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**FINANCIAL MARKET STABILITY IN THE EUROPEAN UNION: ENHANCING REGULATION
AND SUPERVISION**

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ABSTRACT/RÉSUMÉ

Financial market stability in the European Union: Enhancing regulation and supervision

Financial innovation and integration have spurred financial development and enhanced consumer choice. Financial integration has also been associated with the emergence of large, complex, cross-border financial institutions (LCFIs). This has changed risk profiles and made cross-border contagion more likely. An important challenge for the EU is to manage systemic risks and cross-border contagion to ensure financial stability in an integrated financial market. The financial market turmoil has also highlighted some gaps in the regulatory and supervisory framework. Although the European authorities should be commended for the progress they have made in updating and improving frameworks and responding to the financial turmoil, more can be done. In particular, further steps are needed to remove the mismatch between integrating European financial markets on the one hand, and largely national supervision on the other. Attention should also be given to the question of which measures are adequate to dampen the procyclicality of the financial system. New regulations should not impose unnecessary costs on consumers, businesses and financial institutions, nor create obstacles to further market integration.

This Working Paper relates to the 2009 *Economic Survey of the Euro area*.
([www.oecd.org/eco/surveys/Euro Area](http://www.oecd.org/eco/surveys/Euro%20Area))

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Stabilité des marchés de capitaux dans l'Union Européenne: améliorer la réglementation et le contrôle

L'innovation et l'intégration financières ont favorisé le développement de la sphère financière et élargi les choix offerts aux consommateurs. L'intégration financière a aussi été de pair avec la formation de grandes institutions financières transnationales (GIFT) complexes. Ce phénomène a modifié les profils de risque et accru les risques de contagion transnationale. Pour l'UE, l'un des grands problèmes consiste à maîtriser le risque systémique et la contagion transnationale afin d'assurer la stabilité financière sur un marché des capitaux intégré. La tourmente financière a aussi mis en relief un certain nombre de failles du dispositif de réglementation et de contrôle. Bien que les autorités européennes méritent d'être félicitées pour leurs progrès dans le sens de la modernisation et de l'amélioration de leurs dispositifs et pour leur réaction à la tourmente financière, on peut faire davantage. En particulier, de nouvelles mesures sont nécessaires afin de remédier au décalage entre l'intégration des marchés européens de capitaux d'une part et des régimes de contrôle à caractère largement national de l'autre. Il convient en outre de se demander quelles mesures faut-il mettre en œuvre pour atténuer le penchant procyclique du système financier. Les nouveaux règlements ne doivent pas faire peser des coûts inutiles sur les consommateurs, les entreprises et les institutions financières, ni entraver la poursuite de l'intégration des marchés.

Ce document de travail porte sur l'*Étude économique du Zone euro*
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Mots clés : Réglementation financière ; surveillance financière ; crises financières ; Europe.

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Financial market stability in the European Union: Enhancing regulation and supervision

By Jeremy Lawson, Sebastian Barnes and Marte Sollie¹

Introduction

1. Financial integration spurs financial development, improves economic outcomes and enhances consumer welfare. By providing greater diversification, financial integration and development can reduce risks. However, integration can also accentuate systemic risks by increasing the complexity of the financial system as institutions become more interconnected, and by encouraging the growth of large cross-border financial institutions (LCFIs), of which there were just under 70 in Europe in 2007.² Such institutions can heighten risks by increasing the impact of bank failures, by acting as a conduit for shocks between markets or by being seen as “too big to fail”, thereby worsening moral hazard. The more integrated economic environment in which banks function may also increase the correlation of financial sector developments across Europe (Decressin, 2007). Although the trend towards financial integration is putting pressure on financial stability arrangements in many countries, the challenges facing the Union are unique because integration has proceeded more rapidly in the EU than in most other countries. This will probably continue, as past initiatives and proposals for additional legislation are likely to further stimulate integration.

2. Cross-border financial groups increasingly organise themselves beyond national boundaries and legal structures, as they seek to increase efficiency and minimise costs. They tend to centralise liquidity, risk and asset-liability management, and to ignore or downplay the distinctions between branches and subsidiaries in their business model. However, the overall stability of the financial system remains primarily a national responsibility, with cross-border financial institutions mostly supervised by the authorities in the country where they are licensed. This division of responsibility can create tensions between countries where a financial institution is active, particularly where there is a large foreign bank presence in a local market. Though based on the Basel Accords and several directives, national supervisory frameworks vary across the EU and no consistent supervisory framework has yet emerged at the EU or euro area level. This might create an uneven playing field, as regulations and enforcement practices differ across jurisdictions. Having to deal with different regulatory and supervisory practices within a financial

1. The authors are economists in the Economics Department of the OECD. The paper is based largely on work originally prepared for the Economic Survey of the Euro area published in January 2009 under the authority of the Economic and Development Review Committee (EDRC). The authors would like to thank Peter Hoeller, Andrew Dean and colleagues in the Financial and Enterprise Affairs Directorate of the OECD for comments on earlier drafts, but retain full responsibility for any errors or omissions. Thanks also to Isabelle Duong for excellent technical assistance and to Deirdre Claassen for technical preparation.

2. According to the European Commission (2007) there were 68 “financial conglomerates” with a head of group within the EU/EEA as of November 2007.

group can also increase costs.³ More importantly, although colleges of supervisors have access to supervisory information on EU-wide cross-border banks, a fragmented supervisory framework could fail to prevent or respond adequately to a major financial crisis.

3. The euro area together with other major economies has experienced the turning of a prolonged credit cycle, which was driven by a combination of low global interest rates and financial innovation, and led to a rapid expansion of credit and booming asset prices. A feature of the credit cycle was strong demand for relatively new, risky asset classes such as subprime residential mortgage-backed securities. As default rates on subprime mortgages increased, uncertainty mounted about the quality of the underlying assets and the distribution of losses. This has led to a drying up of liquidity in markets for structured products, and made banks reluctant to lend. Although some features of the current crisis will probably be addressed by the market itself, the recent financial turmoil suggests that there is scope for improving prudential frameworks.

4. This chapter reviews the adequacy of the existing prudential framework in the EU, as well as recent proposals to reform the framework, in the light of the rapid integration of EU financial markets and the recent financial turmoil. Although recent reforms improve on the current framework, more can be done to simplify the system and align EU prudential regulation and supervision with the increasingly cross-border business models of European financial institutions. There is also scope to reduce the pro-cyclicality of the financial system.

Why prudential regulation is necessary

5. Asymmetric information between borrowers and lenders, as well as other market failures, make the banking and broader financial sector susceptible to bouts of instability (Box 1).^{4,5} Because the negative externalities generated by such instability are not easily overcome by the private sector, and because governments have tended to be the “provider of solvency” of last resort, banks have been regulated for a long time. However, the extent to which public sector agencies should intervene in the market is difficult to establish.

Box 1. Sources of banking instability

Banks have a critical role within the economy helping to transfer capital and risk efficiently between borrowers and savers. However, banking systems are also prone to bouts of instability, which can have negative flow-on effects to the real economy. Explanations for the instability of the banking system are often grounded in theories of asymmetric information; in markets for debt, lenders usually know less than borrowers about the riskiness of investment projects. This makes it difficult for lenders to discriminate between high quality and low quality borrowers.

There are a number of ways that asymmetric information impairs banking systems (Mishkin, 1990), including:

- Allowing low-quality borrowers (high-quality borrowers) to pay lower (higher) interest rates than is optimal,

3. Schüler and Heinemann (2005) find that the absence of scale economies in supervision adds 15% to the cost of banking in Europe. Additional costs are created as banks need to cope with different requirements and reporting systems.

4. A World Bank study shows that there were 112 systemic crises in 93 countries between the late 1970s and the end of the twentieth century (World Bank, 2001).

5. Reinhart and Rogoff (2008) estimate the average drop in output per capita to be over 2%. The worst crisis have reduced growth by five percentage points from their peak, and it takes more than three years for growth to regain the pre-crisis level. In the most extreme cases the costs of banking crises can easily run into double digits of GDP (Hoggarth and Saporta, 2001).

leading to an inefficient allocation of capital.

- Making the banking system pro-cyclical because tighter monetary conditions and lower collateral values make it harder for banks to identify borrowers with profitable investment opportunities.
- Accentuating moral hazard by giving borrowers an incentive to engage in activities that make default more likely.
- Encouraging contagion of bank runs by making it harder for depositors and investors to distinguish between solvent and insolvent institutions.

Other structural features of banking systems also contribute to their instability. For example, financial market participants may poorly measure changes in risk over time and have incentives to ignore the build-up of longer-term risks when making investment decisions (Borio *et al.*, 2001). Adrian and Shin (2007) see the pro-cyclicality of banks' leverage as a source of instability. In their model, when balance sheets are marked to market, increases in asset prices show up immediately as reductions in banks' leverage. This provides banks with surplus capital that they can use to expand their balance sheets. On the asset side they do this by taking on large amounts of short-term debt, while on the liability side banks look for new sources of lending. When asset prices and collateral begin to fall, liquidity dries up.

An alternative view is that incomplete financial markets are the ultimate source of banking crises (Allen and Carletti, 2008). When financial markets are incomplete (intermediaries cannot hedge all aggregate risks) liquidity provision is inefficient; it can only be provided by selling assets when required. However, because providers of liquidity have to be compensated for the opportunity cost of holding it in states where it is not needed, asset prices must be low, when banks need liquidity. Thus, inefficient liquidity provision becomes responsible for asset price volatility and can turn liquidity crises into solvency crises.

Recent innovations in banking markets may have accentuated banking instability. Traditionally, banks' long-term relationships with borrowers have helped them to discriminate between low and high risk borrowers, while holding loans on their balance sheet provides an incentive for banks to adequately screen borrowers. However, the trend over recent years for some commercial banks to bundle the loans they originate into securities, and sell them to investors, may have dulled the incentives to internalise the risks associated with these loans.

Finally, although the large potential economic cost of market failures in the banking sector provides a justification for government regulation, regulation can itself encourage destabilising behaviour. For example, deposit insurance (or other implicit government guarantees), which is designed to reduce the likelihood of bank runs, can generate moral hazard, because banks have an incentive to engage in excessively risky lending practices because the costs will be shared with the insurance fund or taxpayers, and depositors have little incentive to monitor their bank. Regulatory arbitrage can also be a source of instability. This occurs when regulated banks have an incentive to find loopholes in existing regulations or differences in regulation between countries, shift their activity to more lightly regulated jurisdictions, or where activity shifts from banks to less regulated institutions. Regulation may fail to keep pace with developments in banking markets. For example, over the past decade the number of large banks with an important presence in many countries has increased significantly. However, prudential regulation has remained based on national boundaries, making crisis resolution potentially more difficult.

Regulation of the banking and financial system should proceed with a clear understanding of the market failures it is trying to offset, and how specific regulations will address such failures, without unduly increasing risk elsewhere in the system.

6. There are three central objectives of regulation and supervision:

- Maintaining the stability of, and confidence in, the financial system by ensuring the solvency and soundness of financial institutions (prevention of systemic risk).
- Protecting investors, borrowers and other users of the financial system against undue risk of loss and other financial harm that may arise from failure, fraud, malpractice, manipulation and other misconduct on the part of providers of financial services (consumer/investor protection).
- Ensuring an efficient, reliable and effective functioning of financial markets, including a proper working of competitive market forces (conduct of business).

7. More generally though, it is difficult to determine where the line between statutory and self-regulation should be drawn, as a balance must be struck between promoting soundness on the one hand and wealth creation on the other. Unnecessary regulation may damage the functioning of financial markets, stifle innovation and hamper economic growth (de Serres *et al.*, 2006). Badly designed regulation can also enhance instability through regulatory arbitrage or by encouraging excessive risk taking. Moreover, just as lenders have less information about the riskiness of borrowers' investment projects, regulators and supervisors do not have complete information about the riskiness of banks' balance sheets, or the market conditions in which they operate. It is also difficult to accurately undertake cost-benefit analysis of banking regulations because bouts of instability can be infrequent and the costs of regulation diffuse. Consequently, regulation should proceed with a clear sense of its own limits.

8. Recent financial innovations and greater integration have also made regulation more difficult. Traditional distinctions between different activities - banking, securities dealing, insurance and asset management - have become blurred and national distinctions are evaporating in many markets. Although, traditional banking is still the main activity of most banks and most operate within a single country, integration has increased the exposure of banks to systemic risk and the greater inter-linkages in the financial system have made cross-border contagion more likely. The increase in the number of large cross-border financial institutions may also mean that there are more institutions that are "too big to fail". Innovation has rendered the financial system and its oversight much more complex. Many of the new instruments are not regularly traded, which makes it more difficult to assess the soundness of institutions' balance sheets - a problem accentuated by the increase in institutions' off-balance sheet activities. All of these issues emphasise the need for a fresh look at the current functioning of the financial system as well as the regulatory and supervisory framework.

Recent turmoil in financial markets

9. The euro area together with other major economies has experienced the turning of a prolonged credit cycle, which was driven by a combination of low global interest rates and financial innovation, and led to a rapid expansion of credit and booming asset prices. The turning of the cycle has coincided with a sharp drop in confidence in financial institutions and a prolonged period of turmoil in international financial markets. Against the backdrop of historically low interest rates on traditionally low-risk investments, institutional and retail investors had moved into new and more risky assets in search of higher yield. This was evident in a number of developments, including the increase in "carry trades", the growth in alternative investment vehicles such as hedge funds, and strong demand for relatively new asset classes such as subprime residential mortgage-backed securities and other types of structured financial products, such as collateralised debt obligations (CDOs). This demand together with favourable regulatory capital requirements on mortgages held in the trading account rather than as loans on the banks' balance sheet supported the rapid growth of the "originate-and distribute" model of credit intermediation, in which underlying credit risk is first unbundled and then repackaged, tiered, securitised, and distributed to investors. As default rates on US subprime mortgages increased beyond expectations in the early summer of 2007, and it became clear that there had been insufficient due diligence on securitised assets, uncertainty mounted about the quality of the underlying assets and the distribution of losses. In the search for yield, the leverage taken on by many institutions increased and the collateral to back the outstanding loans declined in quality.

10. The current market dislocations partly reflect a lack of knowledge as to who is ultimately bearing the losses. The opacity of many structured products makes it difficult for investors and third parties to fully understand and value them. Not only were ratings of these products based on overly optimistic assumptions, but changes to these ratings occurred too slowly. Widespread uncertainty about the distribution of losses and the financial situation of various participants led to a drying up of liquidity in

markets for structured products. With growing concerns about counterparty risk, banks became reluctant to lend even at very short horizons and are hoarding liquidity. As time passed, weaknesses in underlying asset quality have become more evident.

11. Some of the more idiosyncratic characteristics of the current crisis will probably be addressed by the market itself, as investors learn to avoid the same mistakes. What is more interesting is the extent to which the current turmoil is similar to previous episodes, since the similarities are likely to reflect the more enduring features of the dynamics of financial instability (Reinhart and Rogoff, 2008). Most episodes of financial distress of a systemic nature, with potentially significant implications for the real economy, stem from excessive risk-taking and rapid expansion of balance sheets in good times, with risks masked by a vibrant economy (Borio, 2008). Rising exposure to risk generates financial vulnerabilities revealed only once the economic environment becomes less benign, in turn contributing to its further deterioration. The risks that build up in good times materialise in the downturn. This build-up and unwinding of financial imbalances has been coined the “excessive pro-cyclicality” of the financial system (Borio *et al.*, 2001 and Goodhart, 2004).

Effects of the financial crisis on European banks

12. The institutions most visibly affected by the financial crisis have been banks. In the United States and elsewhere many have announced large write-downs both directly and indirectly linked to the troubled subprime mortgage market, been forced to raise new capital through rights issues and other exceptional measures, and undergone an involuntary expansion of their balance sheets, as borrowers draw on pre-agreed credit lines or off-balance sheet entities are being brought onto the balance sheet. A number of institutions have failed, been sold cheaply to other financial institutions, and been nationalised or received large capital injections from governments. The strains have also spread to insurers and hedge funds. Further deteriorations in asset quality are possible if property prices continue to soften, credit terms are tightened further and the overall economy also weakens further. Early in 2008, the OECD (2008) estimated that overall losses will reach \$ 420 billion, based on a 40% recovery on defaulting loans and a scenario for the economy and house prices benchmarked on previous episodes. The recent intensification of the turmoil means that these losses will almost certainly be larger than this estimate, though the enormous uncertainty about how the current episode will play out makes forecasting losses very difficult.

Europe appeared to weather the first phase of the financial crisis reasonably well, aided by ECB actions to extend and broaden liquidity provision. European investors did not appear to have a disproportionate exposure to toxic assets, though some institutions made substantial losses. Further, among the world’s largest 30 banks, the decline in capital-to-assets ratios for euro area banks over 2007 was noticeably less than for US banks (The Banker, 2008). This was supported by evidence from the ECB’s July 2008 Bank Lending Survey, which suggested that for most euro area banks capital has not been affected by the financial market turmoil. However, the intensification of the financial crisis in mid-September 2008 changed the outlook for Europe dramatically. Spreads on interbank lending rates and credit default swap rates surged, financial stocks collapsed, and a number of large cross-border European banks had to be rescued by governments (Figure 1). This in turn brought about further liquidity injections by the ECB and prompt coordinated action from European governments to safeguard the short-term stability of their financial systems (see Box 2). According to the ECB’s October Bank Lending Survey, the financial turmoil hampered access to money markets and debt securities to a much greater extent than in the second quarter of 2008. Lending to enterprises was more affected than lending to households. Although financial markets have stabilised more recently, the European banking sector remains exposed to further risks. Many euro area banks have low capital-to-asset ratios and low credit ratings. Moreover, because the credit and economic cycle turned later in the EU than in the United States, conditions in the European banking sector could worsen as conditions in housing markets and the broader economy deteriorate.

Box 2. Coordinated action by European governments to safeguard the stability of the financial system

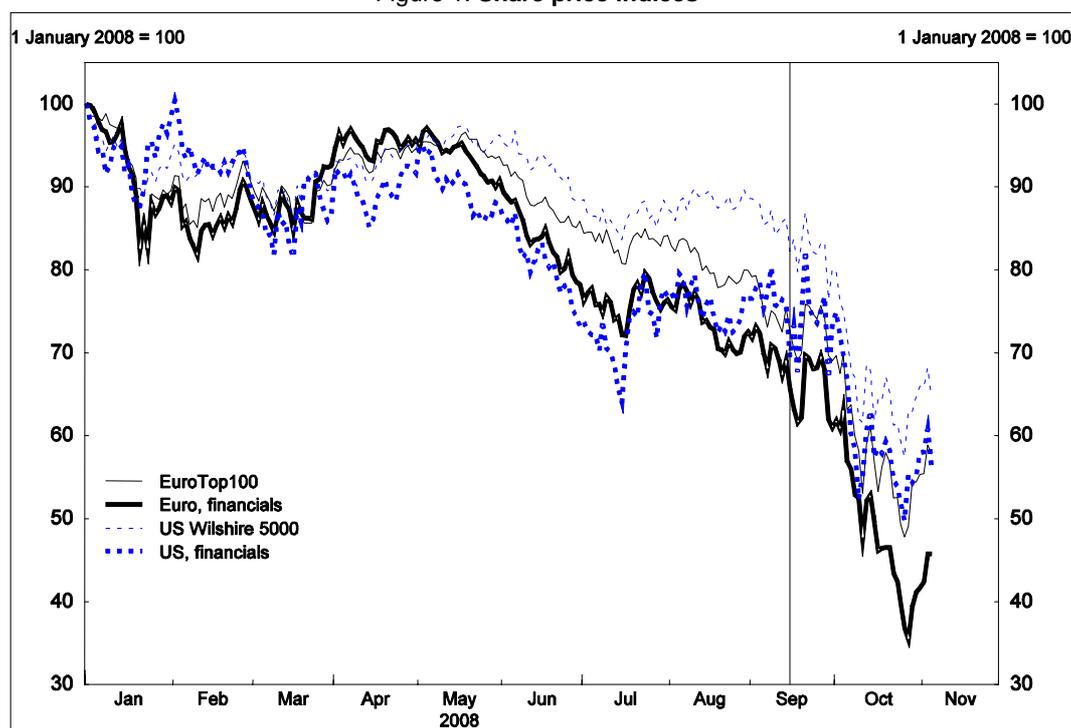
In October, European governments agreed to the following set of guidelines for specific actions to stabilise the financial sector:

- Ensure appropriate liquidity conditions for financial institutions.
 - Facilitate the funding of banks by making available a government guarantee of new medium term (up to 5 years) bank senior debt issuance.
 - Depending on market conditions in each country, actions may be targeted at some specific and relevant types of debt issuance.
 - The price of instruments should reflect their value in normal market conditions.
 - All financial institutions incorporated and operating in euro area countries and subsidiaries of foreign institutions with substantial operations will be eligible.
 - The scheme will be limited in amount, temporary and will be applied under close scrutiny of financial authorities, until December 31, 2009.
- Provide financial institutions with additional capital resources and allow for efficient recapitalisation of banks.
 - Each member state will make Tier 1 capital available by acquiring preferred shares or other instruments including non dilutive ones.
 - Price conditions shall take into account the market situation of each institution.
 - Governments will provide capital when needed but prefer private capital to be raised.
 - Financial institutions should face additional restrictions to prevent abuse of arrangements at the expense of non beneficiaries.
 - Prudential rules should be implemented by national supervisors with a view to stabilising the financial system and allowing for an efficient recapitalisation of distressed banks.
 - Emergency recapitalisation of a given institution shall be followed by an appropriate restructuring plan.
- Ensure sufficient flexibility in the implementation of accounting rules given current exceptional market circumstances.
- Enhance co-operation procedures among European countries.

These measures form part of what the European Commission has called "A New Financial Market Architecture at EU Level". Other measures include previously announced proposals relating to deposit guarantees, capital requirements, and countering the pro-cyclicality of regulation and accounting standards. These are discussed later in the chapter.

Individual governments have since released details of how these measures will be carried out in their country. While the response to the deterioration in financial conditions is welcome, it remains to be seen whether they will be sufficient to unfreeze interbank lending markets or prevent further tightening of lending standards. Although European governments have now set aside funds for the recapitalisation of banks, to date, few have actually made use of these funds. This seems appropriate in the short-term because banks should first be given the opportunity to find private funding. However, if private funds are not forthcoming, governments may have to be proactive in forcibly recapitalising banking systems.

In addition, some countries' decisions to provide blanket guarantees of deposits, or guarantee that no institution, whether systemic or not, will be allowed to fail, could sow the seeds of future banking problems. More broadly, as set out by the European authorities, interventions should be timely and temporary, mindful of taxpayers' interests, ensure that existing shareholders bear the consequences of interventions, and prevent management from receiving undue benefits. Detailed consideration will also have to be given to how countries exit from the commitments they have made when the turmoil eventually dissipates. While differences in liquidity and solvency concerns mean that it is appropriate for countries' responses to the crisis to differ, countries should keep externalities for other European countries to a minimum, and competition should not be distorted.

Figure 1. Share price indices¹

1. All series are denominated in USD.

Source: Datastream, November 2008.

13. The proximate cause of the financial market turmoil lay in the US subprime market, but there are a number of Europe-specific risks that could materialise in the future as well as the broader concern about the turning of the international credit cycle. Firstly, European financial institutions have been at the forefront of the large increase in the issuance of structured equity products (*e.g.* Constant Proportion Portfolio Insurance) to retail investors since 2003. With these products, the client's capital is guaranteed even though it is exposed to risky assets such as equities. Even though the product is distributed by small banks, the guarantee is provided by a prime broker that issues and manages it, often hedging the risk through complex options replication programmes and derivatives contracts backed by hedge funds. If a major market break occurs and counterparties fail, the guarantee will fall on prime broker's capital (OECD, 2008). If the current crisis spills over into these products, Europe's heavy exposure would represent a risk to the financial system. However, no estimates of potential losses exist. Secondly, during the recent credit cycle euro area banks may have increased the riskiness of their lending by increasing the proportion of their loans to non-investment grade and non-rated borrowers (ECB, 2008d). Should the subsequent default rates of these "leveraged loans" be higher than expected, the solvency of some institutions could be affected. Thirdly, a sharp housing market correction is underway in Spain and Ireland, which could put their financial markets under strain. Finally, some EU banks have large cross-border exposures to the central and eastern European economies (Box 3).

Box 3. Emerging risks in eastern European countries

The eastern European countries have been converging rapidly on countries in the euro area in recent years. Growth was underpinned by strong capital inflows and structural reforms, *inter alia* the implementation of the *acquis communautaires* and financial market liberalisation. At the same time real short-term interest rates were relatively low in most countries helping to fuel rapid credit growth. Output is now growing at a slower pace in most of the Eastern European countries, reflecting slower export market growth and a tightening in monetary policy and in credit standards. A re-appraisal of risk is underway with increased bond spreads and a rising cost of protection against default.

A salient feature of the financial systems of these countries is the strong presence of foreign ownership. Another important feature is that the share of foreign currency in total loans is important in many, though not all, countries. Servicing debt could become very costly, should a country's currency depreciate significantly.

Several regulators have tightened prudential regulations and other requirements to slow credit growth. Other measures include higher capital adequacy ratios, tighter supervision and enhancing cross-border co-operation agreements (World Bank, 2008). In most countries foreign bank credit has been growing faster than domestic bank credit. The large presence of foreign banks exposes the countries to contagion risks from the home country or sudden stops if sentiment turns sharply. This underlines the importance of close co-operation between the home and host supervisors. World Bank (2007) suggests that home country supervisors could enhance their understanding of the risks posed by their subsidiaries, while host country supervisors could improve their understanding of the health of foreign bank entities in their countries. Memorandums of understanding, when they exist, could be complemented by more reciprocal visits and better information sharing. Taking discretionary action, like lowering loan-to-value ratios, is made difficult, if not impossible, by the fact that branches of foreign banks would not be affected, thus making the playing field between foreign and domestic credit suppliers less even.

Areas for policy action arising from the financial turmoil

14. Proposals on how to deal with the shortcomings in the regulatory framework revealed by the recent turmoil have been put forward by a number of international bodies. The Financial Stability Forum (FSF, 2008) has identified several underlying weaknesses,⁶ and stressed the importance of dealing with the forces that contribute to the pro-cyclicality of financial systems. It proposes concrete actions to enhance the resilience of markets and financial institutions. The IMF also identified a number of short-run actions that should be taken to reduce the duration and severity of the crisis and the need for more fundamental changes to the regulatory frameworks in the longer run (IMF, 2008). The financial industry itself has proposed ways to address market weaknesses to rebuild market confidence (IIF, 2008). European countries have contributed to the international policy debate and reflected on their own systems of financial regulation. The international consensus on the necessary steps includes:

- Improving transparency by increasing the quality of information available in the market and enhancing disclosure by market participants about risk exposure, valuation methods and off-balance sheet entities. Accounting practices could also be improved by enhancing audit guidance standards. The lack of market confidence during the turmoil, and the difficulties associated with fair valuation in circumstances in which markets become dislocated, have become apparent during the financial market stress.
- Changing the role and use of credit ratings. Credit rating agencies (CRAs) play an important role in evaluating and publishing information on structured credit products, and investors have relied

6. The underlying weaknesses identified by the FSF include: poor underwriting standards; shortcomings in firms' risk management practices; poor investor due diligence; poor performance by the credit rating agencies with respect to structured products; incentive distortions; weaknesses in disclosure; feedback effects between valuation and risk-taking; and weaknesses in regulatory frameworks and other policies.

heavily on their ratings. Although CRAs insist that ratings measure only default risk, and not the likelihood or intensity of downgrades or mark-to-market losses, many investors were seemingly unaware of these warnings and disclaimers. Moreover, poor credit assessment by rating agencies leading, in particular, to high ratings for complex structured subprime debt turned out to be misleading. When products were downgraded, investors lost confidence in ratings of all securitised products.

- Strengthening risk management standards and practices. The market turmoil has revealed weaknesses in risk management at banks and securities firms and in the system of incentives that regulators and supervisors provide through capital and liquidity requirements and oversight, especially with respect to the light regulatory capital treatment of structured credit and off-balance sheet activities. Moreover, liquidity risk management should be improved to better cope with sustained system-wide stress in funding markets.
- Strengthening the authorities' responsiveness to risks. Authorities need to be able to take proper actions when recognising excessive risk taking in individual banks or markets. This requires state-of-the-art knowledge about financial intermediation, good communication and international co-operation to establish best practices.
- Strengthening arrangements to deal with stress in the financial system. Timely liquidity provision by the central banks in times of tension is important and their role as a lender of last resort should be well-defined.
- Clarifying and strengthening national and cross-border arrangements for ensuring prompt corrective action occurs before banks fail. The FSF also recommends setting up colleges of supervisors at the international level to better address cross-border issues.
- Ensuring adequate deposit insurance schemes are in place. The main issues are the size of the potential pay-out, the speed of the pay-out and whether the scheme should be funded up-front.
- Reducing pro-cyclicality. The possibilities for the regulatory framework to "lean against the wind" through smoothing capital requirements and provisioning should be investigated.

The Economic and Financial Affairs Council (ECOFIN) has issued a roadmap, discussed in the next section, which addresses many of these issues.

The prudential framework for the single European capital market

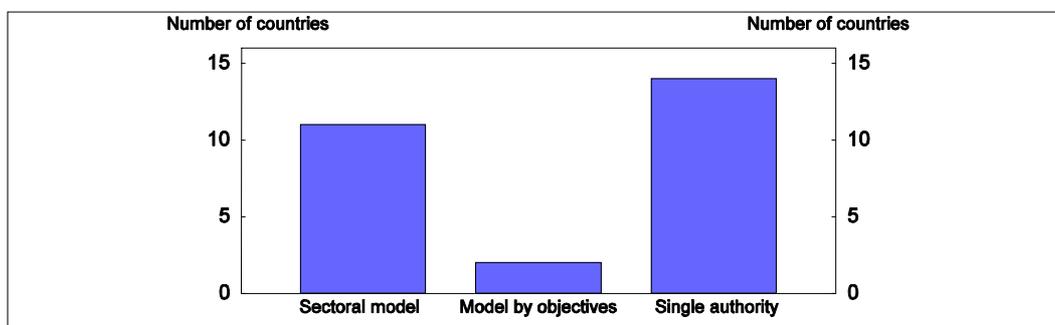
15. The objective of prudential regulation is to limit the number of failures of financial institutions, in order to protect depositors and the stability of the financial system, while not impeding improvements in efficiency or hindering competition. It has both a micro dimension – ensuring that individual institutions do not pose a risk to the financial system and a macro dimension – ensuring that institutions collectively do not pose excessive risk. These are already difficult tasks, but the euro area and the wider European Union face additional challenges from having an integrated capital market but with supervision remaining primarily a national responsibility, albeit within a common framework. This raises issues both for the effectiveness of the single market and the risks to the European financial system.

16. The current prudential framework for the EU banking market emerged from the creation of the single European market. Regulation has focused on removing barriers to the integration of EU financial markets, and harmonising regulatory standards to support a level playing field between financial institutions in different countries. Within this framework, financial stability arrangements have remained primarily national because governments have wanted to keep decision making about supervision and fiscal bail-outs on the same level. However, the long-standing efforts towards harmonisation and convergence

have given both an increasingly European character. Since the 1970s, the hub of financial regulation has been shifting towards the EU level, as a series of directives and a number of other legal instruments created a framework for national prudential regulation across the European Union.

17. The 27 EU member states each have their own institutional and legal supervisory frameworks. National prudential authorities are set up differently and have different powers and accountability arrangements. There is some trend towards centralising supervision across sectors (banking, securities markets and insurance), with a fully integrated single supervisor now in place in 15 out of 27 member countries (Figure 2). Of these countries, 10 have an independent supervisory structure, while in 5 other countries banking supervision is the responsibility of the central bank. In the other member states, supervisory responsibilities are divided between specialised agencies that deal with particular sectors (banking, securities markets or insurance) and/or particular functions (regulation, supervision, licensing, or conduct of business).

Figure 2. Supervisory models in EU Countries



Source: IMF (2008), "Euro Area Policies: Selected Issues", *IMF Country Report*, No. 08/263, August.

18. The Second Banking Directive,⁷ which entered into force in 1993, set out the key drivers of banking market integration and cross-border supervision. It introduced the single EU banking passport⁸ together with the principles of minimum harmonisation, mutual recognition and home-country control. The 'home-host' principle was established whereby the home-country supervisor has responsibility for the supervision of institutions they licence, *including* their foreign branches and the direct cross-border provision of banking services from the home country to other EU member states. Subsidiaries of non-domestic banks are local corporate citizens and therefore subject to local licensing and prudential oversight. The Capital Requirements Directive⁹ (CRD) from 2006 confirmed this principle.¹⁰

19. Deposit guarantee schemes are also primarily the responsibility of the home country but the host country is allowed to take additional measures. For example, under "topping-up" arrangements, branch depositors enjoy the advantages of the host country's guarantee scheme in cases where the level of coverage provided by the host country is higher. In addition, foreign depositors are treated in the same way

7. Directive 89/646/EEC.

8. Any bank licensed in an EU country is free to open branches in any other EU country, subject only to the regulation and supervision of the country that had issued the licence. Some exceptions exist, such as host country responsibility for liquidity and oversight.

9. Directive 2006/48/EC and Directive 2006/49/EC.

10. The CRD also applies to non-deposit taking investment banks. The share of investment banks in Europe is considerably smaller than in the US, where they are not regulated.

as domestic depositors. For example, the UK government guaranteed Northern Rock depositors fully both at home and in other EU countries.

20. However, the home/host principle does not apply to all elements of regulation (Table 1). In particular the host country retains responsibility for issues that closely relate to local market conditions, such as local liquidity management. If a financial institution facing insolvency problems needs to be reorganised or wound down and liquidated, this is the responsibility of the home country for branches and the host country for subsidiaries. Bankruptcy procedures follow national law and only some countries have special bankruptcy regimes for banks. For cross-border banks, this division of labour creates several layers of regulation.

Table 1. Division of responsibility between home and host country

	Oversight of the financial system	Solvency supervision	Deposit guarantee scheme	Emergency liquidity assistance	Reorganisation and winding-up authority
Home country					
Bank	Home country	Home country	Home country	Home country	Home country
Host country					
Branch	Host country	Home country	Home country	Host country	Home country
Subsidiary	Host country	Host country	Host country	Host country	Host country

21. A considerable degree of consistency of regulation is achieved through the financial sector directives issued under the EU Financial Services Action Plan (FSAP) launched in 1999.¹¹ These established the basic regulatory framework that national legislation and supervisors currently implement and apply. The EU legal framework sets out minimum standards that must be met, but allows individual countries to pursue a more stringent approach if they wish. Important aspects of the FSAP included the Capital Requirements Directive (CRD) for banking and investment firms and the Markets in Financial Instruments Directive (MiFID) for financial markets. The CRD, which implements the provisions of the Basel II accord, requires member states to limit some of the national discretions allowed by Basel I, thereby promoting regulatory convergence. The directive also consolidates many of the provisions of the earlier prudential directives. Solvency II, which overhauls solvency requirements for insurance companies, is expected to achieve similar convergence in the insurance sector.

22. Many legislative and regulatory actions are undertaken through the framework of the Lamfalussy committees (Box 4). The Lamfalussy process, which focuses on the development and implementation of legislation, has given a boost to the integration process particularly with respect to facilitating the FSAP initiatives. The Lamfalussy process puts in place a more efficient and flexible EU-level regulatory structure that can be used to adapt the body of regulation on an ongoing basis. This is particularly important for financial regulation, where the pace of innovation is rapid and can give rise to new risks that regulation should be able to respond to quickly. It applies a four-level structure to financial regulation: legislative (level 1), technical implementation (level 2), the exchange of information, co-operation, and convergence of supervisory practices (level 3) and strengthened enforcement (level 4). Both Solvency II and the MiFID are Lamfalussy directives; that is, principles-based framework directives that leave detailed regulation to the level 2 and level 3 committees. In banking, the scope for regulation through the Lamfalussy process is

11. The follow-up to the FSAP, the European Commission's White Paper on "Financial Service Policy 2005-10" seeks to move this process along, with a focus on implementation rather than on new regulatory and legal initiatives.

more limited, because the CRD is not a Lamfalussy directive (although some provisions can be adjusted via comitology procedures, which make it easier to develop a detailed set of regulations).¹²

Box 4. The Lamfalussy framework

The Lamfalussy process was launched in 2001. It put in place efficient procedures to deal with rapidly changing financial markets and the legislative burden produced by the FSAP. The goal was to facilitate decision-making on financial sector legislation and regulation and to achieve faster progress towards harmonisation by moving much of the discussion from the political level to “downstream” technical committees. Originally designed to address the challenges in securities regulation, it was later extended to the banking and insurance sector in 2004. As it was recognised that new institutional arrangements were needed, a four-level EU financial rulemaking architecture for each of the three sectoral pillars (banking, insurance and securities) was established.¹ Under the new approach financial regulation consists of two elements. The first contains basic principles, which do not need frequent amendment or high-level political agreement by the EU Council and Parliament. The second consists of more detailed technical features that might need more frequent amendments to follow market developments (Figure 3).

- At level 1 the core principles of legislation take the form of directives and regulations adopted by the political bodies, the European Council and the European Parliament, on the basis of proposals prepared by the European Commission.
- At level 2 the technical implementation of framework directives and regulations is done by the European Commission, on the basis of recommendations made by high level regulatory committees, in consultation with level 3 committees and users and experts from industry. The level 2 committees are the European Securities Committee (ESC), the European Banking Committee (EBC), and the European Insurance and Operational Pensions Committee (EIOPC).
- At level 3 the implementation of EU legislation at the national level is made by expert committees composed of national regulators and central banks. Level 3 committees are responsible for supporting a consistent day-to-day implementation of EU legislation by issuing guidelines and reviewing national regulatory practices. The level 3 committees are the Committee of European Securities Regulators (CESR), the Committee of European Banking Supervisors (CEBS), and the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS).
- At level 4 the European Commission enforces the timely and correct transposition of EU legislation into national law.

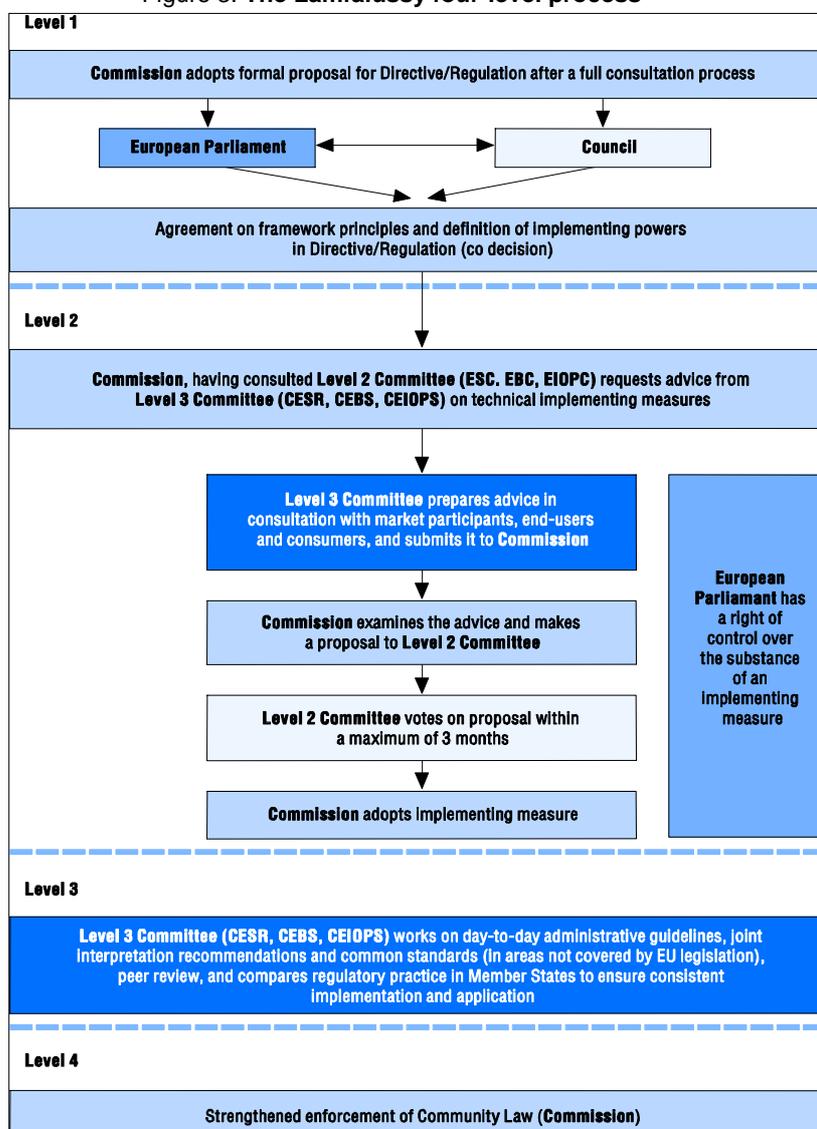
The level 2 committees essentially act as regulators, as they put in place secondary legislation with and through the European Commission that constitutes the basis for regulation at the national level. As the level 2 committees take into account industry advice delivered through the level 3 committees, secondary legislation can be modified relatively rapidly to adapt to changing circumstances, without having to go through the full legislative process. However, these advantages are somewhat limited for the banking sector as the CRD was not devised as a Lamfalussy framework directive. Instead, the extensive regulatory framework is established by the EU’s legislative bodies.

Harmonised regulation is only effective if supervisors interpret and implement them in a co-ordinated way. Achieving convergence of supervisory practices – established practices as well as those related to new laws and regulations – is the main objective of the level 3 committees. These committees bring together national supervisors and seek harmonisation through, *inter alia*, (1) exchange of ideas and experience, (2) issuance of non-binding guidelines and recommendations on regulations, and (3) standard setting areas not covered by level 1 and 2 legislation.

CEBS is the main actor in the effort to achieve harmonised implementation of the CRD. Its work in this respect encompasses, *inter alia*, common guidance on the supervisory review process (Pillar 2 of Basel II), as well as guidance for accreditation of rating agencies, guidelines on prudential reporting by banks, validation of internal ratings-based credit risk, and operational risk approaches. Common implementation of Pillar 3 of Basel II is being facilitated through a common framework for supervisory disclosure. Beyond the CRD, CEBS established guidelines on prudential adjustments (“prudential filters”) in the context of the introduction of the International Financial Reporting Standards (IFRS), to avoid that the changes in accounting standards will have undesirable effects on prudential indicators.

12. Comitology is a procedure in which the Council and European Parliament delegate to the Commission the power to adopt implementing measures of European laws, subject to consultation with the parliament and representatives of the member states.

Figure 3. The Lamfalussy four-level process



Source: Commission of the European Communities (2007), "Review of the Lamfalussy Process – Strengthening Supervisory Convergence", *Communication from the Commission*, COM (2007) 727 final, Brussels.

Since the end of 2005, cross-sectoral co-operation is being developed between the three level 3 committees, under the label "3L3 work programme". This work focuses on improving and facilitating the supervision of conglomerates and on other issues of common interest.

1. See Davis and Green (2008) for a more detailed description of changes in the institutional arrangements.

Source: IMF (2007), "Integrating Europe's Financial Markets" and European Commission (2007).

23. The application of these regulations in a coherent manner across countries, and the supervision of cross-border financial institutions are major challenges. Given the roles of national institutions, a high degree of co-operation between the many institutions is essential. To foster this, many committees at the EU level bring together the supervisors, finance ministries and central banks that have important prudential roles (Box 5). Most of the focus of the prudential authorities is on the country and institution/group level.

The large number of actors and their potentially divergent interests complicates the decision-making process, both in crisis situations and in general matters related to financial stability. There is also the potential for regulatory capture due to the close relationship between regulators and the financial industry, as well as the industry's resources and economic importance. Differences in the regulatory regime across jurisdictions will persist if each adapts its regulations to suit its dominant incumbent institutions (Hardy, 2006). On the other hand, large internationally active groups have a stronger interest in streamlined financial stability arrangements across countries than local domestic banks.

Box 5. Key bodies in the EU banking sector stability framework

European Banking Committee (EBC): It consists of high-level representatives of the ministries of finance of member states and is chaired by the European Commission. The ECB, the chair of CEBS, and (optionally) national central banks may participate as observers. The EBC is a level 2 Lamfalussy committee that advises the European Commission on policy issues related to banking activities and on commission proposals in the banking area.

Committee of European Banking Supervision (CEBS): It comprises representatives of supervisory authorities and central banks, including the ECB, although only supervisory authorities have voting rights. Although the focus of CEBS, as a level 3 Lamfalussy committee, is mainly on regulatory and supervisory convergence, it also plays a role in promoting supervisory co-operation and as a conduit and organiser for the exchange of information between supervisors on individual financial institutions, including in situations of distress. Recently, CEBS as well as the other level 3 committees have been invited to gather relevant information for regularly assessing key financial developments, risks and vulnerabilities that could affect the stability of the EU financial system; in this work, CEBS should closely collaborate with the BSC.

European Central Bank (ECB): The ECB's main role in financial stability is monitoring, in co-operation with national central banks and supervisory agencies. It publishes an annual report on "EU Banking Sector Stability" and a twice-yearly Financial Stability Review for the euro area (both documents are prepared with the BSC). It also advises on financial rulemaking on EU and national laws and provides its technical input within the Lamfalussy structure and participates in the Basel Committee on Banking Supervision (BCBS), EBC and CEBS (observer status).

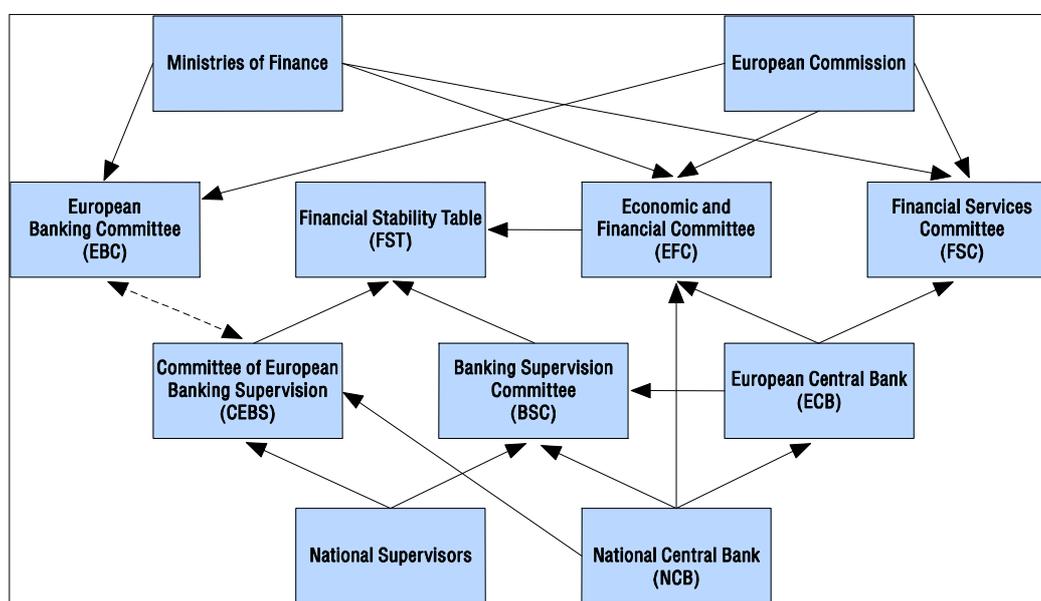
Banking Supervision Committee (BSC): It brings together national central banks, banking supervisory authorities, and the ECB. It monitors and assesses developments in the euro area from a financial stability perspective, analyses the impact of regulatory and supervisory requirements on financial system stability, and it promotes co-operation and exchange of information between central banks and supervisory authorities on issues of common interest, including the prevention and effective handling of financial crises. Preparatory work is performed in four working groups: macro-prudential analysis, structural developments in the EU banking sector, crisis management and credit registers.

Economic and Financial Committee (EFC): It includes representatives of ministries of finance, the European Commission, the ECB, and central banks. It provides high-level assessments of developments in financial markets and services and advises ECOFIN and the European Commission.

Financial Stability Table (FST): The EFC meets twice a year (in April and September) to discuss financial stability issues in a special configuration as the FST, in a group including the Chairs of the BSC and the level 3 Lamfalussy committees – CEBS, CESR and CEIOPS. The discussion of banking issues is based primarily on ECB reports, including its Financial Stability Review, the FSC and the Commission's input and on *regular* input from CEBS, CEIOPS, CESR and the BSC. The FST brings together the broadest group of actors in matters of financial stability (prudential, monetary and fiscal authorities) and is a forum that can provide policy co-ordination.

Financial Services Committee (FSC): It is composed of representatives of the ministries of finance and the European Commission, joined by a representative of the ECB and the chairpersons of the 3 Lamfalussy committees as non-voting observers. The FSC discusses and provides guidance on cross-sector strategic and policy issues, especially technical and political aspects, and assists the EFC in preparing ECOFIN meetings.

Figure 4. Key bodies in the EU banking sector stability framework



Source: IMF (2007), "Integrating Europe's Financial Markets".

24. The EU has attempted to address the mismatches between the country-based prudential setup and the emergence of large complex financial institutions (LCFIs) by shifting some responsibility for the regulation and supervision of cross-border financial groups to the home country. For financial conglomerates and banking groups, the Financial Conglomerate Directive (FCD) and the Capital Requirements Directive (CRD)¹³ assign special tasks and responsibilities to the co-ordinating/consolidating supervisor of the conglomerate or banking group.¹⁴ The directives require the relevant authorities to have written arrangements in place for co-ordination and co-operation between supervisors involved with a conglomerate. Both directives foresee also the exchange of information and consultation in the application of major sanctions. The resulting network of bilateral agreements aims to foster co-operation by laying down practical arrangements on information exchange. Additionally, for all EU-wide cross-border institutions, "colleges of supervisors" have been established in which home- and host-country supervisors meet, discuss supervisory issues and take decisions with regard to specific LCFIs (for instance for Nordea, Fortis and Sampo). As already mentioned, the CEBS, which has been entrusted with the task of promoting the co-operation among supervisors and the convergence of supervisory practices, plays an active role to strengthen the functioning of the colleges of supervisors. The existence of the colleges of supervisors should receive a proper legal basis in the upcoming revision of the CRD.

13. In the directives there is a difference in terminology and applicability between the FCD and CRD. The former uses the term "co-ordinating supervisor" and the latter "consolidating supervisor" for what is essentially the same basic function. The FCD applies to a limited number of cross-sector conglomerates and the CRD to banking groups. Many, but not all, of these conglomerates are also banking groups.

14. Solvency II goes further than the CRD in giving power to home-country supervisors, turning the home-country supervisor of an insurance group into a "group supervisor" who supervises all the group's EU branches and subsidiaries in co-ordination with host-country supervisors.

25. Nonetheless, the existing framework has shortcomings in providing a level playing field across the Union as considerable cross-country differences persist in the legal and regulatory frameworks for banks. National discretion is preserved by national specificities in transposing directives (there are almost one hundred specificities for the CRD (Kager, 2006)), and the practice of “goldplating” by national authorities, which adds further national requirements over and above those prescribed by EU directives.¹⁵ In addition to stability concerns, the lack of convergence in national frameworks means that cross-border financial institutions face a considerable regulatory burden, adding to their costs.

26. Information is essential for the effective monitoring of financial stability and as a basis for taking decisions. Timely access to accurate information helps regulators and markets overcome the problems stemming from asymmetric information between regulators and financial institutions. However, gaining access to adequate information can be difficult even in the domestic market and improving the exchange of information between authorities in different countries is seen as one of the main challenges to the financial stability framework in the EU. To help address this challenge and enhance the information flow between supervisors also on a cross-border level, colleges have been set up.

27. The attempts at managing the institutional mismatch have not been complete and have introduced new challenges. The control that home-country authorities have gained over the foreign operations of the LCFIs has not been accompanied by a corresponding degree of responsibility and accountability for financial stability in the host country where those LCFIs operate. In countries with a significant foreign banking presence, the host authorities might no longer have meaningful control of the institutions active in their market, though they retain responsibility for financial stability within their borders. Although a host country can still require some financial reporting by banks present in the country, a full overview of the situation would require deeper co-operation with the home country than can be achieved within the college of supervisors.

The wider macro-prudential framework

28. Maintaining financial stability involves a wider set of institutions and arrangements. Besides the prudential authorities – regulators and supervisors – monetary and fiscal authorities have an important role to play. Fiscal authorities need to be involved in financial stability because they are the “solvent providers of last resort” and taxpayers may need to fund the recapitalisation of banks following financial crises. The central bank’s involvement is crucial, even if it has no prudential responsibilities, because of its role as “lender of last resort”. Moreover, the activities of the fiscal and monetary authorities affect the conditions for financial stability. This division of responsibility requires national authorities to co-operate and exchange information.

29. There is an ongoing debate about whether central banks should be directly involved in the supervision of financial institutions (*e.g.* Goodhart, 2000 and Maciandaro, 2008). Even without this, the national central banks and the European Central Bank (ECB) have a prominent role in the safeguarding of financial stability by ensuring price stability, and also by their provision of liquidity and oversight of payment systems. For the euro area, the European System of Central Banks (ESCB) has a statutory responsibility to “contribute to the smooth conduct of policies pursued by the competent authorities relating to the prudential supervision of credit institutions and the stability of the financial system”.¹⁶ This

15. Goldplating refers to the process whereby EU regulations are extended or applied earlier than intended when passed into law in individual countries within the EU.

16. Article 105(5) of the Treaty on European Union.

gives the ECB a monitoring and advisory role, but no supervisory mandate.¹⁷ The ECB performs its tasks with the assistance of the Banking Supervision Committee (BSC). The central banks and the ECB also have a central role in managing an eventual crisis; national banks can provide liquidity support to individual firms, while the ECB can provide liquidity support to the market as a whole.

30. The activities of the ECB in the monitoring and assessment of financial stability are based on three pillars (ECB, 2008a). *First*, the publication of the Financial Stability Review which draws attention to the main risks and vulnerabilities, and assesses whether the euro area financial system is capable of withstanding shocks and disruptions that are severe enough to significantly impair its intermediation function. *Second*, the macro-prudential analyses performed by the Banking Supervision Committee (BSC) of the EU banking sector, the findings of which are published in an annual report. The BSC also reviews structural developments in the EU banking sector that are relevant to central banks and supervisory authorities, publishing a separate annual report. *Third*, the ECB and the national central banks are closely involved in, and contribute to, the work of other institutions and bodies that monitor financial stability in Europe and worldwide. Given the European System of Central Banks' tasks in financial stability and especially in macro-prudential monitoring, information flows from and to the central banks, and within the ESCB system, are essential and should be improved (Bini Smaghi, 2008).¹⁸ For instance, prior to the crisis, little was known about the role and activities of structured investment vehicles and their relationships with banks.

Recent European prudential initiatives

31. The European financial regulatory architecture remains work in progress. There are four major policy initiatives currently underway at the EU level. First, the ECOFIN adopted a roadmap in December 2007 to enhance the functioning of the Lamfalussy framework, especially the functioning of the Committees of Supervisors (referred to here as the "Lamfalussy Roadmap"). Second, ECOFIN has drawn up a list of policy responses to the recent financial market situation in a decision in October 2007 (referred to as the "Financial Turmoil Roadmap"). Third, another roadmap was adopted in October 2007 to strengthen the financial stability framework, and in particular crisis management arrangements (referred to as the "Financial Stability Roadmap"). Finally, the de Larosière Group has been set up to examine how the European financial supervisory system can be improved to provide better macro-prudential oversight.

The Lamfalussy roadmap

32. The roadmap enhancing the Lamfalussy framework aims to improve the operation of the current EU supervisory framework (EC, 2007). In formulating its assessment, the Council took into account earlier evaluations of the Lamfalussy framework by various EU institutions and fora.¹⁹ The Lamfalussy framework is widely supported by stakeholders. Nevertheless, the Council considered that, without changing the inter-institutional balance between the European Parliament, the Council and the Commission, further improvements should be introduced at all levels of the framework. Accordingly, recommendations were endorsed by the ECOFIN Council concerning: *a*) the arrangements for regulation (levels 1 and 2 of the Lamfalussy framework); and *b*) the institutional setting of the level 3 committees.

17. However, the Treaty foresees the possibility of transferring specific supervisory tasks to the ECB following a simplified procedure without the need to amend the Treaty (Article 105(6)).

18. Bini Smaghi also emphasises the importance of supervisory information in the conduct of monetary policy and in assessing credit risk in providing liquidity.

19. See ECB (2008b) for a short review of some of the contributions.

33. As regards level 1 (the legislative level of the Lamfalussy framework), several measures to limit the use of national options and discretion in EU directives and the implementation of legislation have been put forward. Moreover, the Council also stressed the importance of setting realistic transposition and implementation deadlines for level 2 measures. Finally, open and transparent consultations with all interested stakeholders were to be encouraged.

34. To strengthen the level 3 committees, whose main tasks are to exchange information and to facilitate co-operation and convergence of supervisory practices, several proposals have been made (and subsequently endorsed by ECOFIN), including improvements to accountability and decision-making:

- To strengthen the political accountability of these committees, their objectives should be better specified and accompanied by a reporting procedure to the EU institutions. Moreover, an EU dimension should be taken into account by national supervisors. This should intensify work towards supervisory convergence and co-operation. The enhanced EU dimension will allow financial supervisory authorities to consider financial stability concerns in other member states.
- To improve the committees' decision-making processes, the level 3 committees have been mandated to introduce in their charters the possibility of applying qualified majority voting, with the obligation for those who do not comply to explain their decision publicly.
- The ECOFIN Council has also asked the Commission to undertake further analysis "to clarify the role of the level 3 committees and consider all different options to strengthen the working of these committees, without unbalancing the current institutional structure or reducing the accountability of supervisors". It requested supervisors to report back regularly on their achievements, and to explain any non-compliance. The Commission is working on a revision of the Commission Decisions establishing the three Committees of supervisors. By the end of 2008, these Committees will be assigned specific, practical tasks, such as: *(i)* mediation, *(ii)* drafting recommendations and guidelines, and *(iii)* an explicit role to strengthen the analysis and responsiveness to risks to the stability of the EU financial system.

Financial Turmoil Roadmap

35. The Financial Turmoil Roadmap is broadly consistent with proposals advanced by the Financial Stability Forum. It identified four priorities: *i)* enhancing transparency for investors, markets and regulators, *ii)* improving valuation of financial products – particularly for complex, illiquid financial instruments, *iii)* strengthening the prudential framework and banks' risk management, and *iv)* making markets function better, in particular by reviewing the role of credit rating agencies.

36. The absence of accurate and timely information on exposures to credit risk has been a key factor in explaining the rapid loss of investor confidence during the turmoil. Both the industry itself and prudential authorities have not kept pace with the development of new financial instruments and techniques. Some immediate measures to reduce the duration and severity of the turmoil are under way. For example, to enhance transparency the financial industry was expected, by the time of publication of mid-year results in 2008, to have made full and prompt disclosure of on- and off-balance sheet risk exposures and losses (write-downs, and fair value estimates for complex and illiquid assets), consistent with best disclosure practices. By the end of October 2008, the industry is expected to adopt guidelines to promote consistent and comparable disclosures for 1st quarter 2009 results. Moreover, progress is being made on industry initiatives to strengthen investor information. The Commission has requested that the Committee of European Banking Supervisors (CEBS) and the industry bodies formulate a plan to provide

more detailed information on securitisation exposures. In February 2008, European industry associations²⁰ published a joint position paper outlining how they planned to respond to the transparency-related issues of the roadmap. The paper covered sound and consistent implementation of the securitisation related Capital Requirements Directive (CRD) disclosure requirements, transparency and the provision of public information, and a commitment by the European industry to increase transparency to investors in the securitisation markets. In July 2008, the industry published valuable data and statistics on the securitisation market. These initiatives are welcome. Work by the Basel Committee of Banking Supervisors (BCBS) on guidance on how to strengthen disclosure requirements further under Pillar 3 of the Basel II accord should be followed closely with the goal of implementation in the CRD.

37. The management of risk through appropriate valuation and accounting treatment of assets is ultimately the responsibility of the institution that holds them. Nevertheless, accounting standards set by the supervisors and other relevant authorities play an important role from a prudential perspective. At the EU level, initiatives to find agreement on a common approach to the accounting valuation of illiquid assets and implication for risk management practices by banks have been taken. Work is underway at the international level on ways to ensure the reliable valuation and auditing of assets, particularly of those assets where markets are potentially illiquid in times of stress, while maintaining compatibility with international financial standards. Positive steps have been recently taken at international level on the complex issue of fair valuation. The International Accounting Standards Board set up an expert advisory panel on fair valuation in close co-operation with the Financial Stability Forum. This panel has now delivered input to the Board. In addition, a roundtable of stakeholders will also be organised by the International Accounting Standards Board to provide input on off-balance sheet items. However, because the Board will have to follow its due process including consultations, before it can issue final outcomes; concrete deliverables should not be expected before 2009.

38. With respect to strengthening the prudential framework and banks' risk management, the roadmap comprises the revision of the Capital Requirements Directive. On the 1st of October the Commission adopted the proposals for amendments to the Capital Requirement Directive (CRD), covering areas such as limiting banks' concentration risk, improving their capital quality, increasing co-operation through supervisory colleges for cross-border groups, enhancing co-operation and information exchange between supervisors, finance ministries and central banks for crisis management to further strengthening the existing prudential framework, as well as proposals to ensure that the risks associated with the "originate-and-distribute model" (ODM) are properly mitigated.

39. The Financial Turmoil Roadmap calls for an examination of the role of credit rating agencies (CRAs) and the use of credit ratings, in particular regarding structured financial instruments, conflicts of interest, transparency of rating methods, time-lags in rating reassessments and regulatory approval processes. In June 2008, the European Commission concluded that the industry's initiative put forward in the revised International Organisation of Securities Commissions' (IOSCO) Code of Conduct²¹ is a step in the right direction but lacks the necessary teeth to effectively address the challenges posed. Because a strengthened oversight regime for rating agencies might be necessary to remedy these shortcomings, the Commission adopted a proposal to regulate CRAs on 12 November 2008. The main elements of the Commission's proposal are that the credit rating agencies (CRAs) should be subject to an EU registration

20. The European Banking Federation (EBF), the Commercial Mortgage Securities Association (CMSA), the International Capital Markets Association (ICMA), the European Association of Co-operative Banks (EACB), the European Savings Banks Group (ESBG), the Securities Industry and Financial Markets Association (SIFMA), the London Investment Banking Association (LIBA) and the European Securitisation Forum (ESF).

21. <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD270.pdf>.

system and that an oversight regime for CRAs should be put in place, whereby regulators will supervise the policies and procedures followed by the rating agencies. In addition, corporate and internal governance issues will come under scrutiny, especially the remuneration structure of analysts. The proposal also attempts to strengthen competition by encouraging entry of new players.

40. There is a debate about whether greater scrutiny of CRAs is the most efficient way to deal with the flaws in the current system. For example, under Basel II, credit rating agencies are referenced in capital adequacy rules and many investment funds are permitted to buy only highly-rated bonds. This has triggered a discussion about how ratings are used.²² The Basel-based Joint Forum has launched a stocktaking of the uses of credit ratings, which is due at the end of 2008. However, changing the rule-based credit ratings is seen as harder than changing the ratings process itself, since the former requires an overhaul of Basel II. Moreover, it is also recognised that there is no good alternative to using ratings in many cases, which is why they need to be credible.

The Financial Stability Roadmap

41. Crisis prevention and management are key challenges for regulators and supervisors. There is considerable scope to strengthen the current arrangements in this area. The Financial Stability Roadmap sets out a work programme and proposals to address these issues. In September 2006, an *ad hoc* working group of the EFC was formed to explore ways to further develop financial stability arrangements in the EU, on the basis of the insights provided by the EU-wide financial crisis simulation exercise of April 2006. The group identified a number of actions that would improve consistency between the arrangements for crisis management and resolution, on the one hand, and the arrangements for crisis prevention, on the other. The proposals by the group were approved and subsequently endorsed as part of the strategic roadmap for strengthening the arrangements for financial stability at both the EU and national level. The strategic roadmap comprises the following measures (Council Press Release 9 October 2007 and ECB (2008b)):

- Common principles for financial crisis management. The EU countries have agreed on a set of nine common principles to be followed in the management of any cross-border financial crisis involving at least one banking group that: *i*) has substantial cross-border activities; *ii*) is facing severe problems which are expected to trigger systemic effects in at least one member state; and *iii*) is assessed to be at risk of becoming insolvent. Three important elements are set out. First, cross-border crisis management is a matter of common interest to member states. Second, private sector solutions should be given primacy in the resolution of a crisis. Third, the use of public money to resolve a crisis can never be taken for granted and will only be considered to remedy serious disturbances in the economy. If public resources are used, the direct budgetary costs will be shared among affected member states on the basis of equitable and balanced criteria, including the economic impact of the crisis and the framework of home/host countries' supervisory powers.
- An extended Memorandum of Understanding (MoU) on cross-border financial stability. The new MoU, issued in June 2008, replaces and extends the 2005 MoU. First, it incorporates the common principles on crisis management described above. The second component is a common analytical framework for the assessment of systemic implications of a cross-border crisis which has been developed by the Banking Supervision Committee (BSC) in co-operation with the Committee of European Banking Supervisors (CEBS). The third component consists of common practical

22. The US Securities and Exchange Commission (SEC) has already proposed to downgrade many of its rules that depend on ratings and encourage investors not to rely on credit ratings, especially for complex structured products.

guidelines for crisis management, which reflect a common understanding of the steps and procedures that need to be taken and followed in a cross-border crisis situation. In addition, the extended EU-wide MoU also encourages the authorities in different countries that share financial stability concerns to set up voluntary co-operation agreements for crisis management.

42. To preserve financial stability and to facilitate co-operation and information exchange among authorities, enhancements to the legal framework might be required. Several fields are being examined and in some areas changes to the regulatory framework have already been proposed:

- The Capital Requirements Directive (CRD). The objective of the proposed revision of the legal framework is to: *i*) clarify the existing obligations of supervisory authorities, central banks and ministries of finance to exchange information and co-operate in crisis situations; *ii*) increase the information rights and involvement of host countries; *iii*) clarify the role of the home or consolidating supervisor and facilitate the timely involvement of relevant parties in a crisis situation; and *iv*) include an EU-dimension in the national mandates of supervisory authorities, *i.e.* a requirement to co-operate and to take into account financial stability concerns in all member states. The amendments will also require the establishment of colleges of supervisors. Colleges comprising authorities supervising group entities in different member states will address potential conflicts and supervisory overlap. This will be aided by reinforced powers of the consolidating supervisor. In crisis situations, stakeholders will benefit from enhanced supervisory co-operation and a clearer allocation of responsibilities. Mediation mechanisms will ensure conflict resolution while regular exchanges will allow for early detection of financial stress.
- Cross-border transfer of assets. Since the subsidiaries of a banking group are separate legal entities subject to the legislation of the country where they are established (host country), national law may hinder the transfer of assets between them for the purpose of protecting creditors and depositors. The Commission is looking into the possibility of reducing barriers to cross-border asset transferability, while introducing appropriate safeguards within banking, insolvency and company law, taking into account that the reallocation of assets in a crisis affects the ability of stakeholders in different legal entities to pursue claims. The overall objectives are to reinforce the primacy of private sector solutions, avoid counterproductive ring-fencing of assets, and facilitate the smooth management of a crisis. Changes would be implemented in the Winding-up Directive.
- Winding-up of banking groups. The present directive on the reorganisation and winding-up of credit institutions could be amended to also include subsidiaries. The objective is to increase the efficiency of any reorganisation and winding-up of cross-border banking groups. As the current directive does not cover subsidiaries, the reorganisation or the winding-up of a cross-border banking group will necessarily involve various national regimes. A revision of the current directive could facilitate the winding-up of subsidiaries by providing joint insolvency proceedings.
- Early Intervention. The Commission has outlined plans for a White Paper on Early Intervention to deal with ailing banks. The main focus of the White Paper will be on assessing whether the current range of crisis prevention/resolution/stabilisation tools available to authorities can and should be complemented by additional tools and whether there is a case for further convergence of such tools at EU level. The Commission will also consider the appropriateness of tools for dealing with both cross-border and domestic institutions. Publication of the White Paper is planned for mid-2009.

- Deposit guarantee schemes (DGS). The European Commission has put forward a revision of EU rules on deposit guarantee schemes on 15 October 2008. The new rules are designed to improve depositor protection and to maintain the confidence of depositors in the financial safety net. Under the new rules, the minimum level of coverage for deposits will be increased within one year from 20 000 to 100 000, and initially to 50 000 in the intervening period. Individual member states can choose to add to these minimum levels. In addition, the payout period in the event of bank failure will be reduced. The proposal now passes to the European Parliament and the Council of Ministers for consideration.
- The Commission has clarified the application of the state aid rules of the EC Treaty in crisis situations in the banking sector. The basic principles are that any selectively granted aid to individual banks in difficulties must comply with the rules of the Rescue and Restructuring Guidelines, which is the general framework of guidelines applied to all sectors, in order to prevent market distortions. While the Commission has no specific provisions of state aid rules for the banking sector, it acknowledges the special character of the banking sector in terms of spill-over effects and implications for financial stability. This special character requires a rapid reaction from the Commission, when faced with a notification of state aid. However, systemic risk has never been accepted by the Commission as a justification for state aid in respect of an individual bank in difficulties. On the contrary, a general measure targeted at the entire sector/industry could be deemed compatible with the specific case of "serious disturbance to the economy". Serious economic disturbance would be unlikely to be remedied by intervention in favour of just one bank. Moreover, the serious economic disturbance must already exist before aid can be justified to be accepted as "serious disturbance to the economy".

Areas for improvement in Europe's prudential framework

Crisis prevention

43. Adequate supervision of financial institutions is a key requirement for ensuring financial market stability. One purpose of supervision is to ensure that risks taken by financial institutions are commensurate to their capacity to bear them. Another purpose is to gather information about financial institutions, so that, in the event of a crisis, the authorities can make informed decisions on the best way to handle and resolve the crisis. A well-functioning supervisory system is also a prerequisite for effective crisis management and resolution. As early remedial action against delinquent, unsafe or unsound institutions is essential to keep down the potential costs of a crisis, continuous surveillance is crucial.

44. Efficient supervision in a landscape with major cross-border banks requires supervisors in different countries to co-ordinate their activity and share information. Understanding the risks in a banking group necessitates a clear picture of all its various activities on a consolidated basis. As cross-border banks set up financial institutions in different countries, co-ordination of supervision becomes vital. Currently, the national foundations of prudential arrangements imply (notwithstanding the increasingly harmonised accounting and reporting framework) that information about the European Union's financial system is collected locally, using different methodologies. No centralised store of prudential information exists, in part because of national confidentiality rules. According to some authors, supervisors are in a position to control information during crisis situations to the potential harm of other parties. Indeed, research suggests that supervisors may face significant incentives to withhold information in a crisis (Čihák and Decressin, 2007). This can be costly if it delays an intervention and could create tensions between countries as trust is important in cross-border supervision.

45. Some arrangements for information-sharing do exist, however. The CRD²³ requires information-sharing and co-operation between all the authorities responsible for the supervision of the entities comprising the banking group. The proposed changes to the CRD (described above) will enhance information exchange between home and host supervisors of a group, as colleges of supervisors will share and gather information in order to have a comprehensive view of the health of a cross-border financial institution. However, the directive currently falls short, as no requirement for full information sharing is included. In the CRD for example, there is a distinction between essential and relevant information. The former should be provided by supervisors on their own initiative, the latter upon request.

46. The European System of Central Banks (ESCB) has the responsibility for overseeing financial stability at the macroeconomic level. The ESCB has access to information from various sources, including of supervisory nature. Indeed the Banking Supervision Committee of the ESCB, which brings together NCBs and supervisory authorities, provides access to supervisory information for the ECB's financial stability assessment. Moreover, NCBs and the ECB are members of the CEBS. The CRD requires national authorities to communicate information to central banks in an emergency. Arrangements for exchange of information are evolving and a number of central banks perform supervisory functions, and therefore have access to supervisory information.

47. Preventing a crisis requires appropriate sanctions in cases of non-compliance. The CRD and other directives provide only the baseline standards with which banks must comply and oblige the member states to impose the sanctions if they fail to comply.

48. Aligning the responsibility and accountability of national supervisors of cross-border institutions is a major challenge. In a first-best world, host countries would be confident that the controlling home country will take early action where necessary. Providing home-country supervisors with explicit financial responsibility (and accountability) for the economic impact of problems stemming from their banks' activities in the host country could also help. In practice, achieving these goals would be difficult both economically and politically.

49. The recent initiative – expressed in both the proposed changes to the Capital Requirements Directive (CRD) and the review of the Lamfalussy framework – to introduce an EU dimension into the mandates of national supervisory authorities, is a step in the right direction. The member states will need to ensure that an EU dimension, including the intensification of work towards enhancing supervisory convergence and co-operation at the EU level, is taken into account in the mandates of national supervisors. Moreover, the proposed changes to the CRD would require supervisors to take into account financial stability concerns in all member states. However, this will only address some of the tensions between home and host authorities, since little will be done to align the incentives of the separate supervisory authorities.

50. The proposed changes to the CRD require the consolidating supervisor to establish Colleges of Supervisors. Colleges of supervisors bring together all supervisors that have an interest in a specific cross-border institution, and there are a rising number of them in the European Union. Their establishment should be an instrument for stronger co-operation whereby competent authorities reach agreement on key supervisory tasks. The colleges should facilitate the handling of ongoing supervision and emergency situations. The competent authorities responsible for the supervision of subsidiaries of an EU parent credit institution or an EU parent financial holding company, and the competent authorities of a host country where systemically relevant branches are established, and authorities of third countries where appropriate,

23. Articles 129 to 132 of the CRD set out the requirements concerning the division of labour and the co-ordination and co-operation between home and host supervisors for banking groups, both in normal times and in emergency situations.

may participate in colleges of supervisors. The Committee of European Banking Supervisors should provide, where necessary, for non-binding guidelines and recommendations in order to enhance the convergence of supervisory practices. It is important that colleges remain effective and efficient for the supervision of banking groups. Therefore, the Commission considers that the increased information flows should be accompanied by the eventual decision for two key aspects being entrusted to the consolidating supervisor (Pillar 2 capital requirements and reporting requirements). Setting up colleges will enhance co-operation, but the problem of aligning responsibility and accountability for financial stability will persist. Moreover, there is still no mechanism for sharing the cost of bank failures.

51. Even though processes for co-operation between supervisors from different countries have improved, the current European supervisory framework may still be inadequate in detecting emergent systemic risk. Moreover, enhanced co-operation through the colleges will not necessarily address the problem of differences in supervisory structures across the EU countries. It is crucial for financial stability assessments to be effectively integrated into supervisory priorities, and that these lead to tangible actions to address weaknesses and mitigate the associated risks. Conversely, macro-prudential analysis should rest on solid micro-level information. Early identification of trends and risks by the micro-level monitoring should be reflected in the agenda for macro-prudential oversight.

Crisis management

52. Quick, but effective decisions are required during a financial crisis. A clear line of command is also important. The relevant authorities need adequate powers and an ability to act. As a crisis might involve providing liquidity to solvent but illiquid banks, the central bank has an important role in the management of a crisis. Generally, emergency liquidity assistance (ELA) would consist of the support given by national central banks in exceptional circumstances and on a case-by-case basis to temporarily illiquid but solvent institutions and markets and against adequate collateral to prevent any potential systemic effects or disruption of the smooth functioning of payment and settlement systems.

53. Currently, crisis management is largely a national responsibility, although increasingly supported by cross-border arrangements for co-ordination and information exchange.²⁴ The Capital Requirements Directive (CRD) and the Financial Conglomerates Directive (FCD) provide a basic framework, but both existing provisions and new proposals relating to the non-supervisory aspects of crisis management (such as central bank involvement and liquidity support) lack teeth. The FCD²⁵ prescribes the gathering and exchange of information to the home or co-ordinating supervisor, but leaves full power to the host-country authorities to use their own crisis-management tools when needed. The CRD²⁶ gives the consolidating supervisor responsibility for planning and co-ordinating supervisory actions in emergency situations, and requires the lead supervisor to alert all supervisors and central banks concerned as soon as is practicable when an emergency situation arises that could jeopardise the stability of the financial system in any member state. Supporting guidelines by the Committee of European Banking Supervisors (CEBS) provide concrete guidance for the effective and consistent implementation of the revised legal framework for cross-border banking groups, and enhance the practical operational networking of national supervisors. They have been designed to follow a risk-based and proportional approach. For instance, the degree of information exchange and co-operation between supervisors should be related to the systemic relevance of the entities, both in relation to the host's market and the group as a whole.

24. For an in-depth discussion of current arrangements, see ECB (2007).

25. Articles 11 and 12.

26. Articles 130 and 132.

54. The co-operation among EU authorities in the area of crisis management has been enhanced through voluntary agreements in the form of MoUs between various authorities. Such agreements, which set out procedures for co-operation and information-sharing in potential crisis situations, have been adopted at the regional and national levels with respect to individual institutions.

55. In addition, a series of multilateral MoUs set out the general framework for crisis management, bringing together all the relevant supervisory parties. The first was signed in 2003 between the ECB, banking supervisors and the EU national central banks. It sets out high-level principles for procedures and co-operation in crisis management situations, but focuses mainly on information sharing. It gives the home-country authority responsibility for informing other supervisors and for making most crisis-management decisions. To address systemic crisis-management issues that may include a fiscal burden, a second MoU was signed in 2005. This MoU involves ministries of finance along with national central banks, the ECB and EU banking supervisors. Its focus remains on information sharing, although it also encourages the development of crisis-management tools. Following the recommendations of an *ad hoc* working group of the EFC, a third MoU was signed by EU supervisory authorities, finance ministries and central banks on 1 June 2008. It replaces the 2005 MoU and contains common principles on crisis management including on the conditions for the use of public funds and on the subsequent possible burden-sharing, a common analytical framework and practical guidelines for crisis management. Financial crisis simulation exercises of the 2003 and 2005 MoUs have taken place to test the overall financial stability arrangements. They identified potential weaknesses in the co-ordination of responses to a crisis and suggested improvements to better manage liquidity and avoid breakdowns in payment systems.

56. In the past, relatively little attention has been paid to liquidity management, which remains largely an issue for national host supervisors. However, the recent financial market turmoil has thrown the spotlight on the importance of maintaining adequate liquidity. In principle, there may be a need to provide emergency liquidity to rescue a systemically important bank to prevent contagion to the rest of the financial market. The ECB has played an important role during the turmoil in providing liquidity to the market as a whole, but emergency liquidity assistance (ELA) to individual banks is the responsibility of national central banks. Within the Eurosystem, a national central bank deciding to provide liquidity support to individual institutions needs to inform the ECB and the other central banks *ex post* for small operations and needs the *ex ante* consent of the Governing Council of the ECB for large operations that could have an impact on monetary policy. The treasuries (*i.e.*, taxpayers) carry the risks involved in ELA operations.

57. For cross-border banks, host countries are technically responsible for liquidity oversight for both subsidiaries and branches, though home countries are able to provide liquidity to groups. For EU countries outside the euro area, this is also important because liquidity support interacts with monetary policy, as it may require the provision of large amounts of money in local currency. Within the Eurosystem, national responsibility is driven by the possibility that ELA operations could generate losses for the central bank that may need to be compensated by the fiscal authority. There is no concrete mechanism yet for sharing this burden at the EU level. There is a tension from giving the main responsibility to the host country for ELA to branches operating in its territory, while the supervisory information about these banks is held by the home country. Assessing the risks of an ELA operation would thus be difficult. Moreover, as funds flow within a group, liquidity support to a local bank may be costly, especially in the case of a branch, as the ring-fencing of assets in the local entity is not allowed within the Union.

Crisis resolution

58. A financial safety net is important for preventing financial crises, limiting their cost once they occur and helping to resolve them quickly and efficiently. Safety nets usually involve a combination of deposit insurance, ELAs (discussed earlier) and other regulatory procedures. Deposit insurance is designed

to help overcome the asymmetric information between depositors and financial institutions about the solvency of financial institutions and hence the safety of deposits. During bouts of financial uncertainty, unprotected depositors may have difficulty distinguishing between solvent and insolvent financial institutions and rapidly withdraw funds from both types of institutions. This can make financial crises self-fulfilling and more damaging. Although deposit guarantee schemes (DGS) protect depositors and can reduce the incentives for depositors to run on banks, they also induce moral hazard by reducing the incentives for depositors to monitor risk-taking by financial institutions. However, empirical evidence on the relationship between deposit insurance and risk-taking by banks is mixed. Demirguc-Kunt and Huizinga (2004) find that in countries with explicit deposit insurance, required interest rates are lower, but there is also greater risk-taking by banks. They therefore argue that there is a trade-off between the benefits of depositor protection and the dangers of moral hazard. In contrast Gropp and Vesala (2004) find that within Europe, when explicit deposit insurance schemes have replaced implicit insurance, market risk-taking by banks that are not “too big to fail” has actually fallen.

59. Designing a DGS also involves trade-offs. Although in principle the optimal coverage is that which reaches an appropriate balance between reducing the probability of bank runs and limiting moral hazard, in practice it is difficult to determine what this level should be. Other design features also affect this trade-off. Demirguc-Kunt and Huizinga (2004) find that co-insurance, joint management of the DGS by the public and private sectors and coverage of foreign currency deposits dampen risk-taking, while higher coverage and protection of inter-bank deposits enhance risk-taking. Governments should also be wary of providing more insurance *ex post* than was designated by the insurance schemes *ex ante*, as it may damage the longer run credibility of schemes and accentuate moral hazard. Finally, crises are more likely to be resolved quickly when arrangements are in place that gives depositors near-immediate access to their insured deposits (which is the case in the United States but not in European countries, which pay out within 3 months with an optional 3-months delay).

60. An important issue for the EU is that while its capital markets have become more integrated, there is significant variation in the design of deposit insurance schemes across countries. Although European countries recently agreed to raise the ceilings on their insurance schemes to a common level, some countries have also committed to guaranteeing all retail banking deposits. There are also variations in the types of deposits covered, the amount of coverage, co-insurance, risk-based premia and funding arrangements. This matters because it gives depositors and banks incentives to engage in regulatory arbitrage. Depositors may seek the most generous coverage or avoid being covered by a foreign deposit insurance system. Moreover, increasingly mobile banks have an incentive to seek coverage by unfunded, and thus inexpensive, schemes in normal times as well as an incentive to relocate during crises. Variation also creates uncertainty and may amplify cross-country spillovers from bank failures.

61. To reduce moral hazard problems, it is important to signal that financial institutions should not necessarily expect a bailout and that tough conditions will be placed on shareholders if such action is undertaken. If a financial institution is facing insolvency problems, an effective method of resolution can help to avoid more severe tensions elsewhere in the financial system. A resolution requires that the failing institution be returned to health, restructured or wound down and liquidated. In the latter case, arrangements are needed to allocate losses, and compensate insured creditors, particularly depositors. Resolving a crisis in a cross-border bank also poses challenges in co-ordinating activities and decisions by authorities in different countries and in dealing with conflicts of interest. In recent history, the collapse of the Bank of Credit and Commerce International (BCCI) in 1991 revealed how difficult the problem can be if an institution is active in several countries where crisis resolution is a national responsibility. Large cross-border institutions that assume that they are “too big to fail” may also have greater incentives to load-up on risk. With some European countries appearing reluctant or unwilling to close even small, non-systemic, insolvent banks – moral hazard may be correspondingly high.

62. Efficient bank resolution would involve speed, specialist expertise, and a focused view on the interest of depositors and the general welfare. Having insolvency procedures specifically adapted to banks might facilitate this. In some European countries, banking supervisors have the right to petition for bankruptcy. However, in many others, bank failures are covered by general bankruptcy proceedings (Eisenbeis and Kaufman, 2007). This is problematic because general bankruptcy procedures can be very slow and vary widely between member states. The collapse of Parmalat, a non-financial corporation but the most prominent European large cross-border bankruptcy, shows that general bankruptcy procedures become extremely complex when there are cross-border elements. While some European countries have bank-specific provisions, no country goes as far as the United States, which has a separate insolvency regime for banks and where the Federal Deposit Insurance Co-operation (FDIC) has legal closure authority (Eisenbeis and Kaufman, 2007). In the US system, banks are closed when equity capital to total balance sheet assets drops below 2%, and shareholders lose everything. Even if a bank is legally closed, it is kept open physically, either by bringing in another bank quickly or by operating a newly chartered bridge bank. This practice has helped to avoid bank runs and has minimised the pay-out from the deposit insurance fund. At the same time, moral hazard issues are also limited because banks are allowed to fail. In the United States, prompt corrective action aims to turn troubled banks around before insolvency. Progressively harsher and more mandatory sanctions are applied by the bank regulators on weak financial institutions as their net worth declines. Sanctions include a change in senior management, reductions in dividends or restrictions on growth and acquisitions. These measures attempt to slow a bank's deterioration and buy time, so that regulators may be ready to close them when necessary. The recent crisis has shown, however, that while a PCA model may be useful to deal with a slow-developing crisis affecting a small institution, it may remain inefficient to counter a very rapid crisis affecting a large institution. The European Commission is currently preparing a White Paper on Early Intervention.

63. Special bankruptcy procedures might not be sufficient in the case of a large complex financial institution (LCFI) where the rights of claimholders may be in conflict with the need to take into account broader economic and systemic considerations. Addressing failures of cross-border banks at the EU level is handled currently by national insolvency frameworks, on the basis of the principles established by the 2001 Reorganisation and Winding-Up Directive.²⁷ It provides that in the case of the insolvency of a cross-border financial group, the parent company and its EU branches should be considered a single company subject to home-country insolvency proceedings, whereas subsidiaries should be subject to host-country insolvency proceedings. The directive also prescribes equality of treatment for claimants from different countries, imposes information requirements, and establishes some limited minimum standards for the winding-up legislation of member states. Some of the drawbacks in the winding-up directive are currently being addressed in the Financial Stability Roadmap. These include the different treatment of subsidiaries and branches, which is inefficient as it does not follow company organisation. Untangling the different parts of an integrated group could cause significant loss of value, limit the options of each of the separate receivers, and would be time-consuming. In a few countries, insolvency law differs by financial sector, which would hamper a consistent and effective resolution of a financial conglomerate (Hadjjemmanuil, 2005).

64. Due to the potential costs of a failure of one or more LCFIs and the lack of capacity in deposit insurance systems, which are not designed to deal with systemic failures, it is important to consider cost-efficient ways of liquidating a failing LCFI.²⁸ A cost minimising resolution of a failing bank would probably involve ensuring continuity in many of the operations of the institution. This might not be possible without a solvency package that includes taxpayer money or public guarantees. This raises the thorny issue of how the financial burden of the solvency package should be shared between taxpayers of

27. Directive 2001/24/EC.

28. This is the case even beyond the EU context (Hüpkes, 2005).

different countries. On the one hand, *ex ante* decisions on burden sharing may accentuate moral hazard. In this case it is best to decide *ex ante* on the general procedures to follow; for example, an allocation formula for sharing of potential losses. The latter should of course not entail that governments will always step in. On the other hand, *ex post* decisions, which characterise the current arrangements in Europe, may lead to an under-provision of recapitalisation, because countries have an incentive to understate their share of the problem to incur a smaller share of the costs (Freixas, 2003). This leaves the largest country, almost always the home country, with the decision of whether to shoulder the costs on its own or to close the bank. Even though the new EU-wide MoU sets out principles on burden sharing for cross-border institutions, it is not legally binding and it remains to be seen whether the home country authorities will use taxpayer's money to the benefit of host countries or if they have the capacity to do so.²⁹

Dampening the pro-cyclicality of the financial system

65. As the financial system has developed and become more complex, concern has increased about systemic risks and these have been heightened by recent events in financial markets. These result not just from what happens to a single financial institution but also how problems can spread from one institution to another or are correlated across markets. Despite significant advances in the management of credit and other risks, banks' assessment of risks tends to vary with the business cycle; risk are underestimated in good times and overestimated in bad times. This increases the potential for credit and asset market booms and busts. These risks may be higher in the euro area because individual countries cannot use monetary policy to influence cycles in their own economies and fiscal policy may be constrained. It is therefore especially important for these countries to have financial systems that are robust to shocks.

66. Regulations can contribute to credit cycles if inappropriately designed, particularly where the focus is on achieving micro-prudential objectives aimed at individual institutions rather than the macro-prudential stability of the system as a whole. There is a risk that with the implementation of the Basel II Capital Accord, the financial amplification of the business cycle could become even larger (Lowe, 2002; Borio and Shim, 2007). Under the Basel I Accord, minimum capital requirements on a given portfolio were fixed and they became binding with a fall in a bank's capital following credit losses. Under the new risk-based capital system, requirements become binding through an increase in minimum requirements as loans migrate to higher risk classes. At the point in the cycle when banks are most likely to record losses, the minimum capital requirements could themselves increase, which would accentuate any slowdown in credit growth brought about by capital losses and perceived declines in the creditworthiness of potential borrowers.

67. From a macro-prudential perspective, the time dimension and the endogeneity of risk are important. Cushions should be built up in upswings to be relied upon in rough times. This would enhance an institution's ability to weather deteriorating economic conditions when access to external financing becomes more costly and constrained. Moreover, by "leaning against the wind", it would reduce the amplitude of the financial cycle, limiting the risk of financial distress in the first place. The Basel II Accord has seen a number of technical adjustments to the original proposals to address pro-cyclicality concerns and strengthen the supervisory pillar. It is now possible for supervisors to impose higher capital standards if stress tests imply increasing risks. The jury is out on whether Basel II will perform better than Basel I from a macro-prudential perspective. But there will be one important improvement: Basel II imposes

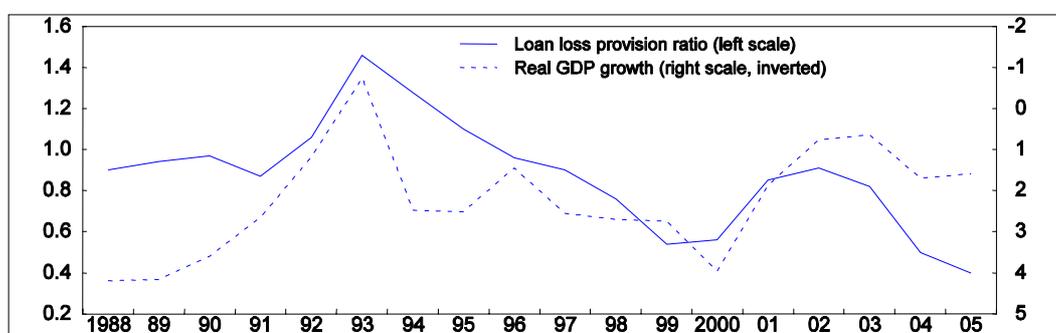
29. History shows that bailouts of foreign depositors are rare. For example, in the rescue of the Italian bank Banco Ambrosiano in 1982, the rescue operation covered the Italian operation, while the Luxembourg subsidiary was not originally included (Goodhart and Schoenmaker, 1995).

provisioning for credit lines extended to structured investment vehicles and similar institutions, undercutting incentives to perform financial transactions in the unregulated shadow banking system.³⁰

68. Pronounced pro-cyclicality is illustrated by the strong inverse relationship between GDP growth and bank provisioning (Figure 5). Dobson and Hufbauer (2001) observe that: “Banks are often reluctant to make adequate provisions for their loan losses, and bank regulators are often hesitant to push banks to recognize losses before it becomes plain that borrowers are in trouble. No bank loan officer wants to admit she made a mistake, and few supervisors want to cry “fire” when there is only smoke. As a consequence, published loan-loss provisions usually lag the eruption of a financial crisis. Hence, when the crisis strikes, banks typically have inadequate cushions of equity plus reserves to absorb the loss.” Empirical work focusing on loan loss provisions and capital buffers tend to confirm this behaviour (Ayuso *et al.*, 2004 for Spain; Lindqvist, 2004 for Norway; Stolz and Wedow, 2005 for Germany and Bikker and Metzmakers, 2003 and Jokipii and Milne, 2006 for a large sample of European countries).

Figure 5. **Loan loss provisioning tends to have pro-cyclical effects**

Average for eight euro area countries, per cent¹



1. Weighted average based on 2000 GDP and purchasing power parities of the following countries: Belgium, Finland, France, Germany (Western Germany prior to 1993), Italy, Netherlands, Portugal (commercial banks) and Spain.

Source: OECD (2005), *Bank Profitability: Financial Statements of Banks* and OECD (2008), *OECD Economic Outlook*, No. 83.

69. Several approaches have been suggested or implemented to reduce the pro-cyclicality of the financial system (Borio and Shim, 2007 and Borio, 2008):

- Regulators can impose a leverage ratio (the ratio of tier 1 (core) capital to total assets) on large banks, in addition to risk-weighted capital ratios. The leverage ratio caps the extent to which banks' assets can exceed its capital base. Although the leverage ratio approach runs counter to the decade-long trend to assess riskiness on the basis of sophisticated models, an additional transparent, complementary constraint may help to redress the asymmetric information between banks and regulators.
- The Spanish authorities have introduced a second tier of prudential provisioning that complements specific provisioning arrangements (Fernández de Lis *et al.*, 2001 and Fernández Ordóñez, 2008). This sets a floor to the fall in provisions during a credit boom. Bank provisions

30. On the other hand, reputation risks will remain. As Julie Dickson (2008), the Superintendent of the Office of the Superintendent of the Financial Institutions Canada put it: “Regulators are just figuring out how significant reputation risk is for a bank. Global regulators agreed when banks said that they could transfer risk to third-party investors via asset-backed commercial paper conduits or structured investment vehicles. Because we were armed with legal opinions and accounting opinions, we believed that off-balance sheet meant off-balance sheet. But since last summer, we have seen banks support off-balance sheet vehicles, and we have seen them step in to protect investors in money market markets.”

to non-performing loans have indeed been the highest among the 90 countries that report such ratios to the IMF (IMF, 2008), about four times higher than in the other euro area countries and double those reported by the United States. No other country has implemented such a scheme, largely because tax authorities regard them as profit-smoothing schemes and they are disliked by accounting standard setters. In Spain, it was possible to implement the scheme because the regulator (the Bank of Spain) also sets accounting standards for financial institutions.

- Capital requirements could themselves be varied over the economic cycle to lean against the pro-cyclicality of the financial system. By forcing financial institutions to build capital buffers during upturns, counter-cyclical macro-prudential policy could reduce the incentives for excessive risk-taking, while also allowing them to draw down on those buffers during downturns when external finance is costly and difficult to obtain (Borio, 2003).
- Many banks paid bonuses to traders and executives for deals that subsequently incurred large losses. Compensation arrangements have often encouraged risk-taking with insufficient regard to long-term risks, thus amplifying the financial cycle. The FSF (2008) has encouraged supervisors to work with market participants to mitigate risks arising from inappropriate incentive structures.
- A more radical option would be to give banks the option of either accepting a higher capital buffer or of taking out insurance against large aggregate write-downs of asset values by other banks (Kayshap *et al.*, 2008). Such insurance could be less costly than having to permanently hold excess capital on institutions' balance sheets, thereby reducing the benefits of regulatory arbitrage. In addition, by basing insurance on *aggregate* write-downs, moral hazard problems are reduced. It is unclear, however, which non-bank institutions would have balance sheets large enough to provide such insurance, and how the insurance could be accurately priced.

The Commission and the ECB will present a report to the Council and the European parliament at the end 2009 on the possible pro-cyclical effects of the banking legislation and its impact on the EU economy, together with any necessary proposals for change.

70. An additional consideration is whether policies to reduce the pro-cyclicality of the financial system should be rules-based or discretionary. Rules-based approaches have the benefit of being transparent. However, they could also be blunt and not improve the incentives for institutions to improve their measurement of the time-dimension of risk (Borio, 2003). Discretionary approaches have the advantage of being potentially more finely tuned to the nature and risks of a particular credit cycle. However, they could appear *ad hoc*, create unnecessary uncertainty for financial institutions and raise the risk of regulators/supervisors acting too late, if at all. As Box 6 shows, regulators/supervisors undertook some, albeit limited action in the run-up to the recent financial market turmoil.

Box 6. Leaning against the wind in the build-up to the financial market turmoil

Some European regulators took actions during this credit cycle to "lean against the wind" or dampen the cycle. These were generally fairly modest and late-on in the cycle. These actions included:

- In Belgium, new liquidity rules, emphasising a qualitative approach and better reporting was introduced in December 2006.
- Estonia increased the risk weighting of all loans secured by mortgages on residential property and limited mortgage interest rate deductibility (World Bank, 2007).
- In Ireland, in 2006 the supervisor raised the risk weighting on high loan-to-value mortgages for owner-occupiers and for exposure secured by properties that are not occupied by the borrower. It also raised

the risk weight applied to speculative commercial estate lending. Moreover, a new forward-looking liquidity mismatch approach was introduced replacing the focus on the stock of liquid assets. A new consumer protection code specific to the banking sector was implemented and Minimum Competency Requirements for persons who provide advice on or sell retail financial products were introduced. The new consumer protection code was extended to the (unregulated) subprime market. Finally, stress testing was ramped up, including for liquidity risks.

- Latvia raised reserve requirements (World Bank, 2007).
- In the Netherlands, concerns about persistently high levels of household debt led to the introduction of a new Code of Conduct for Mortgage Lenders in 2007 with the explicit goal of dealing with rising loan-to-value and loan-to-income ratios.
- Portugal tightened rules governing general provisions, large exposures, connected lending and capital adequacy. The risk weighting for housing loans with loan-to-value ratios above 75% was raised and provisioning for consumer loans was tightened.
- Apart from implementing dynamic provisioning, the Bank of Spain has taken a cautious approach to off-balance sheet investment vehicles. The development of investment vehicles was not prohibited, but if banks were to set up such vehicles, these should be consolidated within the group, and therefore be subject to capital requirements and provisions. Under these conditions, no such vehicles were set up. The same rules apply in the Netherlands and Denmark.

71. A key difficulty for the euro area and the European Union is that no institution has responsibility for area-wide macro-prudential risk. The ECB produces half-yearly *Financial Stability Reviews* but these only raise awareness of issues. Although the Banking Supervision Committee (BSC) brings together banking supervisors and central banks in a single forum, such an arrangement may not be suited to quickly identifying emerging EU-wide systemic risks and does not have the authority to maintain financial stability in the area as a whole.

What regulatory architecture for the European banking industry?

72. A variety of market failures make the banking sector susceptible to bouts of instability. Because the negative externalities generated by such instability are not easily overcome by the private sector, and because governments are the ultimate guarantor of the banking system's solvency, there is a role for governments in designing regulation to improve the stability of the system. However, regulating financial industry is different from regulating many other markets in that there is no clear "bottom line" or standard by which regulation can be judged (Goodhart, 2006). In particular, there is often a trade-off between promoting soundness on the one hand and wealth creation on the other. Unnecessary regulation may damage the functioning of financial markets, stifle innovation and hamper economic growth. Badly designed regulation can also enhance instability through regulatory arbitrage or by encouraging excessive risk taking. Moreover, because of information asymmetry, it will always be challenging for regulators and supervisors to stay informed about the institutions they supervise and to keep pace with innovations and their potential impact on the stability of financial markets. For these reasons regulation, and changes to regulations, should proceed cautiously with a clear sense of its own limits, the market failures it is trying to offset, and how it will address such failures.

73. Notwithstanding these caveats, there are important areas in which EU financial supervision could improve. Although the European Union has made great strides towards creating an integrated financial market with the euro area at its heart, financial market supervision remains primarily the responsibility of national authorities. This fragments responsibility, results in co-ordination problems and also raises regulatory costs for financial enterprises operating in more than one jurisdiction. Although there is a great deal of information sharing, there are still gaps as information does not flow sufficiently between different regulators and there are insufficient incentives to provide timely and relevant information, particularly at

difficult times. Adding a European dimension to the mandate of the national regulators may help to align incentives at the margin.

74. Although recent initiatives to enhance colleges of supervisors, the role of co-ordinating supervisor within these groups, MoUs and the role of the Lamfalussy level 3 committees provide a clearer set of principles on how to act. The EU system of prudential regulation could be improved further by:

- Further integrating and centralising the supervision of LCFIs.
- Aligning incentives, authority and information sharing with the need to deal with solvency and liquidity. An effective system of crisis management with responsibility apportioned so as to avoid such problems *ex ante* and deal adequately with them *ex post* should be put in place.
- Keeping the overall regulatory burden for firms low.
- Ensuring that supervisors, ministries of finance and the monetary authorities collaborate closely to manage systemic risks and financial market crises.
- Investigating possibilities for reducing the pro-cyclicality of financial markets – such as counter-cyclical adjustments to capital ratios and complementing risk-weighted capital ratios with leverage ratios.

75. Determining the appropriate institutional structure to supervise LCFIs is complicated. The Commission's recent proposals to supplement the existing national structure with supervisory colleges have the key advantage of ensuring that supervisors are closer to the institutions they supervise and keeping supervision at the same level as fiscal responsibility. The decentralised approach also facilitates a more level playing field between a country's local banks and cross-border banks.

76. However, a centralised supervisory structure would have key benefits. Centralisation is more consistent with maintaining a single market in the face of increased cross-border activity. It would ensure that LCFIs were supervised consistently, make it easier to pool information and analysis, and reduce reporting burdens. It would also make it easier to align the incentives of supervisors with the underlying risks. Although centralised supervision for LCFIs would make the playing field between local and cross-border banks less even, that may actually be the appropriate outcome given the different risks that the two types of institutions pose.

77. Before a more centralised supervisory structure can be put in place, a number of issues would have to be resolved. These include:

- Aligning fiscal responsibility with supervisory responsibility.
- Maintaining accountability.
- Determining how a centralised structure would be financed.
- Ensuring consistency with national laws.
- Linking with national supervisors.
- Determining the appropriate organisational structure.

78. Although all of these issues will take time to resolve, perhaps the most difficult to resolve will be the optimal organisational structure. Here, there are a number of options. One is the establishment of a European banking charter to function alongside national regimes (Čihák and Decressin, 2007). The charter would set out a complete European regulatory and legal framework for financial institutions and be

designed to be attractive to those heavily engaged in cross-border business. Banks would be free to choose between operating under national banking charters or the European charter. Although giving institutions the freedom to choose which charter to operate under would promote competition among regulators, this freedom could also undermine the goal of consistent supervision.

79. An alternative approach would be to develop a European system of supervisory agencies (Schoenmaker and Oosterloo, 2008). In such a system, the national prudential agencies would be brought together in a single supervisory system with a cross-border structure, along the lines of the European System of Central Banks. A European Prudential Supervisory Agency at the centre would be responsible for key supervisory decisions (for example, the assessment of potential cross-border mergers and acquisitions, or crisis management decisions) as well as the design of policy. It could also help to resolve disputes between home and host country supervisors. Day-to-day prudential supervision would be delegated to the national supervisors close to the financial firms. Cross-border financial firms would be supervised by the lead supervisor from the home country (*e.g.* the BaFIN for Deutsche Bank). The home supervisor would also be the single point of contact for the cross-border financial firm (for example, on reporting schemes, capital and liquidity, and on-site inspections). The home supervisor could ask host supervisors to perform on-site inspections of the host country operations. The home supervisor would feed its information into a common database of the system. This common database would enable the European Prudential Supervisory Agency to have an overall view of the stability of cross-border financial firms across Europe. The system would deal with financial firms that operate cross-border. Small and medium-sized financial firms (banks and insurance companies) that are primarily nationally-oriented would continue to be supervised by the national prudential supervisors. By bringing the national supervisors into a European system under the oversight of a central agency accountable to Brussels, the advantages of both centralisation and decentralisation could be balanced. However, fundamental questions, including burden sharing, would also need to be resolved. Moreover, if such a system were unable to balance the interests of home and host countries, or adequately resolve disputes between them, moving toward a single supervisor could also be considered.

80. Progress in strengthening financial regulation is important as the current regulatory framework increases the likelihood of severe financial market problems. These can cause substantial macroeconomic dislocation, which could be worse still for members of the monetary union, as they have fewer policy instruments at hand. The fiscal burden could also be very large should a systemically important institution fail. Such crises are rare, but it is important that this does not give a false sense of security or misleading picture about the strength of the regulatory architecture.

81. The Commission has launched work on how the European financial supervisory system can be improved to provide effective scope for effective macro-prudential oversight through the de Larosière Group. The mandate of the group is to consider the organisation of European financial institutions to ensure prudential soundness, the orderly functioning of markets and stronger European co-operation on financial stability oversight, early warning mechanisms and crisis management, including the management of cross-border and cross-sectoral risks. It will also look at co-operation between the EU and other major jurisdictions to help safeguard financial stability at the global level.

Box 7. Main recommendations on financial stability and regulation

Financial market regulation should be strengthened, particularly in the light of the international financial market turmoil:

- Implement the actions as set out in ECOFIN's "Financial Turmoil Roadmap" and, with due consideration, reforms emanating from the Financial Stability Forum's review of prudential and supervisory powers.
- Swiftly and efficiently implement near-term measures to stabilise the European financial system and think

carefully about an exit strategy once the stress in financial markets has dissipated.

- Allow sufficient time for banks to recapitalise themselves using private funding sources, but consider forcible recapitalisation of banking systems if private funding is not forthcoming.
- Implement insolvency procedures specifically adapted to banks, and ensure that such regimes allow for early intervention before insolvency occurs.
- Improve the functioning of deposit guarantee schemes by ensuring that pay-outs occur promptly and ensure that the schemes are properly funded.
- Spell out the principles and procedures for burden sharing in a situation of public intervention in a cross-border financial institution in greater detail.
- Investigate possibilities to reduce the pro-cyclicality of financial markets – such as counter-cyclical adjustments to capital ratios and leverage ratios to complement risk-weighted capital ratios.

Despite on-going progress in improving the regulatory and supervisory architecture, further measures are required to improve supervision. The long-run goal should be a more centralised structure for the supervision of large complex financial institutions (LCFIs). Because this is not likely to be feasible in the short run, intermediate steps should be taken towards this goal:

- Add a European dimension to the mandates of national supervisory authorities.
- Harmonise national regulatory standards for large complex financial institutions (LCFIs) and systemically important financial institutions and further strengthen the colleges of supervisors and the role of lead supervisors.
- Strengthen the role of the level 3 committees by enhancing their role in monitoring the functioning of the colleges of supervisors and increasing the resources they have to fulfill their tasks.

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