ISSN 1725-3187

Fellowship initiative
The future of EMU

EUROPEAN ECONOMY

Economic Papers 495 | April 2013

An Integrated Financial Framework for the Banking Union: Don't Forget Macro-Prudential Supervision

Dirk Schoenmaker

Economic and Financial Affairs

Economic Papers are written by the Staff of the Directorate-General for Economic and Financial Affairs, or by experts working in association with them. The Papers are intended to increase awareness of the technical work being done by staff and to seek comments and suggestions for further analysis. The views expressed are the author's alone and do not necessarily correspond to those of the European Commission. Comments and enquiries should be addressed to:

European Commission
Directorate-General for Economic and Financial Affairs
Publications
B-1049 Brussels
Belgium
E-mail: Ecfin-Info@ec.europa.eu

This paper exists in English only and can be downloaded from the website
ec.europa.eu/economy_finance/publications

A great deal of additional information is available on the Internet. It can be accessed through the Europa server (ec.europa.eu)

KC-AI-13-495-EN-N
ISBN 978-92-79-28577-6
doi: 10.2765/43595

© European Union, 2013

European Commission
Directorate-General for Economic and Financial Affairs

An Integrated Financial Framework for the Banking Union: Don't Forget Macro-Prudential Supervision*

Dirk Schoenmaker

Duisenberg school of finance
Amsterdam

Abstract

This essay reviews the sequencing of the functions of supervision, resolution, deposit insurance and the fiscal backstop in the Banking Union. All these functions deal with the soundness of individual banks. In the run-up to the 2007-2009 financial crisis, we overlooked the bigger picture of the stability of the wider financial system. This essay puts forward a concrete proposal for conducting macro-prudential policy in the prospective Banking Union. We suggest giving the lead on applying macro-prudential tools in the Banking Union to the ECB to foster a coherent approach, with important input from the national competent authorities to allow for much needed differentiation at the national level. Next, we argue that the ECB should separate the macro-prudential and micro-prudential functions. Otherwise, we may again be bogged down by the details of individual banks (micro), while losing sight of emerging imbalances in the wider financial system (macro).

JEL codes: E58, G01, G21, G28

* This paper is prepared as part of the DG ECFIN research project on the Future of EMU. I am grateful for useful comments and suggestions from Thorsten Beck, Daniel Gros, Philip Lane, Maurice Obstfeld, Karl Pichelmann, Andre Sapir, Michael Thiel, Peter Wierts and other participants at the Annual Research Conference of DG ECFIN at 19 November 2012.

ACKNOWLEDGEMENTS

This Economic Paper is published as part of DG ECFIN's Fellowship Initiative 2012-13.

The initiative was coordinated by a steering group comprising of Anne Bucher, Ines Drumond, Karl Pichelmann, Eric Ruscher and Michael Thiel.

Helpful comments and suggestions by Alfonso Arpaia, Narcissa Balta, Nicolas Carnot, Carlos Cuerpo Caballero, Stefan Ciobanu, Francesca D'Auria, Ombeline Gras, Isabel Grilo, Alexandr Hobza, Anton Jevcak, Robert Kuenzel, Staffan Linden, Alienor Margerit, Kieran McMorrow, Silvia Merler, Josefa Monteagudo, Plamen Nikolov, Peter Pontuch, Werner Roeger, Georges Tournemire, Geza Sapi, Hylke Vandenbussche and Stefan Zeugner are gratefully acknowledged, as is the very efficient administrative support provided by Filomena de Assis, Agnieszka Budzinska, Mariyana Ivanova, Nancy Saba and Kristine de Winter.

1. Introduction

The European financial system showed strong integration after the start of EMU in 1999. This on-going process of integration was abruptly reversed by the national approach to the resolution of financial institutions during the 2007-2009 financial crisis, as highlighted in the accompanying empirical essay (Schoenmaker, 2013c). Key markets, such as the interbank market have become dysfunctional, contributing to further fragmentation. The fragmentation between the financial systems of euro area member states complicates the conduct of a single monetary policy within the EMU. It also raises the question of maintaining financial stability within the EMU. Should financial stability be managed at the European level by the ECB or at the national level by national central banks (NCBs)?

The advance to Banking Union should encompass financial supervision and resolution policies. Recent theory suggests that the endgame of resolution sets the incentives for financial supervision (Claessens, Herring and Schoenmaker, 2010). So, national resolution may lead to further fragmentation driven by national financial supervisors. By contrast, European resolution may foster integration, as financial firms will be resolved as a single entity (at least within the geographic scope of the Banking Union). Furthermore, the (partial) withdrawal of Western European banks from the Central, Eastern and South-Eastern European (CESEE) countries indicates that such national policies may not be effective to maintain financial and economic stability for host countries. While CESEE countries have a long-standing preference for subsidiaries, there is evidence that the parent banks have reduced lending through these subsidiaries in the direct aftermath of the Great Financial Crisis (see the empirical survey in Schoenmaker, 2013c). Finally, a European resolution approach may break the diabolic loop between banks' funding cost and sovereign risk. The advance to Banking Union can thus provide the necessary push for integration.

While much of the discussion of Banking Union is on the supervision and resolution functions to foster financial stability within EMU, the macro-prudential function has hardly been addressed. This essay proposes an integrated approach to the EU financial architecture: monetary policy (price stability), macro-prudential policy (financial stability), micro-prudential supervision (financial supervision), and crisis management (resolution). EMU has been built on the German approach to central banking. The ECB should only care about monetary stability. Both the 2007-2009 financial crisis and the European banking and sovereign debt crisis show that the interface between monetary and financial stability is important. The key question is what official role the ECB should play in financial stability within EMU.

Member states are currently implementing national mandates for macro-prudential policy with a co-ordination role for the ESRB. Is the ECB's role as chair and secretariat of the new ESRB sufficient? Or should the ECB get its own macro-prudential mandate and further financial stability tools to become a fully-fledged central bank? Specific recommendations for the ECB's role in financial stability are made.

2. Policy framework for the financial system

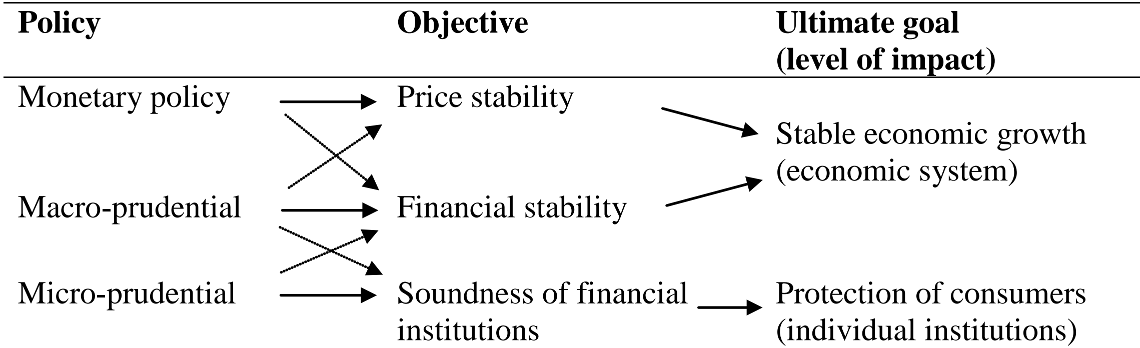
Until recently the broader financial system was steered by a combination of monetary policy and micro-prudential supervision. The objective of monetary policy is to stabilise prices in the economy and thus to foster economic growth, while micro-prudential supervision is aimed at the stability of individual institutions to protect consumers (depositors/policyholders). The

recent global financial crisis has shown that the stability of the financial system can fall between the policy cracks. Financial imbalances can thus be building up without being mitigated. A case in point is the rising asset prices (in casu, house prices) in Ireland and Spain. The aim of macro-prudential policy is to fill this void (Brunnermeier *et al,* 2009; Hanson, Kashyap, and Stein, 2011; Allen *et al*, 2011; Schoenmaker and Wierts, 2011).

Tinbergen (1952), the first winner of the Nobel prize for economics, argued that you need at least one independent policy instrument for each policy objective. Mundell (1962) has applied this general principle to the objectives of achieving internal and external stability. Mundell recommends using monetary policy for the exchange rate (external stability) and fiscal policy for full employment (internal stability). He recognises that the different policy tools and objectives are interrelated. Figure 1 illustrates the overall policy framework for the monetary and financial system.[1] To keep it simple, each policy has a primary impact on its direct objective and a secondary impact on the objective(s) next to it. The solid lines in figure 1 illustrate the primary impact and the dotted lines the secondary impact.

Discussions about policy frameworks often assume that policy areas can all be separated, and that instruments used to promote one objective do not undermine the other. Kremers, Schoenmaker and Wierts (2003) propose to analyse the synergies and conflicts of interests between policy objectives. This analysis is helpful to assigning policy areas to different institutions. When the synergies between objectives dominate, these objectives may be assigned to one institution. By contrast, when the conflicts of interests dominate, objectives may better be assigned to different bodies.

Figure 1. Overall policy framework for monetary and financial system



Source: Schoenmaker (2013a)

The first trade-off is the interaction between monetary and financial stability. New theories (e.g. Adrian and Shin, 2008) suggest that monetary policy and financial stability policies are closely linked. They document that balance sheets of financial intermediaries provide a window on the transmission of monetary policy through capital market conditions. This reinforces the important role of financial intermediaries in the financial system. Goodhart (2011) also stresses the financial stability role of central banks. It is often argued that

[1] This paper is confined to the prudential side of financial supervision. In a broader monetary and supervisory framework, Schoenmaker (2013a) includes a fourth policy of conduct of business aimed at orderly markets and fair treatment of consumers. Like micro-prudential supervision, conduct of business has an impact on individual institutions.

monetary and financial stability are two sides of the same coin. After the financial crisis, central banks have resumed their financial stability role. The main synergy between monetary and financial stability is to steer the financial system. The two tasks are therefore assigned to a single institution, the central bank.

A major conflict of interests is diverging trends on monetary and financial stability. While monetary stability focuses on retail consumption prices, financial stability looks at the development of asset prices, such as house prices and equity prices, and aims to counter the pro-cyclicality of the financial system (as well as the pro-cyclical working of micro-prudential supervision). There is a large literature on conflicts between monetary and financial policy goals (see, for example, Goodhart and Schoenmaker, 1995, and more recently Ioannidou, 2012). However, such conflicts are genuine. With or without financial stability responsibility, a central bank must take into account financial conditions when setting the interest rate for monetary policy purposes. Nevertheless, the main target for setting the interest rate is the inflation outlook. After setting the interest rate, the central bank considers which macro-prudential tools are needed to stabilise the financial cycle. The chosen interest rate is thus taken as given for financial stability purposes, although there may be an interactive process, with interest rates shaded by the effectiveness of macro-prudential measures (e.g. interest rates that lean against asset price inflation). Macro-prudential tools include *inter alia* countercyclical capital buffers to constrain undue credit growth, (time-varying) loan-to-value ratios to constrain rising housing prices, and (time-varying) margin or collateral requirements to constrain rising equity prices (Schoenmaker and Wierts, 2011).

While there are no intrinsic arguments for separating monetary policy and banking supervision,[2] there are concerns about reputation risk. When bank failures happen under the supervisory watch of the central bank, its monetary policy reputation may be affected (as the Bank of England experienced in the 1990s as well as several other central banks in the recent financial crisis). The Bundesbank has always raised this concern against a supervisory role for central banks (Goodhart and Schoenmaker, 1995). A possible solution is to separate the supervisory function within the central bank. The Bank of England and the Banque de France have a subsidiary for their supervisory task. The ECB envisages creating a separate Supervisory Board within the ECB for the micro-prudential supervision of banks.

The second trade-off is between macro- and micro-prudential policies. Until recently, the prevalent approach to financial stability has implicitly assumed that making individual financial institutions safe will make the system as a whole safe. But this is wrong. As indicated below, this represents a fallacy of composition. It is more appropriate to think in terms of a hierarchy of objectives (Kremers and Schoenmaker, 2010). The first two objectives, price and financial stability, are equally important and affect the economy at large. The latter objective, sound financial institutions, addresses individual financial institutions and aims to protect individual consumers. Micro-prudential supervision is helpful to establish trust in the financial system at large. But the first two objectives aimed at the 'system' are more important than the latter objective aimed at 'individuals', for the simple reason that when the system goes down its individual components will go down as well. Moreover, the

[2] There is a strong argument for combining monetary policy and banking supervision within the central bank. To be an effective lender of last resort, it may be helpful for the central bank to have first hand information, through its supervisory function, on the condition of troubled banks (Goodhart and Schoenmaker, 1995; Schoenmaker, 2013a). The lack of such first hand information slowed down the Bank of England's response to the emerging liquidity problems at Northern Rock. See also Beck and Gros (2012), who support coordination between monetary policy and supervisory arms of the ECB.

stability of the financial system is more important than the soundness of its individual components. In a market driven economy, firms –including financial firms– should be allowed to fail to contain moral hazard, unless there is a systemic threat. For systemic purposes, micro-prudential supervision adopts therefore higher standards for the so-called global systemically important banks (G-SIBs), see Schoenmaker (2013b) for a full discussion of G-SIBs. Supervisors are increasingly applying these higher standards also to domestic systemically important banks (D-SIBs).

The fallacy of composition (Brunnermeier *et al*, 2009) concerns the idea, fundamentally at the basis of original Basel banking supervision, that to safeguard the system it suffices to safeguard the components. But in trying to make themselves safer, financial institutions can behave in a way that collectively undermines the system. Selling an asset (such as equity), when the price of risk increases, may be a prudent response from the perspective of an individual bank. However, if many banks act in this way, the asset price will collapse, forcing financial institutions to take yet further steps to rectify the situation. The responses of the banks themselves to such pressures lead to generalised declines in asset prices, and enhanced correlations and volatility in asset markets. The micro policies can thus be destructive at the macro level.

Another example of the fallacy of composition can be given. If the discount rate for long term pension (or insurance) liabilities increases due to buoyant growth, the present value of future pension obligations decreases at the profit of a pension fund's equity. The pension fund may decrease pension premiums to reduce any excess equity buffer (micro perspective). However, this may work pro-cyclically fuelling economic growth, and subsequently interest rates, further (macro perspective). This fallacy works also *vice versa*, as is currently the case.

Macro- and micro-prudential policies have distinct objectives and therefore distinct perspectives (Borio, 2003). Table 1 summarises the differing perspectives, which are intentionally stylised. They are intended to highlight two orientations that inevitably *coexist* in current prudential frameworks.

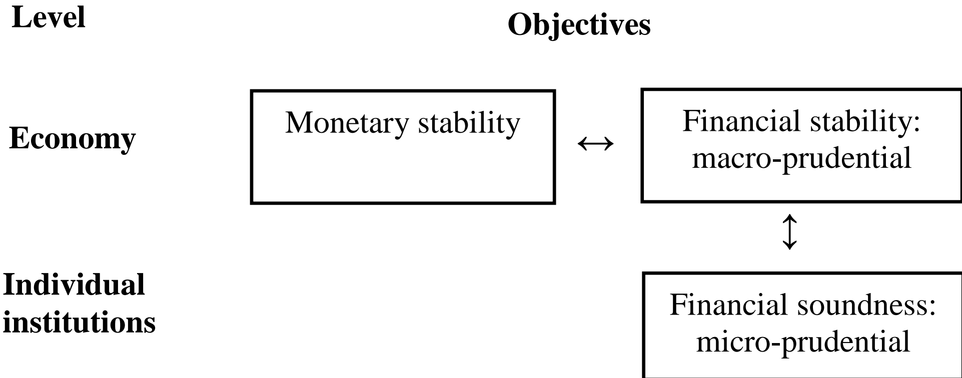
Table 1. The macro- and micro-prudential perspectives contrasted

	Macro-prudential	**Micro-prudential**
Policy objective	Limit financial system-wide distress	Limit distress of individual firms
Ultimate goal	Avoid output (GDP) costs linked to financial instability	Consumer (depositor/ investor/ policyholder) protection
Characterisation of risk	Dependent on collective behaviour; endogenous	Independent of individual agents' behaviour; exogenous
Correlations and common exposures across firms	Important	Irrelevant
Calibration of prudential controls	In terms of system-wide risk; top-down	In terms of firm risks; bottom-up

Source: Borio (2003)

The distinct objectives of macro-prudential and micro-prudential policies, in terms of Tinbergen, raise two issues. First, it is important to take into account the impact of using one area's instrument not only on that area's own objective, but also on the objectives of the other areas. Being aware of such cross-effects may lead to a choice and use of instrument that is less damaging to other areas, and thus to better overall results. Second, it may not always be possible in this way to avoid conflict of objectives. In that case it is unavoidable to define a hierarchy of objectives. In such situations, the macro-prudential concerns should override the micro-prudential concerns (Kremers and Schoenmaker, 2010). Hanson, Kashyap and Stein (2011) also argue to apply a macro-prudential approach to financial supervision. Figure 2 depicts the proposed hierarchy of objectives. The override should be reversible to prevent forbearance. When a negative stock market shock happens, for example, capital adequacy rules may be temporarily lifted to avoid fire sales. But there must be a clear exit. Otherwise problems may scale up and become worse.

Figure 2. Hierarchy of objectives



Source: Kremers and Schoenmaker (2010)

More conflicts of interest between these separate objectives may occur. During a downturn the need to reduce capital buffers to maintain the flow of credit to the economy (macro concern) may contradict with the need to increase buffers at individual institutions due to increasing risk (micro concerns). An example is the 'funding for lending' in the UK, where the Bank of England provides funding at below market rates for lending to UK households and non-financial firms. Moreover, the FSA makes an allowance for the increase in the minimum Pillar 1 capital requirements by reducing the Pillar 2 capital planning buffer requirements, when there is new lending. In that way, the FSA ensures that no bank is required to hold the additional capital requirements of the increased lending. Likewise, an upturn may lead to trade-offs between addressing the build-up of risk in the system as a whole (macro) and decreasing risk from the perspective of individual institutions (micro).

In the next section, we focus on the place of micro-prudential supervision, also named financial supervision, in the governance framework of the banking system. In section 4, we integrate the micro- and macro-prudential supervisory functions in an overall framework for the Banking Union.

3. Governance of the banking system

The governance of the banking system comprises several functions from rule-making, financial supervision, lender of last resort, resolution, and deposit insurance to the fiscal backstop (see Figure 3). The academic literature argues that these functions cannot be analysed in isolation, because there are important incentive effects (Allen *et al,* 2011; Schoenmaker, 2013b). While the first two functions are preventive, the last three functions comprise the crisis management mode of authorities.

Figure 3. Functions for financial supervision and crisis management

Source: Schoenmaker (2013b)
Note: The framework illustrates the five stages from rule-making to the fiscal backstop.

The starting point is that the purpose of good supervision is not to prevent banks from taking any risks and thus make sure that no bank ever fails. The purpose of good supervision is rather to equilibrate the relationship between risk and reward for the private sector, especially for bank managers and the owners of banks (Schoenmaker and Gros, 2012). Growth and innovation would be stifled if banks were not allowed to take any risk. With good supervision bankers and their investors would, however, be forced to accept the consequences if any risky investment goes awry–possibly up to the point that the bank has to be closed or restructured.

Dewatripont and Tirole (1994) stress the point that as depositors are guaranteed, they will no longer have an incentive to monitor the bank. Normally the supervisor then takes over the monitoring role representing the depositors. This is the case naturally at the national level where both the supervisor and the deposit insurance system are part of the same government. Any move of the supervisory and deposit insurance functions from the national to the European level (see below) has to be in tandem, to keep the system incentive compatible.

Claessens, Herring and Schoenmaker (2010) adopt a game theoretic approach. The endgame of resolution of failing banks sets the incentives for *ex ante* supervision to prevent bank failures. The endgame, the resolution of failing banks, is not well defined at a cross-border level. To date, resolutions, ranging from outright bankruptcy to government-led restructurings, have largely taken place along national lines. This is to be expected. As crisis management is a rare event (non-repeated game) with high financial stakes, the repeated game solution to the non-cooperative equilibrium is not applicable, also not between more homogeneous countries. A good example of a homogeneous group of countries is the Benelux, due to the culturally and geographically closeness of the three countries. In the case of Fortis, the Belgian and Dutch authorities were not able to find a collective solution, despite

a long tradition of cooperation. Fortis was first split on national lines, and then recapitalised separately by the Belgian and Dutch government.

National courts and resolution agencies thus deal with insolvencies and bankruptcies, applying national legislation. The dominance of the national perspective arises because the direct costs of resolution have been borne by domestic taxpayers, so authorities have tended to focus on minimising the local impact of any failure. This, in turn, means supervision will be nationally oriented (Schoenmaker, 2013c). Again, resolution and supervision should be moved in tandem from the national to the European level.

The final stage in the governance framework is the fiscal backstop. Crises affecting banks are commonly macro-economic and general in nature, following asset market collapses and economic downturns. National deposit insurance and resolution funds can thus quickly run out of funds (for example, Spain and Ireland currently, and the US FDIC during the S&Ls crisis in the 1980s) and need the ultimate backup of government support. The stability of a banking system can be assured only if investors know that such a backstop exists.[3] The arrow for the fiscal backstop is thus backward in Figure 3, illustrating the backward-solving approach towards governance.

Although it may be tempting to place the resolution authority at the central bank (see, for example, the UK, where the Bank of England is also the resolution authority), the functions of supervision and resolution should remain separate (ASC, 2012). As supervisors have responsibility for the licensing and on-going 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.

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) suggest combining the two functions within one authority: a deposit insurance authority with resolution powers. 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.

4. An integrated financial framework

The previous sections highlight the interaction between the various policy functions, both at the level of the economic and financial system and at the level of individual financial institutions. The aim of this final section is to combine these insights in a newly proposed integrated policy framework for financial policies. This new integrated financial framework is designed at the European level, as part of the newly envisaged Banking Union. Banking

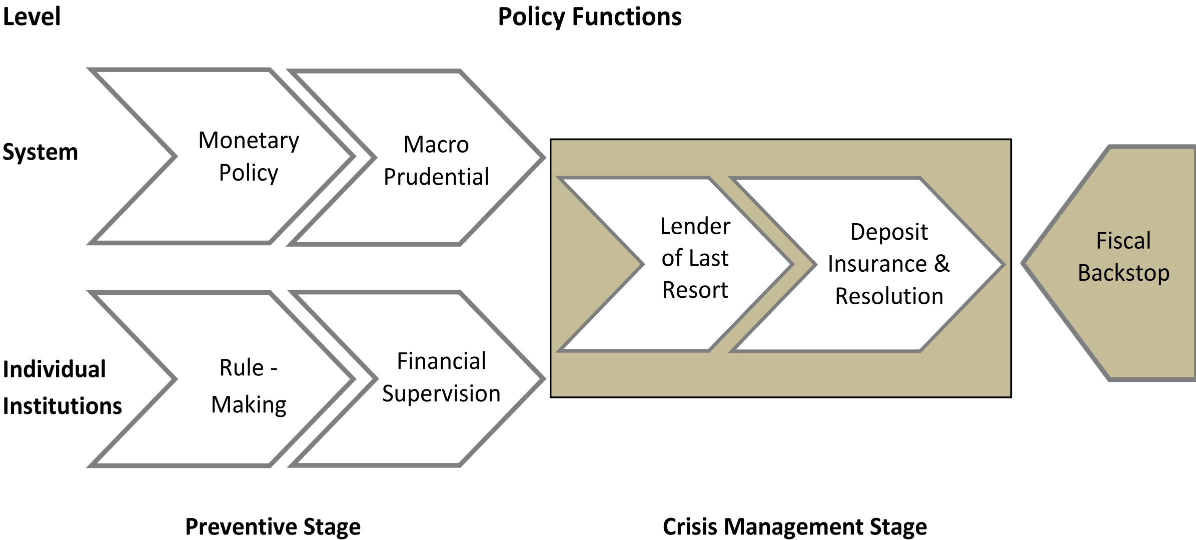
[3] The recent proposals on bail-in of bondholders do not eliminate the need for a fiscal backstop. It only creates a useful extra line of defence before taxpayers' money may need to be used in a systemic crisis (Schoenmaker, 2013c).

policies should be conducted at the European level to address the cross-border externalities from the largest European banks. Furthermore, a European approach counters the protectionist tendencies of national supervisors asking for subsidiaries (Schoenmaker, 2013c).

Figure 4 depicts the newly proposed framework. At the system level, monetary policy and macro-prudential are the key policy functions. The direction of the arrows indicates that the stance of monetary policy is first set by the central bank, followed by the macro-prudential policy stance (although there is some interaction between the two policies, as discussed in section 2). At the institutions level, rule-making and financial supervision are the key policy functions. Again, rules are first set. The supervisor monitors to what extent financial institutions act within these financial regulations. The vertical alignment of the functions indicates that macro-prudential policy (placed at the top row) can override financial supervision (placed at the bottom row).

Turning to the crisis management stage, the system and individual institutions levels come together. Lender of last resort support may be available to the banking system, if the interbank market is not functioning as in the Great Financial Crisis. Next, lender of last resort is in principle only available for individual ailing banks that pose a risk to the wider financial system. Without such systemic risk, individual banks in difficulties should be closed down. Potential lender of last resort support is often the first phase of crisis management. Nieto and Wall (2006) stress the need for prompt corrective action. Supervisors and resolution authorities should quickly decide how to resolve an ailing bank: (partly) winding down or recapitalising. Forbearance (that is keeping the bank open on liquidity support hoping for better days) may make the situation worse and provides the wrong incentive for banks to gamble for resurrection (ASC, 2012). The final stage in Figure 4 is the fiscal backstop.

Figure 4. A proposed integrated financial framework for Banking Union



Applying the integrated financial framework

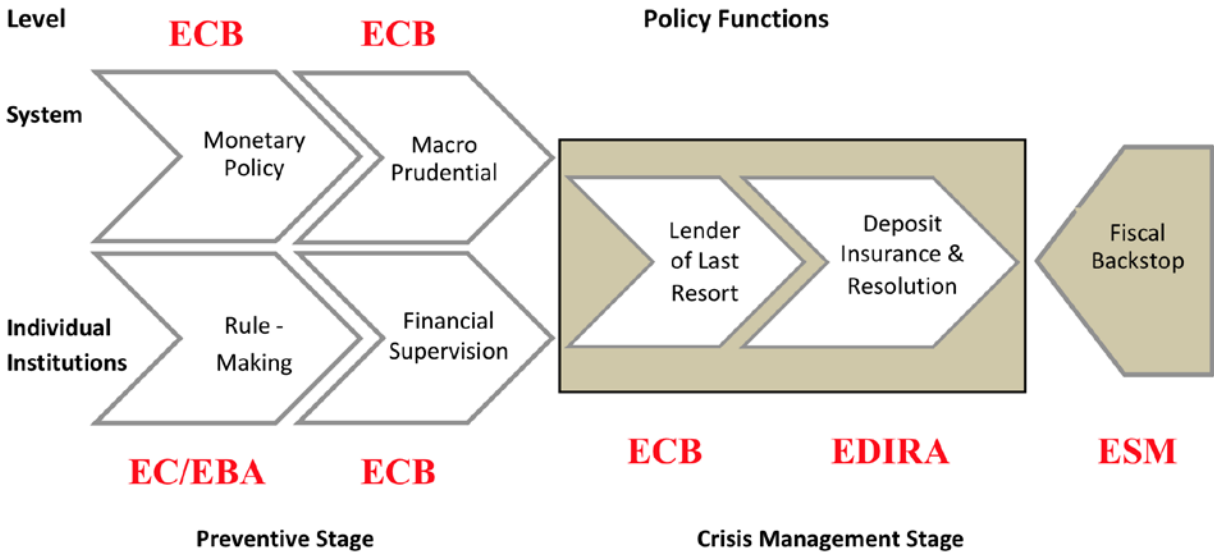
The approach for financial stability (ECB or NCBs) and the approach for supervision and resolution (European or national) should be aligned. The organisation of the safety net determines the ultimate choice. If banks are resolved at the European level with a fiscal backstop from the ESM, then preventive macro-prudential policy and micro-prudential supervision should also be organised at the European level.

Figure 5 illustrates our proposal for an integrated approach at the European level. While the ESCB, the European System of Central Banks comprising the ECB and the participating NCBs, has the formal responsibility for monetary policy (Articles 2 and 3 of the Statute of the ESCB and the ECB), the ECB is the central player. We propose also to assign the macro-prudential policy to the ECB -to be executed in close cooperation with the NCBs-, as we explain below. The power for supervisory rule-making rests with the European Commission (EC), which has the right of initiative. The European Banking Authority (EBA) is responsible for developing the technical standards in the single rulebook. The supervisory task in the prospective Banking Union (European Commission, 2012) is assigned to the ECB. While the ECB has to use the national competent authorities (the national central bank or the relevant national supervisor) in the Single Supervisory Mechanism (SSM), the ECB has ultimate responsibility for micro-prudential supervision. In particular, for the smaller, less systemic, banks, the ECB will use the national supervisors for practical as well as political reasons. The most systemic euro area banks are then handled, to a large extent exclusively, by the ECB.

The ECB has already been conducting lender of last operations on a large scale since the 2007-2009 financial crisis. Again the ECB and the NCBs can conduct credit operations with credit institutions (Article 18 of the Statute of the ESCB and the ECB). Our proposal here is that the ECB conduct such credit operations on its own account (i.e. for its own risk) within Banking Union. Schoenmaker and Gros (2012) propose to establish a new European Deposit Insurance and Resolution Authority (EDIRA). Importantly, this new Authority should set up a European Deposit and Insurance and Resolution Fund, financed by risk-based premia levied on the insured banks under European supervision. In that way, a substantial fund can be built through bank fees. This fund would provide a further source of financing for deposit insurance and resolution, after bail-in instruments are fully deployed (see Schoenmaker (2013c) on the feasibility of bail-in). Finally, the ESM would provide the fiscal backstop to the fund.

A distinction should be made between current tasks that are already (or will be) assigned to an existing European body and new tasks that we propose to assign to an existing or new European body. So, what is standing policy of the European Commission and Council and what are our policy proposals to complete the integrated framework? On standing policy, monetary policy is already assigned to the ECB, while rule-making is a task of the European Commission (primary legislation) and EBA (secondary legislation). The new Commission proposal is to assign financial supervision to the ECB (European Commission, 2012). The fiscal backstop is assigned to the ESM. Moving to our proposals, we give the ECB a central role in macro-prudential policy. Next, we suggest that the ECB will take over the lender of last resort function from the national central banks. Finally, we propose to establish a new European Deposit Insurance and Resolution Authority (EDIRA).

Figure 5. European bodies in the proposed integrated financial framework



While much has been written on the supervision, resolution and deposit insurance functions in the prospective Banking Union, it is not yet clear which body can best execute the new strategy for macro-prudential policy? In the aftermath of the global financial crisis, financial stability committees with a broad remit are emerging worldwide. The European Systemic Risk Board (ESRB) was established following the Larosière Report, while the US Financial Stability Oversight Council (FSOC) was created by the Dodd-Frank Act. Macro-prudential policy belongs explicitly to the mandate of these committees. To a varying degree, the central bank, the supervisory agencies and the treasury are represented on the financial stability committees (see IMF, 2011, for an overview).

Committee decision-making tends be more balanced than decision-making by individuals. But this is typically true for committees acting as a body of a single institution (e.g. the executive board of a company or the monetary policy committee of a central bank) or a single system of related institutions (e.g. the Eurosystem or the Federal Reserve System). The benefits of committee decision-making need not directly extend to committees representing more or less independent institutions with differing objectives that are supposed to work together. Visser and Swank (2007), for example, show that reputational concerns induce members to manipulate information and vote strategically if their preferences differ considerably.

Decision-making within bureaucracies is far more efficient than across bureaucracies. Each institution or bureaucracy has its own interests and objectives. Furthermore, each institution has its own culture. In an empirical survey, Goodhart, Schoenmaker and Dasgupta (2002) show that central bankers and supervisors have different skill-sets and cultures. The dominant culture at central banks is centred around economists, while supervisors tend to be dominated by accountants and lawyers. That will also lead to a different perspective: macro versus micro. This differing objectives and perspectives complicate timely information exchange between institutions as well as decision-making in broad-based committees. An illustration is

the Northern Rock case, in which crisis management by committee did not appear to be very effective.

So we argue to give the macro-prudential policy mandate to a single body to foster efficient and timely decision-making. That body should be the central bank. Central banks have a mandate for price stability as well as financial stability. Both mandates steer the overall economy, though with differing objectives. Although the first mandate is explicitly enshrined in legislation, lawmakers are now working on strengthening the financial stability mandate of central banks. The central bank may use a committee with independent outsiders to avoid group thinking. But the crux is that the committee is part of a single body. A case in point is the envisaged Financial Policy Committee that will be part of the Bank of England.

The alternative body would be the supervisory agency. It may be tempting to give supervisors macro-prudential tools as these tools are related to micro-prudential tools. The countercyclical capital buffer (macro) is, for example, part of the larger capital adequacy framework (micro), but with a different underlying objective. Moreover, such macro-prudential tools also seem to share the same legal base (prudential instruments are written down in detailed legislation, while price stability is only defined in broad terms). The key is in separating between the macro part and the micro part. Micro-prudential tools are subject to minimum harmonisation across the EU. Macro-prudential tools are add-ons or exceptions to the minimum that address diverging financial cycles.[4] The macro-prudential authority decides on the macro part (the size of the countercyclical capital buffer). The implementation may subsequently be done by the micro-prudential supervisor if that is more efficient (e.g. implementing the overall capital adequacy framework).[5]

Our proposal is that:

1. central banks get final responsibility for macro-prudential policy (including powers to apply macro-prudential instruments); and
2. financial stability committees are used to discuss financial stability developments and to dovetail monetary, macro-prudential and micro-prudential policies.

Following this proposal, the ESRB is the forum to analyse vulnerabilities in the European financial system and discuss macro-prudential policies for the wider European Union.[6] It allows for aligning macro-prudential policies inside the Banking Union and the countries outside Banking Union (UK, Sweden, and others). Moreover, it allows for input from the sectoral European supervisory authorities (EBA, EIOPA and ESMA). The ESRB can give recommendations and warnings if needed, but it does not have power over macro-prudential tools.

To ensure the pro-active use of macro-prudential tools, the conduct of macro-prudential policy is assigned to the ECB and the national competent authorities (NCAs) inside the Banking Union and to the NCAs outside the Banking Union. The draft Council Regulation for

[4] This is even more relevant in monetary union since differences in inflation and real interest rates correlate strongly with national financial cycles.
[5] The Eurosystem provides, for example, a similar division of labour for monetary policy. The Governing Council decides on the policy interest rate, while the NCBs implement the policy rate through open market operations.
[6] I am grateful to Andre Sapir for discussions on the appropriate organisation of macro-prudential supervision in the Banking Union.

prudential supervision at the ECB (European Council, 2012) assigns the macro-prudential tools related to the Capital Adequacy Directive/Regulation to the NCAs and the ECB. The ECB would then get a financial stability mandate in addition to its existing monetary policy mandate. That would be consistent with our support for central banks combining monetary policy and financial stability, as discussed above in Section 2.

Coordination European and national level

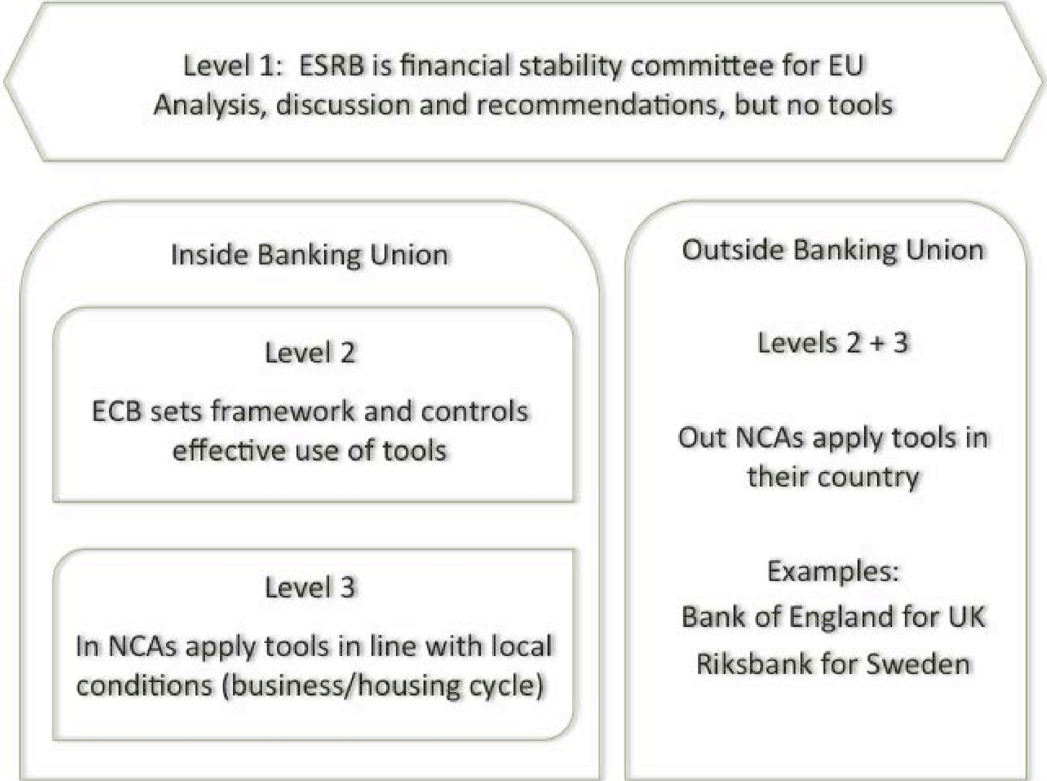
There is an important issue of coordination between the European and national level. The financial cycle tends to differ between countries, also within the euro area. So, the countercyclical capital buffer (to rein in excessive credit growth) is set at the country level in the Basel III framework. Furthermore, house prices, an important driver of the financial cycle (Claessens, Kose, and Terrones, 2011), are local in Europe. The same is true for the US, where house price developments can differ significantly between states. Housing markets thus tends to be local, even in some cases regional, but certainly not supranational.

Next, interfering in housing is political. While the ECB was allowed to develop its own definition of price stability, there should be political involvement of the relevant authorities in the setting of macro-prudential policies. If, for example, housing prices were rising sharply in, say, the Netherlands, but nowhere else, one would want the Dutch authorities to have a proportionate much greater say in that decision than central banks, supervisors and treasuries from elsewhere. This is just another aspect of the problem that macro-prudential needs to be applied at a more granular level than Banking Union. To some extent the same problem may occur in other large geographical areas, like Canada, the US, or Australia.

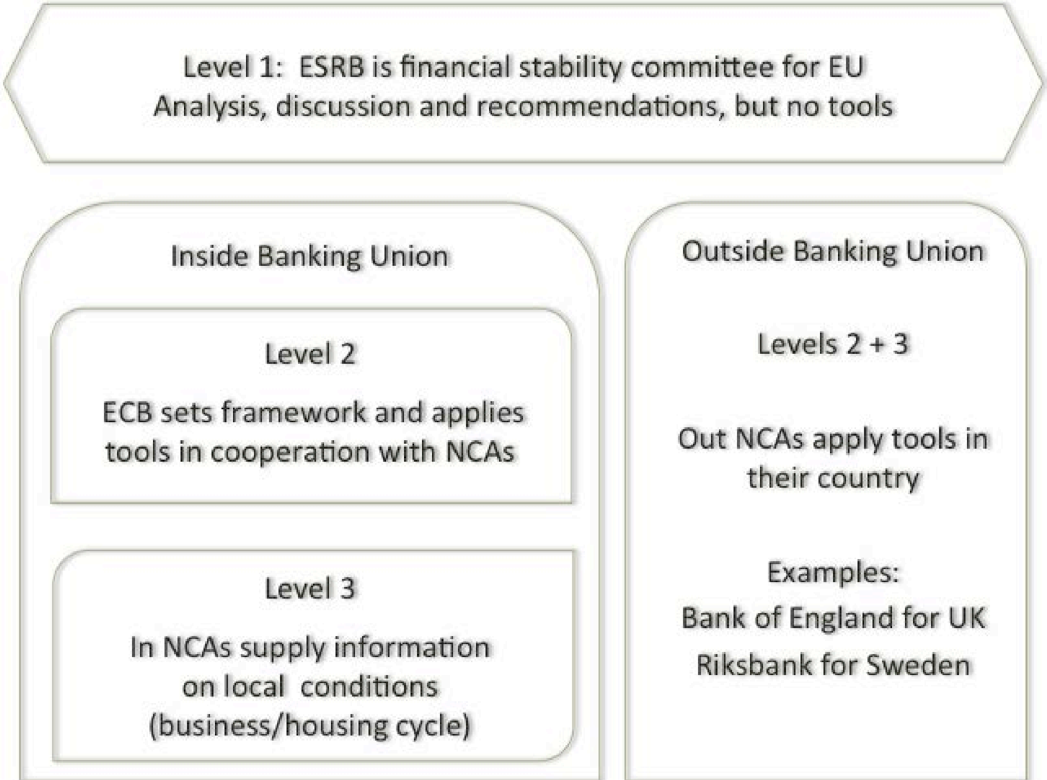
The ECB and the NCAs have to cooperate to apply the macro-prudential tools inside the Banking Union, according to Article 4a of the draft Council Regulation for prudential supervision at the ECB (European Council, 2012). On the question of division of responsibility, we note that two main models, with different levels of centralisation, are possible.

In the decentralised model (Model 1), the ECB would set the macro-prudential framework (including the overall design of the policy strategy on how to use macro-prudential tools) and the in-NCAs would apply the tools in their respective countries (using their powers under paragraph 1 of Article 4a). Nonetheless, the ECB would control the effective use of tools, since it has the right to set higher requirements than the national authorities according to Article 4a(2) of the draft SSM regulation.

Model 1: ECB sets framework; NCAs apply tools



Model 2: ECB sets framework and applies tools; NCAs provide input on local conditions



In the centralised model (Model 2), the ECB would set not only the macro-prudential framework but directly apply the macro-prudential tools in cooperation with the in-NCAs. The main task of in-NCAs would be to provide information about their local business/housing cycle and to make a recommendation to the ECB, which would take the final decision using its power under Article 4a(2) of the draft SSM regulation.

Both models seem to be compatible with Article 4a of the draft SSM regulation, though the decentralised model is probably closer to the spirit of the text, while the centralised model is more appealing since the ECB has effective control over the relevant macro-prudential tools. We favour the centralised model simply for reasons of coherence since the ECB will be in charge of micro-prudential instruments that will also be used for macro-prudential purposes.

However, the ECB powers only apply to macro-prudential tools that are provided for in relevant acts of Union law, in particular the Capital Adequacy Directive/Regulation. Those that are not provided for in such acts cannot, by definition, be conferred on the ECB by the SSM regulation and will remain therefore entirely under the responsibility of national authorities. Hence even the centralised model would only be partially centralised.

In general, the centralised model should not imply a uniform application of the macro-prudential tools across the countries in the SSM since they would be expected to face different business or housing cycles. However, in some instances, the ECB may wish to apply (or to encourage NCAs to do so) a uniform macro-prudential requirement when a particular asset is increasing too fast in many SSM countries.

Interaction macro and micro

There is trade-off is between macro- and micro-prudential objectives, as argued in Section 2. If there is a conflict between these objectives, we suggest that the macro-prudential concerns should override the micro-prudential concerns. The stability of the financial system is more important than the stability of individual institutions.

Again, two models for the organisation of micro- and macro-prudential decisions within the ECB are possible. One model would be to take both micro- and macro-prudential decisions within the Supervisory Board, which would then be simply validated by the Governing Council. There are advantages with this approach in terms of coherence but there is also a major drawback. Since discussions in the Supervisory Board are likely to be dominated by micro-supervisory issues about individual banks, the Board might lose sight of, or give too little weight to, macro-prudential considerations (see section 2).

Another model would be to have a more active involvement of the Governing Council in macro-prudential decisions, rather than simply validating the decisions by the Supervisory Board. In the limit, one might have a situation where micro-prudential decisions area taken by the Supervisory Board (whose members are primarily financial supervisors dealing with micro risks) subject to validation by the Governing Council, whereas macro-prudential decisions are taken by the Governing Council (whose members are central bankers who deal mainly with macro risks) alone, with simply an input from one of the technical committees working for the Supervisory Board. We favour this option because it gives greater weight to macro-prudential considerations.

Summing up

We argue that the ECB should develop into a full, classical, central bank with monetary stability and financial stability tasks (Goodhart, 2011). The latter task covers the macro-prudential and lender of last resort operations. Following the Banque de France and Bank of England model, the ECB's supervisory function is executed in a separate, but related, body, the Supervisory Board, with its own Chair. This divisional separation is useful for separating reputation risk. It also reduces the risk that the ECB is bogged down by the details of individual banks, while losing sight of emerging imbalances in the wider financial system.

5. Concluding remarks

At the national level, there is a risk of group think which may lead to an inaction bias on the macro-prudential front. A good example of group think is Ireland, where the build-up of the real estate bubble was not recognised as such by the relevant policy-makers. Another example is the Netherlands, where the warnings of the IMF about the impact of the tax relief of mortgage interest rate payments on retail housing prices were ignored. National authorities may be more subject to the "This time is different" syndrome, described by Reinhart and Rogoff (2009), while supranational authorities are by their nature more detached from the local situation and have often experience with similar situations in other countries.

Macro-prudential should thus be a euro-area wide, or even broader Banking Union wide, responsibility. The ECB (and participating NCBs) would get a financial stability mandate in addition to its existing monetary policy mandate. That would be consistent with our support for central banks combining monetary policy and financial stability. While the ECB may design a common set of macro-prudential tools (such as countercyclical buffers, LTV and LTI ratios, funding ratios, and margin requirements), these tools need to be differentiated at the national level, as the national financial systems differ (e.g. the institutional design of the housing market varies across the euro-area). So, local input via the national competent authorities (NCAs) is crucial for an effective conduct of macro-prudential policy. Nevertheless, the pro-active use of the macro-prudential tools should be monitored and controlled at the ECB.

A final word on the interaction between macro-prudential and micro-prudential policies. There is a tendency to mix these policies, as they are all 'prudential'. But there is a clear difference between the macro- and micro-prudential perspectives. If there is a conflict between these objectives, we suggest that the macro-prudential concerns should override the micro-prudential concerns. The stability of the financial system is more important than the stability of individual institutions.

References

Adrian, T. and H. Shin (2008), Financial Intermediaries, Financial Stability, and Monetary Policy, *Federal Reserve Bank of New York Staff Report* No.346.

Advisory Scientific Committee (2012), Forbearance, Resolution and Deposit Insurance, *Reports of the Advisory Scientific Committee* No. 1, Frankfurt: European Systemic Risk Board.

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, London.

Beck, T. and D. Gros (2012), Monetary Policy and Banking Supervision: Coordination instead of Separation, *CEPS Policy Brief* No. 286.

Borio, C. (2003), Towards a Macroprudential Framework for Financial Supervision and Regulation?, *CESifo Economic Studies* 49, 181-215.

Brunnermeier, M., A. Crockett, C. Goodhart, A. Persaud and H. Shin (2009), The Fundamental Principles of Financial Regulation, 11th Geneva Report on the World Economy, CEPR, London.

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, CEPR, London.

Claessens, S., A. Kose, and M. Terrones (2011), Financial Cycles: What? How? When?, *CEPR Discussion Paper*, No. 8379.

Dewatripont, M. and J. Tirole (1994), *Prudential Regulation of Banks*, Cambridge (MA): MIT Press.

European Commission (2012), A Roadmap towards a Banking Union, COM(2012) 510 final, Brussels.

European Council (2012), Proposal for a Council Regulation conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions, Interinstitutional File 2012/0242 (CNS), Brussels.

Goodhart, C. (2011), The Changing Role of Central Banks, *Financial History Review* 18, 135-154.

Goodhart, C. and D. Schoenmaker (1995), "Should the Functions of Monetary Policy and Banking Supervision Be Separated?, *Oxford Economic Papers* 47, 539-60.

Goodhart, C., D. Schoenmaker, and P. Dasgupta (2002), The Skill Profile of Central Bankers and Supervisors, *European Finance Review* 6, 397-427.

Hanson, S., A. Kashyap, and J. Stein (2011), A Macroprudential Approach to Financial Regulation, *Journal of Economic Perspectives* 25, 3–28.

International Monetary Fund (2011), Macroprudential Policy: An Organizing Framework, Washington D.C.

Ioannidou, V. (2012), A First Step Towards a Banking Union, in: T. Beck (ed.), *Banking Union for Europe: Risk and Challenges*, A VoxEU.org Book, CEPR, London.

Kremers, J. and D. Schoenmaker (2010), Twin Peaks: Experiences in the Netherlands, *Special Paper*, no. 196, LSE Financial Markets Group, London.

Kremers, J., D. Schoenmaker and P. Wierts (2003), ‘Cross-Sector Supervision: Which Model?’, in: Richard Herring and Robert Litan (eds), *Brookings-Wharton Papers on Financial Services: 2003*, Brookings Institution Press, Washington D.C., 225-243.

Mundell, R. (1962), The Appropriate Use of Monetary and Fiscal Policy for Internal and External Stability, *IMF Staff Papers* 9, 70-79.

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?, *Working Paper* 2006-27, Federal Reserve Bank of Atlanta.

Reinhart, C.M. and K.S. Rogoff (2009), *This Time Is Different: Eight Centuries of Financial Folly*, Princeton University Press, Princeton.

Schoenmaker, D. (2013a), Central Banks Role in Financial Stability, in: Gerard Caprio (ed), *Handbook of Safeguarding Global Financial Stability*, Vol 2., Elsevier, Amsterdam, 271-284.

Schoenmaker, D. (2013b), *Governance of International Banking: The Financial Trilemma*, New York, Oxford University Press.

Schoenmaker, D. (2013c), Post-Crisis Reversal in Banking and Insurance Integration: An Empirical Survey, *European Economy - Economic Papers*, forthcoming, DG ECFIN, Brussels.

Schoenmaker, D. and D. Gros (2012), A European Deposit Insurance and Resolution Fund: An Update, *Duisenberg School of Finance Policy Paper* No. 26.

Schoenmaker, D. and P. Wierts (2011), Macroprudential Policy: The Need for a Coherent Policy, *Duisenberg School of Finance Policy Paper* No. 13.

Tinbergen, J. (1952), *On the Theory of Economic Policy*, North Holland, Amsterdam.

Visser, B. and O. Swank (2007), On Committees of Experts, *Quarterly Journal of Economics* 122, 337-372.

KC-AI-13-495-EN-N