

**Financial Supervision: Which Model for
Europe?**

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Abstract

Increasing integration within the European Union (EU) gives rise to cross-border spill-over effects or externalities. The present national based system of financial supervision does not incorporate these externalities. Assessing the degree of integration, we find that the EU has not yet a fully integrated financial market. But if and when the process of integration is nearing completion, policy-makers will need to consider moving to European solutions.

How to choose an appropriate supervisory model for Europe? Responding to the trend of cross-sector integration, two main models have emerged: a functional model (separate supervisors for prudential supervision and conduct of business) and an integrated model (a single supervisor). The jury is still out on which model performs better (e.g. in weathering a financial crisis). We propose to apply some degree of model competition to facilitate the discovery of the best model.

Finally, we explore the question of the appropriate policy stance for financial supervision in Europe. Key elements of such a policy stance are supervisory skills, market discipline and private-sector control. Policy standards could be further developed via benchmarking of best practices within the new Lamfalussy framework.

1. Introduction

In the debate on the future shape of financial supervision in Europe, there are two basic questions:

?? Would it be desirable to move from the present national structure to a European structure for financial supervision?

?? If so, 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 national based supervision with only decentralised efforts at harmonisation (Thygesen, 2002). Arguments against moving to a European solution at the present time could be that the degree of integration in financial markets does not yet justify such a move and that other preconditions have not yet been fulfilled, e.g. that financial regulation should be harmonised first.

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, 2002). When looking at the penetration and functioning of markets in Europe, the evidence is mixed. An integrated wholesale market is emerging (Padoa-Schioppa, 2000; Von Thadden, 2001), while retail markets are still largely fragmented within the EU (EFC, 2002). 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 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, national 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.

The pros and cons of moving supervision to the European level have been extensively debated in the literature (e.g. Prati and Schinasi, 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. The aim of this paper is to address this policy question. The range of possible models on a national level and a European level is identified. 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, 2002). 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 (Goodhart and Schoenmaker, 1995).

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. We argue that some degree of model '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).

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, 2002). 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 within the new Lamfalussy framework.

The paper 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 the issue of which policy stance should prevail in Europe. Evidence is emerging that market discipline is a key factor for success. Section 6 concludes.

2. Are European financial markets integrated?

There is no agreement on how to measure financial integration. A simple way to measure integration is by using the law of one price. 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). 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, market completeness, 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 1 shows that between 1985 and 1997, the bulk of financial restructuring has occurred on an in-sector and domestic basis. From 1985 through 1997, 64 per cent of the deal flow (by value) was in-sector in Europe. For Europe, cross-border intra-European mergers and acquisitions amounted to 25 per cent of the European total (numbers differ across sectors: 17 per cent in banking; 15 per cent in securities; 43 per cent in insurance). On the basis of more recent data, from 1986 through 2000, Walter (2002) reaches a similar conclusion.

Table 1. Value of M&As in the financial sector between 1985 and 1997

Target	Acquirer					
	Commercial bank		Securities firm		Insurance company	
	Value		Value		Value	
<i>Panel A Domestic M&As</i>						
Commercial bank	89.0	(36.0%)	23.0	(9.3%)	11.0	(4.4%)
Securities firm	9.0	(3.6%)	19.0	(7.7%)	6.0	(2.4%)
Insurance company	20.0	(8.1%)	24.0	(9.7%)	46.0	(18.6%)
<i>Panel B Intra-European M&As</i>						
Commercial bank	15.0	(17.9%)	4.3	(5.1%)	11.2	(13.4%)
Securities firm	8.7	(10.4%)	5.8	(6.9%)	0.3	(0.4%)
Insurance company	0.4	(0.5%)	1.1	(1.3%)	37.0	(44.2%)
<i>Panel C Europe-Non-Europe M&As</i>						
Commercial bank	14.5	(14.5%)	15.6	(15.6%)	1.0	(1.0%)
Securities firm	4.3	(4.3%)	15.9	(15.9%)	3.1	(3.1%)
Insurance company	0.3	(0.3%)	12.9	(12.9%)	32.7	(32.6%)

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).

Source: Berger, Demsetz and Strahan (1999).

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).

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.¹ 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 differences in yield spreads remain. This reflects fragmentation due to the fact that government bonds are issued by Member States with different procedures, 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. The data point to a striking change in market behaviour following the introduction of the euro. The share of the US dollar in global bond issues fell from 60% in 1998 to 48% in 2000, while the share of the euro rose from 33% to 40% (Von Thadden, 2001). 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, 2001). 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, 2002).

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 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. 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.

¹ 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

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, 2002).

Box 1. Have consumer credit rates converged in the Eurozone?

With competitive financial markets, convergence of consumer lending rates in the eurozone might be expected. However, credit risks might still differ from country to country. In addition, markets still experience differences in national practices and tax regimes, as well as non-regulatory barriers, for example, cultural differences in consumer behaviour and preferences.

Because of these differences, consumer lending rates in the eurozone have not converged to a eurozone-wide-rate. Movement of eurozone interest rates in the same direction should be expected (co-movement), to reflect movements in the common yield curve for the euro. Competitive pressure should force banks to adjust consumer credit and mortgage interest rates more quickly to falling markets rates. However, the empirical evidence suggests that:

- ?? 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).

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.²

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).

²The E-Commerce Directive, which was adopted in 2000, already introduces the principle of home country control for electronic services in the EU.

3. Does home country control suffice?

The present system of 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 extra 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). Second, it 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.³ The question is whether home country control does suffice in an integrating market.

3.1 Co-operation between home and host countries

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 (see Schoenmaker, 1997, for a review). 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 (2002) is among the first to explore incentive-compatible mechanisms to allocate the costs of a possible bail-out among national authorities. 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

³ 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. There are currently 39 authorities for prudential supervision in the EU. Large financial institutions as ABN AMRO or Deutsche Bank report to over 20 supervisors in the EU (EFC, 2002).

form of an ex-ante loss sharing arrangement between countries can be implemented,⁴ but at a cost. The level of effort for national authorities to collect and transmit information about 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. 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 failure (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.

3.2 European supervision

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 (2002) 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 national 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 directives, 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).

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. The first-best solution is to keep decision-making on supervision and fiscal bail-outs at the same level.⁵ 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 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 above mentioned case of co-operation (Freixas, 2002) resulting in an undersupply of bail-outs. Moreover, a (political) control mechanism is needed to ensure that a

⁴ 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.

⁵ 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 (which would be very desirable), one must accept that it has trans-European fiscal implications.

centralised system of supervision would exert adequate effort to prevent or minimise failures.⁶ 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. 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, 2002).

Further research is needed to explore mechanisms for co-operation between a putative European system of 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. To simplify matters, only the ministers of finance and central bankers of the countries affected (in addition to a putative European system of supervisors, the ECB and possibly the European Commission) should be involved.⁷

Summing up, the policy question is, at what stage in the process of ongoing integration, national based supervisors should be moved to 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. If and when the process of integration is nearing completion and 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. In the next section, we consider the question of how to choose an appropriate supervisory model for Europe.

⁶ 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.

⁷ In the case of Fortis (a Dutch-Belgian 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.

4. Which model for Europe?

4.1 Organisational structure of supervision

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 Wiertz (2001). The main models are summarised in table 2. 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.⁸ 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).

Table 2. The organisational structure of financial supervision: basic models for Europe.

<i>European models (cross-border)</i>	Basic models (cross-sector)		
	1. Sectoral	2. Cross-sector: functional	3. Cross-sector: integrated
A. Decentralised & co-operation	Co-operation in sectoral committees	Co-operation in functional committees	Co-operation between national FSA's
B. Co-ordination	Co-ordination between national sectoral supervisors: ?? Harmonisation in sectoral regulation ?? Convergence in supervisory practices in banking, insurance and securities respectively	Co-ordination between national functional supervisors: ?? Functional EU-wide legislation ?? Convergence in supervisory practices in prudential supervision and conduct of business supervision	Co-ordination between national FSA's: ?? Single financial services market act within the EU ?? Convergence in supervisory practices between national FSA's
C. Centralised	Separate systems of European banking, securities and insurance supervisors	European system of prudential supervisors European system of conduct of business supervisors (broad SEC)	European system of FSA's

Source: Kremers, Schoenmaker and Wiertz (2001).

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

⁸ The functional model is also known as the twin peaks model (Taylor, 1995).

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, given that supervision is a micro-economic policy and that the execution of supervision takes place close to the supervised institutions (see below).

At present, all three basic models can be observed at a national level in Europe. The organisational structure of financial supervision is in the process of change in most, if not all, European countries. Because of the trend of cross-sector integration, national models find themselves in an essentially functional (second column, e.g. Italy, France and the Netherlands) or integrated (third column, e.g. Scandinavia, UK, Germany) organisational structure. However, the European structure – both in legislation and committee structures – is still primarily sectoral, with a marginal arrangement to strengthen cross-sector co-operation.⁹ In section 4.2 below, we address the policy-question of which basic model in table 2 might be chosen at the European level.

Turning to the vertical classification of table 2, the European structure is currently moving from co-operation to co-ordination with the implementation of the Lamfalussy approach to speed up the regulatory process and to foster supervisory convergence in the EU (Lamfalussy, 2001). This approach was recently adopted for the securities sector. Ministers of Finance have invited the European Commission to explore the possibility of applying the Lamfalussy framework to banking and insurance (EFC, 2002).

Further integration may require a move to a system at the centralised level, as argued in section 3. However, it is too early to answer definitively questions about the possible shape of a ‘grand design’ for the organisational structure in Europe. Any sort of European system of financial supervisors will in any case need to have the following properties:

1. Supervision should be executed at the local level where the financial institutions are based. For cross-border financial institutions, the ‘lead supervisor’ should remain located near the head office of the financial institution.
2. Policy rules (e.g. the rulebook and reporting requirements for institutions under supervision) and information pooling (e.g. reporting format and computer systems) might at some stage and in some form be made uniform. Appropriate decision-making and incentive mechanisms should be designed to ensure that local supervisors adhere to this policy framework. Information pooling will allow effective market surveillance of systemic risks (including a peer group analysis of large institutions).

⁹ The European Commission has initiated a Roundtable of Regulators, where the chairmen of the sectoral committees meet. Furthermore, a Financial Conglomerates Committee will be established as a result of the draft Directive on Financial Conglomerates, which is expected to be adopted late 2002.

4.2 Competing models

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

information, is more recently coming to the forefront and making newspaper headlines as financial markets and products evolve.

The key empirical issue is which model is more likely to produce the 'deliverables' in terms of achieving the supervisory objectives. On the one hand, joint production of prudential supervision and conduct of business in an integrated model may lead to synergies. On the other hand, separation in the functional model may allow a sharper focus on each of the objectives avoiding internal trade-offs between the objectives. A more publicly visible profile may, for example, be useful for a conduct of business supervisor (a case in point is the profile of the SEC). In sum, a degree of model 'competition' may be useful to highlight the strengths and weaknesses of the different models.

Finally, all models should provide for a close link between the prudential supervisor and the central bank, which is responsible for financial stability (Padoa-Schioppa, 2002). 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 access by central banks to supervisory information is crucial in these circumstances (Goodhart and Schoenmaker, 1995). Furthermore, the introduction of more risk-sensitive capital requirements (as envisaged by Basle II in banking and Solvency II in insurance) may require stronger interaction of the macro-approach of the central bank and the micro-approach of the prudential supervisor. While risk-sensitive capital requirements foster good risk management (micro), they may also increase pro-cyclicality (macro) as these requirements are sensitive to business cycle effects (increasing capital charges, and limiting credit supply, right when the economy is slowing). To dampen these pro-cyclical effects, supervisors may need to require higher capital buffers in 'good' times, which can in turn be drawn down in 'bad' times.

5. Policy stance

It may be hard to find a statistically significant relation between the organisational 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 implemented to achieve these goals. Barth, Caprio and Levine (2001a) investigate the question of which specific regulations and supervisory practices should be implemented 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 corporate 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 development (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, 2002). 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. An important precondition for market discipline is the incentive for private agents to act on the disclosed information. 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.

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 3). 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. In sum, the share of government ownership across the EU is receding, though the most recent figures show that government ownership remains persuasive in a very few countries (see last column of table 3, which uses a slightly different definition of government ownership than the other columns).

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 increased over the past three years, a major part of these transactions has remained national (see section 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, 2002). If correct, this practice would not contribute to financial sector performance and stability.

Table 3. Government ownership of banks in the EU (in %).

Countries	1970	1985	1995	1999
Austria	71	64	50	4
Belgium	40	28	28	-
Denmark	10	17	9	0
Finland	32	31	31	22
France	74	75	17	0
Germany	52	36	36	42
Greece	93	78	78	13
Ireland	4	5	5	-
Italy	76	65	36	17
Luxembourg	-	-	-	-
Netherlands	8	9	9	6
Portugal	100	90	26	21
Spain	33	2	2	0
Sweden	21	28	23	0
United Kingdom	0	0	0	0

1970 to 1995 figures: Government ownership is defined as share of assets of top 10 banks owned or controlled by the government. Source: La Porta, Lopez-de-Silanes and Shleifer (2002).

1999 figures: Government ownership is defined as the percent of bank assets government owned. Source: Barth, Caprio and Levine (2001b).

The question of the policy stance in financial supervision is probably in practice more important than the organisational structure. A discussion has started about applying the Lamfalussy approach, which was recently adopted for the securities sector, to the banking and insurance sector as well. An important part of the Lamfalussy approach is to promote convergence of supervisory practices (Lamfalussy, 2001). In terms of table 2, this marks a shift from co-operation to co-ordination within committees of supervisors. 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, 2002). Another result will be that the costs of a centralised solution, which relate to a loss of flexibility, will decline over time.

6. 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 stability: an integrated financial market, a stable financial system and national supervision may be difficult to combine (Thygesen, 2002). 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 model competition may be beneficial to highlight the strengths and weaknesses of the different models (see also Fender and Von Hagen, 1998).

Finally, 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 results suggest that supervisory skills, market discipline and private-sector control are key elements. We argue that supervisory standards in Europe could be further developed by benchmarking based on best practices as recommended in a similar context by Lamfalussy (2001). This would also promote the establishment of a level playing field across Europe.

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