Financial Supervision: from National to European?
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Since the introduction of a single monetary policy in 1999, the academic and policy debate has progressively shifted to the appropriate arrangements for financial supervision and financial stability in Europe. While these arrangements are still dominated by national and sectoral features, the drivers for change in the European financial landscape are cross-border and cross-sector integration.

On the first trend, the key question is whether nationally based arrangements can cope with increasing cross-border integration. Policy-makers have recently discussed arrangements for co-ordination among national authorities (ministries of finance and supervisors) to streamline and harmonise rule-making and to foster supervisory convergence in the European Union. These discussions are a prelude to the wider debate on a possible ‘European System of Financial Supervisors’. We believe that the need for European solutions ultimately depends on the intensity of possible cross-border spill-over effects resulting from bank failures. Anecdotal evidence suggests that some, albeit a limited number of pan-European financial institutions are emerging.

On the second trend, the key question is the choice of the appropriate cross-sector model for the organisational structure of supervision. On the national level, different models have recently been implemented in response to emerging financial services groups combining banking and insurance. It is not yet clear which model is dominating. We propose to apply ‘policy competition’. Some competition between supervisory models could highlight the strengths and weaknesses of the different models and thus facilitate the choice of the best model for Europe.

When designing European arrangements, one is confronted with cultural issues. An important one in financial supervision is the role of market discipline. In some countries, financial supervision and market discipline are considered to be complementary. In the absence of severe systemic consequences, financial firms should be allowed to fail. In other countries, government involvement in the financial sector is still predominant. However, recent figures indicate that the share of government ownership across the European Union is receding. This is partly due to pressure from the European Commission contesting incompatible State aid.

Finally, the appropriate level of (de)centralisation plays a prominent role in discussions about Europe. Financial supervision (in particular on-site inspections) is a micro-policy. The focal point will therefore, in our opinion, remain
at the national level. At some point, an additional layer may be needed to shift general policy-making as well as decision-making on emerging pan-European financial institutions to the European level. Paraphrasing the title of this study: the future of financial supervision is national and European!

The Ministry of Finance in the Netherlands has taken a keen interest in the topic of financial supervision in Europe. It organised an international conference on this topic in 2001. The goal of the conference was to discuss the implications of financial market integration – across borders and across sectors – for regulation, supervision and crisis management in the European Union. This study is an extension of earlier work with the co-organisers of this conference, Jeroen Kremers and Peter Wierts.1 We have had stimulating discussions on the future of financial supervision in Europe. Finally, I would like to thank Stefan Oppers as well as the editors, Ivo Arnold, Sylvester Eijffinger, Lex Hoogduin and Dave Smant, for helpful comments.

DIRK SCHOENMAKER

1 Kremers, Schoenmaker and Wierts (2003a; 2003b) and Schoenmaker and Wierts (2002).
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Introduction

After the successful establishment of EMU, the debate on the need of a ‘European System of Financial Supervisors’ is intensifying in the literature as well as in the policy arena (the Ecofin Council has, for example, recently reviewed the arrangements for financial regulation, supervision and stability in the EU). There are two basic questions:

- Would it be desirable to move from the present national structure to a European structure for financial supervision and, if so, when?
- Which model for financial supervision should be chosen at the European level?

Both questions raise a lot of controversy. The basic argument in favour of moving to a European structure is that it might be difficult to achieve simultaneously a single financial market and stability in the financial system, while preserving a high degree of nationally based supervision with only decentralised efforts at harmonisation (Thygesen, 2003). This is an application of the classical trilemma in macro-economic policy. Policy-makers are confronted with three desirable, yet contradictory, objectives: fixed exchange rates, capital mobility and independent monetary policy. Only two out of the three objectives are mutually consistent, leaving policy-makers with the decision which one they wish to give up: the ‘trilemma’ (Rose, 1996).² Figure 1 illustrates the three incompatible objectives in our case: a stable financial system, an integrated financial market and independent (national) financial supervision. An argument against moving to a European solution for financial supervision at the present time could be that the degree of integration in financial markets does not yet justify such a move.

² In an earlier issue of the Financial and Monetary Studies, Arnold, Smant and De Vries (2003) explain the classical trilemma in more detail.
We put the debate on the degree of integration in perspective. Although the tendency to create large financial entities has increased, aggregated data still show a domestic orientation in the merger and acquisition activities of EU financial institutions (Walter, 2003). It has been alleged that protectionist pressures are still at work (EFC, 2002a). This raises an interesting question about sequencing. Do we need a European supervisor (and thus countering possible national protectionist pressures) before pan-European mergers will take off? Or, do we need a minimum number of pan-European institutions to justify such a European supervisor?

When looking at the penetration and functioning of financial markets in Europe, the evidence is mixed. An integrated wholesale market is emerging (Von Thadden, 2001), while retail markets are still largely fragmented within the EU (EFC, 2002a). The current supervisory arrangements are anchored at the national level and based on home country control. But home country authorities may not have the appropriate incentive to take care of externalities related to the failure of financial institutions in host countries. The financial stability objective of the trilemma could thus come under pressure. The policy question is twofold. First, how can the incentives of the home authorities be improved? Two, at what stage in the process of ongoing integration, nationally based supervision may need to be moved to some kind of European system of financial supervisors? An important element in this policy-debate is the issue of who should bear the fiscal costs of possible bail-outs.

---

**Figure 1**

**The Trilemma in Financial Supervision**

Stable financial system

Integrated financial market

National financial supervision
The pros and cons of moving supervision to the European level have been extensively debated in the literature (e.g. Prati and Schinasì, 1999; Lannoo, 2000; Vives, 2001). However, the choice of the appropriate model for Europe—regarding the organisational structure and the policy stance of financial supervision—has not yet received much attention. This study identifies the range of possible models on a national level and a European level. There are currently various national models for the organisational structure of financial supervision in Europe. The basic models can be classified as sectoral (separate supervisors for banking, securities and insurance), functional (separate supervisors for prudential supervision and conduct of business) and integrated (a single supervisor).

In principle, all models should provide for a close link between the prudential (or banking) supervisor and the central bank, which is responsible for financial stability (Padoa-Schioppa, 2003). This link is especially important in EMU, since the integration of payment systems and the interbank market could lead to an increase in systemic risk across borders. Central banks are the first to detect this kind of problems and access by central banks to supervisory information is crucial in these circumstances.

So how to choose the appropriate model for Europe? Drawing a parallel with negotiations for EMU, there was consensus early on in the process to model the ECB on the Bundesbank with its strong emphasis on price stability and accordingly strong inflation track-record (Debrun, 2001). However, there is no dominant supervisory model in Europe for promoting an efficient and stable financial system. Responding to emerging financial conglomerates combining banking and insurance, new supervisory models have only recently been introduced. So there is not yet a reliable track-record. We argue that some degree of ‘policy competition’ may be beneficial to highlight the strengths and weaknesses of the different models. Supervisory competition could facilitate the discovery of the best model (Fender and Von Hagen, 1998), though the ultimate choice will be made in the political arena.

A related question is which supervisory policy should prevail in Europe. The key issue for the policy stance is the role of market discipline, as there is still some evidence of unwarranted government intervention in Europe (Gros, 2003). Market discipline stresses private-sector monitoring complemented, but not replaced, by official supervision. Using a database of supervisory practices in over 100 countries, Barth, Caprio and Levine (2001a) find that supervisory skills, market discipline and private-sector control are key elements to
promote financial system performance. Supervisory practices in Europe could be further developed via benchmarking based on best practices. This process of benchmarking could be part of the new arrangements for supervisory convergence proposed by Lamfalussy (2001).

A final question is the appropriate level of (de)centralisation of a putative European system of financial supervisors. If and when intensifying cross-border externalities move the case from a national to a European mandate, this question will come to the forefront. It is argued that supervision is primarily a micro-policy as day-to-day supervision should be conducted close to supervised institutions and not from a far-away head-office. Nevertheless, it may have some merit to centralise policy-making and to pool information allowing effective market surveillance of European-wide systemic risks.

This study is organised as follows. Section 2 discusses the degree of integration within the European Union. Several indicators to measure integration are reviewed. Section 3 assesses the impact of increasing integration on the present system of home country control. Against a backdrop of increased intensity of cross-border spill-over effects, alternative policy-options – from improved co-ordination to European solutions – are considered. Section 4 considers the range of possible models for European financial supervision. The concept of supervisory competition is introduced. Section 5 addresses outstanding issues, such as which policy stance should prevail in Europe, the appropriate level of (de)centralisation and who should bear the fiscal costs of a possible bail-out. Section 6 concludes.
Are European financial markets integrated?

2.1 Benefits of financial integration

Supervisory structures should be able to accommodate the dynamics of financial markets. Before discussing the current level of integration of European financial markets, we first review the benefits of financial integration. What is the merit of pursuing the policy-objective of a single financial market in Europe? The available empirical analysis supports the view that improved efficiency in financial services translates into economic growth and employment creation. To underpin its strategy for the single market in Europe, the European Commission (1988) published the findings of its studies on the economics of integration: the well-known Cecchini-report. At that time, the analysis of the impact of financial liberalisation and capital markets integration indicated potential Europe-wide gains amounting to approximately 1.5 per cent of GDP over a six-year period. More recently, the European Commission has commissioned two further studies which present evidence on the macro-economic benefits of financial integration. These studies are based on partial analysis on specific market segments and compare the integration (and underlying efficiency) of markets in Europe and the United States.

London Economics (2002) investigates the economic impact of integrated securities markets. The study first concentrates on the effect of pooling equity and bond markets on trading costs and the cost of capital (expected to be reduced by 50 basis points). Next, the study quantifies the impact of the above reductions in the cost of finance on the economy in terms of GDP and employment by running simulations using a multi-country macro-economic model. The study concludes that the impact on the economy in terms of GDP amounts to 1.1 per cent and in terms of employment to 0.5 per cent, spread over 10 years (the period over which the simulations were run).

Table 1 presents the results from London Economics for each EU country under the different simulations. Simulation 1 involves a 50 basis points reduc-
tion in the cost of equity finance only and accounts for a 0.5 per cent increase in GDP. Simulation 2 involves the earlier reduction in the cost of equity finance and a 40 basis points reduction in bond finance, but keeps the overall level of corporate bond finance in overall financing constant. This accounts for a further 0.1 per cent increase in GDP. Simulation 3 involves the previous reduction in cost of equity and bond finance, and expands the share of bond finance in line with decreased cost (assuming to close by 25 per cent the gap between the US and the EU in the share of bond financing in total debt financing). This accounts for a further 0.2 per cent increase in GDP. Simulation 4 adds to the previous changes, an additional 20 basis points reduction in the cost of bank-lending resulting from substitution away from bank lending. The last simulation accounts for a further 0.3 per cent increase change in GDP. The overall increase in EU-wide GDP thus amounts to 1.1 per cent.

It is interesting to note that the growth impact in the individual EU countries varies considerably, depending on its starting position. Table 1 shows that a small and less developed country like Greece would, for example, benefit most (2 per cent change in GDP) of the pooling of equity and bond markets. The benefits for the Netherlands are close to the average (1.2 per cent change in GDP).

Giannetti, Guiso, Jappelli, Padula and Pagano (2002) provide an assessment of the likely effects of financial market integration on the ability of European countries to grow faster. The report estimates the impact of financial development on manufacturing sector growth in the EU, both at firm- and industry-level. The approach, first proposed by Rajan and Zingales (1998), relies on the intuitive idea that financial efficiency is more relevant for firms that depend heavily on external finance. Simulations suggest that the potential benefits of financial integration – interpreted as firms’ access to a financial market similar to the US standards (or of the most developed EU economies) – can have potentially large effects on the EU countries’ growth. The impact of financial integration on the growth of value added in the EU manufacturing industry as a whole is estimated between 0.75 and 0.94 per cent per year. Of course, the effect would be smaller if financial market integration were associated to a lower level of financial development than that of the United States.

At the country level, Giannetti et al (2002) report that the growth effect of financial integration is 1 per cent per year or more for Belgium, Denmark, Finland, Germany, Greece, Ireland, Italy, Portugal and Spain. In other EU countries, growth increases by less than 1 per cent per year. This second group in-
cludes Austria and France (whose projected growth rate increases by somewhat less that 1 per cent) and the Netherlands, Sweden and the United Kingdom (who do not gain much, being already the most developed financially in the EU). The two groups differ mainly because of their initial level of financial development, which is considerably higher in the second group of countries.

Finally, Giannetti et al (2002) analyse the political economy of integration. They observe that financial market integration may have both winners and losers. In countries that are less financially developed, the financial sector stands to lose market share and profits. This may result in a powerful con-

<table>
<thead>
<tr>
<th>Countries</th>
<th>Simulation 1: reduction in the cost of equity finance</th>
<th>Simulation 2: reduction in the cost of equity and bond finance</th>
<th>Simulation 3: reduction in the cost of equity and bond finance, and increase in share of debt finance</th>
<th>Simulation 4: reduction in the cost of equity, bond and bank finance, and increase in share of debt finance</th>
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<tr>
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<td>0.9</td>
<td>1.5</td>
<td>1.9</td>
</tr>
<tr>
<td>France</td>
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<td>0.7</td>
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<td>1.4</td>
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<tr>
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<td>0.5</td>
<td>0.5</td>
<td>0.9</td>
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<tr>
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<td>1.0</td>
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Note: n.a. = not available. Figures: % change in the level of GDP in constant prices.
constituency lobbying against financial integration, or at least slowing down its progress. At the same time, industrial sectors of these countries have an incentive to promote financial integration because integration gives them an opportunity to expand. So the overall balance of opinion in these countries will depend on whether the pro-integration pressure of industry will win over the anti-integration resistance of local finance. In financially developed countries, the situation is likely be reversed. The financial sector will gain from integration, while industry will not gain much and may even lose from the increased competitiveness of foreign manufacturing producers, which will be able to access to hitherto inaccessible sources of financing. Therefore, in these countries finance is likely to be in favour of integration while industry may be less favourable or even opposed to it.

2.2 Cross-border mergers

In the literature, there is no agreement on how to measure financial integration. A simple way to measure integration is by using the law of one price. The law of one price indicates that there would be only one price for homogeneous goods. Deviations in the price would indicate lack of integration. However, this measure provides only limited help in measuring integration, since quality competition – as distinguished from price competition – is crucial in many of the products and services in the financial industry (Padoa-Schioppa, 2000). So in practice we observe primarily heterogeneous goods. One of the more complex proposals to measure integration is to use a vector of several elements, e.g. horizontal and vertical integration of intermediaries and markets, financial transaction costs, consumption risk sharing and the law of one price (Bernard and Bisignano, 2001). In general, comprehensive empirical studies use several publicly available indicators to judge financial integration in the European Union (e.g. European Commission, 2001; Galati and Tsatsaronis, 2001; Von Thadden, 2001).

The most widely used indicator in empirical research has probably been cross-border mergers and acquisitions of financial institutions. Table 2 shows that between 1986 and 2000, the bulk of financial restructuring occurred on an in-sector and domestic basis (Walter, 2003). Worldwide, 78 per cent of the deal flow (by value) was in-sector (panel A of table 2). This was 85 per cent in the United States (panel B), where line-of-business restrictions existed for most of the period (see also section 4.3), and 76 per cent in Europe (panel C), where there were no such barriers. So cross-sector mergers and acquisitions, includ-

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3 Horizontal integration refers to the integration of intermediaries or markets at the same level within the supply chain (e.g. the merger of two retail banks). Vertical integration refers to integration of intermediaries or markets at different levels within the supply chain (e.g. the merger of a stock exchange and a clearing and settlement body).

ing financial conglomerates comng banking and insurance, were a small part of the picture (only 11.4 per cent even in Europe, home of bancassurance).

For Europe, cross-border intra-European mergers and acquisitions (panel D) amounted to 29 per cent of the European total (panel C). Table 2 illustrates that these figures differ considerably across sectors: 17 per cent in banking; 23 per cent in securities; 60 per cent in insurance. According to Walter (2003), these figures possibly suggest somewhat different economic pressures at

<table>
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<tr>
<th>Table 2</th>
<th>Value of M&amp;A's in the Financial Sector between 1986 and 2000 (in $ bns)</th>
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<tbody>
<tr>
<td>Acquirer</td>
<td>Commercial bank</td>
</tr>
<tr>
<td>Target</td>
<td>Value</td>
</tr>
<tr>
<td>Panel A: World Total</td>
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<tr>
<td>Commercial bank</td>
<td>1174 (46.4%)</td>
</tr>
<tr>
<td>Securities firm</td>
<td>100 (4.0%)</td>
</tr>
<tr>
<td>Insurance company</td>
<td>57 (2.3%)</td>
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<tr>
<td>Panel B: United States</td>
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<td>Commercial bank</td>
<td>538 (52.4%)</td>
</tr>
<tr>
<td>Securities firm</td>
<td>24 (2.3%)</td>
</tr>
<tr>
<td>Insurance company</td>
<td>0.3 (0.0%)</td>
</tr>
<tr>
<td>Panel C: Europe</td>
<td></td>
</tr>
<tr>
<td>Commercial bank</td>
<td>373 (43.8%)</td>
</tr>
<tr>
<td>Securities firm</td>
<td>25 (2.9%)</td>
</tr>
<tr>
<td>Insurance company</td>
<td>48 (5.6%)</td>
</tr>
<tr>
<td>Panel D: Intra-Europe</td>
<td></td>
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<tr>
<td>Commercial bank</td>
<td>63.5 (25.8%)</td>
</tr>
<tr>
<td>Securities firm</td>
<td>7.4 (3.0%)</td>
</tr>
<tr>
<td>Insurance company</td>
<td>2.7 (1.1%)</td>
</tr>
</tbody>
</table>

Note: The first figure is the dollar value (in billions) of M&A activity and the second number in parenthesis is the percentage of the total (these sum to 100 for each 3x3 matrix). Panels B (US) and C (Europe) are a subset of Panel A (World). Panel D (Intra-Europe) is a subset of Panel C (Europe).

work. With a few exceptions like HSBC and Citigroup globally, and Fortis, Nordea, ABN AMRO, ING, BSCH and BBVA as parts of regional and inter-regional strategies, the development of cross-border platforms seems to be the exception in the banking sector (section 3.5 provides more data on cross-border banking in Europe). In insurance, on the other hand, global initiatives by firms like AXA, AIG, Zurich, AEGON, ING, Allianz, Generali and GE Capital seem to be a more important part of the mergers and acquisitions picture.

The overall picture is that restructuring via mergers and acquisitions, in particular in the banking market, is still largely domestic. It has been alleged that the lack of such cross-border merger and acquisition activities reflects the (ab)use of national provisions, formally based on current legislative EU banking framework in a protectionist manner (EFC, 2002a). This raises an interesting question about sequencing. Do we need a European supervisor (and thus countering the possible (mis)application of national provisions) before pan-European mergers will take off? Or, do we need a minimum number of pan-European institutions to justify such a European supervisor? An alternative remedy that may help to reduce possible national protectionist pressures is to assign responsibility for financial supervision and competition policy to separate agencies. Furthermore, the Commission should strictly apply competition policy rules to financial services (EFC, 2002a).

Although remaining protectionist pressures may be at work, we believe that the determining factor for mergers and acquisitions is ultimately the business case. Domestic mergers will prevail as long as more can be gained from these mergers (e.g. synergy-gains from rationalising the combined network of branches). Nevertheless, it seems that the removal of remaining legal and regulatory barriers (in particular in the retail market, see sections 2.4 and 2.5) may somewhat shift the balance of gains towards cross-border mergers and thus give new impetus to financial integration.

An unanswered question is whether at some point pan-European financial institutions will emerge that serve the whole of Europe. On the one hand, M&As may show a kind of ‘pecking order’ in which institutions first merge nationally, then across borders inside restricted geographic regions, and finally reach out across all of Europe (Von Thadden, 2001). On the other hand, an integrated system does not necessarily need this kind of development, as is shown by the US experience. No bank is present in every state and inter-state banking is relatively limited, but the US financial system is commonly viewed as integrated (Padoa-Schioppa, 2000).

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5 In the Netherlands, for example, competition policy for financial services was transferred from the supervisory authorities to the newly established competition authority (Nederlandse Mededingingsautoriteit) in 2000. See a recent Group of Ten report (2001) for a review of competition policy in the Group of Ten countries.
2.3 Wholesale markets

Wholesale markets in the EU financial system are generally judged to be integrated, although there are differences between markets. The unsecured part of the interbank market has integrated completely following the start of EMU. The secured part of the interbank market, however, is less integrated due to fragmentation in the clearing and settlement infrastructure. The Giovannini group (2001) provides an assessment of the arrangements for cross-border clearing and settlement arrangements in the European Union. The report concludes that fragmentation in the EU clearing and settlement structure complicates significantly the post-trade processing of cross-border securities transactions relative to domestic transactions. Complications arise because of the need to access many national systems, whereby differences in technical requirements, market practices, tax regimes and legal systems act as effective barriers to the efficient delivery of clearing and settlement services.

Bond markets have become more integrated, although some differences in yield spreads remain. Yield spreads contain a liquidity and credit risk premium. The remaining differences in yield spreads may thus be related to the fact that government bonds are issued by Member States with a different default risk (as measured by rating agencies such as Standard and Poor’s and Moody’s) as well as different procedures, issue-sizes, time-tables and instruments. For the private bond market, the data point to a fundamental switch of market behaviour. While until 1998 bond distribution in the euro area for all but the very few largest firms was almost exclusively domestic, the larger bond issues since 1999 were sold on a truly European scale (Von Thadden, 2001). The data point to a striking change in market behaviour following the introduction of the euro. Table 3 shows that the share of the US dollar in international bond issues fell from 60 per cent in 1998 to 44 per cent in 2002, while the share of the euro rose from 33 per cent to 49 per cent. Integration in the EU equity markets is also visible by a change in perspective by investors from country-based investment to sector-based investment (Galati and Tsatsaronis, 2003).

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6 Within the EU cross-border trades are far more expensive than national trades. The per-transaction income of the international Central Securities Depositories (CSDs), which process predominantly cross-border trades, is very much higher (in the order of 8 to 10 times) than the per-transaction income of national CSDs, which process mainly domestic transactions (Giovannini group, 2001, table 4.2).
Although some obstacles are still present in the financial wholesale markets of the EU, an integrated financial system is emerging since professional players have the resources to overcome or circumvent obstacles to integration (EFC, 2002a).

2.4 Retail markets

So far, most empirical research has focused on integration of the wholesale markets. The degree of financial integration on the retail markets has only recently been investigated (e.g. by De Bondt, 2002; Kleimeier and Sander, 2002; and Heinemann and Jopp, 2002). The general conclusion is that retail markets are far from integrated. The lack of integration of retail markets is reflected in limited convergence of consumer lending rates, both in terms of levels and in terms of movements, suggesting insufficient competition. But there are – again – differences between markets. Empirical research by Kleimeier and Sander (2002) indicates that the markets for consumer credit and the mortgage market remain fragmented, while there are some signs of a more unified market for corporate loans due to greater competition in the market for corporate lending. Box 1 considers the evidence.

Related empirical work by De Bondt (2002) confirms that the immediate pass-through of market interest rates to retail bank interest rates is incomplete. The proportion of a given market interest rate change that is passed through within one month is found, at its highest, to be around 50 per cent. However, his em-
Initially, empirical results suggest a quicker retail interest pass-through in the euro area since the introduction of the euro. These findings could be an indication of increasing competition.

Apart from ‘natural’ barriers such as language and culture, several policy-induced barriers are also still in place. Particularly relevant for the retail markets are differences in consumer protection rules and taxation. Contrary to the professional players in the wholesale markets, consumers usually do not have the skills, information and resources to overcome or circumvent these barriers (EFC, 2002a).

**BOX I**

**HAVE CONSUMER CREDIT RATES CONVERGED IN THE EURO AREA?**

- The market for consumer credit is still fragmented. Very limited evidence of co-movement of nominal consumer rates is found for some Member States. Furthermore, the speed of adjustment is very low, and appears not to have increased since the introduction of the euro;
- The mortgage market is also still fragmented. Although nominal European mortgage rates follow developments in the money market, they do not yet exhibit a pattern of co-movement in most Member States;
- There are some signs of a more unified market for corporate loans. There is significant evidence of co-movement of corporate loan rates, and a more rapid adjustment to movements in money market rates. There is therefore evidence of greater competition in the market for corporate lending.

Source: Kleimeier and Sander (2002).
2.5 Policy implications

Summing up, the process of integration of 15 national financial systems is not yet completed. While wholesale markets are generally largely integrated (with the exception of fragmentation in the infrastructure for clearing & settlement), retail markets are still largely fragmented within the EU. However, the introduction of euro-notes and coins in 2002 as well as the removal of remaining legal and regulatory obstacles as envisaged in the Financial Services Action Plan (FSAP) of the European Commission (to be completed by 2005) may give new impetus to the integration of retail markets. Financial institutions, for example, cannot market a financial product EU-wide, but have to design and market 15 different products to satisfy 15 different regimes for consumer protection. The approach of the FSAP, to switch from host to home country control with harmonisation of essential consumer protection rules, will help to solve this problem.7

At the onset of EMU, White (1998) published a paper with the title: ‘The coming transformation of continental European banking?’ The principal hypothesis in this paper is that restructuring had not yet happened in continental European banking and that competition may be about to increase sharply with the arrival of the euro. While that has clearly happened in wholesale banking, retail banking is still segmented and dominated by national banks (though De Bondt (2002) finds some early signs of an increase in the prevailing competitive forces). If and when cross-border financial activity expands in the EU, the task of supervising financial institutions at the national level may become more difficult. The next section considers this issue.

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7 The E-Commerce Directive, which was adopted in 2000, already introduces the principle of home country control for electronic services in the EU.
Does home country control suffice?

3.1 Present system of financial supervision

The present system of prudential supervision in the EU is based on the principle of home country control combined with minimum standards and mutual recognition. A financial institution is thus authorised and supervised in its home country and can expand throughout the EU (via offering cross-border services to other EU countries or establishing branches in these countries) without additional supervision. The host country has to recognise supervision from the home country authorities.

The arguments for home country control are twofold. First, it promotes the effectiveness of supervision, as the home supervisor is able to make a group-wide assessment of the risk profile and the required capital adequacy of financial institutions (i.e. the concept of consolidated supervision). The concept of consolidated supervision is well established in banking. The recently adopted Directive on Financial Conglomerates introduces a single co-ordinator who is responsible for group-wide supervision of financial conglomerates. However, the concept of solo-plus supervision is applied in insurance. The primary focus of supervision is on the separate legal entities (the solo-element) with some limited attention for group-wide supervision (the plus-element).

Second, home country control promotes the efficiency of supervision, as financial institutions are not confronted with different supervisors possibly resulting in duplication of efforts and a higher regulatory burden. Home country control is applicable to financial institutions that offer cross-border services to other EU countries or establish branches in these countries. In practice, however, financial institutions also operate through subsidiaries (separate legal entities) in other countries for reasons of taxation and limited liability. These subsidiaries are separately licensed and supervised by the host country authorities.

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8 Conduct of business supervision is still largely based on host country control. As discussed in section 2.5, there are some inroads towards home country control for consumer protection rules. On the wholesale front, the pending review of the Investment Services Directive (ISD) also considers to move from host country to home country control for (some of) the conduct of business rules.

9 The revised Basle Concordat on international banking supervision introduced the concept of consolidation in 1983. In Europe the concept was adopted in the Consolidated Banking Supervision Directive 92/30/EEC (replaced by the Codified Banking Directive 2000/12/EC).

10 Financial Conglomerates Directive 2002/87/EC.

11 Insurance Groups Directive 98/78/EC.
There are currently 39 authorities for prudential supervision in the EU. Large financial institutions such as ABN AMRO and Deutsche Bank report to over 20 supervisors in the EU (EFC, 2002a). So far, there has been little research on the factors that determine the choice of financial institutions between establishing a branch and a subsidiary to enter other EU-countries (Dermine, 2003). With the prospect of EU-enlargement, further research on this issue will be worthwhile.

While home country control may be useful for the effectiveness and efficiency of prudential supervision, home country authorities are not responsible for the financial stability in host countries (Mayes and Vesala, 2000). Stability of the financial system is the remit of the host country. Increasing integration within the EU gives rise to cross-border spill-over effects or externalities. A failure in one country may cause problems in other countries. The policy question is whether home country control for supervision and host country responsibility for financial stability is sustainable in an integrating market.

3.2 Co-operation between home and host countries

The present organisational structure of crisis management in the EU has been reviewed in the ‘Report on Financial Crisis Management’ (EFC, 2001). The guiding principles are that the instruments of crisis resolution are available at the national level and that the costs are born at the national level. As regards the instruments for crisis management, there is a strong preference for private sector solutions as opposed to public intervention tools (e.g. bail-out). In line with the allocation of supervisory responsibilities, the responsibility for decision-making in crisis situations regarding an individual institution and its branches rests with the home country authorities. However, home country authorities are not responsible for the financial stability of host countries (it is the responsibility of the host country to monitor the stability of its financial system). Moreover, the home country taxpayer may not be prepared to pay for cross-border spill-over effects of a failure. The Report therefore calls for enhanced co-operation between home and host countries for crisis-management. To achieve such enhanced co-operation incentives to co-operate may need to be improved.

The issue of co-operation and loss-sharing has hardly been touched upon in the literature. Freixas (2003) is among the first to explore incentive-compatible mechanisms to allocate the costs of a possible bail-out among national author-

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12 The Economic and Financial Committee (EFC) is a committee consisting of high ranking officials of ministries of finance (deputy ministers) and central banks (deputy governors) in the European Union. The EFC reports to the Council of Economic and Finance Ministers (Ecofin Council). Its predecessor, the Monetary Committee, prepared decisions on re-alignments within the European Monetary System (EMS). After the advance to EMU (coupled with a substantial down-sizing of the EMS to a system of fixed exchange rates between the euro area and some of the out-countries), the Committee was renamed.
ities. A mechanism is incentive-compatible if each national authority's best strategy is to announce its true preferences. He finds that such a mechanism in the form of an ex-ante loss sharing arrangement between countries can be implemented. Given that its share in the overall loss is ex ante defined, a country would have no incentive to engage in strategic behaviour. From a political point of view, it should be noted that a commitment from national governments to cost allocation mechanisms needs to be approved by national parliaments. A Treaty-base would also be needed to make the commitment binding (Kremers, Schoenmaker and Wierts, 2003a). However, the implementation of such ex-ante loss sharing arrangements comes at a cost. The level of effort for national authorities to collect and transmit information on problems at financial institutions in a decentralised scheme of co-ordination may be lower than in a domestic setting, because the costs of collecting information are country specific while the benefits are EU-wide.

Freixas (2003) concludes that the creation of EMU implies that it is more costly to bail out pan-European institutions for several reasons: first, the incentives to collect reliable accurate information may be lowered; second, the incentives to transmit that information to a central agent may be lowered; third, the social cost of transferring public money to private claim-holders may be larger. This would result in an undersupply of bail-outs (see Dell’Ariccia and Marquez (2001) for a similar result). Freixas recommends, therefore, to tighten bail-out policy and to define precise incentive-compatible mechanisms. A higher probability of closure (due to a tighter bail-out policy) means that higher ‘firewalls’ as regards capital regulation and the level of collateral in payment systems are needed to prevent crises. At the same time, a higher probability of closure may also have some advantages as it strengthens market discipline and reduces moral hazard ex ante.

3.3 Centralisation at European level

The alternative, as suggested by Prati and Schinasi (1999), is to solve problems at the European level to deal effectively with cross-border externalities. In a similar vein, Thygesen (2003) argues that it might be difficult to achieve simultaneously a single financial market and stability in the financial system, while preserving a high degree of nationally based supervision with only decentralised efforts at harmonisation. However, centralised supervision would also come at a cost due to a loss of flexibility. Within the framework of minimum harmonisation of standards incorporated in the financial services direc-
tives, there is some, though limited, flexibility for national supervisors to set standards. The costs related to a loss of flexibility are higher for asymmetric countries (Dell’Ariccia and Marquez, 2001). Furthermore, European supervision (as in the case of co-operation between national supervisors) raises the thorny issue of who should bear the fiscal costs of a possible bail-out (see section 5.3).

The pros and cons of moving supervision to the European level have been extensively debated in the literature (e.g. Prati and Schinasi, 1999; Favero, Freixas, Persson and Wyplosz, 2000; Vives, 2001). Prati and Schinasi (1999) argue that national authorities are not well placed for managing a crisis involving pan-European banks. As pan-European banking groups emerge, supervisors with national orientations are less likely to be able to assess bank soundness and systemic risk adequately. Moreover, recent experience demonstrates in their view that the sharing of responsibilities between home and host supervisors has not been uniformly successful among the Group of Ten Countries (witness BCCI, Barings, Daiwa and others). They conclude that the ECB should assume a more ambitious role in crisis management. Favero et al (2000) also observe that the emergence of trans-national financial institutions raises new questions. Furthermore, they argue that the growing interbank transactions create a web of exposures capable of transmitting financial failures across Europe in domino-like fashion. As a centralised solution is, in their opinion, not politically viable in the near feature, they recommend measures to reduce interbank exposures by conducting, for example, secured interbank lending (repo transactions) rather than unsecured interbank lending. Moreover, they recommend fostering market discipline by introducing mechanisms for prompt corrective action and orderly closure of failing financial institutions. The issue of market discipline is further discussed in section 5.1. Finally, Vives (2001) also raises the questions of conflict of interest between home and host authorities in a trans-national crisis and insufficient help in a crisis. His solution is centralised supervision that will internalise the external effects between countries.

Summarising the debate, Goodhart lucidly remarks that:

‘... we believe that this is a topical, pressing and complex issue, where few regard the current institutional structure as fully satisfactory or in a final state. The obscurity surrounding the legal position of the ESCB, the principle of subsidiarity, and the difficulties of agreeing loss-sharing amongst separate national (fiscal) authorities all militate towards leaving the onus for supervision and
crisis handling at the national (NCB) level. Logical tidiness and the likelihood of increasing externalities (overspills), as financial interpenetration within the EU gathers pace, suggest greater centralisation.’ (Goodhart, p.11, 2000a)

The policy question is at what stage of development of the single financial market (i.e. the degree of financial integration within the EU) would it be desirable to move to a European structure for financial supervision in order to preserve financial stability? To answer that question, we must first identify the relevant measure of financial integration for financial stability purposes. As reviewed in section 2, there are different measures of financial integration. The issue here is what is the potential for cross-border externalities (i.e. threats to EU-wide financial stability) resulting from financial integration.

### 3.4 Cross-border externalities

In the literature on financial stability, there is a distinction between general liquidity crises and institution-specific crises (Schoenmaker, 1997; Goodhart, 2000a). Examples of general liquidity crisis are the collapse of Penn Central in 1970 and the stock market crash in 1987 (see, for example, Brimmer, 1989). After Penn Central Railroad, a major issuer of commercial paper (CP) had to declare bankruptcy, the Federal Reserve was concerned about the negative effects on the CP market causing problems for other companies due to roll over their CP. To prevent a crisis, the Fed encouraged banks to lend to their customers who were unable to roll over their CP and made the discount window available to these banks so that they could make these loans. The Fed provided liquidity so that the CP market would keep functioning. The 1987 stock market crash caused major problems for the clearing and settlement systems of the stock and future markets (Bernanke, 1990). Brokers and securities houses needed additional funds to finance their activities and to settle margin calls for their customers. Again, the Fed encouraged banks to keep their credit lines to banks and securities houses open and made the discount window available to these banks.

An example in Europe is the collapse of Barings. After it was decided not to support Barings in the weekend of 25/26 February 1995, the Bank of England announced, before the London markets opened, that it would ‘stand ready to provide liquidity to the banking system to ensure that it continues to function normally’. Finally, a recent example is the aftermath of the terrorist attacks of September 11, 2001. Banks experienced difficulties in making their payments...
because of widespread damage to property and communication systems in Lower Manhattan. As a result, other banks received fewer payments than were expected and thus liquidity shortages developed at many banks. The Fed responded by supplying abundant liquidity to the banking system through discount window loans and open market operations (McAndrews and Potter, 2002). More broadly, central banks across the globe provided liquidity to the financial system to restore confidence.

The crucial factor in stemming such liquidity crisis is that the central bank is prepared to stand ready to provide liquidity (either by open market operations, or by credit operations) to the financial system. With the establishment of EMU, only the decision-making bodies of the Euro system can take that decision for the euro area. The ECB must determine how much extra liquidity can be injected without unduly impairing the price stability objective. Both monetary and financial stability concerns must be considered when such liquidity support is granted. Without such central bank intervention money market rates can be expected to spike during times of stress. Non-bank financial institutions rely on banks for liquidity, and make calls on the banking sector for extra liquid funds in a crisis. Banks have access to the interbank market to raise liquid funds. If liquidity is in large demand, banks will bid up the interbank rate to get the desired amount of liquidity. Only an extra injection of reserves can ease the pressure on interbank rates. For such system-wide operations, there is no need for supervisory involvement with individual institutions.

This is different for a crisis at an individual institution. An illiquid bank will, almost always, be able to borrow additional liquid funds to meet a short-term liquidity problem from the interbank market unless the market already suspects its solvency (Goodhart, 1987; Summers, 1991). A bank which cannot borrow from the money market to meet its liquidity needs is, almost by definition, a bank whose solvency is suspect in that market. The root of the problem lies in the uncertainty about the true value of a bank’s loan book as the creditworthiness of a bank’s borrowers is private information (Diamond, 1984). Due to this asymmetric information problem, most bank loans are illiquid and cannot be marked to market. For the decision to provide liquidity support to an individual bank or not, a central bank needs to assess the severity of problems at the bank itself and the potential impact on the rest of the financial system (Padoa-Schioppa, 2003). A central bank would thus need detailed (supervisory) information on solvency of the bank in need of liquidity support. Moreover, a

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13 The Euro system comprises the ECB and the national central banks (NCBs) of the EU countries which have adopted the euro in Stage Three of the Economic and Monetary Union. The Euro system is governed by the decision-making bodies of the ECB, which are the Governing Council and the Executive Board.  
14 In the EU countries, outside the euro area, the national central banks are responsible to provide liquidity to their financial system.  
15 There have been some exceptions, notably when some technical failing in the settlement system leads to a bank making out-payments, but unable to obtain offsetting in-payments. This occurred in the Bank of New York case in 1985.
central bank should also be in the position to supervise in order to constrain the use of lender of last resort. If the central bank is not the supervisor, it will need good and fast communication links with that specialist supervisor, which is usually the case. Section 4.2 lists the supervisory arrangements, including the links between central banks and supervisors in the case of separation.

The Euro system has decided that national central banks can provide liquidity support to individual institutions in their jurisdiction, if and when needed, on their own account (ECB, 2000a). Recall that liquidity support is not without credit risk as the solvency of a bank in need of liquidity support is often suspect. Although a collateral requirement can be imposed, this can not always be enforced in practice. Banks with a sufficient amount of high quality, liquid, paper on their books can usually sell that paper in the market, and hence do not need liquidity support. Consequently, a central bank acting as lender of last resort has often to secure its loans against lower-grade paper and/or against the loan book of the ailing bank. If the range of permissible collateral were too restrictive, a rescue would not be possible in such cases (Schoenmaker, 1997).

In summary, a general liquidity crisis needs to be resolved by the ECB without detailed supervisory information on individual institutions. Liquidity support for individual institutions in difficulties is given by the national central banks which need detailed supervisory information. Individual institutions are thus the relevant group for financial supervision. As discussed in section 3.2, national central banks have a mandate for financial stability in their national financial system. They may be reluctant to provide liquidity support for solving problems in other EU countries and thus not take into account cross-border externalities caused by financial institutions under their jurisdiction. Current nationally based arrangements may therefore undervalue externalities related to the cross-border business of financial institutions. We conclude that the level of cross-border business of financial institutions is the relevant measure of financial integration for deciding on the need for European solutions for financial supervision and stability.

3.5 Empirical evidence

So far only aggregate data on cross-border penetration of financial institutions have been available. These aggregate data suggest that cross-border penetration is limited within the EU. Table 4 illustrates that the average market share of the branches and subsidiaries established by banks from EEA countries is...
approximately 12 per cent in 1997 and gradually increases to 15 per cent in 2001. In some countries, the cross-border penetration is substantially larger. In Luxembourg and Ireland, the market share from EEA countries is sizeable (87 per cent and 39 per cent in 2001). The presence of these assets of banks from EEA countries is primarily driven by a favourable tax regime. Furthermore, the United Kingdom, Belgium and Portugal have a rather stable market share of over 20 per cent from EEA countries. Austria and Denmark have only recently experienced an increase in the market share from EEA countries (19 per cent and 17 per cent) resulting from cross-border mergers (see Box 2).

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Note: n.a. = not available. Figures: Assets of branches and subsidiaries of credit institutions from EEA countries as a percentage of total assets of credit institutions. The weighted average for the 15 EU countries is calculated with total assets of credit institutions as weights.

Source: ECB (2002), own calculations.
The overall data still confirm the presence of a strong home-country bias.\textsuperscript{16} This would suggest that the current nationally based regime of home country supervision suffices. However, aggregate data do not provide insight into the potential for cross-border externalities at individual institutions and are thus not a reliable source for policy recommendations on national versus European supervision. The aim is to investigate whether ‘European’ financial institutions are emerging. Anecdotal evidence of some large cross-border mergers in the financial sector is provided in Box 2. Moreover, some large financial services groups, such as ABN AMRO and Deutsche Bank, realise about 30 per cent of their gross income in other EU countries. Detailed research is needed to establish more precisely the cross-border penetration at the level of individual institutions. Such further study could, for example, examine consolidated income statements and balance sheets of large European financial institutions to investigate how much is accounted for in the home market and how much in the rest of Europe.

\textbf{BOX 2}

\textbf{SOME RECENT MAJOR CROSS-BORDER MERGERS IN THE EU}

\textbf{Nordea Group (Scandinavia)}
Merita Nordbanken (assets of €104 bn) merged with Christiania Bank in Norway (assets of €31 bn) and Unidanmark in Denmark (assets of €77 bn). Before that Merita-Nordbanken emerged from a merger between Merita (Finland) and Nordbanken (Sweden). Nordea Group holds significant market shares in the Nordic countries: 40 per cent of banking assets in Finland, 25 per cent in Denmark, 20 per cent in Sweden and 15 per cent in Norway.

\textbf{Fortis (Belgium – Netherlands)}
Fortis (assets of €121 bn) merged with Générale de Banque based in Belgium (assets of €209 bn). Before that Fortis emerged from a merger between AMEV/VSB Bank (Netherlands) and AG-Group (Belgium).

\textbf{ING (Netherlands – Belgium)}
The ING Group based in the Netherlands (assets of €493 bn) merged with Banque Bruxelles Lambert in Belgium (assets of €108 bn).

\textbf{Hypovereinsbank (Germany – Austria)}
The Hypovereinsbank based in Germany (assets of €540 bn) merged with Bank Austria in Austria (assets of €150 bn).

\textbf{HSBC (UK – France)}
The HSBC Group based in the United Kingdom (assets of €557 bn) merged with Crédit Commercial de France in France (assets of €69 bn).


\textsuperscript{16} See also a recent study by Berger, Dai, Ongena and Smith (2003) on the globalisation of the banking industry in Europe. In particular, they investigate the provision of cash management services to foreign affiliates of multinational firms. It is found that nearly two-thirds of all firms (65 per cent) choose for their foreign affiliates a bank headquartered in the host nation – where the foreign affiliate is located –, while the remaining firms split evenly in using a home nation bank – where the firm is headquartered – (18 per cent) or a third nation bank (17 per cent).
3.6 Policy implications

Summing up, the policy question is, at what stage in the process of ongoing integration, nationally based supervisors should be turned into some kind of European system of financial supervisors. We believe that the answer ultimately depends on the intensity of cross-border externalities. As argued above in section 2, wholesale markets are close to full integration, while retail markets are still largely fragmented within the EU. Policy measures are aimed at further integration of retail markets. But so long as (retail) financial institutions remain predominantly national, the intensity of cross-border externalities is limited. The case for keeping supervision at the national level will then remain strong. Aggregate figures suggest that cross-border penetration of financial institutions is slowly increasing, but is still limited (15 per cent in 2001). However, more detailed figures are needed. Examples of recent mergers show that some, albeit a limited number of pan-European financial institutions do emerge with the potential to pose cross-border externalities.

If and when the process of integration is nearing completion and more pan-European (retail) financial institutions emerge, policy-makers may need to consider European solutions for financial supervision to deal effectively with cross-border externalities. At the same token, policy-makers may need to think carefully about rules and procedures for sharing the costs of potential bail-outs and the design of appropriate political control mechanisms for European supervision (see section 5). In the next section, we consider the question of how to choose an appropriate supervisory model for Europe.
4

Competing supervisory models

4.1 Range of supervisory models

On a conceptual level, the range of possible models for the structure of financial supervision at a national and a European level is identified by Kremers, Schoenmaker and Wierts (2001). The main models are summarised in table 5. In practice, several hybrid forms are possible. Horizontally the table shows a classification of the basic models. In the sectoral model, there are separate supervisors for banking, insurance and securities. In the functional or ‘objectives based’ model, there are separate supervisors for each of the supervisory objectives: prudential supervision and conduct of business. Referring to these two objectives, the functional model is also known as the ‘twin peaks’ model (Taylor, 1995). In the integrated model, there is a single supervisor for banking, insurance and securities combined (or, put alternatively, one supervisor for prudential supervision and conduct of business combined).

Vertically the table shows various forms of internationalisation. The first level is decentralised supervision with some form of co-operation between national supervisors. Co-operation means decision-making by consensus. The second level is co-ordination between national supervisors. Co-ordination means international decision-making by autonomous national decision-makers according to some sort of rule (e.g. majority voting). The third level is a centralised structure of supervision. A centralised solution means that supervision is organised on a European basis instead of a national basis. Decision-making on supervisory regulation and supervisory policy is in that case shifted from the national to the European level. This does not imply a transfer of a large part of national supervisory resources (including staff) to the central level (see section 5.2).

17 See also Taylor (1995) and Briault (2002) for a discussion of the different models for the structure of financial supervision.
4.2 Supervisory models at the national level in Europe

This section will give a full review of the supervisory models in the 15 EU countries and the role of the central bank in financial supervision. Starting with row A in table 5, all three basic models can currently be observed at the national level in Europe. The organisational structure of financial supervision is in the
process of change in most, if not all, EU countries. All countries used to have a sectoral model of financial supervision with separate supervisors for banking, insurance and securities reflecting the traditional dividing lines between financial sectors. A recent mapping exercise by the European Commission (2002) indicates that financial conglomerates represent 27 per cent of the banking market (in terms of deposits or balance sheet totals) and 20 per cent of the insurance market (in terms of premium income).\(^\text{18}\) The importance of financial conglomerates varies considerably among the EU. In a few EU countries such groups account for more than half of deposits and premium income. There are also EU countries where financial conglomerates have a marginal market share. Because of the blurring of the dividing lines between financial sectors, cross-sector models are emerging. National models find themselves in an essentially functional (second column, e.g. France, Italy and the Netherlands) or integrated (third column, e.g. Scandinavia, UK, Ireland, Austria and Germany) organisational structure (see table 6). Two main models have thus emerged: a functional or ‘twin peaks’ model and an integrated or ‘FSA’ model.

### TABLE 6
**THE ORGANISATIONAL STRUCTURE OF FINANCIAL SUPERVISION: NATIONAL MODELS**

<table>
<thead>
<tr>
<th>Countries</th>
<th>Basic models</th>
</tr>
</thead>
<tbody>
<tr>
<td>European Union</td>
<td></td>
</tr>
<tr>
<td>Finland</td>
<td>Italy (1999)</td>
</tr>
<tr>
<td>Luxembourg</td>
<td></td>
</tr>
<tr>
<td>Portugal</td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td></td>
</tr>
<tr>
<td>Outside EU</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Between brackets the year of establishment of the new cross-sector supervisor(s).


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\(^{18}\) To define financial conglomerates, the 10 per cent cross-sectoral criterion of the Financial Conglomerates Directive (2002/87/EC) is used. According to this criterion, a financial group is defined as a financial conglomerate if the smallest financial sector represents 10 per cent or more of the group (measured in required capital or balance sheet total).
The functional model originates from Australia. In 1998, three supervisors were established, namely the Australian Prudential Regulation Authority, responsible for prudential supervision of financial institutions, the Australian Securities and Investments Commission, responsible for financial market behaviour and conduct of business standards, and the Reserve Bank of Australia, responsible for financial stability (in addition to its monetary policy responsibilities). The three-way split is the result of a government-sponsored inquiry chaired by Wallis (1997). It acknowledges the fundamental difference between prudential supervision and conduct of business supervision. The aim is to avoid conduct of business concerns dominating prudential concerns or vice versa. Typically conduct of business regulation is more publicly and politically visible. Issues surrounding consumer treatment and insider trading tend to provide newspaper headlines, while prudential supervision is concerned with technical issues of balance sheets and solvency requiring a different expertise and attitude.

More recently, the Netherlands has adopted the functional model. Different from Australia, the Netherlands have combined the prudential and financial stability functions within the central bank, De Nederlandsche Bank (DNB). The Dutch model thus acknowledges the close linkage between systemic stability and prudential supervision of the larger financial institutions (Jonk, Kreimers and Schoenmaker, 2001). A separate supervisor, Autoriteit Financiële Markten (AFM), is responsible for conduct of business standards. In a similar way, France is planning to merge its securities market supervisors, Commission des Opérations de Bourse (COB) and Conseil des Marchés Financiers (CMF), into one agency to be named Autorité des Marchés Financiers, while the prudential supervisors, the Commission Bancaire (CB) based at the Banque de France and the Commission de Contrôle des Assurance (CCA), are approaching each other (Ministère de l’économie, des finances et de l’industrie, 2003). Finally, Italy has an objectives based model of supervision, since the government changed the division of labour between CONSOB, the securities supervisor, and the Banca d’Italia in 1999 (Courtis, 2002). In this new setting, CONSOB is responsible for transparency and proper conduct and the Banca d’Italia is responsible for prudential supervision of banks and securities firms as well as financial stability. The Banca d’Italia co-operates with the insurance supervisor, ISVAP.

The integrated model started in Canada and Scandinavia in the late 1980s and early 1990s. It came to prominence with the establishment of the UK’s Finan-

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19 Currently, DNB is responsible for prudential supervision of banks and securities firms, while the Pensioen- en Verzekeringenkamer (PVK) is responsible for prudential supervision of insurance companies and pension funds. DNB and PVK are integrating through cross-board appointments and joint teams. Furthermore, the Dutch government has endorsed a proposal to merge DNB and PVK in 2004.
20 The Banque de France provides staff and funds for the operations of the Commission Bancaire. Moreover, the Governor of the Banque de France chairs the top decision-making body of the Commission Bancaire.
cial Services Authority in 1997. The consolidation of financial supervision in the United Kingdom was a response to the scattered framework of nine different supervisors with overlapping responsibilities (including the Bank of England and the Building Societies Commission for banking supervision, the Securities and Investments Board (SIB) with its multiple Self Regulatory Organisations for securities and conduct of business supervision and the Department of Trade and Investment for insurance supervision). The integrated model shares with the functional model its cross-sector approach towards financial conglomerates. The main argument is that it provides ‘one-stop’ supervision for financial institutions (Briault, 2002). Moreover, both prudential and conduct of business supervisors have an interest in good senior management and adequate internal controls at financial institutions. These arguments are related to economies of scale and scope and, to a lesser extent, to the ability to deliver consistent regulation (Courtis, 2002).

Germany also used to have a sectoral framework: the Bundesaufsichtsamt für das Kreditwesen (in conjunction with the Bundesbank) was responsible for banking supervision, the Bundesaufsichtsamt für das Versicherungswesen for insurance supervision and the Bundesaufsichtsamt für den Wertpapierhandel for securities supervision. These three supervisory agencies were merged into one agency, the new Bundesanstalt für Finanzdienstleistungsaufsicht (BAFin), in 2002. Similarly, a single supervisor, the Finanzmarktaufsichtsbehörde, was established in Austria. Finally, the Irish Financial Services Regulatory Authority (IFSRA) is bringing together the functions of four different regulators (central bank, insurance regulator, supervisor of credit unions, and office of consumer affairs).

The debate on the structure of financial supervision and the appropriate role for the central bank in this structure remains highly topical. While the Federal Reserve has recently consolidated its position under the Gramm-Leach-Bliley Act as umbrella supervisor of financial conglomerates (see section 4.3 below), the role of the central bank in supervision is still under discussion in Europe (Padoa-Schioppa, 2003). The ECB has argued for euro area central banks to keep this function, in order to be better able to meet systemic threats to stability arising within the euro area (ECB, 2001). Others would like to see supervision undertaken by a network of single supervisory agencies like the UK’s Financial Services Authority. The trend towards consolidation does not always result in supervision being stripped from the central bank. The Central Bank of Ireland is housing the new single supervisor under a complex arrangement. The newly emerging prudential supervisors in the Netherlands, France and
Italy are built on the banking supervision and financial stability functions of their respective central banks. In Germany and Austria, the central bank has kept its responsibilities in banking supervision (which have even been extended in some areas) after the establishment of a single supervisory agency. Table 7 shows that the majority of (euro area) central banks is involved in financial supervision:

### Table 7

**Central Bank Involvement in Financial Supervision**

<table>
<thead>
<tr>
<th>Countries</th>
<th>Central bank</th>
<th>Involved in financial stability</th>
<th>Involved in financial supervision</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>European Union</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Austria</td>
<td>National Bank of Austria</td>
<td>Yes</td>
<td>Partly, banking supervision</td>
</tr>
<tr>
<td>Belgium</td>
<td>National Bank of Belgium</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Denmark</td>
<td>Danmarks Nationalbank</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Finland</td>
<td>Bank of Finland</td>
<td>Yes</td>
<td>Partly, banking and securities</td>
</tr>
<tr>
<td>France</td>
<td>Banque de France</td>
<td>Yes</td>
<td>Partly, prudential supervision (B,S)</td>
</tr>
<tr>
<td>Germany</td>
<td>Deutsche Bundesbank</td>
<td>Yes</td>
<td>Partly, banking supervision</td>
</tr>
<tr>
<td>Greece</td>
<td>Bank of Greece</td>
<td>Yes</td>
<td>Yes, banking supervision</td>
</tr>
<tr>
<td>Ireland</td>
<td>Central Bank of Ireland</td>
<td>Yes</td>
<td>Yes, financial supervision</td>
</tr>
<tr>
<td>Italy</td>
<td>Banca d’Italia</td>
<td>Yes</td>
<td>Yes, prudential supervision (B,S)</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>Banque Centrale de Luxembourg</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Netherlands</td>
<td>The Netherlands Bank</td>
<td>Yes</td>
<td>Yes, prudential supervision (B,S,I)</td>
</tr>
<tr>
<td>Portugal</td>
<td>Banco de Portugal</td>
<td>Yes</td>
<td>Yes, prudential supervision (B,S)</td>
</tr>
<tr>
<td>Spain</td>
<td>Banco de Espana</td>
<td>Yes</td>
<td>Yes, banking supervision</td>
</tr>
<tr>
<td>Sweden</td>
<td>Sveriges Riksbank</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Bank of England</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Euro area</td>
<td>European Central Bank</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

| Outside EU    |                           |                                 |                                   |
|---------------|---------------------------|                                 |                                   |
| Australia     | Reserve Bank of Australia | Yes                             | No                                |
| Canada        | Bank of Canada            | Yes                             | No                                |
| Japan         | Bank of Japan             | Yes                             | No                                |
| United States | Federal Reserve Board     | Yes                             | Yes, banking supervision and financial holding companies |

Note: B = Banking, S = Securities, I = Insurance.

supervision, either directly or indirectly. The ECB itself is not directly involved in financial stability and supervision (see section 4.6).

4.3 Supervisory model in the US

In an international context, section 4.2 indicates that Australia and Canada have been leading countries with the introduction of the functional and the integrated model. The supervisory model in the US has also some features of the functional model (Padoa-Schioppa, 2003), although a sectoral orientation has been kept in place. It may be interesting to analyse the evolution of this model. The US framework consists of multiple, and in some cases competing, supervisors at the state and the federal level. Banks and securities firms are supervised at the state and the federal level, while insurance companies are supervised at the state level.

The US has a dual banking system in which banks have the choice between a state and a national charter. The Office of the Comptroller of the Currency (OCC), an agency within the US Treasury, supervises national banks. The Federal Reserve and State Governments supervise state chartered banks which are members of the Federal Reserve System. State chartered, non-member banks are supervised by State Governments and the Federal Deposit Insurance Corporation (FDIC). The willingness of banks to join the national system depends on the relative costs and benefits. Examining the operation of the dual banking system from 1864 (enactment of the National Banking Act), White (1983) found that when the federal government eased its regulation (e.g. lowering minimum capital requirements) to attract more national banks, the states easily undermined its increased attractiveness by weakening their requirements. While such a process of competitive deregulation may be useful to prevent 'over-regulation', a race to the bottom would undermine the efforts of supervisors to obtain their objective of a stable financial system.21

Turning to the other financial sectors, securities firms are principally supervised by the SEC at the federal level, but also by state securities regulators at the state level. Insurance firms are supervised by state insurance supervisors, who co-ordinate their policy in the National Association of Insurance Commissioners.

In the 1990s, the US financial system was liberalised by two important pieces of regulation (Barth, Brumbaugh and Wilcox, 2000). First, the Riegle-Neal Act

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21 Supervisors are acting for the public good and should therefore incorporate the externalities of financial firm failures (see section 3). Externalities relate to the fact that the social costs of a failure for the wider financial system can exceed the private costs born by a firm’s investors.
in 1994 had effectively ended the remaining barriers to interstate banking and branching within the US. This is three years after the establishment of the Single Market in banking (as well as other services) in Europe. The spread of nationwide banking is widely believed to foster the long-term stability of the US banking system (Calomiris and White, 1994). Similarly, Dermine (2003) advocates EU-wide diversification of the loan portfolio of banks based in the EU to reduce idiosyncratic risk. However, the empirical evidence in section 3.5 suggests that cross-border diversification is still limited within the EU.

Second, in the most sweeping reform since the Great Depression, the Gramm-Leach-Bliley (GLB) Act in 1999 repealed long-standing restrictions on affiliations between commercial banks and investment banks and insurance firms, through the permitted establishment of financial holding companies to engage in banking, securities and insurance activities. While GLB provides the regulatory response to cross-sector integration (witnessed, for example, by the merger of Citicorp (banking) and Travelers (insurance) into Citigroup in 1998), the structure of supervision is not reformed. The sectoral system with separate supervisors for banking, securities and insurance is kept in place, with an additional power for the Fed to supervise financial holding companies (cross-sector element). GLB limits the Fed’s authority to examine sectorally regulated subsidiaries, as the Fed is generally directed to use examinations made by federal and state securities and insurance supervisors. Contention between the supervisors that have jurisdiction over various parts of financial holding companies may arise (Barth et al, 2000). Finally, GLB allows supervisors to limit intra-group transactions in order to refrain the federal safety net for the banking part of a broad financial services group.

Summing up, the US system has some elements of the functional model, while it has also kept a sectoral orientation. The central bank (the Fed) is responsible for systemic stability and has extensive prudential supervisory responsibilities, while other agencies (notably the SEC) are entrusted with the task to protect the investor’s interests (Padoa-Schioppa, 2003). As in Europe, the US supervisory model is in the process of transition. The ultimate model is not yet clear. On the one hand, restrictions on combining different financial services activities are lifted allowing the emergence of financial conglomerates. On the other hand, supervision has still sectoral elements with cross-sector coordination by the Fed. Moreover, supervisors can restrict the integration of financial conglomerates (by limiting intra-group transactions) and thus reverse part of the rationale for forming financial conglomerates.

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22 Banks that confine their business activities to one state typically experience more difficulties than banks with a nationwide presence in the US. An example from the 1980s is the banking sector in Texas. Texas banks were heavily exposed to the oil industry and ran into difficulties when oil prices dropped. Similarly, banks in the New England area faced a crisis when property prices collapsed in New England in the early 1990s. European examples of country-shocks in the 1990s can be found in Scandinavia.
4.4 Current debate on European co-ordination

Ministers of Finance in the Ecofin Council have recently adopted proposals to enhance co-ordination between national supervisors in the EU. The European structure is thus moving from co-operation (row A in table 5) to co-ordination (row B) with the implementation of the Lamfalussy approach to speed up the regulatory process and to foster supervisory convergence in the EU. Before explaining this new Lamfalussy approach, the current structure of supervisory committees in the EU is illustrated in figure 2. This structure – both in legislation and committee structures – is still primarily sectoral, with a marginal arrangement to strengthen cross-sector co-operation. The European Commission has initiated a Roundtable of Regulators, where the chairmen of the sectoral committees meet (Pearson, 2003). As these sectoral committees have evolved over time, the mandate and composition of the committees differ. Some committees (for example, the Banking Advisory Committee existing of

**FIGURE 2**

**THE CURRENT STRUCTURE OF SUPERVISORY COMMITTEES IN THE EU**
ministries of finance, central banks and banking supervisors) have more than 50 members. This does not contribute to the efficiency of the meetings. Because of the need to cope with fast changing financial markets as well with EU enlargement, the Ecofin Council invited the European Commission and the Economic and Financial Committee (EFC) to review the arrangements financial regulation and supervision in the EU.

A new committee structure was first proposed by Lamfalussy for securities supervision and subsequently implemented (Lamfalussy, 2001). This committee structure is a form of European co-ordination between national supervisors. The Ecofin Council has recently decided to extend the Lamfalussy structure for securities to banking, insurance and financial conglomerates (EFC, 2002b). Although a committee to deal with financial conglomerates is added, the primarily sectoral orientation is preserved. The goal of these new regulatory and supervisory committees is to streamline preparing regulation and to foster supervisory convergence. Key elements are clearly defined mandates and targeted membership for the different committees. This would enhance both the effectiveness of supervision and the efficiency for EU-wide operating financial institutions. As illustrated in figure 3, the new approach based on the Lamfalussy framework consists of three levels:

**Level 1:** The Ecofin Council and European Parliament decide on broad framework principles in Directives and Regulations.

**Level 2:** Regulatory committees (compromising of high-level representatives of ministries of finance) vote on proposals of the European Commission for technical implementing measures (often contained in annexes to Directives).

**Level 3:** Supervisory committees (compromising of high-level representatives of the relevant supervisory authorities) have a dual role. They advise the European Commission on level 2 measures and promote a consistent implementation of EU-directives and convergence of supervisory practices.23

The Ecofin Council has explicitly stated that synergies between banking supervision and central banking should be taken into account (EFC, 2002b). Since banks entail systemic risk and central banks have a task in containing this, it was decided that central banks (also those without a supervisory task) should participate in the level 3 banking committee to allow information-related syn-

23 The ambition of these new level 3 supervisory committees should be to converge on the best standards across the EU. In section 5.1, we identify standards that promote an efficient and stable financial system.
FIGURE 3
THE NEW STRUCTURE OF SUPERVISORY COMMITTEES IN THE EU

Level 2 committees existing of ministries of finance; their central role is to vote on secondary rules (as proposed by the Commission)

Level 3 committees existing of supervisors; their roles are to advise level 2 and to promote supervisory convergence

The European Parliament has stressed the need for co-decision of both the Parliament and the Council to extend the Lamfalussy process to banking and insurance. While primary legislation (Directives and Regulations) are adopted by co-decision of Parliament and Council, secondary legislation will be voted upon by the Council without involvement of the Parliament. A call-back for such secondary legislation is a pre-condition for the Parliament’s support for the proposals. The European Parliament has therefore asked a commitment from the Council to revise Article 202 of the Treaty with a call-back procedure (European Parliament, 2002).

24 To strengthen the central bank link, representatives of the ECB as well as the BSC (the Banking Supervisory Committee of the European System of Central Banks) have observer status in the new level 3 banking committee. While article 25 of the Statute of the ESCB and the ECB states that the ECB (and its committee, the BSC) may offer advice to and be consulted by the legislative bodies of the EU on prospective EU legislation in the area of banking supervision and financial stability, it cannot play a direct role in the legislative framework because of its political independence (article 108 of the Treaty).
Summing up, the new Lamfalussy framework will speed up the regulatory process and foster supervisory convergence in the EU. It is no surprise that this framework was first implemented in the dynamic field of fast changing stock markets. The upcoming reform of prudential regulation of banking (Basle II) and insurance (Solvency II) also makes it necessary to adopt faster procedures for rule-making and to enhance convergence of supervisory practices in these fields. However, the new committee structure has kept its primarily sectoral orientation. The choice between a functional and an integrated model has been left for future debate.

4.5 Future debate on a European model

When EMU was negotiated, a model for the European Central Bank (ECB) had to be chosen. At that time, the German Bundesbank was the dominant model in Europe: an independent central bank with a strong emphasis on price stability and an accordingly strong inflation track-record. Moreover, the Bundesbank was the leader within the European Monetary System (EMS) and other EMS members wanted to import its reputation (Von Hagen, 1992). There was consensus early on in the process to model the ECB in many respects on the Bundesbank. Applying game theory, Debrun (2001) explains this outcome by the relative bargaining power of countries within EMS. If Germany dominated the EMS, it would have had little incentive to let the ECB reflect the average European preferences and would have wanted the ECB to adopt a policy stance similar to the Bundesbank.

Turning to financial supervision, the goal is promoting an efficient and stable financial system. There is currently no dominant model for the organisational structure of financial supervision in Europe to achieve that goal. We are not aware of any research that finds a statistically significant relationship between the organisational structure of supervision and the final objectives in terms of an efficient and stable financial system, promoted by efficient and effective supervision. This is partly due to the fact that some models of organisational structure, in particular cross-sector models, have only started to operate recently. As empirical evidence is thus not (yet) available, it is difficult to choose the optimal organisational structure on the basis of objective criteria and experience.

So how to choose the appropriate organisational structure of supervision for Europe? The disappearance of sectoral boundaries would suggest that the functional model would participate. If a functional system with two legs (prudential and conduct of business) were to be chosen, the single supervisor of member states with an integrated model would participate in both legs.

It should be noted that the choice at the European level does not necessarily have to coincide with choices at the national level. The integrated model and the functional model are compatible. If Europe were to settle for an integrated system of supervisors, the two separate supervisors of member states with a
range of feasible models is restricted to those that operate cross-sector (i.e. the functional and the integrated model in row C in table 5). Given the lack of a dominant model with a convincing track-record, policy competition between the different models could facilitate the discovery of a ‘superior’ model (Fender and Von Hagen, 1998). Superior is meant in terms of achieving the objectives of supervision: financial stability, prudential supervision and conduct of business. But it has been emphasized (e.g. Lumpkin, 2002; Briault, 2002) – and rightly so – that there is no uniform best model, since the development of each organisational model should be seen within the context of the history of its national financial system. Furthermore, different cross sector models are recent and have not been tested in a crisis situation. We propose to develop criteria for policy-makers to evaluate the performance of the different models.

COMPARING CROSS SECTOR MODELS

The functional model combines the objectives of systemic and prudential supervision, leaving conduct of business supervision as a separate function. The integrated model combines the objectives of prudential and conduct of business supervision, leaving systemic supervision (financial stability) as a separate function. What are the pros and cons of combining different supervisory activities within a single supervisory organisation? Kremers, Schoenmaker and Wiers (2003b) have developed a framework to analyse the trade-offs by listing the synergies and conflicts of supervisory interests in combining supervisory activities within one organisation. Figures 4 and 5 summarise the potential synergies and conflicts of supervisory interest. The figures start by classifying supervisory activities according to the objectives of supervision (first column) and then list the potential synergies and conflicts of interest of combining the objectives within one organisation (second column).

The first possible synergy in figure 4 results from combining systemic supervision (traditionally a central bank task, also referred to as macro-prudential supervision) and prudential supervision of financial institutions. The link between stability issues on a micro level (at the level of the financial institution) and a macro-level (economy-wide) is especially relevant in a concentrated financial sector, with large systemically relevant financial institutions. The synergies between both functions also refer to the possibility to act decisively and swiftly in the event of a crisis situation. Crisis management usually requires

26 Note that the concept of supervisory competition used in this context is different from the one described in section 4.3, where banks can choose between a national licence from the OCC and a state licence linked with supervision by the Fed. The OCC and the Fed thus compete for business (that is acquiring more banks under their supervisory wings). The concept here refers to policy competition between countries with different supervisory models. The idea is that policy-makers choose the best model at the European level.
27 Jonk et al (2001) argue that the large size of Dutch financial institutions is a relevant factor for choosing the functional model in the Netherlands. In an economy with relatively large financial institutions, prudential problems can become systemic, warranting both a micro and macro view on financial markets developments.
key decisions to be taken within hours rather than days. Combining both micro- and macro-prudential supervision within a single institution ensures that relevant information is available at short notice and that a speedy decision to act can be taken if necessary. See Goodhart (2000b) on the potential loss of collection, transmission and interpretation of information if potentially systemic financial crises would have to be handled by a committee of the central bank and the (prudential) supervisor.

**FIGURE 4**
**SUPERVISORY SYNERGIES**

**Objectives**
- Financial stability: Macro-prudential
- Financial stability: Micro-prudential
- Conduct-of-business

**Synergies?**
- Link macro and micro financial stability; no crisis management by committee
- One-stop supervision for financial institutions; synergy in execution of supervision

**FIGURE 5**
**CONFLICTS OF SUPERVISORY INTEREST**

**Objectives**
- Financial stability: Macro-prudential
- Financial stability: Micro-prudential
- Conduct-of-business

**Conflicts of interest?**
- Pressure to extend scope of safety net versus limit moral hazard
- Focus on profitability and stability of institution versus on interests of clients
The second synergy in figure 4 is ‘one-stop supervision’, i.e. the synergy between prudential supervision and conduct-of-business. This relates to the fact that it confronts all types of financial institutions with one supervisor only (i.e. with regard to on-site prudential and conduct-of-business supervision). Furthermore, synergies in the execution of supervision are exploited by combining different supervisory activities within one institution. This might also generate efficiency gains by combining support services for different supervisory tasks.\(^2^8\)

Figure 5 shows potential conflicts of interest of combining supervisory functions within a single organisation. It starts by showing a possible conflict of interest between systemic supervision and prudential supervision, which relates to the possibility of lender of last resort operations (LOLR) by the central bank. The debate is about how to balance the benefits of LOLR operations (avoiding systemic risk, e.g. financial panic or bank runs) against its costs (moral hazard). The answer adopted by many central banks is to prefer private sector solutions for financial institutions in trouble (EFC, 2001), and to limit the possibility of LOLR-operations to the characteristics of banks that caused the systemic risk in the first place. In general, banks are seen as ‘special’ since the claims on banks are such important assets to a wide spectrum of economic agents and the possibility of a contagion effect caused by banks in trouble (Greenspan, 2001). However, when financial groups integrate and prudential supervision cannot be based on sectoral boundaries anymore, it may become more difficult to separate the aspects of financial institutions that justify the possibility of LOLR-operations. The question of how to limit the moral hazard aspects of the financial safety net remains relevant and needs to be answered by introducing institutional safeguards that limit safety net spillovers.\(^2^9\)

The potential conflict of interest between prudential supervision and conduct-of-business supervision (the second conflict of interest in figure 5) relates to the different nature of their objectives. The prudential supervisor will be interested in the soundness of financial institutions including profitability, while the conduct-of-business supervisor will focus on the interests of clients. Mixing up both responsibilities of financial stability and conduct-of-business could lead to incentives for the supervisor to give prevalence to one objective over the other. As a result, the conduct-of-business supervisor is ideally situated to supervise possible conflicts of interest between a financial institution and its clients, since it will only focus on the interests of the clients (which is exactly

\(^2^8\) Briault (2002) argues that the main advantage of the UK model is that it has an integrated supervisor for all financial institutions: ‘In the UK, the FSA ... has benefited from the economies of scale arising from the move to a single set of central support services ... as unified management structure; and a unified approach to standard-setting, authorisation, supervision, enforcement, consumer education and tackling financial crime’.

\(^2^9\) The US solution in the Gramm-Leach-Bliley act has been to: (1) Require non-banking activities to take place in legal entities separate from the bank; (2) Limit the transactions that can occur between a bank and non-bank affiliates; (3) Create a system of functional regulation to limit direct contact between bank examiners and non-banking affiliates (Barth, Brumbaugh and Wilcox, 2000).
what a conduct-of-business supervisor is for). Furthermore, the stability objective is consistent with preserving public confidence and may require discretion and confidentiality, which could be counter-productive to the transparency objective (Padoa-Schioppa, 2003). Typically, conduct-of-business supervision is more publicly and politically visible than the financial stability objective, which relies more on confidentiality (Jonk et al., 2001). A clear dividing line between both institutions recognises the difference in the nature of their objectives.

In sum, the performance of the functional model and the integrated model in the different EU countries (see table 6) should over time be judged against the supervisory objectives. The trade-offs, discussed above, provide a useful framework to develop a judgement. A degree of ‘policy competition’ between countries may be useful to highlight the strengths and weaknesses of the different models. On the basis of comparative evidence, policy-makers can make an informed choice between the different models, if and when, they need to consider European solutions for financial supervision. While the cross-sector trend urges, and has urged, countries to choose their supervisory model now (i.e. before the results with the different cross-sector models are known), we have the luxury at the European level to wait for comparative evidence emerging. In a similar vein, Eijffinger (2001) argues that experiences with the Financial Services Authority in the UK and other countries may serve as a laboratory in supervision.

Finally, the choice of a supervisory model has been approached in this paper as a rational choice based on objective criteria by policy-makers. In practice, the choice will be made in the political arena. Remember that the choice of the Bundesbank model for the ECB was not only based on a strong inflation track-record, but also on the political dominance of Germany in the EMS.

4.6 Role of central bank

All supervisory models should provide for a close link between the prudential supervisor and the central bank, which is responsible for financial stability (Padoa-Schioppa, 2003). This link with the European System of Central Banks (ESCB) is especially important in EMU, since the integration of payment systems and the interbank market could lead to an increase in systemic risk across borders. Central banks are the first to detect this kind of problems and

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30 The debate on the choice of an appropriate model is already starting. Under the catchy title ‘Trojan horses’, the Economist (February 15th, 2003) reports that ‘Europeans cannot agree on the future of cross-border financial supervision’.

31 Eijffinger (2001) and Vives (2001) are in favour of a ‘European Financial Services Authority’, that is the integrated model. Their choice is based on the relief arising from the existence of an independent agency with a well-defined mission. This agency would be separate from the ECB to avoid the potential conflict between monetary policy and banking supervision. They also argue that this would increase the democratic accountability and transparency of banking supervision in Europe.
access by central banks to supervisory information is crucial in these circumstances (Goodhart and Schoenmaker, 1995).

Safe and efficient payment systems are critical to the effective functioning of the financial system. In particular, large value payment systems are a major channel by which shocks can be transmitted across domestic and international financial systems. Robust payment systems are therefore a key requirement in maintaining financial stability (Committee on Payment and Settlement Systems, 2001). As part of their mission to maintain financial stability, central banks play a key role in payment systems. First, the oversight of payment systems to ensure the smooth functioning of these systems is a core central bank task. Second, final settlement of large value payment systems is usually done on accounts held by banks at the central bank. Final settlement takes thus place in ‘safe money’.

In a recent policy statement, the Euro system has clarified its role in payment systems (ECB, 2000b). According to article 105(2) of the Treaty: ‘The basic tasks to be carried out through the ESCB shall be [...] to promote the smooth operation of payment systems.’ In addition, article 22 of the Statute of the ESCB and the ECB specifies that: ‘The ECB and national central banks may provide facilities, and the ECB may make regulations, to ensure efficient and sound clearing and payment systems within the Community and with other countries.’ The first part of article 22 facilitates the operational role of the Euro system (ECB and NCBs), for example, by running large value payment systems and providing settlement facilities. A case in point is TARGET, which is managed by the Euro system. The second part provides the ECB with a regulatory role in the field of payment systems. It seems that the Euro system has adequate powers to fulfil its role in this area. The Euro system considers that close co-operation between payment system overseers and banking supervisors is essential. Such co-operation would contribute to an overall strategy of risk reduction in the financial system and helps to promote its stability.

While there is thus a clear link between payment system oversight and the broader functions of financial supervision and stability, the Maastricht Treaty has separated monetary policy from financial supervision and stability. While monetary policy is centralised in EMU, responsibility for financial supervision and stability remains in the national domain with a subordinate role for the ESCB. According to article 105(5) of the Treaty: ‘The ESCB shall contribute to the smooth conduct of policies pursued by the competent authorities relating to prudential supervision of credit institutions and the stability of the financial
system’. Padoa-Schioppa (2003) notes rightly that there is no precedent in history for the geographical separation of the monetary stability and financial stability functions of a central bank.

What are the possibilities for the ECB to play a role in financial supervision? Article 105(6) of the Treaty states that: ‘The Council may, acting unanimously on a proposal from the Commission and after consulting the ECB and after receiving the assent of the European Parliament, confer upon the ECB specific tasks concerning policies relating to the prudential supervision of credit institutions and other financial institutions with the exception of insurance undertakings’. It would be difficult to invoke this enabling clause, as it requires a unanimous vote of all EU countries. Furthermore, it would not allow the ECB to play a full role in cross-sector supervision, as insurance supervision is explicitly excluded. In section 4.5, we have argued that the range of feasible supervisory models is restricted to cross-sector models (the functional and the integrated model). Finally, it would be difficult to reconcile political accountability and transparency of a possible supervisory function of the ECB with independence of its monetary function (see, for example, Eijffinger, 2001; Vives, 2001; Goodhart, Schoenmaker and Dasgupta, 2002). The political independence of the ECB as a whole is enshrined in the Treaty (article 108).

Summing up, one (or more) possible European system(s) of financial supervisors would need a close link with the ECB. This is needed in all scenarios to ensure financial stability. If desirable, the ECB could be given a role in financial supervision. The establishment of a European System of Financial Supervisors would need a Treaty basis. This would offer an opportunity to amend the provisions relating to the ECB (e.g. maintaining independence of the monetary function, while defining a cross-sector supervisory function with political accountability). It goes without saying that negotiating such Treaty amendments would be a major project with political, institutional and legal ramifications.
5

Outstanding issues

5.1 Policy stance

It may be hard to find a statistically significant relation between the organisa-
tional structure of supervision and the final objectives in terms of an efficient
and stable financial system. But research has been conducted on the question
of which specific regulations and supervisory practices should be implemen-
ted to achieve these goals. Barth, Caprio and Levine (2001a) investigate the
question of which specific regulations and supervisory practices should be im-
plemented to achieve the goals of supervision. Using a database on regulation
and supervision in over 100 countries, they find that supervisory practices that
i) force accurate information disclosure; ii) empower private-sector control of
financial institutions; and iii) foster incentives for private agents to exert corpo-
rate control, work best to promote financial sector performance and stability.
Furthermore, they also find that greater supervisory independence, which may
proxy for supervisory skills, is linked positively with financial sector develop-
ment (see Goodhart, Schoenmaker and Dasgupta (2002) for a similar result).

The importance of information disclosure and market discipline is now widely
recognised, though there is still some evidence of moral hazard behaviour in
Europe (Gros, 2003). The review of the Basle capital accord stresses the role of
market discipline in pillar 3 and proposes disclosure of capital adequacy and
risk exposure and assessment by banks.32 An important precondition for mar-
ket discipline is the incentive for private agents to act on the disclosed infor-
mation. This incentive can, for example, be fostered by allowing or, even
stronger, requiring sub-ordinated debt as part of supervisory capital
(Calomiris, 1999). Finally, the funds of non-insured debt-holders should be at
risk for this incentive to work. In other words, failures could happen, unless
there is a threat of a systemic crisis. This is in line with the Report on Financial
Crisis Management (discussed in section 3.2), which recommends private sec-
tor solutions as opposed to public intervention tools, such as a bail-out.

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32 Pillar 1 of the new Basle capital accord refers to the mini-
imum capital requirement. It refines the risk-classification, but
keeps the minimum of 8% of the old capital accord. Pillar 2 refers
to the supervisory review process. It complements the minimum
capital requirement of pillar 1 and looks at a bank’s internal pro-
cedures to manage and control risk. Pillar 3 strengthens the role
of market discipline.
The issue of private control of financial institutions in the EU is a thornier one. Government ownership of banks tended to be widespread across many countries across the EU (see table 8). However, it should be noted that some countries (notably Finland and Sweden) had a relatively high level of government ownership following a severe crisis in the early 1990s in which financial institutions were nationalised. These public institutions have been subsequently privatised. More generally, Belaisch, Kodres, Levy and Ubide (2001) provide an illustrative account of the privatisation of financial institutions in major European countries in the 1990s. The European Commission has played an important role in the drive for privatisation by contesting incompatible State aid. The share of government ownership across the EU is receding from 44% in 1970 to 9% in 1999, though the most recent figures show that government ownership remains persuasive in a very few countries (see last column of table 8, which uses a slightly different definition of government ownership). In a global survey of 92 countries, La Porta, López-de-Silanes and Shleifer (2002) produce similar results. The average of government ownership in non-socialist countries drops from 53% in 1970 to 39% in 1995 in their dataset. They find that government ownership of banks is associated with slower subsequent financial development and lower subsequent growth of per capita income.

What would be the picture with enlargement of the European Union? A large number of accession countries started off under the communist regime with 100% government ownership (see data for 1970 and 1985 in table 8). Nevertheless, the figures show a similar trend. Government ownership is receding from 83% in 1970/1985 to 20% in 1999 in the accession countries, though the average share of government ownership in the accession countries is twice the average share in the European Union. Foreign penetration is significant in some of the former socialist countries (aiding the reform process) as well as in small countries. Government ownership is obviously linked with foreign ownership (combined they add up to 100% or less). Accession countries with low government ownership in table 8 are characterised by relatively high levels of foreign ownership (Cyprus, 11%; Estonia, 85%; Hungary, 62%; Malta, 49%).

To compare, Luxembourg, the smallest EU country, has also a foreign ownership of 95%.

Another thorny issue is the possibility of private agents to exert corporate control. After the introduction of the euro, financial institutions were expected to respond to potential cross-border economies of scale and scope. However, cross-border expansion of financial institutions within the EU via mergers and acquisitions (M&A’s) remains the exception. While cross-border M&A’s have

33 Figures on foreign ownership are reported in the Worldbank dataset set up by Barth, Caprio and Levine (2001b). They also produce figures on government ownership (last column of table 8). The figures in the Worldbank data set are for 1999.
### Table 8
#### Government Ownership of Banks (in %)

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td><strong>European Union</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Austria</td>
<td>71</td>
<td>64</td>
<td>50</td>
<td>4</td>
</tr>
<tr>
<td>Belgium</td>
<td>40</td>
<td>28</td>
<td>28</td>
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</tr>
<tr>
<td>Denmark</td>
<td>10</td>
<td>17</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
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<td>32</td>
<td>31</td>
<td>31</td>
<td>22</td>
</tr>
<tr>
<td>France</td>
<td>74</td>
<td>75</td>
<td>17</td>
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<tr>
<td>Germany</td>
<td>52</td>
<td>36</td>
<td>36</td>
<td>42</td>
</tr>
<tr>
<td>Greece</td>
<td>93</td>
<td>78</td>
<td>78</td>
<td>13</td>
</tr>
<tr>
<td>Ireland</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>n.a.</td>
</tr>
<tr>
<td>Italy</td>
<td>76</td>
<td>65</td>
<td>36</td>
<td>17</td>
</tr>
<tr>
<td>Luxembourg</td>
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<td>n.a.</td>
<td>n.a.</td>
<td>5</td>
</tr>
<tr>
<td>Netherlands</td>
<td>8</td>
<td>9</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Portugal</td>
<td>100</td>
<td>90</td>
<td>26</td>
<td>21</td>
</tr>
<tr>
<td>Spain</td>
<td>33</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Sweden</td>
<td>21</td>
<td>28</td>
<td>23</td>
<td>0</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Average European Union</strong></td>
<td>44</td>
<td>38</td>
<td>25</td>
<td>9</td>
</tr>
<tr>
<td><strong>Accession countries</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyprus</td>
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<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>100</td>
<td>100</td>
<td>52</td>
<td>19</td>
</tr>
<tr>
<td>Estonia</td>
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<td>n.a.</td>
<td>n.a.</td>
<td>0</td>
</tr>
<tr>
<td>Hungary</td>
<td>100</td>
<td>100</td>
<td>37</td>
<td>3</td>
</tr>
<tr>
<td>Latvia</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Lithuania</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>44</td>
</tr>
<tr>
<td>Malta</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>0</td>
</tr>
<tr>
<td>Poland</td>
<td>100</td>
<td>100</td>
<td>84</td>
<td>44</td>
</tr>
<tr>
<td>Slovakia</td>
<td>100</td>
<td>100</td>
<td>74</td>
<td>26</td>
</tr>
<tr>
<td>Slovenia</td>
<td>100</td>
<td>100</td>
<td>57</td>
<td>40</td>
</tr>
<tr>
<td><strong>Average accession countries</strong></td>
<td>83</td>
<td>83</td>
<td>51</td>
<td>20</td>
</tr>
<tr>
<td><strong>Outside EU</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>21</td>
<td>23</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>Canada</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Japan</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>United States</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: n.a. = not available. 1970 to 1995 figures: Government ownership is defined as the share of assets of top 10 banks owned by the government. Source: La Porta, López-de-Silanes and Shleifer (2002). 1999 figures: Government ownership is defined as the share of the banking system’s assets in banks that are 50% or more government owned. Source: Barth, Caprio and Levine (2001b).
increased over the past three years, a major part of these transactions has remained national (see section 2.2). It has been alleged that the lack of cross-border M&A activity within the EU reflects the (ab)use of national provisions, formally based on the current legislative EU financial services framework, in a protectionist manner (EFC, 2002a). If correct, this practice would not contribute to financial sector performance and stability.

The question of the policy stance in financial supervision is probably in practice more important than the organisational structure. As discussed in section 4.4, an important element of the Lamfalussy approach is to promote convergence of supervisory practices.34 This provides supervisors with an opportunity to organise a process of benchmarking based on practices that work best in the European context and by peer review of each other’s system. This process could be enhanced by academic research on the impact of specific regulations and supervisory practices. Ideally, remaining differences should be related to differences in financial structure between countries. As the process of supervisory convergence – including the convergence of supervisory powers – continues, countries will become more similar as regards their policy stance in supervision. An important result will be a more level playing field in the EU and a more efficient system of financial supervision (EFC, 2002a). Another result will be that the costs of a centralised solution, which relate to a loss of flexibility (see section 3.3), will decline over time. This brings us neatly to the topic of the appropriate level of (de)centralisation.

5.2 Decentralisation

Centralisation of supervision may become desirable to preserve financial stability in an integrating European financial system. As argued in section 3, the policy challenge is to deal effectively with cross-border externalities. If and when the intensity of cross-border externalities increases, supervisory (as well as crisis management) decisions may need to be taken at the European level to incorporate these externalities. One can think of a body at the centre working in tandem with the national supervisors: a ‘European System of Financial Supervisors’. Such a system could evolve from the newly created supervisory committees at level 3, similar to the creation of the ESCB. The Committee of EU Central Bank Governors (stage 1) was turned into the European Monetary Institute to prepare the ground for a single monetary policy (stage 2). The EMI was subsequently turned into the European System of Central Banks comprising of the European Central Bank at the centre and the national central banks

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34 While supervisory practices may show smaller or larger differences between countries, there is usually a point within a range (or continuum) towards which these practices can converge. This is not possible for the choice of a supervisory model: one has to make a choice between a single integrated supervisor and two separate functional supervisors.
of the participating countries (stage 3). Depending on the choice of the supervisory model, one integrated or two functional ‘European System(s) of Financial Supervisors’ would be needed.

Would the possible establishment of one or more European system(s) of financial supervisors necessarily result in a predominantly centralised system of supervision? There is a strong case for decentralisation. First, there are many small and medium-sized financial institutions which operate mainly within national borders. There is no need for involvement at the European level for these institutions. Padoa-Schioppa (1999) draws an interesting picture citing from Italian experience:

- small banks are supervised by the respective regional branch of Banca d’Italia;
- national banks are supervised by the respective branches but key-decisions are taken at the headquarters of Banca d’Italia in Rome;
- pan-European banks are supervised by a group of national supervisors working collectively in a multilateral mode as a single consolidated supervisor.

Second, financial supervision should be executed at the local level where the financial institutions are based. The use of field inspections is an important tool of prudential supervision. By being close to the coal face, supervisors would get a feeling for what is going on at an institution and would also be more familiar with local market conditions in which an institution is operating. For pan-European financial institutions, the ‘lead supervisor’ should thus remain located near the head office of the financial institution (Kremers et al, 2001). In this setting with a lead supervisor, there would be several possibilities regarding the supervision of branches and subsidiaries in other EU countries. One possibility would be to maintain the present system of home country control, in which the home country supervisor (the lead supervisor) is responsible for supervision of branches located in other EU countries. Another possibility would be that both branches and subsidiaries in other EU countries become subject to local supervision (this would create a team that consists of the lead supervisor in the home country and the supervisors in the host countries). This possibility addresses the drawback of home country supervision that it could lead to supervision at too great a distance from the institution under supervision.

Policy rules (e.g. the rulebook and reporting requirements for institutions under supervision) and information pooling (e.g. reporting format and computer systems) may at some stage and in some form be made uniform. Such a uniform policy framework would very much be built on the unified regulatory

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35 In this respect, prudential supervision is a micro-policy and very different from the conduct of monetary policy. The key element of monetary policy is setting the interest rate, which is a centralised decision. Monetary policy operations which are relatively trivial can be executed in a decentralised way (e.g. the European System of Central Banks operates in the money market of all participating countries) or in a centralised way (e.g. the Federal Reserve System operates only in the New York money market). However, the key element of prudential supervision is monitoring financial institutions, inter alia via on-site inspections of their operations.
regime established by EU Directives. Next, appropriate decision-making and incentive mechanisms should be designed to ensure that local supervisors adhere to this policy framework. Furthermore, information pooling will allow effective market surveillance of systemic risks (including a peer group analysis of large pan-European financial institutions).

An instructive example of decentralisation is presented by the organisational structure of the two federal banking regulators in the US, the OCC and the Fed (see also section 4.3). The OCC supervises national banks, covering about 2000 community and mid-sized banks and about 25 large banks. Its headquarters are based in Washington DC, with four district offices. At the headquarters, policy is made and general market conditions are surveilled. Day-to-day supervision of community banks is decentralised and is done out of the district offices. Mid-sized banks are supervised out of the headquarters office, while the examiners are located regionally in the district offices and travel to the mid-size bank locations. Headquarters and district offices communicate through a shared information system. Supervisors of the large national banks are based in the banks with teams of resident examiners. The key supervisory decisions on the large national banks are taken at the headquarters in Washington DC.

The Fed (in co-operation with the State Banking Departments) supervises state chartered member banks. The Federal Reserve System consists of the Board of Governors in Washington DC and twelve regional Federal Reserve Banks (Board of Governors of the Federal Reserve System, 1994). Similar to the OCC, the Fed has i) centralised policy, ii) information pooling via a shared information system; and iii) decentralised execution of supervision. The Fed is more decentralised than the OCC as the ultimate responsibility for the supervision of large member banks rests with the lead supervisor at the respective regional Federal Reserve Bank and not with the Board in Washington DC.

5.3 Fiscal costs

European supervision raises the thorny issue of who should bear the fiscal costs of a possible bail-out. The first-best solution is to keep decision-making on supervision and fiscal bail-outs at the same level. However, there is no meaningful European budget which can be drawn upon for such cases. Moreover, a fixed rule to share the costs (e.g. the key used in the Statute of the ESCB and the ECB to distribute monetary income; this key is based on an average of

36 In the new Lamfalussy framework (discussed in section 4.4), Directives and Annexes to Directives are adopted at level 1 and 2. Supervisory convergence, including convergence of the policy framework, is promoted by committees of supervisors at level 3.

37 In private correspondence, Charles Goodhart stresses this point. He argues that national fiscal bail-outs imply national supervision. If one wants a trans-European supervisory system, one must accept that it has trans-European fiscal implications.
the share in total GDP and total population of the participating members) may give rise to moral hazard, as countries with a weak financial system may face reduced incentives to prevent potential bail-outs. A fixed rule may thus not be politically feasible (or desirable), as countries with a strong financial system may not be prepared to pay up each time.

Prati and Schinasi (1999) argue therefore that the costs should be borne at the national level. This would bring us back to the case of co-operation resulting in an undersupply of bail-outs (see section 3.2 on co-operation between national supervisors). Moreover, a (political) control mechanism is needed to ensure that a centralised system of supervision would exert adequate effort to prevent or minimise failures. The supervisory effort should be aligned with the inclination of national authorities to pay up for a possible bail-out (Schoenmaker, 2000). A lower appetite of national authorities to pay ex-post for bail-outs would imply a higher effort (and related cost) of ex-ante supervision to prevent such bail-outs. As more fully discussed in section 3.2, such a mechanism to align costs and efforts may be difficult to implement. In this approach, the jurisdiction of supervision would be extended to the European level, while that over fiscal policy remains national. A parallel can be drawn with EMU: the jurisdiction over the currency and the monetary policy extends to the euro area, while that over supervision remains national (Padoa-Schioppa, 2003).

Further research is needed to explore mechanisms for co-operation between a putative European system of financial supervisors and national tax-authorities to deal effectively with pan-European threats to financial stability. Crisis management would also include the ECB (and the relevant national central banks) and possibly the European Commission. Could such co-operation really be effective? There is a precedent in European history that contains many of the characteristics that are relevant in this case: speedy confidential decision-making by many (inter)national players. In the former European Monetary System, confidential decision-making on realignments took place over the weekend, involving Ministers of Finance, Central Bankers and the European Commission. The rules of procedure of this committee could serve as a starting point for thinking about the development of a European structure for crisis management (Kremers, Schoenmaker and Wierts, 2003a). To simplify matters, only the ministers of finance and central bankers of the countries affected (in addition to a putative European system of financial supervisors, the ECB and possibly the European Commission) should be involved.

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38 Supervisory agencies should be independent in the execution of their job in individual cases (no political interference). However, ministers of finance are responsible for the overall functioning of supervisory agencies (approval of the budget to ensure adequate resources; appointment of the board) and accountable to parliament. See also Goodhart and Schoenmaker (1995) who observe a trend towards using tax-payers’ money to rescue troubled banks, that pose a systemic threat. If the tax-payer is seen as potentially liable, then the government has the ultimate responsibility, so that the supervisory agency should answer to it.

39 In the case of Fortis (a Belgian-Dutch financial institution), for example, the Dutch and Belgian authorities would in conjunction with a putative European system of supervisors and the ECB take decisions on crisis resolution.
Concluding remarks

EMU started with the well-known premise that fixed exchange rates, perfect capital mobility and independent (national) monetary policy cannot be achieved simultaneously. After experiencing several crises in the EMS (the European system of fixed exchange rates), the solution was found in giving up national monetary policy and creating EMU. Europe has the ambition to face the same question on financial supervision: an integrated financial market, a stable financial system and national supervision may be difficult to combine (Thygesen, 2003). There is evidence that the process of integrating 15 EU financial markets is not yet fully completed, at least not on the retail front. Policy initiatives such as the Financial Services Action Plan aim to remove the remaining obstacles. As the process of integration continues and pan-European (retail) financial institutions emerge, externalities in supervision increase and more co-ordinated or even integrated European solutions may become more desirable. Such solutions raise the thorny issue of dividing the fiscal costs of possible bail-outs. Our analysis suggests that these costs should, at least initially, remain at the national level, as there is no European budget to draw upon.

Rather than providing a blueprint or grand design for a European system of financial supervisors, we list the main models from which to choose. This issue has largely been neglected in the literature (e.g. Prati and Schinasi, 1999; Vives, 2001). Responding to the trend of cross-sector integration, two main models have emerged in Europe (and beyond): a functional model with separate supervisors for prudential supervision and conduct of business, and an integrated model with a single supervisor. The jury is still out on which model performs better in terms of achieving the objectives of supervision (financial stability, prudently managed financial institutions, and proper consumer treatment). We argue that some policy competition between countries with different models may be beneficial to highlight the strengths and weaknesses of the different models (see also Fender and Von Hagen, 1998).
Next, we explore the appropriate policy stance for European financial supervision. The challenge is to choose regulations and supervisory practices that contribute to efficiency and stability. Tentative research results suggest that supervisory skills, market discipline and private-sector control are key elements. The pending review of the Basle capital accord, which will be incorporated in a new EU Capital Adequacy Directive (CAD3), promotes market discipline. Government ownership of financial institutions across the EU is receding, though recent figures show that government ownership remains persuasive in a very few countries. One of the main tasks of the newly established supervisory committees in the Lamfalussy framework is to promote supervisory convergence. As part of this process of supervisory convergence, we propose that supervisory standards are further developed by benchmarking based on best practices. Supervisory convergence would also promote the establishment of a level playing field across Europe.

Finally, the appropriate level of (de)centralisation is analysed. Responding to increasing integration, some elements of financial supervision such as general policy-making, surveillance of European-wide systemic stability and individual supervisory decisions on large pan-European financial institutions may need to be centralised (‘the European dimension’). However, we argue that the core-business of financial supervision (desk analysis and field inspections of financial institutions) will always remain at the local level as supervisors need to be in touch with the real world of financial institutions (‘the national dimension’). Many small and medium-sized financial institutions operate mainly within national borders. There is no need for supervisory involvement at the European level for these institutions. While supervisory decisions on emerging pan-European financial institutions may need to be taken at the European level to incorporate cross-border externalities, the ‘lead supervisor’ of these institutions should be located near the head office of these financial institutions to monitor them effectively, inter alia via on-site inspections of their operations. The future of financial supervision in Europe will thus consist of a mix of national and European elements.
Arnold, Ivo, Dave Smant and Casper de Vries (2003), ‘Wisselkoersen en beleggen’ (Exchange Rates and Investments), Financiële en Monetaire Studies, 21(1), Amsterdam: NIBE-SVV.


