

THE LONG ROAD TO MORE FINANCIAL STABILITY IN GERMANY AND EUROPE

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This is a translated version of the original German-language chapter "Der weite Weg zu mehr Finanzstabilität in Deutschland und Europa", which is the sole authoritative text. Please cite the original German-language chapter if any reference is made to this text.

THE KEY DETAILS IN BRIEF

Reform of financial market architecture

The global financial crisis of 2007-2009 and the euro area crisis triggered extensive reforms in the financial market architecture. These were based on two important insights. First, supervision of individual market participants is insufficient to ensure the stability of globally interconnected financial systems. Second, insolvent banks can only be resolved if effective resolution mechanisms are available that avoid contagion effects.

The extent of implicit government bailout guarantees in the banking system can serve as a barometer for the success of reforms. The evidence is sobering: guarantees are still high, above all for global systemically important banks and for those in countries with a strong fiscal budget, such as Germany. Hence, there is still a great need for action.

Effective bank resolution requires credibility

The Banking Union's institutional framework is now largely complete. It is intended to stop risks being shifted from the national to the European level. The Banking Union represents an important step towards a stable financial system.

Common banking supervision in the European Central Bank (ECB) has officially started. The preceding comprehensive assessment revealed only negligible capital shortfalls; the financial markets saw no turbulences. However, European banks did not increase capital across-the-board, and a market shakeout is unlikely.

It is essential for the single resolution mechanism that market participants regard the threat of creditor involvement as credible. In the agreed framework, this is unlikely due to many exceptions and discretionary leeway. Policymakers are thus called upon to further develop the framework for bank resolution at European and global levels.

Avoid fine-tuning through macroprudential policy

The structure of the newly created macroprudential supervision in the euro area is a positive development. However, it should be moved outside the ECB in the medium term in order to avoid conflicts of interest with monetary policy. Moreover, political influence on macroprudential policies is too strong in Germany.

The effectiveness of macroprudential tools is uncertain and limited to the regulated sector. There is the danger of excessive fine-tuning. A considerable increase in capital could already substantially reduce systemic risk in the banking system.

I. SYSTEMIC RISK IN THE FINANCIAL SYSTEM

1. Lessons learnt from two crises

295. The banking and sovereign debt crises of the past seven years have triggered extensive reforms to the architecture of the financial system. The reforms introduced by the 20 major advanced and emerging economies (G20) were a direct reaction to the **global financial crisis** of 2007 to 2009. They were based on two important insights. Firstly, that the stability of globally integrated financial systems cannot be ensured by **microprudential supervision** (i. e., the supervision of individual market participants) alone. Secondly, that the closure of banks is only possible if resolution mechanisms are available that take account of the dangers of contagion in the financial system.
296. The strands of reform coordinated at **global level** therefore aimed, firstly, to make the financial system as a whole more robust and to establish **macroprudential supervision** in order to ensure the stability of the financial system as a whole (Annual Economic Report (AER) 2010 item 283 et seq.). [↘ ITEM 360 ET SEQ.](#) Secondly, they aimed to create **resolution mechanisms for banks** with uniform standards (AER 2012 item 277 et seq.). The global agreements were implemented at national level and harmonisation of these efforts remained limited. Within the EU, of course, the degree of harmonisation was greater; however, there was no centralisation of decision-making at that time. Neither the new European bank supervisory authority (European Banking Authority – EBA) nor the new macroprudential supervisor (European Systemic Risk Board – ESRB) were granted the power to intervene directly.
297. The **crisis in the euro area** that took hold in 2010 made it clear that the existing reforms were insufficient to master the challenges arising from a currency union with otherwise sovereign states. In the currency union, the member states jointly bear the risks on the balance sheet of the Eurosystem. However, the banks continued to be supervised at national level, which created an incentive to transfer risks from the domestic banking system to the European Central Bank's (ECB) balance sheet. This is because the support measures in the event of a crisis benefit all banks, including those with doubtful solvency.
298. In order to prevent such transfers of risk in the future, supervision and resolution competencies in the euro area are being centralised through the **European Banking Union**. Moreover, to some degree at least, this Banking Union creates a common funding framework for bank resolution. The Banking Union can be regarded as a “gatekeeper” for the shared central bank balance sheet, which aims to strengthen the balance between liability and control. It also aims to reduce the burden on public budgets in future banking crises and avoid the **vicious circle of bank and sovereign debt crises** (AER 2013 item 291 et seq.). [↘ ITEM 316 ET SEQ.](#) The design of the Banking Union expedited the reforms of the G20 agenda in the euro area. However, this caused existing institutions to lose significance and resulted in an extremely complex supervisory structure. [↘ ITEM 375 ET SEQ.](#)

2. Implicit guarantees remain high

299. The financial system was stabilised in the recent crises by costly rescue measures of central banks and governments. However, the direct fiscal costs of rescuing banks are only one aspect of the negative consequences such actions impose. A more serious cost is likely to be the distorted incentives (**moral hazard**) they create. Given the dramatic impact of the Lehman collapse, investors could now be confident that banks would be rescued rather than resolved in the event that they experienced difficulties. This essentially created an **implicit government guarantee** for almost the entire financial system.

Such a guarantee removes the incentive for creditors to monitor banks' risks. This in turn encourages the banks to take on greater risks, thereby increasing the likelihood of a new crisis. To mitigate negative incentives, governments declared that they would not rescue financial institutions in the future. However, such announcements are not credible; good intentions are soon abandoned in the event of a crisis that acutely threatens the stability of the financial system. A central objective of banking regulation is to solve, or at least mitigate, this **time inconsistency problem of bank rescues**.

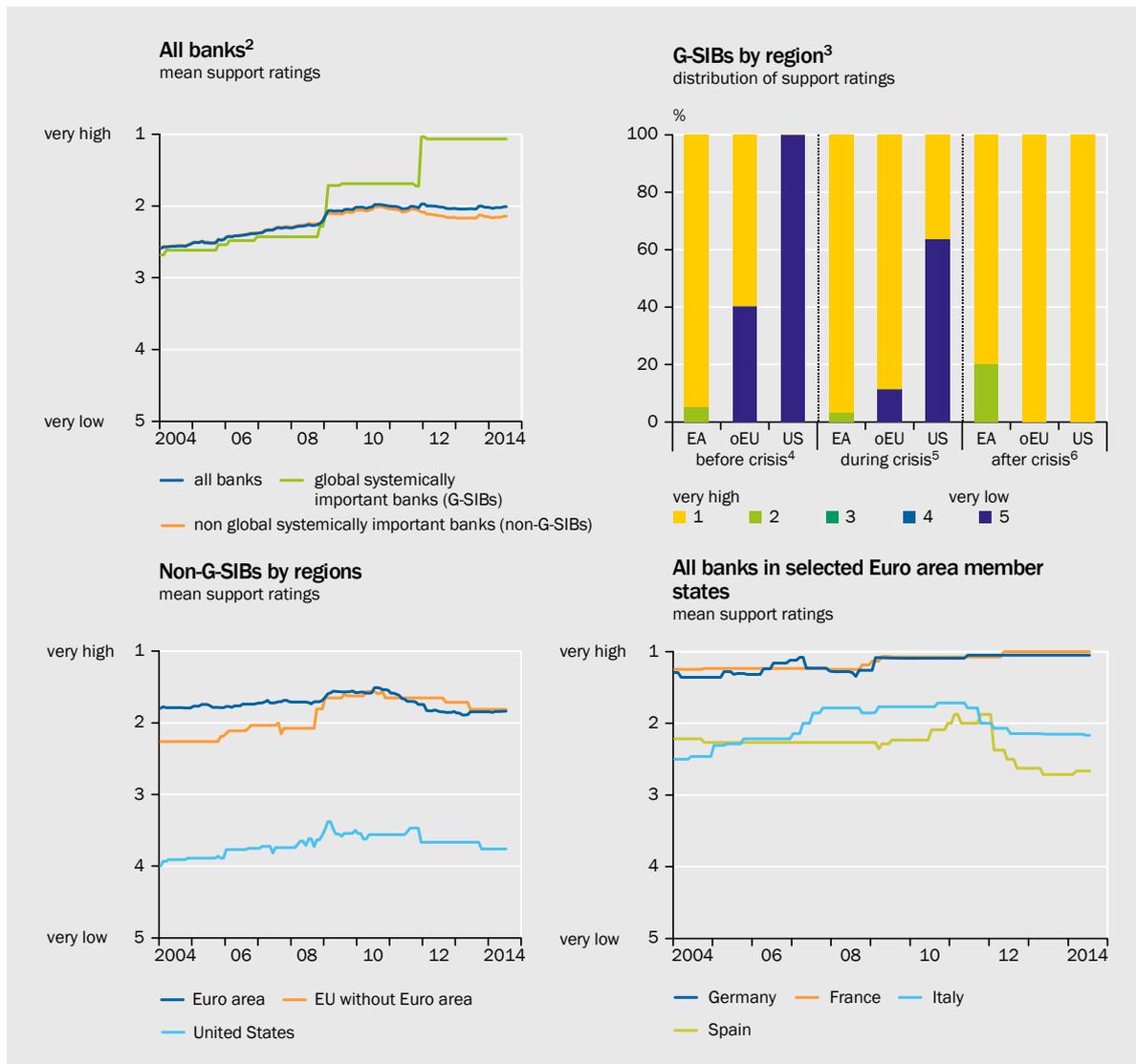
300. Implicit government guarantees reduce the likelihood of banks' creditors having to bear losses in the event of an insolvency. Rating agencies therefore attach great significance to implicit guarantees. They issue special ratings quantifying the probability of support (**support ratings**). A higher support rating translates into a more favourable judgement of a bank's creditworthiness (**rating uplift**) and is associated with lower funding costs for banks (Ueda and Weder di Mauro, 2013). It is therefore possible to exploit the rating information to calculate the advantages of implicit guarantees in terms of funding costs. ↘ **BOX 15** The aim of the current regulatory efforts is to restore **market discipline** so that funding costs reflect banks' true risk positions. The development of ratings and funding costs can therefore provide an indication as to whether policy makers are any closer to meeting this aim.
301. The empirical evidence is sobering. The support ratings from the rating agency Fitch point to a dramatic increase in the level of support expected for the banks that supervisory authorities classify as global systemically important banks (G-SIBs). ↘ **CHART 43, UPPER LEFT** These ratings initially increased sharply following the extensive rescue measures at the end of 2008, then again when the Financial Stability Board first published the list of G-SIBs in late 2011. The introduction of the explicit G-SIB status appears to have further cemented the **implicit government guarantees** for these banks (Moenninghoff et al., 2014). The support ratings also increased for the remaining banks at the end of 2008, but have been falling since late 2010. They have not yet returned to pre-crisis levels. This is consistent with results from empirical studies using option price methods to investigate the funding cost advantages from implicit guarantees (IMF, 2014a).

302. In the regional comparison it is noticeable that the expectation of support for G-SIBs in the euro area was very high even before the crisis. ↘ CHART 43, UPPER RIGHT In contrast, it was low for US G-SIBs until the end of 2008 and only increased in the course of the crisis. Following the publication of the list of systemically important banks, the support ratings of all US G-SIBs rose to the highest level. In the euro area meanwhile, two G-SIBs were downgraded after the crisis: the Spanish Banco Santander and Italian UniCredit, i. e., the two G-SIBs from particularly highly indebted euro area member states.

The differing development of support ratings for banks that do not have global systemic importance is also striking. ↘ CHART 43, LOWER LEFT The likelihood of support is rated considerably higher in Europe than in the US. This is consistent with the fact that many US banks were wound down during the crisis, unlike in

↘ CHART 43

Support probabilities of banks with support rating¹



1 - Support probabilities for extraordinary support, typically from national authorities. Own calculations, based on data from Fitch Ratings.
 2 - All banks with Fitch support rating from Europe, OECD countries and countries which host at least one of the 100 largest banks (in terms of total assets as of 2013) worldwide. The sample consists of 239 banks at the end of the observation period. 3 - EA - Euro area, oEU - other EU and US - United States. 4 - From January 2004 until July 2007. 5 - From August 2007 until August 2012. 6 - From September 2012 onwards; distribution of support ratings coincides with current distribution.

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Europe (AER 2013 item 367). But support ratings in the euro area have fallen considerably since the end of 2010, even below the pre-crisis level. They also declined in the remaining EU member states, although here they remained above the pre-crisis level.

If we take the support ratings as an indicator of the success of reforms, there is prima facie evidence of some **progress in the reduction of implicit guarantees**, at least in the euro area. The rating agencies have also raised the prospect of reviewing banks' support ratings in light of the new framework for bank resolution (Fitch Ratings, 2014; Moody's Investors Service, 2014). It remains to be seen whether this will really lead to substantial changes to support ratings.

303. There are **considerable differences** within the euro area, though. [↪ CHART 43, LOWER RIGHT](#) In Germany and France there is no sign of decreasing support ratings, whereas Italy and Spain have seen a pronounced fall. The decrease in implicit government guarantees seems to be making the most progress in countries with limited fiscal scope for a bank rescue (Schich and Lindh, 2012). This suggests that observers nowadays expect only limited mutualisation of costs at the level of the euro area in the event that banks experience difficulties. It does not, however, indicate that bank reforms have been generally successful. In financially strong countries there is the expectation that governments will continue to rescue banks in the future. This gives banks in financially strong countries a **competitive advantage** over those in weaker countries. In fact, the funding cost advantages from implicit guarantees remain considerable after the crisis. [↪ BOX 15](#)

[↪ BOX 15](#)

Banks' funding cost advantages as a result of implicit guarantees

In the presence of implicit guarantees from the government, banks can obtain funding more cheaply as their creditors do not expect to have to bear losses completely in the event of insolvency. The cost advantages can be quantified using regression analyses, evaluating the relationship between funding costs and the measures of implicit guarantees.

In a recent study, Barth and Schnabel (2014) are analysing CDS spreads for unsecured bank debt between January 2005 and June 2014. Lower (higher) CDS spreads imply lower (higher) interest rates on debt securities. Ratings from the agency Fitch are taken as measures of implicit guarantees and probabilities of default. The **support rating** indicates the likelihood of external support – typically by the government of the bank's home country – in the event that the bank threatens to default. It is measured on a scale of 1 (very high support) to 5 (very low support). The **viability rating** reflects the bank's probability of default, without taking into account external support. It lies between aaa (= 10, very low probability of default) and f (= 1, insolvency).

On average, across the entire sample, an improvement in the support rating by one notch corresponds to a fall in CDS spreads by 30 basis points. If the regressions also take into account that the value of implicit guarantees is likely to depend on the bank's solvency, the outcome is a fall of 42 basis points for relatively weak banks with a viability rating of 6 (25th percentile) and a fall of just 11 basis points for solvent banks with a viability rating of 8 (75th percentile).

An interesting development can also be observed over time. Five phases of crisis are distinguished. In all phases it can be seen that better ratings (both support and viability ratings) are associated with lower CDS spreads. [↪ TABLE 14](#) For support ratings, the effect grows stronger over time before weak-

ening again. For viability ratings, the effect strengthens as the crisis progresses, but remains at a high level even after the crisis. The change of the coefficients over time suggests that bank risks are being re-evaluated in the course of the crisis. The fact that viability ratings are stuck at crisis level could suggest that market discipline has returned to some degree.

▾ TABLE 14

Empirical relationship between CDS spreads and support ratings of banks¹

Effect of one-notch upgrade	pre-crisis: until Jul 2007	financial crisis 1: Aug 2007 – Aug 2008	financial crisis 2: Sep 2008 – Sep 2009	EA crisis: Oct 2009 – Aug 2012	post-crisis: since Sep 2012
	Change in CDS spreads (basis points)				
Support Rating	(-6)	-21	-56	-32	-18
Viability Rating	-20	-24	-60	-64	-61

1 – Results of a fixed-effects regression of CDS spreads on support ratings and viability ratings issued by the rating agency Fitch. Support ratings are on a scale of 1 (very high probability of support) to 5 (very low probability of support). To make interpretations of the results easier the scale was multiplied by -1. Viability ratings are on a scale of 1 (insolvency) to 10 (highest fundamental credit quality). Statistically non-significant results are in parentheses (10 % significance level).

Source: Barth and Schnabel (2014)

304. In summary, the empirical findings show that implicit government guarantees and the resultant funding advantages have only **decreased at a few banks** and, even then, are rarely below the pre-crisis level. There is little evidence of progress thus far for the systemically important banks. In fact, the explicit naming of G-SIBs by the supervisory authorities seems to have cemented their implicit government guarantees. A decrease in implicit guarantees is evident particularly in the euro area, however only in highly indebted member states.

II. FIRST STEPS IN THE EUROPEAN BANKING UNION

1. Start of the Banking Union

305. One of the three building blocks of the Banking Union – centralised bank supervision – officially began on November 4, 2014 with the ECB taking over supervisory responsibility within the framework of the **Single Supervisory Mechanism (SSM)** (AER 2013 item 293 et seq.). The ECB conducted a **comprehensive assessment of bank balance sheets** to prepare for this first step in the Banking Union. Its first important decisions as supervisory authority will now involve responding to the results. ▸ [ITEM 311 ET SEQ.](#)
306. The other two components – centralised bank resolution and common funding of resolution procedures – are still being implemented. Over the last year, Europe has succeeded in defining the legal framework for the **Single Resolution Mechanism (SRM)**. The European Parliament passed the SRM Regulation in April 2014 along with a directive setting EU-wide bank resolution rules, on

which a large part of the SRM Regulation is based (**Bank Recovery and Resolution Directive, BRRD**). Member states must implement the directive by the end of the year. It is currently planned that the SRM will be effective from 2016. [▶ ITEM 316 ET SEQ.](#) Like the SSM, the SRM is mandatory for members of the euro area. EU member states outside the euro area may opt in, and are allowed to opt out at any stage. All member states apart from the UK and Sweden are expected to join.

307. In addition, a common bank resolution fund – the **Single Resolution Fund (SRF)** – will be part of the SRM. A harmonised bank levy will raise the fund to a volume of around €55 billion over an eight-year period. There will be no common deposit guarantee scheme in the foreseeable future. Action in this area will be limited to further harmonisation based on a directive passed by the European Parliament in April 2014. The institutional framework for the Banking Union has thus largely been created. There is still uncertainty as to how, in fiscal terms, to handle additional funding requirements that might potentially arise in future banking crises (**fiscal backstops**) without governments resorting again to ad hoc solutions based on their national interests. [▶ ITEM 349 ET SEQ.](#)

2. Comprehensive assessment: Low capital shortfalls, strong heterogeneity

308. Before taking over direct supervision under the SSM of the 120 euro area banks classified as significant, the ECB carried out a **comprehensive assessment of bank balance sheets**. [▶ BOX 16](#) Stated objectives of the assessment were to increase transparency (i. e., expose hidden risks in bank balance sheets), “repair” weak banks (primarily through recapitalisation) and strengthen confidence in the European banking sector (ECB, 2013). The comprehensive assessment aimed thereby to bring about the necessary recapitalisation of bank balance sheets and ideally to contribute to a market shakeout in the European banking sector (AER 2013, items 366, 375 et seq.). Revealing existing problems is also a prerequisite for ensuring that legacy assets predating the Banking Union can be dealt with at national level. It also reduces the risk of reputational damage to the ECB that might occur if difficulties due to legacy assets were blamed on the new supervisory authority.

[▶ BOX 16](#)

Comprehensive assessment by the ECB

Before taking up its supervisory role on November 4, 2014, the ECB subjected the institutions that were to be under its direct supervision to a comprehensive assessment (AER 2013 box 13). The process included a general risk assessment, an asset quality review of individual bank assets and a stress test carried out jointly with the EBA.

The first step of the **asset quality review** was to determine the assets to be examined. Loan portfolios were selected, referring to the reporting date of December 31, 2013, that were thought to be particularly risky, overvalued or wrongly classified (ECB, 2014a). The review also considered trading book assets that were difficult to value. The ECB put the volumes examined at €3.7 trillion or 58% of the

risk-weighted assets of the banks included. The process involved some 6,000 staff from supervisory authorities and external auditors. The outcome was the publication of capital shortfalls that resulted solely from revaluations under the asset quality review.

The **stress test** calculated how banks' bank balance sheets, adjusted for capital shortfalls from the asset quality review, would react to unfavourable macroeconomic developments and market stress in the period until 2016. The banks calculated the stress test results themselves, with the ECB and national bank supervisory authorities responsible for quality controls. The stress test comprised two scenarios. The **baseline scenario** corresponded to the European Commission's 2014 winter forecast with the addition of a projection for 2016. The **adverse scenario** was developed by the ESRB (2014a). This included an increase in long-term interest rates with country-specific impacts on government bond interest rates, an increase in banks' short-term funding costs and a slump in share and property prices. The adverse scenario assumed real GDP growth of -0.7%, -1.4% and 0% in 2014, 2015 and 2016, respectively. Capital shortfalls were published for both scenarios.

Banks for which a **capital shortfall** was reported, ↘ [TABLE 15](#), must present plans for covering this shortfall to the ECB within two weeks of publication of the results. According to the ECB, this is to be achieved first and foremost by raising new equity (ECB, 2014b). If banks cannot cover their capital shortfalls themselves using private funds, government funding may come into consideration in compliance with state aid rules. Banks must cover capital shortfalls identified in the baseline scenario within six months, and those from the adverse scenario within nine months.

309. The core of the comprehensive assessment was the examination of selected asset items on bank balance sheets (**asset quality review, AQR**). By defining common valuation criteria, the assessment was intended to restrict the scope for valuing problematic assets, and to expose impairments. The **stress test** projected the development of bank balance sheets under unfavourable macroeconomic conditions, combined with sharp price movements on financial and asset markets. However, stress tests feature some methodological weaknesses (Borio et al., 2014).

Only a small number of **arbitrarily chosen scenarios** are examined. The validity of stress tests is also limited by the fact that the results are subject to a series of model assumptions. Feedback mechanisms between the macroeconomic environment and bank balance sheets, and among the banks themselves, do not feature in the models at all, or are only considered to a limited extent; the reactions of banks to stress test results are ignored. There is thus **no guarantee** that the stress tests will expose all relevant risks. Nevertheless, they can reveal relevant information to market participants by exposing banks' specific weaknesses. The stress test results are also linked to sanctions by the banking supervisor, which in itself makes these results market-relevant information.

310. In retrospect, there were a number of weaknesses in the design of the comprehensive assessment. The **timeframe** was very **short**. This was a deliberate political decision but made the **join-up** of the asset quality review and stress test more difficult. Because the new supervisory structures are still under construction, the ECB was dependent on the expertise of national bank supervisors and external consultants. This dependency took on such a scale that the portfolios examined in the asset quality review had been suggested by the national supervi-

sors themselves. This should be viewed critically given the obvious conflicts of interest between national supervisors and the ECB.

Conflicts of interest also exist between the ECB and the governments of member states. As bank supervisor, it is strongly in the ECB's own interest that balance sheets are checked thoroughly. Policymakers, meanwhile, have no interest in uncovering major problems, as this could result in national tax money being required to tackle them. From the perspective of governments, it is preferable to continue the strategy of repairing bank balance sheets by means of monetary policy measures via the central bank's balance sheet. It is therefore no surprise that the fiscal backstops repeatedly called for by the ECB have come very late in the day, if at all. Governments have not made the necessary agreements on how to share the burden in the case of cross-border banks (AER 2013 item 375 et seq.).

Outcome of the comprehensive assessment

311. The comprehensive assessment revealed a capital shortfall of **€25 billion** at **25 banks**. This represents approximately 0.3% of risk-weighted assets of the banks examined (as at year-end 2013) and is therefore a small amount in relation to the financial system as a whole. Of the banks that failed, the capital shortfall represents 2.5% of risk-weighted assets, which is equivalent to as much as 25% of their core tier 1 capital (median in each case).

Many of the banks assessed had issued **new equity** even before the assessment was completed. A net total of €36 billion was issued from January to September 2014. In the case of 12 banks, this was sufficient to cover the capital shortfall identified. In a further five cases, no new capital needs to be raised as planned restructuring and resolution measures are sufficient (ECB, 2014c). This means that additional capital measures are only required at **8 banks**, which need to raise a further **€6.4 billion**. Given these figures, it is no surprise that turbulences on financial markets or even a reigniting of the government debt crisis were avoided.

312. It is notable that the banks that failed the assessment have a strong **regional concentration** in the countries hardest hit by the euro area crisis. [TABLE 15](#) Greece, Ireland, Italy, Portugal and Cyprus were home to 17 of the 25 problem banks, or 92% of the capital shortfall identified, although they only account for 21% of risk-weighted assets (figures as year-end 2013). In Spain, which has already undergone an adjustment programme for the banking sector, only one bank revealed a capital shortfall (0.1% of the total capital shortfall).

In **Italy** as many as nine banks are affected (39% of the total capital shortfall). These include the country's third-largest bank (Banca Monte dei Paschi di Siena), which has a shortfall of €2.1 billion despite a recent capital increase. The banks that failed account for around 23% of total assets in the Italian banking system. This shows how badly the long-running crisis in the Italian economy has taken its toll on bank balance sheets.

TABLE 15

Results of the ECB's comprehensive assessment¹

Countries	Participating banks		Capital shortfall			Net equity issuance ²	AQR adjustment to book values ³	
	asset share ⁴ (%)	number of banks	number of banks	Euro million	share of RWA ⁵ (%)	share of RWA ⁵ (%)	share of RWA ⁵ (%)	share of CET1 ⁶ (%)
France	30,5	13	1	129	0,0	0,1	- 0,2	- 2,1
Germany	20,8	25	1	229	0,0	1,0	- 0,5	- 3,6
Spain	14,2	15	1	32	0,0	0,2	- 0,2	- 1,8
Italy	10,4	15	9	9.679	0,8	0,9	- 1,0	-10,0
Ireland	2,8	5	1	855	0,4	0,0	- 0,4	- 2,6
Greece	1,6	4	3	8.721	4,2	3,2	- 3,7	-28,5
Portugal	1,0	3	1	1.137	0,9	- 0,6	- 1,2	- 9,9
Cyprus	0,3	4	3	2.365	6,2	6,8	- 2,2	-31,3
others ⁷	18,5	46	5	1.470	0,1	- 0,3	- 0,7	- 5,2

1 – Own calculations. 2 – Capital instruments eligible as CET1 capital raised net off repayment and buybacks, January to September 2014. 3 – Book value adjustments of assets due to the Asset Quality Review. 4 – Total assets of banks subject to the comprehensive assessment in the respective country relative to total assets of all banks subject to the comprehensive assessment. 5 – Risk-weighted assets as of year-end 2013. 6 – Core tier 1 capital as of year-end 2013. 7 – Other member states of the euro area and Lithuania.

Source for basic data: ECB

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Only one bank in **Germany** – Münchener Hypothekenbank – was found to have a capital shortfall, which it has already closed by raising capital this year. This means that all German banks have passed the test. The AQR did result in revaluations, for example of shipping loans, however these represented just 0.5% (€6.7 billion) of risk-weighted assets.

313. The adjustments to the book values of assets as a result of the **AQR**, which also affect banks where no capital shortfalls were identified, total around **€48 billion**. That represents 4.8% of core tier 1 capital (0.6% of risk-weighted assets) of the banks assessed as at the end of 2013. However, here too, there is considerable **heterogeneity** across banks and countries. TABLE 15 Corrections tended to be larger at more weakly capitalised banks. This could indicate that the banks had previously been taking advantage of their scope of discretion by valuing assets and postponing necessary impairments in a way that protected their equity. This seems to have been tolerated by supervisory authorities.
314. The question is whether the comprehensive assessment has achieved the objectives set by the ECB – transparency, repair and confidence. Overall, **transparency** has been visibly improved, for example by the use of harmonised supervisory standards in valuing bank assets. The future market valuations should give some indication of how successful this has been. In recent years, the market value of equity at many banks was substantially below the book value (AER 2013 item 365). If the comprehensive assessment creates the desired transparency, market values should move closer to book values again.

However, it is unclear whether the assessment applied sufficiently strict standards. It is conceivable that the ECB did not take a consistent enough approach due to the lack of fiscal backing by the member states and of effective resolution

mechanisms. However, it is not possible to objectively judge the **strictness of the comprehensive assessment** based on the information publicly available.

The **repair** of balance sheets – i. e., the process of dealing with the capital shortfalls identified – is the ECB's most important task in its new role as banking supervisor. The ECB should make a concerted effort to tackle the existing problems and assert itself against national supervisors to ensure that recapitalisation takes place at least at these banks. This will be a major factor in determining whether market participants will gain **confidence** in the ECB as the new banking supervisor and in the solvency of banks.

315. The Banking Union has now begun. If the banks had been reluctant to grant loans because of the uncertainties about the outcome of the comprehensive assessment, the completion of this exercise might lead credit market activity to recover. The assessment is unlikely to result in a general strengthening of banks' capital basis in the euro area, though. Even the capital already raised in 2014 led to an increase of just 0.16 percentage points in the share of core tier 1 capital in the balance sheet total of the banks assessed. A market shakeout through the closure of banks is also unlikely.

It can only be hoped that new weaknesses do not emerge at banks that have only recently passed the comprehensive assessment, as had been the case in previous stress tests (AER 2011 item 221). However, it would be even more problematic if the ECB were to sweep such weaknesses under the carpet by concealing them with monetary policy measures in order not to endanger its reputation as banking supervisor.

III. BANK RESOLUTION IN THE BANKING UNION: MORE CREDIBILITY NEEDED

316. The turbulence following the Lehman Brothers insolvency in 2008 showed quite plainly the impact that a collapse of systemically relevant banks can have on the financial system and the overall economy. Governments issued broad guarantees for the financial system and rescued troubled banks instead of resolving them. Paradoxically, then, letting a systemically important institution fail actually led to a huge expansion of implicit government guarantees in the financial system.

↘ ITEM 301 ET SEQ.

Many countries at that time did not have rules for handling banks in difficulty that took sufficient account of the need to protect the financial system. International cooperation failed due to a lack of pre-agreed rules and procedures. One of the most important strands of reform initiated at G20 level in 2008 was therefore the planned establishment of **special resolution regimes for banks**.

317. The **crisis in the euro area** revealed specific problems within the European Monetary Union. Firstly, member states that were under fiscal pressure as a result of domestic bank rescues could not assume that the central bank would provide liquid funds to settle government debt if needed. As the banks themselves were holding large amounts of government debt, **the banking and sovereign debt crises** reinforced each other.

Secondly, as the ECB could be expected to provide liquidity to banks, there were incentives to keep **insolvent banks afloat** instead of restructuring or resolving them. These incentives did not just result from the lack of adequate procedures to deal with bank insolvencies. In addition, this allowed policymakers to avoid losses for domestic bank creditors by shifting risks to the shared central bank balance sheet.

318. The establishment of the European Banking Union is one of the key answers to these problems. The **SRM** – a core component of the Banking Union – is an important step towards a more effective bank resolution regime. By creating **supranational decision-making competencies** in the euro area by the SRM, the externalities of national resolution decisions can be internalised. This will make it easier to prevent countries from delaying bank resolutions out of national interests, avoid the ring-fencing of financial groups along national borders and reduce the shifting of costs from national to European level (Buch et al., 2014).

Strengthening **creditor participation** (bail-in) and creating a **common resolution fund** at the level of the euro area makes the system more resilient to national shocks and loosens the ties between governments and banks. The establishment of the SRM should also be seen as the counterpart to the creation of supranational supervision competencies under the SSM (AER 2012 item 309 et seq.).

319. However, there are **weaknesses** in the design of the resolution regime. The **governance structure of the SRM** hinders efficient resolution decisions. The decision-making processes are too protracted. Smaller banks are not even included. It is also doubtful whether the mechanisms for **funding bank resolutions** will work. The rules on creditor participation have so many exceptions that they lack credibility. A resolution fund financed by banks can hardly close the funding gap that would arise in a new systemic crisis. There are no agreements between member states on fiscal backstops. Finally, the problem of resolving banks with significant business **outside the euro area** has yet to be solved.

1. The time inconsistency problem of bank rescues

320. Bank resolution regimes fulfil two functions. Firstly, they ensure that in addition to shareholders, creditors are liable for bank losses in case of insolvency and that banks that cannot service their debt exit the market. As any insolvency code, such a framework regulates the exit from competitive markets. **Market disci-**

pline is established through loss participation and market exit, ensuring that those who assumed the risks are held liable in case of crisis.

Secondly, bank resolution regimes are part of **crisis management**. The aim in case of resolution is to avoid the breakdown of the financial institution's funding as well as to prevent the crisis spreading to the rest of the financial system and the real economy. This is distinct from regular insolvency proceedings that are not aimed at avoiding the risks of contagion common to the financial system.

321. Creating optimal incentives and maintaining system stability may be **at odds** with each other. Holding creditors liable for loss can trigger contagion effects in the financial system, thereby **exacerbating the crisis**. For one thing, affected creditors can themselves become financially distressed. For another, holding creditors liable for loss jeopardises the funding of other banks. A sudden rise in refinancing costs can result in considerable liquidity problems in the banking system, which can turn into solvency problems.
322. The main objective of a bank resolution regime is thus to ease such conflict. A good resolution regime enables creditors to be held liable and banks to exit the market without destabilising the financial system. It consequently reduces the incentives of supervisory and political decision-makers to bail out banks with extensive public funds and makes a major contribution to mitigating the **time inconsistency problem** and thus to solving the “too-systemic-to-fail” problem. Ideally, banks no longer need to be rescued because their collapse does not trigger a general financial crisis.

2. Governance too complex

323. Resolution procedures constitute **considerable interventions in property rights** and can require the use of public funds. For this reason, decisions on bank resolution must be democratically legitimised and constitutionally grounded. At the same time, resolution of a bank in crisis must be implemented **quickly** (typically over a weekend) in order to prevent the problems getting worse due to a collapse in financing. The governance structure of the resolution mechanism must fulfil both of these requirements.
324. Within the Single Resolution Mechanism (SRM), major bank resolution decisions are centrally taken by the **Single Resolution Board (SRB)**. In addition to the full-time members, national resolution authorities are represented on the board. Coordination among national authorities is thus no longer necessary to the same extent. This helps to prevent member states from transferring risks from national to European level.
325. The SRB has been endowed with **broad bank resolution powers**. [↘ CHART 44](#) Thus it has sole authority to implement resolution decisions, either upon notification by the European Central Bank or on its own initiative. After examining the resolution requirements, it will adopt a resolution scheme that determines the application of resolution tools and the use of the single resolution fund

member states' resolution authorities must be involved in the decision-making process if aid exceeds a certain amount. [↘ CHART 44](#)

It is also questionable whether the desired political control can be effective in this manner. In view of the short deadlines for decisions, a sound evaluation in the democratic decision-making process based on factual argumentation is barely possible. Instead, it is likely that the decisions will be motivated by national interests, which could prevent efficient resolution decisions from being made.

327. It is thus questionable whether the structures permit decisions to be taken with the necessary consistency and speed. It would be better if the decision-making structures were designed such that policymakers were only involved in special cases (for example, if creditor participation were to be ruled out) and otherwise the SRB could make resolution decisions largely independently. However, endowing the SRB with further-reaching powers is currently doomed to fail because of the lack of a legal basis in primary law (Tröger, 2013).
328. Another weak point is the SRM's **limited scope**. The regional scope of application of the SRM is based on the SSM. It extends to the euro area and to EU member states that join the SSM voluntarily based on close collaboration with the ECB. As these participants also have the opportunity to leave the SSM at any time (AER 2013 item 295), which would automatically mean leaving the SRM as well, their involvement in the Banking Union is considerably weaker than that of euro area member states. Thus the dissatisfactory structure of European banking supervision under the umbrella of the ECB reverberates through to the SRM – a problem that can ultimately only be solved by amending the European treaties.
329. But even within the participating member states, the SRM does not extend to the entire banking system. Resolution competencies over smaller institutions are **extremely limited**. The SSM's **significance criterion** was assumed (AER 2013 item 293), by which as a rule only major institutions and cross-border groups are subject to SRB resolution decisions.
330. The SRB has only **indirect responsibility** for smaller institutions. In the same way as the ECB has overall responsibility for the SSM, the SRB is responsible overall for ensuring that the SRM functions. Accordingly, the SRB develops general framework requirements, which national resolution authorities must follow. Direct exercise of resolution powers by the SRB on smaller institutions, on the other hand, is only intended if it appears necessary to ensure the consistent application of high resolution standards (Article 7 (4) SRM Regulation). Otherwise, the SRB must only be involved if the Single Resolution Fund is to be utilised.

In light of the potential correlation of risks among smaller banks that pursue similar business models, this structure is to be viewed critically. In the Spanish banking crisis, but also in the savings and loan crisis in the USA in the 1980s, problems emerged at smaller, largely regional institutions.

3. Making creditor participation credible

- 331. The most important element of bank resolution is its financing. This should account for the fact that there is a tension between creating optimal incentives and maintaining system stability as previously stated. The **three main sources of financing** are creditor participation (bail-in), the SRF and fiscal backstops. While a bail-in primarily serves to restore optimal incentives, the resolution fund and fiscal backstops have primarily a stabilising function. [↪ CHART 45](#)

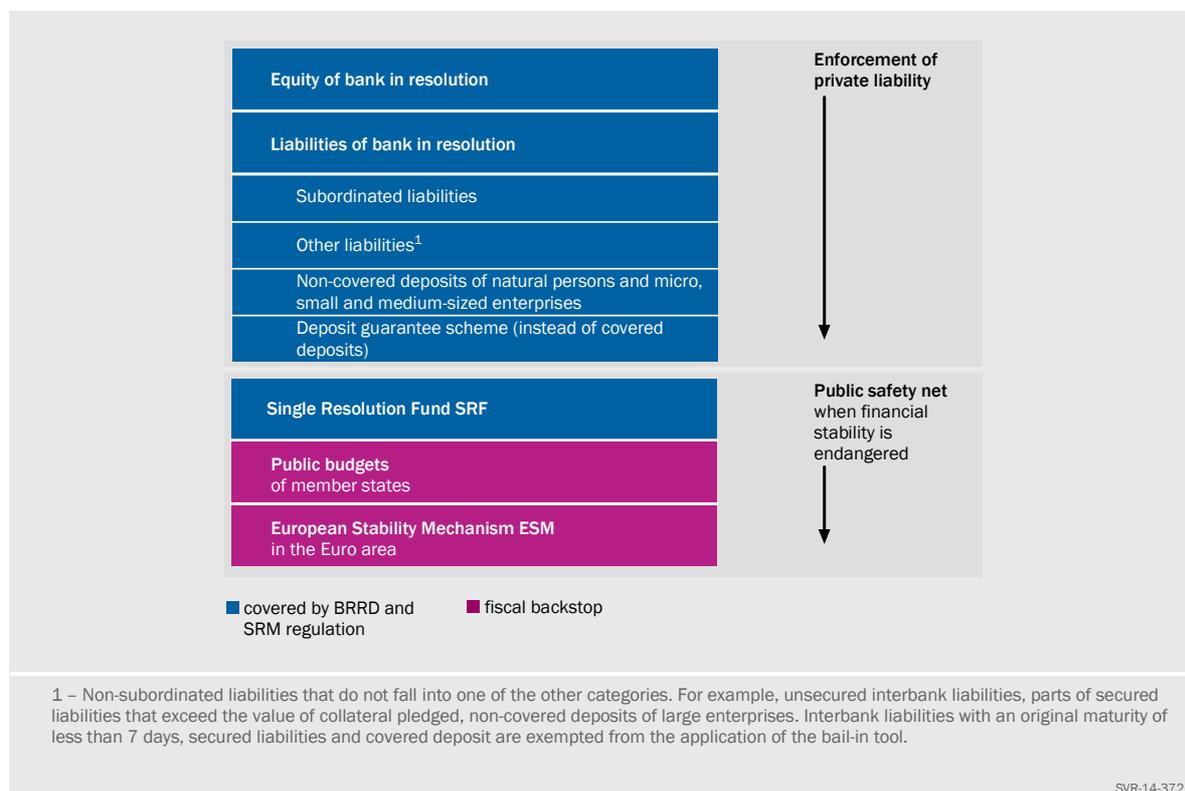
- 332. In the case of **bail-in**, the **liability cascade** of regular insolvency law is supposed to apply. As such, this does not strengthen private liability but restores normality. Short-term interbank debt of up to seven days' maturity is exempt from liability as are insured deposits of up to €100,000. This gives priority to depositor protection and the stabilisation of the interbank market in order to ensure system stability. However, it is the deposit guarantee scheme that assumes the place of the protected depositor in the liability cascade.

- 333. The joint **resolution fund** provides for financing resolution via the remaining banking system. [↪ ITEM 344 ET SEQ.](#) It is below bank creditors in the resolution cost waterfall. It especially serves the SRB's short-term ability to act, by creating possibilities for interim financing. It thus has a primarily stabilising function, thereby contributing to the credibility of the resolution regime.

- 334. Public finances are at the bottom of the waterfall in the form of **fiscal backstops**. [↪ ITEM 349 ET SEQ.](#) They are only intended to be used if for reasons of system

[↪ CHART 45](#)

SRM: Resolution cost waterfall



stability no other funding option can be considered. This type of financing (**bail-out**) results in distorted incentives and thus potentially to excessive risk taking in the financial system. For this reason, unlike in the past financial crisis, it should be an absolute exception.

Creditor participation (bail-in)

335. A bail-in is intended to ensure that those who originally assumed risks are liable for bank losses – firstly bank shareholders, then creditors. While shareholders automatically bear risk, creditors normally participate in loss via insolvency. However, regular insolvency proceedings are unsuitable for banks due to their financial structure and the risk of contagion effects.
336. Holding bank creditors liable for loss and solving the time inconsistency problem of bank rescues is only possible if the rules are set up in such a way that a collapse of bank financing and the spread of crisis to the rest of the financial system are prevented. The rules must also enable **a strict enforcement of the liability** of creditors. The bail-in rules should clearly signal to investors that they can no longer count on government bail-outs in the future. This is essential for restoring **market discipline** and reducing implicit subsidies for liabilities.

The recent bail-in events were in fact accompanied by a rise in bank risk premiums. [↘ BOX 17](#)

[↘ BOX 17](#)

The effects of bail-in events on CDS spreads

Schäfer et al. (2014) investigate the question of whether actual loss participation by bank creditors (bail-ins) contributed to a restoration of market discipline at other banks. In this case, investors would be expected to demand higher risk premiums for bank debt securities. This should be reflected in increasing CDS spreads. The latest bail-in events in Denmark, Spain, the Netherlands, Cyprus and Portugal, as well as the EU legislation process on the SRM, are analysed in an **event study**. The study aims to detect abnormal changes in CDS spreads immediately after an event. It encompasses a total of 65 banks in the 28 EU member states, Norway and Switzerland.

Many of the bail-in events analysed did indeed result in higher CDS spreads. Significantly stronger effects are often found at global systemically important banks (G-SIBs). This can be explained by the fact that systemically important banks are more strongly favoured through implicit guarantees. The sharpest increases in CDS spreads were seen in the bail-in in the Netherlands (SNS Reaal) and above all in relation to the events in Cyprus. This was to be expected, as creditor participation in Cyprus included senior debt and deposits in excess of €100,000 and as the events signalled a higher probability for future bail-ins in the euro area.

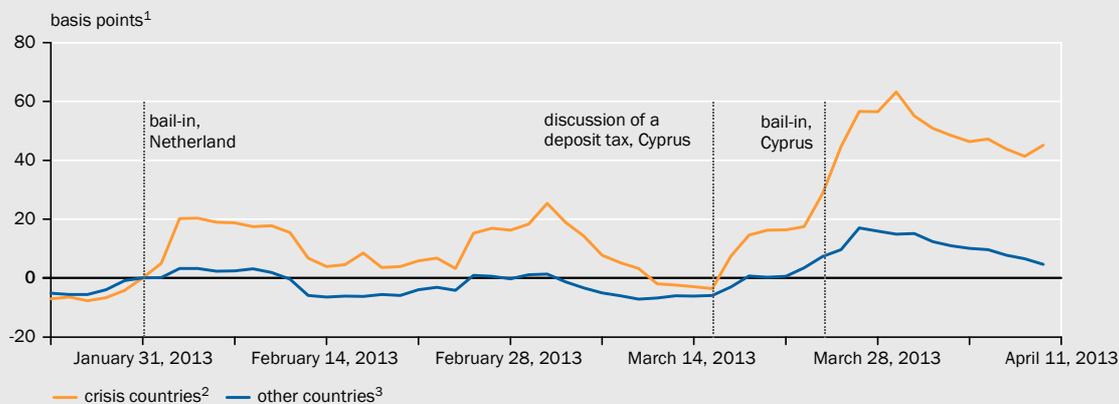
Moreover, there is considerable heterogeneity between banks in crisis-hit countries and those in other countries. [↘ CHART 46](#) The increase at banks from crisis countries amounts to up to 30 basis points; for banks in the remaining countries only up to 7 basis points. Crisis-hit countries would barely be able to undertake another bank rescue using their own resources. At the same time, euro area member states have made clear that joint financial assistance to support the banking sector should be linked in the future to loss participation of bank creditors.

The effects of the final compromise on the SRM show the expected signs, but the increase in CDS spreads is relatively small. This may be due to the fact that the information contained in individual

steps in the reform process is by nature limited and that some of the expected reform effects had already been priced in.

↘ CHART 46

Banks' CDS spreads in selected European countries



SVR-14-294

337. The central SRM instrument for creditor participation is the **bail-in instrument** designed to take account of system protection. It involves creditor claims being written down or debt converted into equity. This enables quick loss participation of creditors without having to wait for lengthy insolvency proceedings. In this manner, creditors and market participants alike are assured clarity on the extent of the loss. Quick recapitalisation in the form of a bail-in can enable business to continue and ensure that systemically important functions are not jeopardised.
338. However, there is doubt as to the credibility of the announcement about creditor participation in losses in the future, as there is a **considerable discretionary leeway** (Monopolies Commission, 2014; Academic Advisory Council to the Federal Ministry of Finance, 2014). Firstly, the SRB has the discretion to decide whether the instruments to hold creditors liable should be used at all. ↘ [BOX 18 IN THE APPENDIX](#)

Secondly, the SRB may determine in applying the bail-in instrument that certain **liabilities are excluded from the bail-in**. An indirect limit to the scope of discretion is set by the rule that losses may only be absorbed by the Single Resolution Fund under the condition that shareholders and creditors contribute at least 8% of total liabilities (including own funds) to offset the loss or recapitalise the bank in the form of a bail-in. This rule, however, does not necessarily exclude the possibility that creditors are broadly protected by the issue of temporary guarantees through the SRF. Moreover, there is a risk that the minimum participation of 8% is misinterpreted as the **upper limit** and that rescue expectations regarding liabilities exceeding this amount are reinforced.

Thirdly, no substantial precautions were taken to prevent national governments from undertaking future bail-outs. **Government bail-outs** can only be sanctioned at a later stage by applying state aid rules, the use of which also allows for considerable discretionary leeway. Thus the credibility of the bail-in remains dependent to a large extent on the willingness and capability of national governments to support their banks and avert creditors' losses.

339. Therefore, the **scope of discretion** of authorities and policymakers should be **substantially reduced**. The SRB should be bindingly obligated to use the instruments to hold creditors liable. In particular, the option should be eliminated for individual creditors to be exempted from the application of the bail-in instrument. Excessive use of national bail-outs could be prevented by **tightening state aid rules**, for example by eliminating the restriction regarding required bail-ins to subordinated creditors. These measures could considerably increase the binding nature of the bail-in.
340. Exceptions should only be permitted in the event of a threatening **systemic crisis** in which holding creditors strictly liable would result in significant exacerbation of the crisis. To this end, strict benchmarks must be set, for example in the form of a strong majority in the SRB and among the finance ministers of affected member states. Such a rule would have the advantage that, for one thing, it recognises the exceptional case of a systemic crisis, but for another, ensures that this is the exception and not the rule. This would be quite similar to the US model of a **systemic risk exception** (Goyal et al., 2013; AER 2013 item 312).
341. The Liikanen Group noted a further opportunity for increasing the credibility of a bail-in in the issue of **bail-in bonds** (HLEG, 2012). Bail-in bonds are subordinated debt securities with uniform liability terms which would be used first in the event of a bail-in by the resolution authorities. The Liikanen Group proposed holding restrictions for these bonds so that they and the associated risks of loss would not be held on bank balance sheets. This is intended to ensure that in addition to equity credibly recoverable assets are available for a bail-in (Academic Advisory Council to the German Federal Ministry of Finance, 2014).

This proposal is being included in the SRM in the form of a **Minimum Requirement for Own Funds and Eligible Liabilities (MREL)**. In resolution planning, the competent resolution authorities for each institution are to determine a certain ratio of bail-inable liabilities to total liabilities to be maintained at all times. A binding standard for global systemically important banks is also being discussed at G20 level. [▶ ITEM 353 ET SEQ.](#)

342. The problem with this is that an explicit classification of debt securities as bail-inable could result in market participants considering liabilities not classified as such as **not bail-inable**. This could then mean that in case of crisis the competent authorities would shy away from creditor participation in excess of bail-inable liabilities. Implicit guarantees for liabilities not explicitly classified as bail-inable would be strengthened in this manner.
343. The liability function of debt securities classified as bail-inable depends on the extent to which their bail-in would cause contagion effects. The holding re-

restrictions proposed by the Liikanen Group would counteract direct contagion effects. However, they do not protect against other indirect contagion effects, for example resulting from a breakdown of refinancing.

For these reasons, an additional standard for bail-inable liabilities should **not serve as a substitute for more stringent capital requirements**. Equity automatically absorbs losses. As significant investments in other banks are subject to regulatory deductions, resulting direct contagion effects are limited. The advantages of such an automatism cannot be equally achieved by setting a standard for bail-inable liabilities.

The European bank resolution fund

344. The SRF represents the second financing option for bank resolution in the Banking Union. In the political discussion, the focus is on the fund's **financing aspect**, by means of which – after creditor participation – the entire banking sector is to be included.



The SRF is gradually replacing the funds created at national level, such as the German Restructuring Fund, and will be built up via bank levies. The targeted volume of 1% of covered deposits (equating to around €55 billion in the euro area) is supposed to be reached within eight years of levying mandatory annual contributions, starting in 2016. Moreover, annual extraordinary ex-post contributions of up to three times the amount of regular annual contributions may be levied if the amount already paid into the SRF is insufficient to cover a specific resolution case.

Moreover, the SRB may take out **loans** for the SRF. These are to be repaid from regular and ex-post contributions. In addition, there is a vague understanding between economic and finance ministers that long-term policy should be aimed at establishing a joint backstop for the SRF (Eurogroup and Ecofin-Council, 2013). Fund contributions are not immediately available as joint financing instruments. Instead they will initially be allocated to “**national compartments**” of the SRF, so that for the resolution of a bank, the funds levied in that country should be primarily available, and for cross-border groups, in addition those of the compartments of the member states where the group subsidiaries are located. This compartmental allocation is to be gradually lifted over the course of eight years. Utilisation of the fund is normally limited to 5% of the bank's balance sheet total.

345. Requiring joint bank liability within the framework of the SRF distorts risk incentives (AER 2010 item 327). However, the **8% rule** must be observed, in accordance with which a bail-in of at least 8% of liabilities (including own funds) must precede the utilisation of the SRF. [↘ BOX 18 IN APPENDIX](#) This is intended to ensure a minimum liability before joint funds can be accessed. Policymakers and supervisory authorities assume that these funds would have been sufficient in the financial crisis to cover banks' losses in most cases (Constâncio, 2014).
346. Compared to the size of the euro area banking sector, the fund volume is relatively small at around €55 billion – even smaller than the German Restructuring Fund that was on track to a target amount of €70 billion. Even if ex-post contributions were raised, the potential contribution of the SRF to covering costs in a crisis – especially in relation to a bail-in – would be small. Ultimately, it is unre-

alistic to assume that the banking sector could bear a sizable portion of crisis costs itself in a systemic crisis. A massive ex-post levy of contributions would also have pro-cyclical effects, thereby exacerbating the crisis.

The fund is thus likely to play a considerably more limited role. For one thing, it can certainly make a significant contribution to financing in case of limited bank problems. For another, it plays an important part in acute crisis management and ensures the SRM's ability to act in the short term.

347. One point that has yet to be finally decided is that of the structure of the bank levy. The current taxable base is the amount of a bank's total liabilities excluding own funds and guaranteed deposits (European Commission, 2014a). The contribution rate is based on the risks of an institution and its importance to the financial system. A **risk-adjusted bank levy** makes sense as it decreases the distortion of incentives via the SRF and creates incentives for reducing systemic risks. Another positive aspect is that the measurement of risk is based on simple established benchmarks. As all banks benefit from financial system stability, a comprehensive selection of banks subject to contributions is justifiable.
348. However, a critical view should be taken of the treatment of **Institutional Protection Schemes (IPS)** in the bank levy. The European Commission is aiming for a structure that maintains neutrality between the IPS and group organisational forms (European Commission, 2014b). In principle, the contributions are calculated for each individual institution separately. Liabilities from institutions to institutions that are members of the same group are not included in the tax base in order to avoid a double count of intra-group liabilities. The same applies to IPS institutions and their intra-IPS liabilities. The reason given for this treatment is that IPS institutions are liable for each other (AER 2013 box 15)

However, the rule negotiated here is inconsistent. The joint liability is also recognised in the risk assessment of the individual IPS institutions as a factor for lowering risk and thus the contribution. Furthermore, small institutions – with a balance sheet total of less than €1 billion and a taxable base of less than €300 million – should only make a lump-sum contribution, which as a rule should be less than a risk-adjusted contribution. These privileges represent a **distortion of competition** compared to companies organised as a group, which is barely justifiable. To avoid further magnifying this distortion, the German government should at least refrain from exercising the planned member states' option to extend the threshold for small institutions to €3 billion.

Fiscal backstops

349. In future systemic crises it may still be necessary to deviate from the no bail-out principle and stabilise the banking system with public funds. [▶ ITEM 340](#) In such an extraordinary situation, **fiscal backstops** offer resolution authorities an **emergency exit**, which permits them to finance resolution procedures for insolvent banks and to waive creditor participation at least in part. If no effective funding mechanism were to be created for such case, the ECB would come under pressure once again to finance insolvent banks.

350. Euro-area fiscal backstops must accommodate the fact that economic and financial policy is primarily located at member state level. This excludes establishing a joint fiscal backstop for the foreseeable future. As a general rule, member states will initially be held liable. Specific **burden-sharing agreements** between the member states should be made in advance to govern the distribution of costs in case of support to cross-border institutions. There are no concrete plans for such **national fiscal backstops** at present.
351. Only if a member state is unable to meet its obligations without risking a sovereign debt crisis, should it be entitled to apply for **EMS financial assistance** (AER 2013 item 379). The conditions for the aid programme should be specific to the institution and would be supervised by the SRB, the ECB and the European Commission as competition authority. The member state in such case would be fully liable for repayment of the aid. This would create a network of national fiscal backstops, which would be secured by the ESM as a crisis mechanism for member states.
352. The rescue cascade should not be interrupted by the future possibility of **direct bank recapitalisation** by the ESM. It is therefore right that the understanding between economics and finance ministers gives priority to **indirect recapitalisation** (issue of special-purpose loans to the member state). For the same reason, it is not an option to authorise the SRF to assume jointly guaranteed loans that exceed potential ex-post contributions of an appropriately structured European bank levy.

4. Global bank resolution barely possible at present

353. Important prerequisites were created with the SRM for an orderly resolution of euro area banks. While the same rules apply to other EU member states, there is no coordination of resolution measures across member states. However, the resolution of groups that operate important parts of their activities outside the EU is even more difficult. A harmonised legal framework is not available in such cases.

In the event of a crisis, there is a risk that the national supervisory authority will build a “ring-fence” around the activities there, intended to prevent the outflow of liquidity and capital to the parent company. This can challenge the functionality of the whole group as many functions are organised on a group-wide basis (Hellwig, 2014a). In order to strengthen cross-border cooperation, bodies have been created for all G-SIBs, in which resolution strategies are to be developed (**Crisis Management Groups**; IWF, 2014b).

354. Scarcely any progress has been made to date in resolution planning for globally active groups. Resolution strategies that make intervention in the business organisation necessary are under discussion as an alternative to a coordinated process (FSB, 2013; Tucker, 2013). In the US and the UK, the competent authorities in a joint initiative have developed a resolution strategy implementing a **single point of entry (SPE) approach** (Bank of England and FDIC, 2012). This ap-

proach is also preferred by the Swiss Financial Market Supervisory Authority (FINMA, 2013).

It is distinguished by resolution measures being carried out at the level of the ultimate parent company. Losses incurred group-wide are absorbed by the top company. This is intended to avoid formal resolution measures being undertaken at the other group companies, which significantly reduces the need for coordination across jurisdictions.

355. Nevertheless, the SPE approach offers no guarantee either that the authorities will refrain from future **ring-fencing**. The incentives for ring-fencing are disproportionately stronger if a bail-in at the highest group level is not sufficient to restore the capital level necessary for continuing the group and to prevent financing from collapsing. In such case the capitalisation costs and risks arising from liquidity support would fall back on the country in which the institution is based.
356. Against this backdrop, a discussion is underway at G20 level on an additional binding capital standard for global systemically important banks to supplement Basel III (IMF, 2014b; Deutsche Bundesbank, 2014). This would require G-SIBs to have a minimum amount of bail-inable debt securities, which together with the required equity would be fully available for loss absorption in case of resolution (**total loss-absorbing capacity, TLAC**). The distribution of TLAC across group companies is also to be regulated. Holding restrictions for bail-inable securities should prevent direct contagion effects in the financial system.

The introduction of TLAC creates in fact a second capital standard, making regulation even more complex and incentives and opportunities for regulatory arbitrage even greater. The same points of criticism apply as for the MREL minimum requirements under European regulations. [↘ ITEM 341 ET SEQ.](#) An **increase in equity** would be superior to the introduction of TLAC.

5. Conclusion

357. Europe has laid the institutional groundwork for bank resolution with the BRRD and the SRM. As opposed to national resolution regimes, this makes resolution of cross-border banks in Europe a realistic option. The harmonisation of the toolkit and the creation of a strong supranational resolution authority are key steps in the right direction. It is crucial now that market participants regard the threat of bank resolution as **credible**. This is the only way that the **time inconsistency problem** of bank rescues can be solved and **market discipline** restored.
358. Lengthy decision structures, rules that are not sufficiently binding as well as a lack of fiscal backstops could threaten the credibility of creditor liability. This would be a major impediment for the effective reduction of implicit government guarantees in the banking system.

To make matters worse, a reliable resolution framework for institutions whose activities extend to states outside the SRM is nowhere in sight. In view of the close links between foreign subsidiaries and the group, it is hard to imagine the resolution of a major euro area bank under the SRM if significant parts of the group are not subject to the SRM.

359. Policymakers thus face the challenge of **further developing** the institutional framework for bank resolution. Powers of the central resolution authority should be strengthened and extended to non-significant banks. Modification of the European primary law is still considered necessary (Deutsche Bundesbank, 2014; AER 2013 items 296, 303)

Improvements could nevertheless be achieved even within the current EU treaties, by significantly limiting the scope of discretion, similar to the **systemic risk exception** in the US. This would acknowledge the risk of a systemic crisis but would make it the exception rather than the rule by setting stringent criteria. Further initiatives at international level, which should be directed primarily at establishing binding coordination mechanisms, are indispensable to improve the resolvability of banks outside the euro area.

Minimum requirements for bail-inable liabilities should not serve as a substitute for an **increase in equity**.

IV. MACROPRUDENTIAL SUPERVISION: VENTURE INTO THE UNKNOWN

360. The financial crisis of 2007-2009 strongly altered the view of regulation and supervision of financial institutions. These changes began with the recognition that current **microprudential** regulation and supervision – directed at the individual institution – had not prevented the crisis, but had likely actually contributed to it or at least made it worse (Hellwig, 2009). Thus there is broad consensus that current supervision ought to be expanded to include a **macroprudential** view that focuses on the stability of the entire financial system.
361. A large number of new institutions and regulatory instruments have been created to this end. In Europe, this has resulted in a confusing web of macroprudential supervisory structures and a complex toolkit, which have raised great expectations of macroprudential supervision. In view of its **uncertain and limited effectiveness**, however, it must be reined in, since macroprudential supervision will not be able to remove the threat of financial crises.

1. System stability as a regulatory objective

362. Macroprudential supervision is distinguished from microprudential supervision by its **objective**. The aim of microprudential supervision is to avoid excessive

risk taking at individual bank level, thus limiting the insolvency risk of the individual financial institutions. In contrast, the aim of macroprudential supervision is to ensure the **stability of the financial system** as a whole and thus to avoid the real economic costs of a financial crisis.

In fact, a microprudential approach does not ensure financial system stability. This is due to the fact that microprudential supervision considers risks as given and does not take into account the repercussions that decisions of individual institutions have on the financial system and the overall economy. Nevertheless, each financial institution contributes to systemic risk to a certain extent in its business activities without taking this into account in its decisions. A financial institution's contribution to systemic risk may thus be regarded as a **negative externality**. The basic task of macroprudential supervision is therefore to internalise these external effects (AER 2009 item 199; Faia and Schnabel, 2015).

363. Implementation of macroprudential supervision is still in its early stages. In contrast to monetary policy, for example, a clearly defined and largely accepted objective function, which describes the consequences of systemic risk for overall economic activity, is lacking. Based on the experience of past crises, we have knowledge of potential threats to system stability, but these are not easy to consolidate into a single objective. The starting point for macroprudential supervision is thus a **systematisation of systemic risks**.
364. A distinction is made in systemic risk between the cross-sectional and the time dimension (Borio et al., 2001; Galati and Moessner, 2013; Deutsche Bundesbank, 2013). The **cross-sectional dimension** primarily reflects the distribution of systemic risks across the financial system at a certain point in time. This is largely determined by contagion effects among financial institutions. Macroprudential supervision attempts to adequately assess the contribution of individual institutions to systemic risk. **Systemically important** institutions or activities should be **more stringently regulated** than those that are not systemically important. Thus incentives should be created to reduce business activities in those areas that give rise to systemic risks.

The **time dimension** reflects systemic risk through the pro-cyclical behaviour of financial institutions. For example, a financial institution's losses can trigger a downward spiral in which a reduction of debt (deleveraging) of financial institutions and macroeconomic developments reinforce each other (Brunnermeier and Pedersen, 2009). The capital ratios required by the market or by regulators play an important role in this mechanism (Hanson et al., 2011). They force the financial institution to shrink its balance sheet, which can result in decreased lending at considerable macroeconomic cost. Macroprudential supervision is aimed at **mitigating** financial sector **procyclicality**. A build-up of excessive risk should be avoided in the upswing and additional buffers created, which will make banks more resilient in times of crisis and mitigate the decrease in lending.

Conflicts of objective may arise between the two dimensions of macroprudential supervision. For example, capital requirements, which are geared to an institution's systemic risk, increase in times of crisis, which generates pro-cyclical effects.

365. Conflicts of objective and overlaps can also arise between **macroprudential supervision** and **monetary policy**, particularly in the time dimension. Although their primary objectives differ – system stability versus price stability –, both aim for macroeconomic growth as well. The primary goals may even oppose each other. By means of example, a persisting expansionary monetary policy may contribute to the build-up of systemic risk, for example in the form of an asset price boom.

Consequently there is an interplay between the key interest rate as a monetary policy instrument and macroprudential tools. Monetary policy and macroprudential policy can thus not be examined in isolation from each other (Remsperger, 2014). For this reason, the relationship between macroprudential policy and monetary policy must be clarified and the role that monetary policy plays in financial stability must be defined.

366. It is by no means easy to move from such a systematisation to a concrete **operationalisation** of macroprudential policy. For an operationalisation of the **cross-sectional dimension**, individual banks' contribution to systemic risk must be measured. Supervisory practice normally employs indicator models based on balance sheet and supervisory data (BIS et al., 2009). Important indicators for systemically important banks are, for example, their size, interconnectedness, substitutability, cross-border activities and complexity (AER 2011 table 16). Moreover, a number of market price-based procedures have been developed in recent years (e. g., conditional value at risk, ΔCoVaR ; AER 2012 box 10). All criteria are associated with great uncertainties and frequently lead to different results.

The **operationalisation** of the **time dimension** risks focuses on gauging the financial cycle. In contrast to the cross-sectional dimension, regulation in this area already includes some formalised rules, namely for counter-cyclical capital buffers (BCBS, 2010). An indicator in this area is the credit gap, i. e., the deviation of credit provided to the private sector in relation to GDP from its long-term trend. This is, however, not a binding regulatory requirement but a reference point. Supervisors are thus called on to adjust the requirement to the special conditions of the relevant financial system. The ESRB refers to this as the principle of guided discretion, according to which the decision on the size of the buffer is a combination of a simple, well-known rule and supervisory discretion (ESRB, 2014b, 2014c).

367. The ESRB (2014c) considers the principle of **guided discretion** a model for other macroprudential instruments, as there are no acceptable indicators so far that provide reliable information on the build-up of systemic risks. The flip side of this greater flexibility is, however, the weaker commitment to actually use the instrument. There is for one thing the danger of delays or even inaction bias. For another, making the rule binding could make it easier for the supervisor to implement politically unpopular measures. In the medium term, therefore, a **stronger commitment** is necessary, in particular in the (politically sensitive) regulation of cyclical risks. Sticking to a rule would have the advantage that

market participants could form their expectations based on it. This would increase the stabilising effect of macroprudential policy.

2. Supervisory structure: Effective despite weaknesses?

368. The effectiveness of macroprudential supervision depends on its institutional structure, i. e., on the players involved and their interaction with other areas of economic policy, in particular monetary policy. We now discuss the design of European macroprudential supervision.

Design of macroprudential supervision

369. In the European context, the initial question is whether macroprudential supervision should be **centralised** at European level or **decentralised** at national level. One conclusion of the literature on regulatory competition is that central regulation may be optimal in the presence of major spillover effects (Sinn, 2001). This provides a strong argument for a supranational authority, as contagion effects do not stop at national borders but jeopardise financial stability in other countries. Moreover, such a supranational authority would be less prone to direct national political influence (AER 2012 item 309).

However the **principle of subsidiarity**, which implies a **federal structure**, must be ensured (AER 2012 item 309 et seq.) Errors made in macroprudential supervision at supranational level may result in considerably higher costs for the EU than national supervisory errors (Besley and Coate, 2003). Moreover, strong special interest groups have already formed at European level.

Hence, a distribution of powers, in which the national authority is primarily endowed with responsibility, is appropriate for the reasons stated, as the individual country would bear the lion's share of the real economic costs itself. At the same time, the central macro-supervisor should have the opportunity to act if spillover effects are insufficiently taken into account.

370. A second issue concerns the **relationship between micro- and macroprudential supervision**. Micro- and macroprudential objectives are not always consistent with each other. A macroprudential view may call for more stringent regulation, while this may not seem necessary from a microprudential point of view. In such cases, coordination between the supervisory areas is essential. This would be considerably easier if located within the same institution as otherwise there is a risk that the different supervisors place contradictory requirements on the banks.

Moreover, **joint micro- and macro-supervision** is desirable because microprudential supervision might otherwise be inclined to leave all aspects regarding financial stability to macroprudential supervision and not to make any changes to existing supervisory practices. The danger would then be that an accumulation of correlated risks would go unnoticed because the information about indi-

vidual banks was not consolidated. Macroprudential supervision can easily overlook the accumulation of such risks if they are not integrated into regular supervision (Hellwig, 2014b).

371. Furthermore, clarification is needed on whether macroprudential supervision should be located **within or outside of the central bank**. Simpler coordination of the two policies, which appears important especially in view of the conflicts of objectives, is an argument in favour of co-locating monetary and macroprudential policy. However, conflicts of interest could arise at the central bank. For example, it might be tempted to conceal supervisory errors through monetary policy. Moreover, central bank independence would be threatened if a politically sensitive area such as macroprudential supervision were moved to the central bank. For this reason, macroprudential supervision should be located outside the central bank (AER 2012 item 325).
372. In addition, the question should be asked as to whether the supervision should be organised on a sectoral basis or whether there should be an **integrated financial supervisor**. As the borders become increasingly blurred between the different areas of the financial system – banks, insurance companies and markets – there is a strong argument for establishing an integrated financial supervisor. The supervisor could take the interaction between sectors into account and would be more likely to recognise the shifting of transactions into less regulated areas (regulatory arbitrage).
373. Finally, the degree of **independence** in macroprudential supervision has to be determined. An argument for political influence may be that macroprudential decisions can result in considerable fiscal costs. But given the danger that politicians may be more oriented towards generating politically desirable economic cycles than enhancing social welfare, there are even stronger arguments for limiting political influence. Democratic legitimisation could be established through extensive accountability. Furthermore, it seems necessary to permit **external scientific expertise** into the bodies in order to mitigate the problem of self-observation, as the members of the macroprudential supervisory authority typically are also part of the micro-supervisor or the central bank (Gurlit and Schnabel, 2014).
374. If it were possible to draft macroprudential supervision on a drawing board, it might thus have the following **structure**: it would be designed as an integrated financial supervision, federally organised and located outside the central bank. The supranational supervisor would have strong powers of intervention in order to adequately address spillover effects. The macroprudential supervisor would be politically independent but accountable. Academic experts would advise on macroprudential policy.

Current structure of macroprudential supervision

375. At first glance, the newly created macroprudential supervision appears complex due to the large number of both new and existing players. ↘ CHART 47 This can be explained by the fact that the Banking Union with its implications for the

macroprudential supervisory architecture in the euro area was established at a time when many EU reform strands had already been implemented, but which were then overhauled to some extent through the Banking Union. In Germany, the situation is even more complex with the division of supervisory responsibilities between Deutsche Bundesbank and the Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht*, BaFin). Indeed the new structure does not deviate greatly from the structure we suggested above, although there is a need for improvement in some main points.

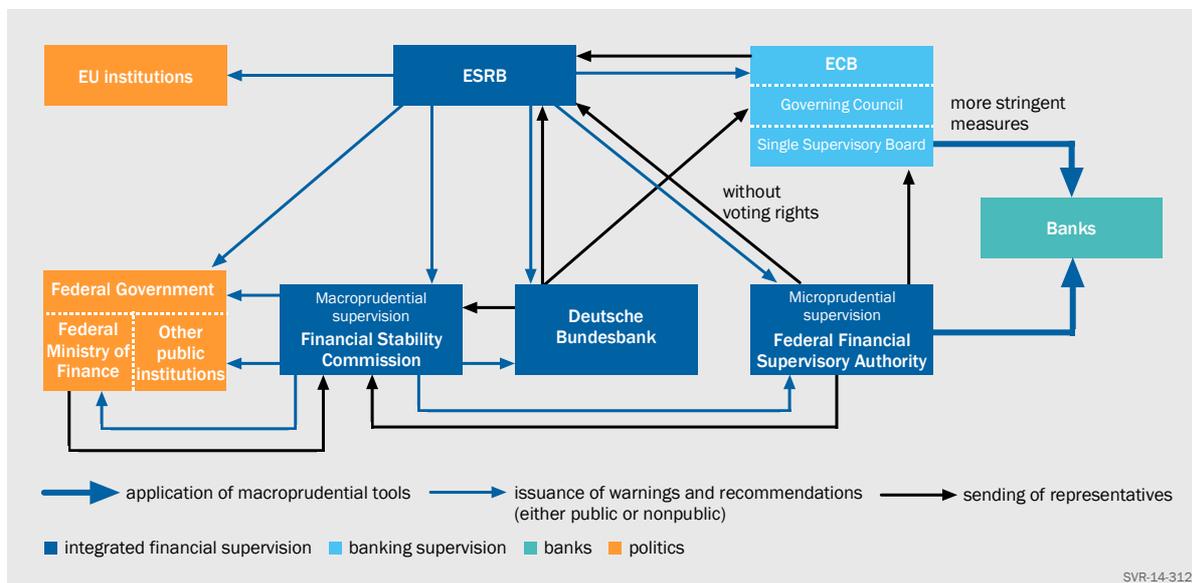
376. At EU level, the **European Systemic Risk Board (ESRB)** has been in place as an integrated financial supervisor for macroprudential supervision since 2011. The ESRB's aim is to identify systemic risks and propose measures to eliminate them. **Warnings and recommendations** are available as instruments, which are subject to a “comply or explain” mechanism. This means the party in question is forced to take action by either implementing the recommendation or explaining why it does not do so. The ESRB primarily comprises representatives of the ECB and the national central banks, as well as national supervisory authorities – the latter without voting rights. There is no direct influence from national politics. External experts are involved in the ESRB through membership of the Advisory Scientific Committee.

With the current organisational structure and its existing decision-making responsibilities, the ESRB is unlikely to be able to fulfil its extensive mandate (AER 2010 item 285 et seq.; AER 2011 item 258). This concerns above all the handling of acute threats to financial stability. The decision-making body is too large and comprises too many representatives of different interests for it to be able to quickly react to systemic risks in a targeted manner. Moreover, ESRB instruments are too weak to effectively execute corrective action in the event of an acute threat.

377. The **ECB** has significantly stronger macroprudential powers in the euro area, however only regarding the banking system. It was endowed with far-reaching

▸ CHART 47

Actors of macroprudential policy in Germany



macroprudential supervisory powers under the SSM, not only for significant financial institutions directly under ECB supervision but also for all other institutions in countries participating in the SSM. Article 5 of the SSM Regulation however provides for **asymmetric powers of intervention** of the ECB. It may – after consultation with the national supervisory authorities – tighten macroprudential measures but not ease them. It may take action even if the national supervisor has not yet implemented any measures. In general, however, it may only use those macroprudential tools specified within the framework of the CRD IV package. [↘ ITEM 383 ET SEQ.](#) [↘ TABLE 16](#)

Allocation of strong asymmetric powers of intervention to a central institution is desirable as it addresses the idea of subsidiarity and combines the micro- and macro-supervision for significant banks. However, since it is the ECB that performs macroprudential supervision, **conflicts of interest** arise between supervision and monetary policy and there is a considerable **concentration of power**. Moreover, with the ECB and the ESRB, there will be two institutions at European level with a mandate for supranational macroprudential supervision – with only the ESRB being set up as an integrated financial supervisor. Avoiding such replication would make sense in the medium term.

378. New players were created at **national level** in addition to the supranational authorities. With its **Financial Stability Committee (*Ausschuss für Finanzstabilität*, AFS)**, Germany decided to place macroprudential supervision in a newly created body, which is presided over by the Federal Ministry of Finance and comprises three members each from the Federal Ministry of Finance (BMF), Deutsche Bundesbank, and BaFin as well as one non-voting member representing the Federal Agency for Financial Market Stabilisation (FMSA). While this constellation does ensure democratic legitimacy, there is also a **direct dependence on politics**.

The AFS is responsible for discussing matters relevant to financial stability and promoting collaboration of the institutions represented on the committee. It may issue **warnings and recommendations** to public institutions in Germany (but not to European ones) which – as with the ESRB – are subject to a “comply or explain” mechanism. The AFS is not responsible for using macroprudential tools; this remains the responsibility of BaFin or the ECB. [↘ ITEM 391](#)

Deutsche Bundesbank has been assigned the responsibility of analysing potential threats to financial stability and preparing the AFS annual report to the Bundestag. Moreover, it can propose warnings and recommendations to the committee, and later assesses their implementation. The AFS may not make any decisions against Deutsche Bundesbank as the latter was granted a veto right (Deutsche Bundesbank, 2013).

379. Similar to the ESRB, the AFS has limited rights of intervention (AER 2012 item 276). **Conflicts of interest** can arise in the AFS if warnings and recommendations are to be issued that would have a positive impact on financial stability but a negative impact on the economy (and thus on the likelihood of re-election of the parties in power). These conflicts of interest could reduce the effectiveness of the AFS, especially since BaFin is under the supervision of the

Federal Ministry of Finance and would be unlikely to oppose it. The Bundesbank in turn can prevent decisions through its right to veto but cannot actively advance its own proposals against the votes of BaFin and BMF. At the same time, the problem of self-observation is even more of an issue here than for the ESRB as no external experts belong to the committee.

Effective macroprudential supervision by the AFS requires a **stronger role for the Bundesbank** and the **involvement of experts**, preferably from academia, to create a counterweight to politics. They should jointly be able to enforce a decision even against BaFin and BMF. Then a certain pressure could be created via the issue of warnings and recommendations, possibly employing the public.

380. **BaFin**, which is primarily responsible for the use of macroprudential tools, has **significantly stronger rights of intervention**. Thus there is also a combined micro- and macro-supervisor for non-significant banks, which – aside from current supervision and macroprudential analysis by the Bundesbank – is located outside the central bank. Unlike the ECB, this is an integrated financial supervisor; for example, the risk committee designed especially for macro-supervision is cross-sectoral. However, a critical view should again be taken of the lack of independence from policy in this case.
381. Summing up, it can be noted that the institutional structure of macroprudential supervision contains some of the key elements of the structure outlined above. The federal structure of euro-area supervision is just as positive as the combination of micro- and macroprudential supervision. In Germany, the major criticism concerns the **strong influence of politics**.

At European level, the placement of supervision within the central bank and the ECB's ever-increasing power are problematic. Thus, in the medium term, supra-national micro- and macroprudential powers should be shifted to an **independent integrated euro area supervisory system**, ideally even at EU level. This would, however, only be possible by amending European treaties.

3. Instruments: Avoid fine-tuning

382. A **range of macroprudential tools** have been created in addition to new institutions. There is a great deal of overlap at operational level between micro- and macroprudential supervision. All **hard regulatory instruments** – i. e., those that involve direct interventions in business activities – work at the level of individual banks. Most are able to contribute to both the stability of the bank and of the system as a whole. It is thus difficult to make a clean distinction between microprudential and macroprudential instruments.

The ESRB and AFS do not have hard regulatory instruments at their disposal. However, they may make recommendations that relate to the use of hard regulatory instruments. Aside from this, they can utilise the soft instrument of strategic communication in order to influence the expectations of market participants.

383. In response to the financial crisis, a series of hard regulatory instruments were introduced as part of Basel III for the **banking sector**, which is therefore taking a pioneering role. The **CRD IV package** transposes Basel III in European law. It consists of the Capital Requirements Directive IV (CRD IV) and Capital Requirements Regulation (CRR; AER 2012 item 264). It has been binding for the affected banks since January 1, 2014. However, numerous transition arrangements are in place, some of which will not expire until 2019.

The design of the hard instruments is based on four **risk categories** (ESRB, 2014d). These are categorised as instruments to prevent (a) excessive credit growth and leverage, (b) excessive maturity mismatch and market illiquidity, (c) direct and indirect exposure concentrations and (d) misaligned incentives and moral hazard. [TABLE 16](#) provides an overview of the most important macroprudential tools in the CRD IV package.

384. New **capital instruments** are planned in order to limit credit growth and leverage and thus to mitigate financial sector procyclicality. These will generally focus on the ratio of core tier 1 capital to risk-weighted assets. The time-varying **counter-cyclical capital buffer** is playing an important role. Additional buffers are built up in boom phases that can then be used in a downturn to prevent deleveraging. The **capital conservation buffer** has a similar effect, with the added advantage that it does not need to be used on a discretionary basis. **Sectoral risk weights** can be increased to prevent the build-up of risks in the real estate sector.
385. A Europe-wide harmonised **leverage ratio** is to be introduced in 2018 in addition to the risk-weighted capital requirement. It will provide a more robust measure than the risk-weighted capital ratio, as it is measured as a ratio of capital to total non-weighted assets (including off-balance sheet activities). It will therefore effectively provide an upper limit to indebtedness which has not existed in the past because of the room for interpretation in assigning risk weights to different activities.
386. The **general increase in capital requirements** under Basel III also effectively constitutes a macroprudential tool. It can achieve a reduction in the degree of procyclicality even without time variable adjustment. This is because, in the event of losses, a larger bank capital buffer means that less deleveraging is needed to maintain the required debt to equity ratio (Admati et al., 2013).
387. In addition to capital measures, the CRD IV package is also introducing **liquidity requirements** for banks in order to avoid excessive maturity mismatch and market illiquidity. This takes account of the fact that excessive maturity mismatch, sometimes by special purpose vehicles, was a major cause of the financial crisis. To **prevent direct and indirect exposure concentrations**, there is the instrument of limiting large exposures. Finally, new capital instruments have been created that provide for higher capital requirements for systemically important financial institutions and other non-cyclical **systemic risks**. These instruments are intended to reduce misaligned incentives and moral hazard in the financial system.

TABLE 16

Overview of macroprudential instruments according to CRD IV package

Goal: Prevention of ...	Instrument	Definition	Design	Other
Excessive credit growth and leverage	Counter-cyclical capital buffer	General time-varying tier 1 capital surcharge, depending on the financial cycle	Normally up to 2.5 %, higher in case of great systemic risk; gradual implementation until 2019	Set according to the principle of "guided discretion"; reciprocity among member states up to 2.5 %
	Capital conservation buffer	General tier 1 capital surcharge, which can be utilized for loss absorption temporarily	2.5 %, gradual implementation until 2019	Automatic counter-cyclical effects without need of regulatory intervention; restriction on distributions in case of usage
	Sectoral risk weights	General variation of risk weights of real-estate loans	Currently from 35 % to 150 %	Supervisory variation of loss given default in case of IRB approach; reciprocity
	Leverage ratio	General non-risk-adjusted capital ratio	Only reporting, possible implementation after 2016	More robust and less pro-cyclical measure
Excessive maturity mismatch and market illiquidity	Liquidity coverage ratio	General liquidity requirement under stressed conditions	60 % in 2015, gradual increase to 100 % until 2018	30-day time horizon of stress scenario
	Net stable funding ratio	General determination of the ratio of disposable stable funding and required stable funding	Mandatory in 2017 (at the earliest); until then national implementation possible	Stable funding requires long-term assets to be matched with stable liabilities (i. e. long-term liabilities or deposits)
Direct and indirect exposure concentrations	Limit on large exposures	Limit on credits to a client or group of connected clients	General limit: reporting requirement for credits larger than 10 %, upper limit 25 % (relative to capital)	
Misaligned incentives and moral hazard	Tier 1 capital surcharge for systemically important banks	Bank-specific tier 1 capital surcharge depending on systemic relevance	Currently from 1 % to 2.5 % depending on classification	Classification based on indicator model; distinction between global and other systemically important institutions (G-SII and O-SII)
Several types of systemic risk	Systemic risk buffer	Bank- or group-specific tier 1 capital surcharge to mitigate non-cyclical systemic or macroprudential risks	Subject to approval by the EU Commission if set higher than 3 % (5 % from 2015 onwards)	Subject to a notification requirement vis-à-vis EU Commission, ESRB and EBA
	Pillar 2 measures	Bank- or group-specific tightening of measures resulting from the supervisory review and evaluation process (SREP)	Increase in liquidity or capital requirements, prohibition of distributions, restrictions on variable remuneration or on business transactions	For banks for which there exists significant solvency risk or which contribute significantly to systemic risk
	National macro-flexibility	General tightening of measures at national level if other measures (including pillar 2 measures) are not sufficient	Increase in liquidity or capital requirements, the capital conservation buffer or real-estate risk weights	Council of the European Union reserves the right to make the decision, complex notification and approval procedure; no measures allowed which apply to other Member States as well

Glossary: EBA - European Banking Authority, ESRB - European Systemic Risk Board, IRB - Internal Ratings-Based Approach.

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388. The CRD IV package also enables application of stricter macroprudential measures as part of **pillar 2** of Basel III. However, pillar 2 measures may only be implemented if the risks cannot be sufficiently covered by other instruments (ESRB, 2014d). If the instruments specified by the CRD IV package, including pillar 2, are still insufficient to control systemic risk, further, more stringent measures may be taken at national level (**national macro flexibility**). However, these are subject to complex notification and approval procedures.
389. So far, there is **little empirical evidence** on the effectiveness of macroprudential instruments and the interactions between them (IMF, 2013). Dynamic risk provisioning – with a similar effect in economic terms to the counter-cyclical capital buffer – had little effect in Spain in stopping the credit boom, but did have stabilising effects in times of crisis (Jiménez et al., 2012). Experience with sectoral risk weights indicate a decrease in sector-specific credit growth (Bank of England, 2011).

There are also positive effects for credit-specific instruments, in particular, the determination of a maximum loan-to-value ratio (Wong et al., 2011). Although this instrument is not specified in the CRD IV package, it could be created at national level. Leverage ratio studies demonstrate that this was effective in Canada (Bordeleau et al., 2009). In the USA, in contrast, it seems to have resulted in higher risk taking (Alfriend, 1988). Irrespective of the tool, timely action is key for successful implementation (see Brunnermeier and Schnabel, 2014, for a historical perspective).

Use of instruments

390. The instruments differ in terms of the **supervisor's scope of discretion**. Many instruments give the supervisor very little or no scope of discretion (for example, the leverage ratio, the capital conservation buffer or liquidity rules). In other instances, the use of instruments is based on more or less formalised indicators, such as the credit gap in the case of the counter-cyclical capital buffer. [▶ ITEM 366](#) There is particularly great flexibility in pillar 2 measures or national macro-flexibility, which are used on a purely discretionary basis.
391. **Allocation of responsibilities** for the utilisation of the instruments is in line with the idea of **subsidiarity**. BaFin is generally responsible, although the ECB may intervene more stringently. This principle also applies for national macro-flexibility and pillar 2 measures. However, BaFin has sole responsibility for instruments regulated at national level only.

There is a special situation as regards the counter-cyclical capital buffer and sectoral risk weights, as national regulation applies to all (including foreign) institutions that provide loans domestically (**reciprocity**). This is how regulatory arbitrage is prevented, i. e., the substitution of domestic loans with loans from countries with lower requirements (Aiyar et al., 2012).

Evaluation

392. The implementation of Basel III in the framework of the CRD IV package created a large number of macroprudential tools which may contribute to ensuring financial stability. The tools cover a broad spectrum of risks that have played a key role in the financial crisis. At the same time, supervisory regulation allows leeway in implementing the tools and thus creates **flexibility** to react to new risks. The flip side of this flexibility is a lack of coherence in the measures across member states as well as a lower degree of transparency, particularly as regards pillar 2 measures. Moreover, the discretionary leeway reduces the **commitment**, which can result in delayed use of tools and which renders the implementation of unpopular measures unlikely. [▶ ITEM 367](#)
393. Moreover it is questionable whether it makes sense to have such a large number of instruments. It allows regulators to react in a targeted way to existing problems. However, there is considerable **uncertainty regarding the effectiveness** of the tools and their interaction with other tools (IMF, 2013). This applies above all to tools for regulating cyclical risks, which should therefore initially be used with caution. The increasing experience with indicators, timing and dosage would allow for a stronger rule-based policy, which could help to avoid delays and create stronger commitment.

As is the case with microprudential regulation, there is the danger of excessive **fine-tuning**, which creates the illusion of precise control of risk while simultaneously creating room for interpretation and opportunities for avoidance (**regulatory arbitrage**). As with microprudential regulation, there are arguments in favour of creating robust mechanisms that are effective without demanding that each individual case be dealt with in a precise way. This includes, above all, a further **increase in capital**, which can cover many systemic risks of the cross-sectional and time dimensions. It does not rule out combining this requirement with a “breathing” capital conservation buffer.

394. One open point is the unresolved **relationship between macroprudential supervision and monetary policy** in the time dimension, particularly in conjunction with asset price booms. These prove dangerous especially if they are accompanied by **credit expansion** and an increase in leverage (Brunnermeier and Schnabel, 2014). An explicit reaction of interest rate policy to asset price development (“leaning against the wind”) was rejected by most central banks prior to the crisis, and is still under dispute. [▶ ITEM 276 ET SEQ.](#) In contrast, there are an increasing number of analyses that view an explicit monetary reaction to the credit development positively (Lambertini et al., 2013; Kannan et al., 2012; Gambacorta and Signoretti, 2014). At the same time, many are in favour of delegating the role of identifying asset price booms and taking measures if financial stability is threatened primarily to macroprudential policy (Bean et al., 2010; Svensson, 2013).

In reality, however, the **effectiveness** of macroprudential instruments is **limited and uncertain**. The potential reasons for this are an erroneous calibration of measures, unknown interactions between the tools or the shift of risks into the

unregulated area. Moreover, macroprudential measures are subject to delays in decisions and effects, which means that short-term corrective intervention could prove to be difficult in many situations. Monetary policy, in contrast, is also affecting the shadow banking sector and its effects are better tested. For this reason it seems advisable for macroprudential policy to **act cautiously** in the **time dimension** at first. At the same time, monetary policy should take the effects of its measures on system stability in the euro area into account in its decisions.

▸ ITEM 277

4. Conclusion

395. Complementing banking supervision by adding a macroprudential perspective in which risks are observed in a system context represents major progress. The new perspective is aimed at regulating systemically important financial institutions more stringently than less systemically relevant institutions, and adapting supervision to the financial cycle. In this manner, **externalities** of the behaviour of individual players may be internalised and the **procyclicality** of the financial system mitigated.

396. The federal structure is a welcome aspect just as is combined micro- and macroprudential supervision. At national level however, the **influence of politics** appears problematic. This makes it unlikely that measures will be implemented against the will of politicians. This problem could be mitigated by restructuring the AFS.

At European level, a critical view should be taken above all of locating macroprudential supervision in the ECB. The medium-term aim should be to move supranational micro- and macroprudential supervision into an **independent institution at EU level**, in order to avoid a concentration of power at the ECB. It should be designed as an **integrated financial supervisor**.

397. The macroprudential toolkit is **too complex**. An **increase in capital** could already reduce the lion's share of systemic risk. The German Council of Economic Experts has in the past already called for a leverage ratio of at least 5% (AER 2012 item 274). As the exact measurement of systemic risk is unrealistic, an excessive **fine-tuning** of macroprudential policy should be avoided. Instead, mechanisms should be created that are as robust as possible and less susceptible to regulatory arbitrage. In light of more stringent regulation, it is likely that activities will be shifted to the shadow banking sector. Regulatory treatment of shadow banking thus represents one of the major challenges of the future.

398. The macro-supervisor should initially act cautiously in its regulation of cyclical risk, given the limited and uncertain effectiveness of macroprudential policy. On the basis of increasing experience with indicators and effects, efforts should be made to make **rules more binding**. This would have the advantage of greater commitment, which would help to avoid delays and could reduce external influence. At the same time, **monetary policy** should take the consequences of its

measures on system stability in the euro area into account in its decisions.

↘ [ITEM 277](#)

399. However, even if institutional structures and the toolkit are improved, macroprudential supervision and regulation are not a miracle cure, which can guarantee financial stability at all times. There is a risk of **overburdening** macroprudential supervision, which is why it is important that efficient mechanisms be developed for crisis management, which could themselves be interpreted as a major macroprudential tool. ↘ [ITEM 316 ET SEQ.](#)

APPENDIX

▷ BOX 18

Bail-in rules in the Single Resolution Mechanism

In the EU, the principle of creditor participation has been legally anchored in the EU Bank Recovery and Resolution Directive (BRRD) valid after 2015 and the corresponding provisions on a single resolution mechanism (SRM Regulation). Thus, “creditors of the institution under resolution bear losses after the shareholders in accordance with the order of priority of their claims under normal insolvency proceedings (...),” (Article 34 BRRD). The resolution authority is free to choose the resolution instruments. This means, it is up to the resolution authority whether and to what extent it uses the tools specifically targeted at creditor participation in resolution financing. If it uses the bail-in tool in accordance with Article 43 et seq. BRRD, certain liabilities of the credit institution are excluded from the bail-in. This includes covered deposits, secured liabilities and interbank liabilities with an original maturity of less than seven days (Article 44 (2) BRRD). However, the liability of the relevant deposit guarantee scheme in place of the covered depositors shall not be greater than the amount of losses that the depositors would have had to bear had they not been excluded from the bail-in (Article 109 BRRD).

Moreover, in the following cases, it lies in the resolution authority's discretion to exclude or partially exclude individual or classes of liabilities from the bail-in (Article 44 (3) BRRD): firstly if it is not possible to bail in that liability “within a reasonable time”; secondly to ensure “the continuity of critical functions and core business lines” of the institution in question; thirdly to avoid the threat of “widespread contagion”; and fourthly, if the bail-in would cause a “destruction in value”, such that the losses borne by other creditors would be higher. These rather generally stated requirements are yet to be formulated more specifically by the European Commission as part of a delegated act.

If no use is made of the bail-in tool or if liabilities are excluded from it, the question is raised of how the funding requirement can be covered by resolution measures. In the latter case, the resolution authority may pass the share of liabilities of the favoured groups of creditors on to the other creditors. This possibility however decreases transparency for creditors *ex ante* and makes risk-commensurate pricing of bank debt securities more difficult. Another opportunity is to offset the excluded liabilities through the resolution fund. In the case of the Single Resolution Mechanism (SRM), the Single Resolution Board (SRB) may also access the Single Resolution Fund (SRF). The requirement for this, however, is observance of the 8% rule, whereby shareholders and creditors must contribute at least 8% of liabilities (including own funds) in the form of a bail-in to offset loss or for recapitalisation (Article 44 (5) BRRD).

Criticism could be directed at the 8% rule as market participants could misinterpret it as the upper limit. If market participants class liabilities above this limit as “untouchable”, debt remains subsidised. Moreover, exceptions have in turn become the norm, even to the 8% rule intended to limit exceptions to the general rule. For example, Article 44 (7) BRRD stipulates that “in extraordinary circumstances” the resolution authority may utilise additional fund resources or seek further funding from “alternative financing sources”. In this case, a bail-in must include “all unsecured non-preferred liabilities” with the exception of non-covered deposits. Depending on the funding structure of the relevant bank, this may mean that the resolution authority is allowed to accept a liability share of less than 8%.

If the resolution authority wants to avoid the use of a bail-in tool entirely, it also has the resolution fund at its disposal. However, there are rules on the use of fund resources. They may not, for example, be used only to absorb the losses of an institution undergoing resolution, or to recapitalise that

institution (Article 101 (2) BRRD). Other measures such as granting guarantees and loans, acquiring assets and capitalising a bridge institution (Article 101 (1) BRRD) would be possible, on the other hand. These are subject to corresponding application of the 8% rule, under which losses from these measures may not be transferred to the fund unless shareholders and creditors absorb losses equivalent to at least 8% of total liabilities (including own funds) (Article 101 (2) in conjunction with Article 44 (5) BRRD). However, this setup does not necessarily avoid protecting creditors as it implies that the bail-in will only be carried out once the fund has realised losses, and could therefore, at least in theory, be postponed indefinitely.

In addition to the resolution fund, money from public budgets comes into consideration in order to finance resolution measures in a way that avoids full use of the bail-in tool. The BRRD introduces government financial stabilisation tools here, which member states can use to recapitalise banks or temporarily nationalise them (Article 56 et seq. BRRD). The prerequisite for using these instruments is the occurrence of “the very extraordinary situation of a systemic crisis” (Article 37 (10) BRRD). The 8% rule applies here too, i. e., debt or equity securities must be written down by at least 8% of total liabilities (including own funds) or converted to equity securities.

In addition to these options for deviating from the principle of creditor participation within a resolution procedure, one option for governments to avoid the bail-in could be to implement support measures on a preventative basis for banks threatened by the crisis, i. e., before the European resolution authority gains access by means of the resolution procedure. Government support measures would make the bank being deemed to be “failing” or “likely to fail” within the meaning of the BRRD, meaning that the conditions for resolution would be met (Article 32 (4d) BRRD). However, exceptions are possible here, for example if the support measures would “remedy a serious disturbance in the economy” of a member state. It is also questionable whether use of the bail-in could then be considered, especially as the bank would be likely to continue to fulfil the authorisation conditions.

The final anchor with which to enforce creditor participation would then be the subsequent examination by the European Commission under the state aid rules. The Commission's principles for applying the rules on state aid have raised the prospect of only approving future assistance if losses are first absorbed by shareholder and creditor participation (Item 41 et seq. of the “Banking Communication”). However, it has also clarified that this only applies to holders of hybrid bonds and subordinated creditors. Exceptions will be possible even for this group of creditors where such measures would endanger financial stability or lead to “disproportionate results”.

Abbreviations	
AFS	Financial Stability Committee
AQR	Asset Quality Review
BaFin	Federal Financial Supervisory Authority
BMF	Bundesministerium der Finanzen
BRRD	Bank Recovery and Resolution Directive
CDS	Credit default swap
CRD IV	Capital Requirements Directive IV
CRR	Capital Requirements Regulation
EBA	European Banking Authority
ESRB	European Systemic Risk Board
ECB	European Central Bank
FMSA	Financial Market Stabilisation Authority
G-SIB	Global Systemically Important Bank
IRB	Internal Ratings-Based Approach
LCR	Liquidity coverage ratio
MREL	Minimum Requirement for Own Funds and Eligible Liabilities
NSFR	Net stable funding ratio
SPE	Single point of entry
SRB	Single Resolution Board
SRF	Single Resolution Fund
SRM	Single Resolution Mechanism
SSM	Single Supervisory Mechanism
TLAC	Total loss-absorbing capacity

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