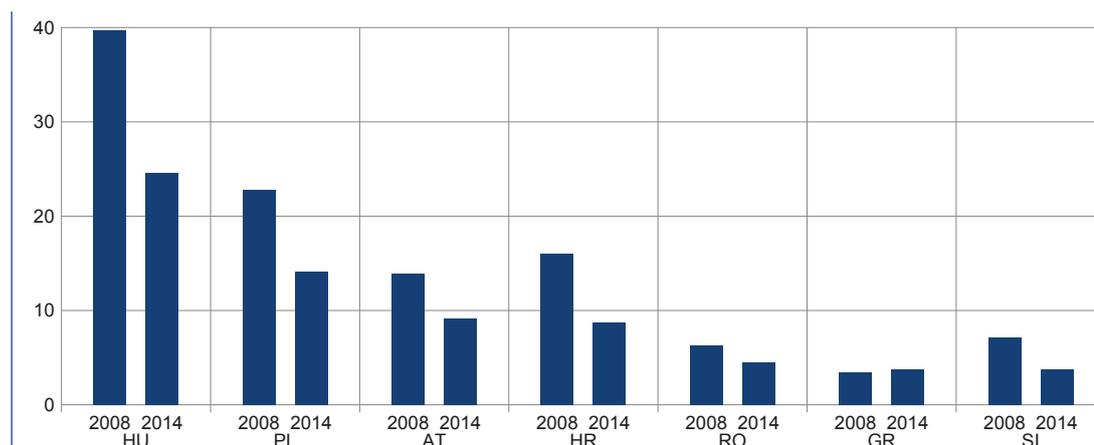
**Implemented macroprudential policies reduced the systemic impact of the Swiss National Bank's decision to unpeg the Swiss franc from the euro.** The decision by the Swiss National Bank on 15 January 2015 led to a significant and immediate appreciation of the Swiss currency. However, the resilience of the EU financial system to such events has increased following measures in a number of countries to curb foreign exchange lending in line with Recommendation ESRB/2011/1. Although other factors may have contributed to this, national authorities acknowledge that these measures stopped the flow and thereby reduced the stock of foreign exchange loans as existing loans matured (see chart).

**The appreciation of the Swiss franc is likely to have had an impact on banks with a large stock of loans in Swiss francs.** Banks in the CESEE region, especially in Croatia, Hungary, Austria and Poland have significant exposures in Swiss currency (see chart). These banks may face losses on their

Chart

#### Loans in Swiss francs as a share of total loans

(percentages)



Sources: ECB and Hrvatska narodna banka.

Notes: Loans in Swiss francs and total loans are defined as MFI loans to non-MFIs. Data are for December 2008 and October 2014 (September 2014 for Croatia).

foreign exchange loan portfolios, as borrowers struggle with higher payments. For some banks, a share of the losses is taken up-front as a consequence of regulatory measures or arrangements (voluntary or imposed) between banks and their borrowers, such as fixing of the exchange rate and lowering of the interest rate on loans. By doing so, authorities attempted to address the most relevant sources of systemic risk by shifting foreign currency risk from private households to the banking sector, as was the case in Croatia and Hungary. In Hungary, risks related to Swiss franc exchange rate misalignments disappeared in 2015, and household loans in Swiss currency accounted for 4.2% of total household loans in March 2015. As loans in Swiss francs were often provided through branches or subsidiaries of foreign banks, losses on Swiss franc loan portfolios could also spill over to other countries owing to the negative impact on parent banks. However, currently such risks of spillover seem contained.

**The ESRB stresses that the risk of a sudden revaluation of local currencies should be taken into account in risk models and stress testing.** The ESRB's scenario for the EBA 2014 stress test included a 15-25% depreciation of local exchange rates to the euro in some CESEE countries. The requirement under Recommendation ESRB/2011/1 to hold adequate capital to cover risks associated with foreign exchange lending has proved highly relevant in the recent case of the Swiss franc appreciation.

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#### **4.1.4 Recommendation ESRB/2011/2 on US dollar-denominated funding of credit institutions**

**Owing to the loss of access to the US money markets by EU banks during the financial crisis, the ESRB issued its second recommendation in 2011.** Recommendation ESRB/2011/2 on US dollar-denominated funding of credit institutions<sup>7</sup> was aimed at mitigating potential system-wide risks emanating from these strains to bank liquidity, the solvency of credit institutions and the real economy. In parallel, the ECB and the Federal Reserve System established swap lines. Today, most EU banks have regained access to USD money markets.

**The Recommendation required the NSAs, in particular, to monitor funding in US dollars and liquidity risk, including maturity mismatches in US dollars, funding concentrations by counterparty type, US dollar currency swaps and intra-group exposures.** Furthermore, the NSAs were required to consider limiting exposures and encouraging appropriate management of the US dollar, including management actions in contingency funding plans of the credit institutions.

**In general, the ESRB Recommendation has been successful in establishing an early warning system for increasing risks from developments in US dollar-denominated funding.** The assessment of the implementation of the Recommendation on funding in US dollars shows a large degree of compliance (see Table 3). However, while the overall result is positive, further improvements are still possible and certainly recommended, in particular on partially compliant areas.

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7 OJ C 72, 10/03/2012, p.1.

Table 3  
**Addressees' compliance with the ESRB Recommendation on US dollar-denominated funding of credit institutions**

Addressees	Sub-recommendations								Overall grade	
	(a)	(b)	A1		(d)	A2		B1		B2
Austria	FC	FC	FC	FC	FC	FC	LC	FC	LC	FC
Belgium	FC	FC	FC	FC	SE	SE	FC	FC	LC	FC
Bulgaria	LC	LC	PC	LC	SE	SE	PC	SE	SE	LC
Croatia	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Cyprus	SE	PC	PC	PC	FC	FC	FC	PC	PC	LC
Czech Republic	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Denmark	FC	LC	FC	FC	FC	FC	FC	FC	FC	FC
Estonia	FC	FC	FC	LC	FC	FC	FC	FC	FC	FC
Finland	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC
France	FC	FC	FC	FC	FC	SE	FC	FC	FC	FC
Germany	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC
Greece	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE <sup>1)</sup>
Hungary	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Ireland	LC	LC	LC	LC	SE	SE	PC	PC	PC	LC
Italy	FC	FC	FC	FC	FC	FC	FC	FC	SE	FC
Latvia	FC	LC	FC	SE	FC	FC	FC	LC	LC	FC
Lithuania	FC	SE	SE	SE	SE	SE	FC	SE	SE	SE
Luxembourg	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC
Malta	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC
Netherlands	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC
Poland	FC	FC	FC	FC	FC	FC	FC	SE	SE	FC
Portugal	FC	SE	SE	FC	SE	SE	SE	SE	SE	SE
Romania	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Slovakia	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Slovenia	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Spain	FC	FC	FC	FC	FC	FC	FC	FC	SE	FC
Sweden	FC	FC	FC	FC	FC	FC	FC	FC	LC	FC
United Kingdom	FC	FC	FC	FC	FC	FC	FC	FC	LC	FC

FC	fully compliant
LC	largely compliant with minor discrepancies
PC	partially compliant
SE	inaction sufficiently explained

1) The Greek authorities have implemented some measures, although the US dollar is not a material funding currency. However, overall, these measures would only be partially compliant with the ESRB Recommendation.

#### 4.1.5 Recommendation ESRB/2012/2 on funding of credit institutions

In December 2012 the ESRB adopted Recommendation ESRB/2012/2 on funding of credit institutions. This Recommendation addressed risks stemming from developments in EU banks' funding sources and structures, namely innovative funding, asset encumbrance and concentration.

On 15 July and 16 September 2014 the General Board of the ESRB decided to extend deadlines for implementation of the Recommendation. The majority of deadlines were extended by six months, while some were extended by nine months. During the previous 12-month period implementation of some parts of the Recommendation fell due.

**On 20 March 2015 the General Board of the ESRB approved the Follow-up report on implementation of one of the recommendations addressed to the EBA.** The recommendation in question asked the EBA to develop guidelines on harmonised templates and definitions in order to facilitate harmonised reporting of institutions' funding plans by competent authorities and to enable aggregation of the macro picture at both national and EU levels.

**Implementation by the EBA of the Recommendation referred to above has been found to be fully compliant.** The reporting templates developed by the EBA were found to be sufficiently granular and to cover the information necessary to assess the institutions' funding structures. Furthermore, the planning horizon and the division into different time buckets were considered appropriate, and the guidelines were found to take due account of the issue of consolidated credit institutions and cross-border activity.

Nevertheless, the assessment process revealed some areas beyond the adopted Recommendation where there was still room for improvement. More such areas could be pinpointed in order to enhance the harmonised reporting of funding plans in the future, thereby giving the EBA and NSAs a full and clear picture of funding patterns and enabling them to identify and remedy possible future risks.

## **4.2 Reporting to the European Parliament and other institutional aspects**

### **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 hearings are public, and the Chair's introductory statements are also published on the ESRB's website. The introductory statement of the ESRB's 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 for giving 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. At two hearings before the European Parliament that was elected in May 2014, the Chair of the ESRB presented the following:

#### **at the hearing on 17 November 2014:**

- the significant contribution of the ESRB in designing the adverse macroeconomic scenario for the EU-wide stress test coordinated by the EBA;
- the work on the systemic implications of so-called misconduct risk in the banking sector, i.e. the risk that banks are subject to fines and other sanctions owing to violation of good conduct rules;
- the operationalising of macroprudential policy measures such as the countercyclical capital buffer, on which the ESRB issued a Recommendation in June 2014;

#### **at the hearing on 23 March 2015:**

- the results from monitoring one year of the macroprudential policy stance in the EU; and
- two years' work to critically assess the treatment of sovereign risk in regulation, which culminated in the issuing of the Report on regulatory treatment of sovereign exposures.

In addition to the public hearings, the Chair holds confidential discussions on the work of the ESRB with the Chair and Vice-Chairs of ECON, when appropriate.

The ESRB's publications, which are available on its website, include: (i) the Macroprudential 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.

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**Recommendations, commentaries, reports and papers published on the ESRB's website from 1 April 2014 to 31 March 2015**

**10/03/2015**

ESRB report on the regulatory treatment of sovereign exposures

**05/11/2014**

Reports of the Advisory Scientific Committee, No 5, November 2014: Allocating macroprudential powers

**23/09/2014**

Occasional Paper, No 6: An analysis of the ESRB's first data collection on securities financing transactions and collateral (re)use

**22/07/2014**

Macroprudential Commentaries, Issue 7: The ESRB and national macroprudential measures – its role and first experiences

**21/07/2014**

Annual Report 2013

**30/06/2014**

Recommendation of the ESRB of 18 June 2014 on guidance for setting countercyclical buffer rates (ESRB/2014/1), OJ 2014/C 293/01

**30/06/2014**

Occasional Paper, No 5: Operationalising the countercyclical capital buffer: indicator selection, threshold identification and calibration options

**25/06/2014**

ESRB Recommendation on the macroprudential mandate of national authorities (ESRB/2011/3): Follow-up report – overall assessment

**02/06/2014**

Reports of the Advisory Scientific Committee, No 4, June 2014: Is Europe overbanked?

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#### 4.2.1 Selection of the new Advisory Scientific Committee

**As 12 members of the ASC were approaching the end of their four-year mandate, a new call for expressions of interest for members of the ASC was launched in January 2015.** The selection was carried out by the Steering Committee in accordance with Decision ESRB/2011/2 of 20 January 2011. In March 2015 the General Board approved the list of 12 new members and appointed the three new Chairs of the ASC for the next four years. Philip Lane will chair from 1 May 2015 to 31 August 2016, followed by Marco Pagano from 1 September 2016 to 31 December 2017 and Javier Suárez from 1 January 2018 to 30 April 2019.

The members of the new Advisory Scientific Committee are:

**Philip Lane**, (Chair), Trinity College Dublin  
**Marco Pagano**, (Vice-Chair), University of Napoli Federico II, Naples  
**Javier Suárez**, (Vice-Chair), CEMFI, Madrid  
**Elena Carletti**, Bocconi University, Milan  
**Alberto Giovannini**, Unifortune Asset Management SGR SpA, Milan  
**Daniel Gros**, Centre for European Policy Studies, Brussels  
**Malcolm Kemp**, Nematrion, London  
**Ross Levine**, University Of California at Berkley  
**José-Luis Peydró**, ICREA - University Pompeu Fabra, Barcelona  
**Richard Portes**, London Business School, London  
**Isabel Schnabel**, Johannes Gutenberg University, Mainz  
**Dirk Schoenmaker**, Duisenberg school of finance, Amsterdam  
**David Thesmar**, HEC, Paris  
**Ernst-Ludwig von Thadden**, University of Mannheim, Mannheim  
**Josef Zechner**, Vienna University of Economics and Business, Vienna

**The ASC established an annual prize in memory of Ieke van den Burg, who was a member of the inaugural ASC between 2011 and 2014 and a member of the European Parliament between 1999 and 2009. The prize is intended to recognise outstanding research conducted by young scholars on a topic related to the ESRB's mission.**

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#### Box 7

##### **The institutional framework and the Report of the European Commission on the mission and organisation of the ESRB**

**The ESRB comprises a General Board, a Steering Committee, an Advisory Scientific Committee (ASC), an Advisory Technical Committee (ATC) and a Secretariat.** The ESRB is chaired by the President of the ECB, Mario Draghi. The Chair of the ATC is Stefan Ingves, Governor of Sveriges Riksbank. The Chair of the ASC during the period covered by this Report was Professor Marco Pagano (until 30 April 2015).

**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's Secretariat is Francesco Mazzaferro. Until 30 June 2014 the Deputy Head was Andrea Maechler and from May 2015 the Deputy Head will be Tuomas Peltonen.

**In terms of resources, in 2014 the ECB provided the ESRB with 56.2 full-time equivalent staff.** Of these, 21.5 are employed within the Secretariat and 34.7 are dedicated to other forms of support. The direct costs incurred by the ECB amounted to €8.5 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 48,912 full-time equivalent staff for analytical support within the context of ESRB groups and ESRB chair positions.

**The legislation establishing the European System of Financial Supervision (ESFS)** states that a review of the ESRB and of the ESAs shall be carried out by the European Commission within three years of the legislation entering into force. In March 2014, following the consultation on the ESFS launched by the European Commission, the European Parliament adopted a resolution with recommendations to the Commission on the ESFS Review, 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 was published on 8 August 2014.**

According to the Commission report, in the first three years of its existence, the ESRB has managed to establish itself as a key component of the European supervisory framework. Stakeholders have recognised that the ESRB has provided a unique forum for discussing financial stability issues throughout the crisis and that it has raised awareness among policy-makers on the macroprudential dimension of financial policies and regulations.

**Bearing in mind these achievements, according to the European Commission, there is merit in drawing attention to important aspects of the ESRB's framework** with a view to enhancing the efficiency of macroprudential oversight at EU level. Some of the improvements could be implemented in the short term by the ESRB and would not require any change to the legislative framework. At the same time, many issues identified by stakeholders as warranting further attention concerned the ESRB Founding Regulation. To this extent, the Commission announced that it will further examine the technical and legal aspects of the various issues raised and assess the possible options for addressing these issues, with the aim of providing a regulatory proposal.

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## Abbreviations

### Countries

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

<b>ASC</b>	Advisory Scientific Committee
<b>ATC</b>	Advisory Technical Committee
<b>BCBS</b>	Basel Committee on Banking Supervision
<b>BIS</b>	Bank for International Settlements
<b>BRRD</b>	Bank Recovery and Resolution Directive
<b>CESEE</b>	Central, eastern and south-eastern Europe
<b>CCP</b>	central counterparty
<b>CDS</b>	credit default swap
<b>CET1</b>	Common Equity Tier 1
<b>CRD</b>	Capital Requirements Directive
<b>CRR</b>	Capital Requirements Regulation
<b>EBA</b>	European Banking Authority
<b>DSTI</b>	debt service-to-income
<b>ECB</b>	European Central Bank
<b>ECON</b>	Committee on Economic and Monetary Affairs of the European Parliament
<b>EEA</b>	European Economic Area
<b>EIOPA</b>	European Insurance and Occupational Pensions Authority
<b>EMIR</b>	European Market Infrastructure Regulation
<b>EMU</b>	Economic and Monetary Union
<b>ESA</b>	European Supervisory Authority
<b>ESCB</b>	European System of Central Banks
<b>ESFS</b>	European System of Financial Supervision
<b>ESMA</b>	European Securities and Markets Authority
<b>ESRB</b>	European Systemic Risk Board

<b>EU</b>	European Union
<b>EURIBOR</b>	euro interbank offered rate
<b>FC</b>	fully compliant
<b>FDIC</b>	Federal Deposit Insurance Corporation
<b>FSB</b>	Financial Stability Board
<b>FSOC</b>	Financial Stability Oversight Council
<b>GDP</b>	gross domestic product
<b>G-SII</b>	global systemically important institution
<b>HICP</b>	Harmonised Index of Consumer Prices
<b>IE</b>	insufficiently explained
<b>IMF</b>	International Monetary Fund
<b>LC</b>	largely compliant
<b>LCR</b>	liquidity coverage ratio
<b>LTI</b>	loan-to-income
<b>LTV</b>	loan-to-value
<b>MC</b>	materially non-compliant
<b>MEP</b>	Member of the European Parliament
<b>MFI</b>	monetary financial institution
<b>NC</b>	non-compliant
<b>NCB</b>	national central bank
<b>NFC</b>	non-financial corporation
<b>NMA</b>	national macroprudential authority
<b>NPL</b>	non-performing loan
<b>NSA</b>	national supervisory authority
<b>NSFR</b>	net stable funding ratio
<b>OMT</b>	Outright Monetary Transaction
<b>O-SII</b>	other systemically important institution
<b>OTC</b>	over-the-counter
<b>PC</b>	partially compliant
<b>RWA</b>	risk-weighted asset
<b>SE</b>	sufficiently explained
<b>SFT</b>	securities financing transaction
<b>SIB</b>	systemically important bank
<b>SII</b>	systemically important institution
<b>SMEs</b>	small and medium-sized enterprises
<b>SRM</b>	Single Resolution Mechanism
<b>SSM</b>	Single Supervisory Mechanism

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