

A European Deposit Insurance and Resolution Fund - An Update

Dirk Schoenmaker and Daniel Gros

No. 283, 11 September 2012

Abstract

Cross-border banking is currently not stable in Europe. Cross-border banks need a European safety net. Moreover, a truly integrated European-level banking system may help to break the diabolical loop between the solvency of the domestic banking system and the fiscal standing of the national sovereign.

This policy paper first sketches the building blocks of a banking union. Importantly, a new European Deposit Insurance and Resolution Authority (EDIRA) should start simultaneously with the ECB assuming supervisory powers. A combination of European supervision and local resolution cannot work because it is not 'incentive compatible'. Next, this paper proposes a transition period to gradually phase in the European deposit insurance coverage. Finally, we calculate that a European Deposit Insurance Fund would amount to about €30-50 billion for the 75 euro area banks that were subject to the EBA stress tests. This Fund could be created over a period of time through risk-based deposit insurance premiums levied on these banks. Once up and running, the Fund would then turn into a European Deposit Insurance and Resolution Fund to also deal with the resolution of one or more of these European banks.

Introduction

Cross-border banking is not stable in the current institutional setting. As national authorities focus on preserving the national parts of a cross-border bank, the integrated value of a bank is neglected in times of crisis. As Mervyn King has put it lucidly "banks are international in life but national in death".

The internal market is built on the free movement of people, goods, services and capital. Cross-border firms supply goods and services throughout Europe. Cross-border banks facilitate the cross-border traffic by persons and firms. European banks are thus an integral part of the internal market.

European banks need a European safety net (Veron, 2011; Marzinotto et al., 2011; Schoenmaker, 2012; ECB, 2012). The organisation of such a European safety net is a precondition for putting the supervisory framework on a European footing. The endgame of resolution is driving incentives for supervision (Claessens et al., 2010).

A truly integrated European-level banking system can do much to stabilise the eurozone by breaking the 'diabolical loop' by which a weak domestic banking system damages the sovereign fiscal position and, in the other direction, a risky

Dirk Schoenmaker is Professor at the Duisenberg School of Finance in Amsterdam. Daniel Gros is Director of CEPS. This paper is an update of their earlier Working Document published by CEPS and the Duisenberg School of Finance (Schoenmaker & Gros, 2012). The section on "Transition" draws on their recent CEPS Commentary (Gros & Schoenmaker, 2012).

CEPS Policy Briefs present concise, policy-oriented analyses of topical issues in European affairs, with the aim of interjecting the views of CEPS researchers and associates into the policy-making process in a timely fashion. Unless otherwise indicated, the views expressed are attributable only to the author in a personal capacity and not to any institution with which he is associated.

Available for free downloading from the CEPS website (<http://www.ceps.eu>) • © CEPS 2012

sovereign position disproportionately threatens domestic banking stability (Lane, 2012).

However, the European sharing of banking-sector risk is only feasible if (national) fiscal weaknesses do not threaten banking stability. This requires action on two fronts: to induce banks to diversify their sovereign risk (e.g. applying large exposure limits to sovereign debt) and to redouble efforts to ensure that national fiscal positions are sufficiently robust that they do not tempt national governments to indirectly seek funding or resources from their local banks, which is the aim of the Fiscal Compact, which will soon enter into force. Exposure limits to (national) sovereign debt are still opposed by most member states, but this might change once supervision has been transferred to the ECB.

In this policy paper, we first show the overall architecture for the banking union in the euro area. We then sketch the building blocks for a European safety net for European banks. We outline the principles for setting up a safety net. Next, we provide a sketch of a prospective European Deposit Insurance and Resolution Fund. In this updated policy paper, we also outline how one could structure a gradual transition from the national deposit insurance funds to the new European fund. This Policy Brief aims to promote debate among policy-makers, industry and academia on a European Deposit Insurance and Resolution Authority.

Overall architecture of a banking union

In the current set-up, the European Commission is the rule-maker and the European Central Bank (ECB) the lender of last resort for the European banking system. The European Commission is the key policy-maker initiating new policies and rules for the financial system. In parallel, the European Banking Authority (EBA) has a key role in drafting technical standards and developing a Single Rule Book for the EU internal market.

The new proposals for a banking union envisage a supervisory role for the ECB. In this policy paper, we argue that there is also a need for a European Deposit Insurance and Resolution Authority (EDIRA). The final stage in the governance framework is the fiscal backstop. Crises affecting banks are commonly macroeconomic and general in nature, following asset market collapses and economic downturns. The existing national

deposit insurance and resolution funds can thus quickly run out of funds (Spain, Ireland) and need the ultimate back-up of government support. But a widespread asset market collapse coupled with an economic downturn can push even the sovereign into insolvency as the cases of Ireland and Spain have shown. The sovereign itself will then either need a backstop, or the backstop has to come from a different source. The European Stability Mechanism (ESM) was created to provide the fiscal backstop for member countries, and possibly also the banking systems of member countries in financial distress. The stability of a banking system can be assured only if investors know that such a backstop exists. The arrow for the fiscal backstop is thus backward in Figure 1, illustrating our backward-solving approach towards governance.

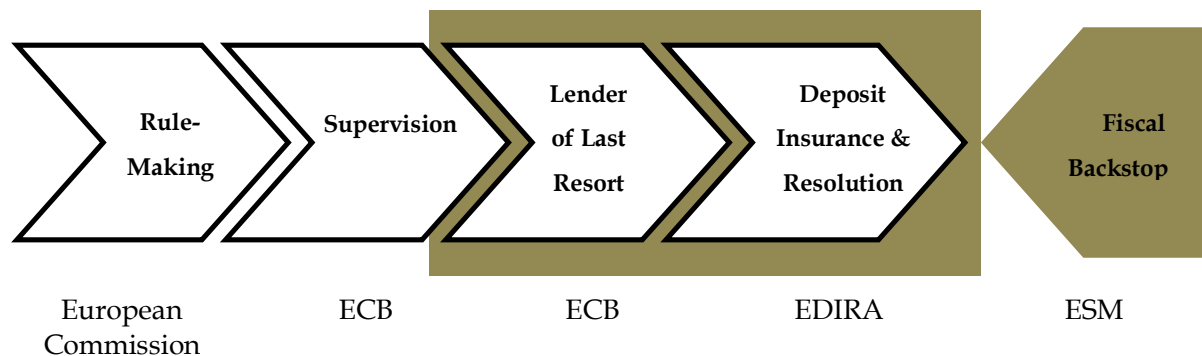
However, a system under which deposit insurance and resolution remains national while supervision moves to the ECB would lead to serious problems. When a large bank is in difficulties, national resolution authorities will try to avoid recognising the problems, hoping that recourse to cheap emergency financing from the ECB will allow the institution to survive. The ECB, as a supervisor, would see the problems and would push for remedial action, perhaps even resolution, but might have only limited powers. The national resolution authorities, which would have to carry the burden of any losses, would have a tendency to accuse the ECB of being excessively tough and putting national funds at risk. In the parlance of economists: a system of European supervision and national resolution is not 'incentive compatible'. A European underpinning of deposit insurance and resolution is thus an indispensable complement to moving supervision to the ECB.

Figure 1 depicts the bodies in this new European governance framework. While the European Commission, the ECB and the ESM are existing institutions, the EDIRA would be a new institution. Although it is tempting to place the new resolution authority at the ECB, the functions of supervision and resolution should remain separate (ASC, 2012). As supervisors have responsibility for the licensing and ongoing supervision of banks, they may be slow to recognise (and admit to) problems at these banks. Supervisors may fear that inducing liquidation before a bank becomes insolvent could, in some

cases, cause panic in the market. A separate resolution authority can judge the situation with a fresh pair of eyes and take appropriate action with much-needed detachment. The private banking sector also applies this principle of separation. When a bank loan becomes doubtful, responsibility is transferred from the loan officer

to the department for 'special' credits to foster a 'tough' approach. Given the need for a fiscal backstop, the new EDIRA could operate in close cooperation with the ESM. It is nevertheless important to guard the independence of the resolution authority, as the ministries of finance govern the ESM.

Figure 1. European institutions for financial supervision and stability in a banking union



Note: The framework illustrates the five stages from rule-making to fiscal backstop. The bottom line shows the agency responsible for each function.

Source: Schoenmaker (2013).

On the geographical reach, it is an open question whether the regime starts with all euro area banks (as the European Commission, 2012, proposes) or only the larger ones. The political dynamics suggest that a compromise, starting with those banks subject to the stress tests of the EBA that are headquartered in the euro area, might be best as it would avoid the political resistance to withdrawing thousands of small banks from the area of influence of national authorities (which might actually be better placed to supervise them).

At a later stage the arrangements can of course be extended in order to preserve the internal market in banking, which has an EU-wide coverage. Subject to a rigorous financial stability analysis, other member countries could simply opt in. This would make sense especially for smaller member countries that could thus diversify their risk.

In the transition towards banking union, the focus of the European Commission is now on the regulatory and supervisory front, developing the Single Rule Book and the supervisory powers for the ECB. In line with our backward-solving approach, it is important that deposit insurance and resolution are enacted at the same time. Some of today's weak banks may need to be resolved (partly wound down and/or recapitalized) before they enter the new European supervisory system

to avoid unlimited contingencies. Countries then would have to deal with any legacy problems of weak banks. If needed, countries could apply for support from the ESM. Only well-capitalized banks should enter the new European system of supervision by the ECB and resolution by EDIRA.

Principles for a safety net

Moving to the design of a safety net, it is important to have a common understanding of the underlying principles. The focus of this policy paper is on the resolution stage. See Schoenmaker (2012) for a discussion of the role of supervision (including prompt corrective action) and the lender-of-last-resort role of the central bank (in casu the ECB). The three basic resolution methods for failing banks are liquidation with a deposit pay-off, a take-over with public support and direct public support. There are seven golden principles for an appropriate safety net:

1. *Private sector solutions are preferable.* When banks get in difficulties, private-sector solutions should be tried first. Private-sector solutions include recapitalization by existing shareholders and bondholders (bail-in) and a take-over by another bank without public support.

2. *Sufficient geographical reach.* To foster the stability of banks, the safety net should have the same geographic reach as the main activities of a bank. So European banks need a European safety net.
3. *Least-cost principle.* The least-cost procedures require the resolution authority to choose the resolution method in which the total amount of the expenditures and (contingent) liabilities incurred has the lowest cost to the Deposit Insurance and Resolution Fund. The only exception is if there are systemic risks affecting the financial system.
4. *Private funds for resolution.* The Deposit Insurance and Resolution Fund should be funded with *ex-ante* levies on the insured banks. In that way, private funds are available for resolution.
5. *Fiscal backstop.* Crises affecting banks are commonly macroeconomic and general in nature, following asset market collapses and economic downturns. The Deposit Insurance and Resolution Fund can thus run out of funds. The ultimate backup of government support is needed to give the fund credibility.
6. *Swift decision-making.* Swift decision-making is a crucial ingredient of crisis management. A myriad of national funds is difficult to activate during a crisis and may give rise to conflicts. Similarly, two separate funds for deposit insurance and resolution may lead to inter-agency conflicts. A single fund with the necessary powers can act swiftly. More generally, there is a need to keep crisis arrangements simple.
7. *Good governance.* An appropriate system of governance should ensure that the Deposit Insurance and Resolution Authority is acting within its mandate. Moreover, the authority should be held accountable to the parliament and the executive.

A European Deposit Insurance and Resolution Authority

Deposit insurance and resolution are in principle separate functions. In the US they have been combined. The Dodd-Frank Act assigns resolution powers for large banks to the Federal Deposit Insurance Corporation (FDIC), in addition to the existing FDIC powers for smaller banks. Similarly,

the Deposit Insurance Corporation of Japan has resolution powers. By analogy, Allen et al. (2011) and Gerhardt & Lannoo (2011) suggest combining the two functions within some kind of European equivalent of the FDIC. The EU would then also get a deposit insurance fund with resolution powers.¹ The combination allows for swift decision-making. Moreover, the least-cost principle (choosing between liquidation with deposit pay-offs or public support) can then internally be applied in each case. That would also contribute to swift crisis management.

The European Deposit Insurance and Resolution Authority (EDIRA) would be fed through regular risk-based deposit insurance premiums from the banks whose customers benefit from its protection, i.e. the European banks. Which banks should fall under the new European banking regime? A good compromise would be to put all the euro area banks subject to EBA stress tests under the new system. This criterion would imply a very high coverage in the countries under financial stress.

Any new deposit insurance scheme has to face the problem of the transition to the new steady state, which we will discuss below. The establishment of a viable fund is important. A suggestion is to start off with a European Deposit Insurance Fund funded by deposit insurance premiums. Once the Fund is beyond a certain size, it can also be used for resolution, turning it into a fully-fledged European Deposit Insurance and Resolution Fund (EDIRF). In that way, private sector funds are available for resolution in crisis management. To ensure that sufficient private funds are built up, the cap on the size of the fund should not be too small (as is currently the case with some deposit insurance funds).

National deposit insurance funds have an implicit or explicit fiscal backstop in the form of the national government. With the ESM up and running, a fiscal backstop can be easily

¹ The bank resolution debate in the EU is currently in a state of flux. The first proposal of the Commission in early 2012 continued to work on the home country approach. This might now be changed given the new political environment. By contrast, the ECB (2012) stressed earlier the need for a euro area Resolution Authority, to be broadened to an integral EU resolution framework on a full EU-wide basis in the longer term.

implemented for a euro area based EDIRA.² All one would need for an EU-wide system would be a burden-sharing mechanism between the ESM and the other member countries (Goodhart & Schoenmaker, 2009). In the case of the rescue package for Ireland in 2010, the euro-outs (UK, Denmark and Sweden) joined in the burden-sharing following the ECB capital key, as British banks were exposed to Ireland and would thus also benefit from enhanced financial stability in Ireland. That shows that burden-sharing can be widened if and when needed.

A prospective EDIRA could be established by an EU regulation, akin to the establishment of the European Supervisory Authorities and the European Systemic Risk Board. The chair would accordingly be accountable to the European Parliament. To play its role, EDIRA would need to have full access to information on the financial condition of the European banks. The exchange of information has always been a major obstacle to international cooperation (Schoenmaker, 2013). Supervisors are reluctant to share confidential information about banks under their supervisory wing for two reasons. First, and fundamentally, supervisors may lose discretion for dealing with emerging problems when they share information with another body. Second, supervisors are afraid that confidential information may become available to parties (including government and parliament) that should not have access to information on individual cases. Such leakage could create a reputation problem if the receiving body cannot guarantee restricted access to the confidential information only to those concerned with supervision and resolution. At this point, the request for information could be organised similarly to the US FDIC, which can collect information for resolution and deposit insurance purposes. In that way, the EDIRA would not be fully dependent on the ECB for receiving information. Ultimately, the preferred route is that the ECB, as supervisor, would share information with the EDIRA, as resolution agency, to reduce reporting burdens on banks.

Next, the chair would need a working relationship with the European Commission and the European Council for general banking policies, including the

arrangements for the fiscal backstop. But the EDIRA would be fully independent in individual cases. A further question is where to place the newly envisaged EDIRA in the institutional architecture. Beck et al. (2012) suggest that a stand-alone deposit insurer will be tougher on interventions to protect depositors. Supervisors may be more lenient in case of regulatory capture by banks. Using an incomplete contracts approach, Repullo (2000) concludes that deposit insurance should be separate from lender of last resort, while lender of last resort and supervision may be combined. Following this analysis, we suggest that the EDIRA should be independent from the ECB.

Transition

The transition to a new system of deposit insurance is difficult enough during normal times, when ‘the veil of ignorance’ could ensure that there are no clear winners or losers. However, at the present juncture of the euro crisis, some banking systems or groups of banks clearly represent a higher risk than others. This makes the transition even more difficult. We propose a gradual phasing in of both premia and protection, which should take care of this problem.

Agreement on some underlying principles may be useful to guide the transition. We propose the following:

- Keep total deposit insurance at €100,000 per depositor, as the existing Deposit Guarantee Schemes Directive has adopted maximum harmonisation.
- Build a target fund of 1.5% (as proposed by the European Commission and the European Parliament) of covered deposits gradually over a period of ten years.
- Avoid double payment of premia by banks (national plus EU) to ensure a neutral transition.
- Avoid the need to harmonise national funds by letting them continue to operate in parallel.
- Combine deposit insurance and resolution within one fund to keep things simple.
- Construct the EDIRA as a source of strength (‘credible’ fund) to foster confidence in the European banking system.

² Art. 15 of the ESM Treaty explicitly allows for financial assistance for the re-capitalization of financial institutions of an ESM member.

Starting with the last principle, full coverage of all deposits in the banks that would fall under ECB supervision (labelled 'European banks') from day one is not feasible. But the end point also should be clear: a European Deposit Insurance and Resolution Fund – as proposed by us earlier (Schoenmaker & Gros, 2012) – run by an EDIRA should become the authority that makes decisions on resolution and provides the payments to depositors when required.

In more concrete terms, we propose that the protection offered by the EDIRA should be phased in the following way:

- In the first year, the EDIRA will guarantee only €5,000 per depositor. This amount could then be increased each year by the same amount until, after 20 years, the European protection scheme insures the full €100,000 per depositor. It would of course be possible to accelerate the transition by increasing the amount added to the European scheme by more than €5,000 per year. For example, with €10,000, the transition would take only ten years. But as our concern is to show how a phasing-in could work, rather than the precise amount, we will continue with the example of €5,000.
- The coverage of the national deposit guarantee schemes will be reduced by the amounts guaranteed at the European level. Following the first principle, that would keep the total coverage at €100,000. The risk for the national guarantee schemes would of course go down as the European guarantee increases in size. The national schemes would lose their *raison d'être* over time, but in order to diminish their opposition to the new EU-level system, they should be left alone, rather than threatening them with immediate extinction.
- Contributions by the 'European banks' to EDIRA should of course be phased in as well. Although a totally neutral scheme might reduce opposition, we sketch a slightly quicker phasing-in of the contributions, which may be useful given the weak state of the banking system almost everywhere in the euro area. The premium for the European fund for the first year should be set at 0.0075% of insured deposits (5% of the 0.15% required to build up

the 1.5% of deposits over ten years); for the second year at 0.015%, etc.³

- Contributions to national schemes would be reduced correspondingly for the 'European banks', which might then pay only 95% of the national premium.
- After 20 years in the case of a €5,000 increment per year (or ten years with a €10,000 annual increment), the full coverage for the European banks will be provided by the European fund. In our example, EDIRA would have collected about 0.8% of covered deposits in premiums after 20 years. Because of the gradual phasing in, it will then take another five years to reach the target of 1.5% of covered bonds.⁴
- Accumulated contributions of the European banks left in the national funds after the transition period can be transferred to the EDIRA, which would then provide a proportional discount on any premia from the banks from these countries.

During the transition, European banks in countries without an *ex-ante* fund, like the Netherlands, would gradually reduce their liability to the national fund in steps. After four years, for example, a European bank would only contribute 80% to a local failure, while the national banks would contribute the full 100%.

Once their contributions to the European fund are above a certain level, the European banks may find strong ECB supervision useful to reduce their potential liabilities. If that were to happen, the new EDIRA would truly act as a source of strength for the banking system.

³ For the sake of simplicity, we refer here only to the average premium. Actual premia of individual banks could of course be higher or lower, depending on the risk characteristics of the institution.

⁴ The calculations get more complicated if a national fund already exists, so that national premia can be lowered. An example may clarify this proposal. A national fund applies a 25% discount on its premium. The European bank based in that country would pay 75% of the national premium for €95,000 cover to the national fund in the first year. The national fund transfers 25% of the fee for €5,000 cover to the European fund. The relevant banks pay the European fund the fair premium (as calculated above) minus the discount for the national fund transfer (assuming that premiums are not calculated in the same way).

Some numbers

The proposal would be to put all the euro area banks subject to EBA stress tests under the new system. That would amount to 75 European banks with assets of €21.591 billion (see Annex, Table A1). An alternative scenario is to include all euro area banks, as the European Commission (2012) proposes. The Deposit Guarantee Schemes Directive (94/19/EC as amended by 2009/14/EC) provides a harmonised cover of €100,000 throughout the EU. Table 1 reports the assets and rough estimates of covered deposits for both scenarios.

A precise estimate of the covered deposits held at the banks which should come under EDIRA is not possible because banks publish (and sometimes even have themselves) very little information on their deposits. For a precise estimate one would need to distinguish between retail and wholesale deposits, know how many deposits per depositor and finally the proportion of these deposits under €100,000 per depositor.

However, a recent study by the Joint Research Centre of the EU (European Commission, 2010a) allows one to make a rough estimation based on December 2011 data for total euro area deposits of residents,⁵ taken from the ECB. These amounted to close to €11,000 billion, which leads to an estimate of covered deposits of about €2,700 billion for the 75 European banks and €4,150 billion for all euro area banks.⁶

As mentioned, the European Commission (2010b) proposes to build an *ex-ante* Deposit Insurance Fund of 1.5% of covered deposits over a period of ten years.⁷ 1.5% of the €2,700 billion in covered

⁵ Classified as 'Other general government/other euro area residents'.

⁶ The share of the EBA stress tested banks in this total is estimated at about two thirds (in line with the share in assets, see Table A.1 in the Annex). The JRC impact study (European Commission, 2010a) suggests that eligible deposits amount to about 55% of this and covered deposits to about 70% of the remainder.

⁷ The proposal for a new Deposit Guarantee Schemes Directive (European Commission, 2010b) is entirely blocked. The European Parliament and the EU Council have not reached agreement. The Council did not want to further than 0.5% funding. The EP wants to keep the Commission figure of 1.5%. The EP, seeing the Council did not want to move, adopted its report in first reading in February 2012. It is the only measure so far of the post-crisis measures not adopted in single reading.

deposits would yield a fund of about €40 billion. Given the uncertainties surrounding this estimate, we propose a range of €30-50 billion. Initially the required contributions under the gradual phasing would cover only 1/20 of 10% of the 1.5%, or about €200 million per year for all 75 European banks together. For all euro area banks, 1.5% of the €4,150 billion in covered deposits would give a fund of about €60 billion. Here, we propose a range of €50-70 billion.

Table 1. Target size of deposit insurance fund

	Total assets (€ billion)	Covered deposits (€ billion)	Target size of fund (€ billion)
75 European banks	21,590	2,690	30-50
All euro area banks	33,540	4,140	50-70

Note: Total euro area assets of banks are taken from Table A.1. The amount of covered deposits is based on ECB figures on deposits and ratios in the impact assessment of the European Commission's Deposit Guarantee Schemes (DGS) proposal. The target size of the deposit insurance fund is set at 1.5% of covered deposits.

Source: Authors' own calculations.

By comparison, the Dodd-Frank Act requires a minimum size of the US Deposit Insurance Fund of 1.35% of covered deposits. If there is a shortfall, the FDIC must adopt a restoration plan that provides that the fund will return to 1.35% within eight years. If the fund exceeds 1.5% of deposits, the FDIC must pay dividends to the fund member banks.

Finally, the European Commission proposes that banks pay *ex-post* levies of up to 0.5% of covered deposits, if necessary. *Ex-ante* funds will thus cover 75% of the financing of the Deposit Insurance Fund and *ex-post* contributions of 25%. But the collection of this *ex-post* levy will be uncertain in crisis times.

To put the numbers in perspective, the EDIRA would amount to €30-50 billion of private funds accumulated from contributions by the European banks as a first line of defence for deposit insurance and resolution, while the ESM (scheduled to start in autumn 2012) amounts to €500 billion of public funds underwritten by the euro area members as a fiscal backstop for sovereign countries as well as financial institutions. An interesting question is whether

the EDIRA could cope with the failure of one or more European banks. Dermine (2000) takes the book value of equity as a yardstick for the potential costs of a rescue package. Table A.2 in the Annex reports the Tier 1 capital of some of the largest European banks (with assets over €200 billion). The sums of reported capital range from about €5 to 75 billion. Once fully up and running, the EDIRA could resolve one of the largest European banks or two to three mid-size European banks. These figures clearly show the benefits of pooling. The current national deposit insurance funds would generally not be capable of dealing with the failure of even one of their own largest banks.

Concluding remarks

If policy-makers seek to enhance global banking, then the international community must provide a higher and better-coordinated level of fiscal support than it has in the past (Obstfeld, 2011). The safety net, comprising deposit insurance and resolution, implies a credit risk that ultimately must be lodged somewhere. The same point applies to the European framework. If policy-makers want to preserve the internal market in banking, then the institutional framework requires three elements that form a comprehensive package:

1. *Lender of last resort.* The ECB is already operating as the lender of last resort for the European banking system.
2. *Supervision.* The ECB must supervise, at least, the large cross-border banks. Supervision would then move from a national mandate (with loose coordination) to a European mandate.
3. *Resolution and deposit insurance.* A European Deposit Insurance and Resolution Authority (EDIRA) should be established to stabilise the retail deposit base and resolve troubled cross-border banks. The European Deposit Insurance and Resolution Fund would be fed through regular risk-based deposit insurance premiums with a fiscal backstop of the ESM.

The second element is now being addressed, but giving the ECB supervisory powers risks creating new distortions if deposit insurance and resolution remain at the national level. In this policy paper, we spell out some underlying principles to guide for a gradual transition under which only future risks would be shared while past losses would remain at the national level. This paper shows that ultimately a new European Deposit Insurance and Resolution Authority would serve as a genuine source of confidence in the European banking system.

References

- Advisory Scientific Committee (ASC) (2012), "Forbearance, Resolution and Deposit Insurance", Reports of the Advisory Scientific Committee No. 1, European Systemic Risk Board, Frankfurt.
- Allen, F., T. Beck, E. Carletti, P. Lane, D. Schoenmaker and W. Wagner (2011), "Cross-Border Banking in Europe: Implications for Financial Stability and Macroeconomic Policies", CEPR Report, Centre for Economic Policy Research, London.
- Beck, T., R. Todorov and W. Wagner (2012), "Bank Supervision Going Global? A Cost-Benefit Analysis", EBC Discussion Paper No. 2011-033, European Banking Center, Tilburg.
- Claessens, S., R. Herring and D. Schoenmaker (2010), "A Safer World Financial System: Improving the Resolution of Systemic Institutions", *12th Geneva Report on the World Economy*, Centre for Economic Policy Research (CEPR), London.
- Dermine, J. (2000), "Bank Mergers in Europe, the Public Policy Issues", *Journal of Common Market Studies* 38, pp. 409-425.
- European Central Bank (2012), *Financial Integration in Europe*, Frankfurt.
- European Commission (2010a), JRC Report under Article 12 of Directive 94/19/EC as amended by Directive 2009/14/EC, Joint Research Centre, Ispra (Italy).
- European Commission (2010b), Draft Directive on Deposit Guarantee Schemes (recast), COM(2010) 369, Brussels.
- European Commission (2012), Proposal for Council Regulation conferring specific tasks on the ECB concerning prudential policies relating to the prudential supervision of credit institutions, 2012/242(CNS), Brussels.
- FDIC (1998), "A brief history of deposit insurance in the United States", Federal Deposit Insurance Corporation, Washington, D.C.
- Gerhardt, M. and K. Lannoo (2011), "Options for Reforming Deposit Protection in the EU", ECRI Policy Brief No. 4, European Credit Research Institute, Brussels.
- Goodhart, C. and D. Schoenmaker (2009), "Fiscal Burden Sharing in Cross-Border Banking Crises", *International Journal of Central Banking* 5, pp. 141-165.
- Gros, D. and D. Schoenmaker (2012), "European Deposit Insurance: Financing the transition", CEPS Commentary, Centre for European Policy Studies, Brussels, 6 September.
- Obstfeld, M. (2011), "International Liquidity: The Fiscal Dimension", NBER Working Paper No. 17379, National Bureau of Economic Research, Cambridge, MA.
- Lane, P. (2012), "The TSCG and Irish Fiscal Policy: Opening Statement to Oireachtas Sub-Committee on the Intergovernmental Treaty", Irish Parliament, Dublin, 4 April.
- Marzinotto, B., A. Sapir and G. Wolff (2011), "What Kind of Fiscal Union?", Bruegel Policy Brief, Issue 2011/06, Bruegel, Brussels.
- McCahery, J., G. Hertig and R. Lee (2010), "Empowering the ECB to supervise banks: A choice-based approach", *European Company and Financial Law Review* 7, pp. 171-215.
- Nieto, M. and L. Wall (2006), "Preconditions for a Successful Implementation of Supervisors' Prompt Corrective Action: Is There a Case for a Banking Standard in the European Union?", *Journal of Banking Regulation* 7, pp. 191-220.
- Repullo, R. (2000), "Who Should Act as Lender of Last Resort? An Incomplete Contracts Model", *Journal of Money, Credit, and Banking* 32, pp. 580-605.
- Schoenmaker, D. (2012), "Banking Supervision and Resolution: The European Dimension", DSF Policy Paper No. 19, Duisenberg School of Finance, Amsterdam.
- Schoenmaker, D. (2013), *Governance of International Banking: The Financial Trilemma*, New York: Oxford University Press, forthcoming.
- Schoenmaker, D. and D. Gros (2012), "A European Deposit Insurance and Resolution Fund", Duisenberg School of Finance Policy Paper No. 21 and CEPS Working Document No. 364, DSF and CEPS, Amsterdam and Brussels.
- Veron, N. (2011), "Banking Federalism is Key to Eurozone's Survival", *Emerging Markets - G20 Edition*, 3 November.

Annex. Tables

Table A.1 EBA stress-tested banks

Country	EBA stress-tested banking groups			Total assets* (€ billion)
	Total assets (€ billion)	% of country assets	Number of banks	
Eurozone				
Austria	398	39%	3	1,010
Belgium	698	58%	2	1,201
Cyprus	71	54%	2	132
Germany	5,205	62%	13	8,393
Spain	3,391	94%	24	3,621
Finland	92	14%	1	644
France	6,009	72%	4	8,399
Greece	335	70%	6	477
Ireland	364	28%	3	1,314
Italy	2,071	51%	5	4,070
Luxembourg	40	4%	1	1,099
Malta	7	13%	1	51
Netherlands	2,548	105%	4	2,425
Portugal	341	59%	4	573
Slovenia	22	42%	2	52
Subtotal	21,591	64%	75	33,538
Non-eurozone				
Denmark	705		4	
Great Britain	6,813		4	
Hungary	32		1	
Norway	274		1	
Poland	43		1	
Sweden	1,465		4	
Subtotal	9,332		15	
Total	30,923		90	

* Total assets from ECB: Aggregated balance sheet of euro area monetary financial institutions, excluding the Eurosystem.

Source: ECB (2012) and CEPS private database on EU banks maintained by the Financial Markets research unit.

Table A.2 Large banks in the euro area, ranked according to assets (2011 figures)

Banks*	Total assets (€ billion)	Tier 1 capital (€ billion)
1 Deutsche Bank (Germany)	2,164	49
2 BNP Paribas (France)	1,965	71
3 Crédit Agricole (France)	1,880	62
4 Banco Santander (Spain)	1,251	62
5 Société Générale (France)	1,181	37
6 Groupe BPCE (France)	1,138	41
7 ING Bank (Netherlands)	961	39
8 UniCredit (Italy)	927	43
9 Rabobank Group (Netherlands)	732	38
10 Commerzbank (Germany)	662	26
11 Intesa Sanpaolo (Italy)	639	37
12 Credit Mutuel (France)	605	28
13 BBVA (Spain)	598	34
14 Dexia (Belgium)	413	6
15 Deutsche Zentral-Genossenschaftsbank (Germany)	406	10
16 ABN Amro Group (Netherlands)	405	15
17 Landesbank Baden-Württemberg (Germany)	373	14
18 Bayerische Landesbank (Germany)	309	14
19 Bankia (Spain)	298	13
20 KBC Group (Belgium)	285	16
21 CaixaBank (Spain)	282	20
22 Banca Monte dei Paschi di Siena (Italy)	241	12
23 Hypo Real Estate (Germany)	237	6
24 Nord/LB Norddeutsche Landesbank (Germany)	228	8
25 Erste Group (Austria)	210	12
Top 25	18,390	713

* With assets of more than €200 billion.

Source: The Banker top 1000 World Banks (July 2012) and CEPS private database on EU banks maintained by the Financial Markets research unit.



ABOUT CEPS

Founded in Brussels in 1983, the Centre for European Policy Studies (CEPS) is widely recognised as the most experienced and authoritative think tank operating in the European Union today. CEPS acts as a leading forum for debate on EU affairs, distinguished by its strong in-house research capacity, complemented by an extensive network of partner institutes throughout the world.

Goals

- Carry out state-of-the-art policy research leading to innovative solutions to the challenges facing Europe today,
- Maintain the highest standards of academic excellence and unqualified independence
- Act as a forum for discussion among all stakeholders in the European policy process, and
- Provide a regular flow of authoritative publications offering policy analysis and recommendations,

Assets

- Multidisciplinary, multinational & multicultural research team of knowledgeable analysts,
- Participation in several research networks, comprising other highly reputable research institutes from throughout Europe, to complement and consolidate CEPS' research expertise and to extend its outreach,
- An extensive membership base of some 132 Corporate Members and 118 Institutional Members, which provide expertise and practical experience and act as a sounding board for the feasibility of CEPS policy proposals.

Programme Structure

In-house Research Programmes

Economic and Social Welfare Policies
Financial Institutions and Markets
Energy and Climate Change
EU Foreign, Security and Neighbourhood Policy
Justice and Home Affairs
Politics and Institutions
Regulatory Affairs
Agricultural and Rural Policy

Independent Research Institutes managed by CEPS

European Capital Markets Institute (ECMI)
European Credit Research Institute (ECRI)

Research Networks organised by CEPS

European Climate Platform (ECP)
European Network for Better Regulation (ENBR)
European Network of Economic Policy
Research Institutes (ENEPRI)
European Policy Institutes Network (EPIN)