



Restructuring Financial Regulation in the European Monetary Union

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Abstract

This article argues that present financial regulatory arrangements within the European Monetary Union are not adequate either to preserve stability or to foster financial integration. Reform of financial regulation should concentrate on

- establishing clear procedures for crisis lending and management, with the European Central Bank at the center;
- preparing the ground for more centralized supervisory arrangements in banking, insurance, and securities; and
- establishing and consolidating an active domestic and European Union-wide competition policy that limits local market power and national champions that are too big to fail.

Key words: supervision, financial integration, Europe, monetary union, regulatory separation, competition policy

1. Introduction

The aim of the present article is to assess the role of the financial regulatory institutions within the framework of the European Monetary Union (EMU) with a view towards preserving stability and fostering integration in the European financial arena.

The Single Market Program, with its focal date of 1992, and the Monetary Union are milestones in the process of financial integration in Europe. Many advances have taken place since 1992. Indeed, the Single Market Program represented a credible commitment to the liberalization of the banking and financial sector in Europe (Vives, 1991). However, the European banking market, especially in the retail segment, continues to be segmented, and the degree of cross-border penetration is small. Furthermore, some obstacles remain on the way. Although banking is in the midst of a consolidation process, most of the merger and acquisitions (M&A) activity has a domestic dimension leading to national champions that may be deemed too big to fail (TBTF). Political obstacles to cross-border banking mergers continue in place, as shown by the problems encountered by BBVA in Italy with Unicredito, BSCH in Portugal with Champalimaud, or the protectionist attitude of the French authorities in the three-way battle among BNP–SG–Paribas. At the same time, the emergence of pan-European stock exchanges has been slowed by regulatory hurdles and lack of harmonization in supervisory procedures, settlements systems,

disclosure, and enforcement. For example, the regulatory arrangements in the failed international exchanges (iX) joint venture of the London Stock Exchange and Deutsche Börse were complex, with secondary market trading on the pan-European blue chip market subject to United Kingdom regulation and on the pan-European high-growth market subject to German regulation.

Perhaps more seriously, questions have been raised about the present arrangements to preserve stability in the EMU. These questions are relevant because the EMU may well increase risk, at least in the short term, while the banking sector is restructured and economies adjust to the new environment.

Financial supervision is the hands of national governments, and the European Central Bank (ECB) has a subordinate role in the area of supervision and stability in the European financial arena. Only recently (October 1999), the President of the ECB, Wim Duisenberg, made an official statement about the role of the European System of Central Banks (ESCB, the ECB and the National Central Banks) as Lender of Last Resort (LOLR).

The European Commission view is that present supervisory arrangements are adequate given the state of the single market, although the EC would welcome more cooperation among supervisors. At the same time, it recognizes the need for a high-level assessment of the situation that may be conducive to a review of the present supervisory frame. Recently (July 2000), the European Union council of finance ministers (Ecofin) appointed a group of "wise men" to investigate the regulation of EU securities markets and promote the single market in them.

However, the idea that the present supervisory arrangements of banking and financial markets in Europe are adequate because of the existing segmentation of business by countries seems fallacious on the face of the fast integration of capital markets and the potential and actual developments in electronic banking. At the heart of the problem is the tension between economic integration and the lack of willingness to relinquish national political control.

Several questions remain unanswered in the present framework:

- What will be the chain of command in a crisis situation?
- What ensures that the ECB will have timely information in a crisis if it does not have access to supervisory records?
- How will losses be shared if an illiquid transnational institution, which receives help from the ECB, turns out to be insolvent?
- What incentives will a national regulator have to consider spillover effects on other jurisdictions?
- How can regulatory institutions adapt to the convergence of intermediary and market risk?
- What is the appropriate way to control domestic banking mergers that create national champions that are TBTF?

The present article will attempt to provide answers to such questions, or at least to supply a framework for understanding the driving forces behind them. Section 2 takes as a starting point the evolution of the European banking sector and the foreseeable impact of the euro. Section 3 describes bank supervision in the EMU, as well as the role of the ESCB in

preserving financial stability. Section 4 raises several problems with the present arrangements, and section 5 presents a proposal to rethink the European financial architecture. The final section offers some policy conclusions. The appendix supplies a conceptual framework for the consideration of financial regulation.

2. Trends in the European banking sector and the impact of the EMU

The impact of the single currency on the banking sector must be seen in the context of general trends within the sector. The main effect of the euro will be to accelerate the underlying trends.

2.1. The transformation of European banking

Liberalization and deregulation are bringing a formidable increase in competition, both within and outside the industry, with disintermediation and direct competition from financial markets, market integration with the Single Market Program, and financial innovation.¹ Overall, there is an effective expansion of the market, one result of which is that in the U.S., for example, in spite of the advance of disintermediation, the banking sector has grown in real terms (see Berger, Kashyap, and Scalise, 1995).

The outcome of this process is an overhaul of the banking sector that, in general, is less advanced in Europe than in the U.S. (for example, in the development of mutual and pension funds, insurance, corporate debt market, and venture capital). However, in Europe there is an established universal banking tradition. The result is a move away from the traditional business of taking deposits and granting loans toward the provision of services to investors (sales of investment funds, advice, insurance) and to firms (consulting, insurance, mergers and acquisitions, support of share and bond issues, risk management with advanced instruments, etc.). The financial margin is giving way to fee and commission revenue. There is a switch from investment in bricks and mortar (the branches) to investment in communication networks, information technology, and highly specialized human capital. This change may mean that size assumes importance again, especially in wholesale and investment banking, and that the number of those entering the business is limited in spite of market expansion. Indeed, in the presence of entry costs such as those mentioned above, an increase in market size does not necessarily mean a fall in concentration (see Sutton, 1991).

Consolidation among banks is taking place in Europe, with a predominance of domestic mergers.² However, among insurance companies, international deals predominated in the period 1985–1997.³ Furthermore, M&A deals in the same period tended to take place more among the same type of institutions than among conglomerates (Berger, DeYoung, and Udell, 2000).

Although national concentration levels in banking are much higher in Europe than in the U.S. and have tended to increase, particularly for smaller countries,⁴ the C_5 deposit ratio (the share of deposits of the five larger institutions) had a value similar in the EU and in the U.S. (around 12%) in 1997. However, in 1998 in the U.S., the ratio jumped to 22% due to

the merger wave. It is worth remarking that, despite an increase in concentration at the U.S. level in the last 10 years,⁵ local concentration (measured in MSA and non-MSA counties) does not show a definite tendency (Berger, Demsetz, and Strahan, 1999). This is due to the weight of interstate mergers in the U.S. In Europe, the dominance of domestic mergers will tend to increase local concentration. This tendency is worrisome because what does matter for the exercise of market power in retail is precisely local concentration.⁶

At the same time, in France and Germany (as well as in Spain), the market share of mutuals and cooperative and publicly owned banks is still quite important. This is so despite privatization of public banks in Spain (Argentaria), France (Crédit Lyonnais), and Italy (Banca Nazionale del Lavoro), as well as new legislation forcing foundations that own banks—formerly savings banks—to divest from controlling stakes in a few years (see White, 1998; IMF, 1999). The above institutions are insulated from the market for corporate control and may pose an obstacle to restructuring because they cannot be taken over by private banks.

Liberalization in Europe has also been associated with bank failures. This trend conforms to international evidence that crises in banking occur more often in financial systems that have been liberalized (Demirgüç-Kunt and Detragiache, 1998). The crisis in Spain in the late 1970s and early 1980s had an associated cost of 15% of GDP, while in Scandinavia the crisis of the early 1990s was estimated at 4%–10% (Caprio and Klingbiel, 1996; Dziobek and Pazarbasioglu, 1997). In each case, in the second half of the 1970s in Spain and of the 1980s in Scandinavia, factors other than financial liberalization were involved, i.e., the economic recession in Spain and, in Scandinavia, errors in fiscal and monetary policies that helped to inflate the speculative bubble. In all cases there was poor management, along with deficiencies in banking supervision.

Pressure on margins due to disintermediation and the general increase in competition makes banks look for markets abroad with larger margins. The result is that the exposure of European banks to emerging markets (Asia, Eastern Europe, and Latin America), as revealed by the 1998 crisis, was several times larger than that of U.S. banks. This situation, obviously, raises supervisory questions.

2.2. The impact of the euro⁷

The euro will accelerate the transformation of the European banking sector. The Single Market Program (“1992”) was a credible commitment to the liberalization of the banking and financial sector in Europe (see Vives, 1991). However, the European banking market, especially retail, continues to be segmented, and the degree of cross-border penetration is small.⁸ This situation shows the importance of barriers to entry in retail (like the established branch networks and relationships with clients) and the presence of significant switching costs for customers. In spite of this, French and German banks have foreign assets in branches and subsidiaries for about a third of domestic assets (see ECB, 1999). Furthermore, the differences among countries in the degree of competition, amount of cost reduction, financial strength of banks, and stage in the transformation process are important.⁹

The euro could represent a shock similar to the lifting of geographic restrictions in the U.S. The EMU does away with two sources of segmentation, namely, exchange rate risk and the advantages enjoyed by the local banks because of their greater familiarity with domestic monetary policy. In addition, pricing will be more transparent and competitive pressure will increase. The overall effect is to reinforce the underlying tendency towards increased competition.

The most important effect of the single currency will be the deepening and expansion of financial markets. The euro may prove to be a catalyst for a European integrated financial arena in the money, equity, public debt, and derivative markets. The development of private debt markets will accelerate, and market solutions will become more attractive in relation to intermediated ones (e.g., promoting securitization, attracting medium-size firms to the capital market, expanding institutional investment in unit trusts and pension funds on a European scale, etc.). In fact, the integration of the money market has been fast, and progress in the integration of the bond market (government and private debt) important (see IMF, 1999; Danthine et al., 1999). There are currently several attempts to create pan-European equity markets, which seem hampered by the lack of harmonization of supervisory procedures and regulatory fragmentation (as we will see in section 5.3).

The single currency will reduce segmentation but will not eliminate it, owing to barriers in retail banking and to differences in preferences and culture between individual countries. However, the increased use of direct and electronic banking should increase cross-border activity as the value of the branch network diminishes. At the same time, (over) branching should be checked and excess capacity eliminated. In addition, regulatory restrictions governing the composition of the portfolio of institutional investors, such as pension funds and insurance companies, still exist as a source of market segmentation, especially in asset management.

The euro will accelerate the restructuring of the sector. In wholesale and investment banking, competition will be very tough. It may happen that there is room only for a few banks. The number of banks will fall, and the concentration in the European market will increase (to a greater extent if the economies of diversification and fixed expenditures to compete are large). In the U.S., recent studies indicate that there are sizeable economies of diversification in macroeconomic risk that can be exploited by means of mergers between entities in different states (Hughes et al., 1996, 1998). In Europe, these economies of international diversification are partly limited by the increasing correlation in the economic cycles of different countries (and the reduction in correlation between regions belonging to the same country).¹⁰ However, Berger, DeYoung, and Udell (2000) report that the correlations of bank earnings across European nations are low relative to those across regions in the U.S.

Local market concentration may tend to increase owing to the mergers of small and medium-size institutions, as well as of large entities combining in order to lower costs, increase or maintain their market power, and prevent a hostile takeover.¹¹ Berger et al. (2000) conclude that banks with headquarters in other EU nations have somewhat lower average efficiency than either domestic banks or non-EU-based foreign banks. Obstacles to cross-border mergers in Europe (which are not present in the U.S.) include restrictions on labor mobility, even at the managerial level; differences in corporate culture; and political interference (i.e., the fostering of national champions). The last of these is shown

in the political obstacles encountered by BBVA in Italy with Unicredito and by BSCH in Portugal with Champalimaud, and also in the protectionist attitude of the French authorities in the three-way battle of BNP-SG-Paribas. However, cross-border mergers are developing and may develop further in a second phase to acquire local expertise, access high margin deposits, or diversify, at the same time that they gain size in order to compete in the global market segments.

3. LOLR, supervision, and competition policy

Financial regulatory institutions in the EMU derive from the Treaty of the Union, the European Directives, and the founding Treaty of Rome for areas such as competition policy. National legislation should be added to this list. We examine in turn the Lender of Last Resort (LOLR) function, financial regulatory and supervisory arrangements, and competition policy in EMU.

3.1. LOLR and the ESCB

The Treaty of the European Union opts for the separation of monetary authority from supervision of the banking system. The monetary authority under the Treaty is the European System of Central Banks (ESCB), made up of the European Central Bank (ECB) and the national central banks (NCBs). According to Article 105(1), the objective of the ESCB is to maintain price stability; without prejudice to this objective, it will back the general economic policies of the EU. The ESCB is subordinate to the national governments and to other European institutions in the area of financial supervision and stability of the European financial and banking systems: “the ESCB shall contribute to the smooth conduct of policies pursued by the competent authorities relating to the prudential supervision of credit institutions and the stability of the financial system” (Article 105(5)).

Thus the ESCB is not defined explicitly in the Treaty as guarantor of the stability of the financial system, although there is recognition of the task of the ESCB to promote the harmonized operation of the payments system (Article 105(2)). The ECB has a consulting role in legislation regarding financial institutions insofar as those institutions may affect stability (Article 105(4) and EU Council Decision 98/415/EC). However, the role of the ECB in questions of supervision can be larger: “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” (Article 105(6)). This means that the ECB could be assigned supervisory powers without the need to reform the Treaty of the EU.

The system of payments of the ESCB is TARGET (Trans-European Automated Real-Time Gross Settlement Transfer System), a decentralized system interconnecting the payment systems of the various countries. TARGET is a gross settlement system in real time (payments are settled individually and with immediate firmness in central bank money by means of entries in the accounts of the banks in the national central banks). This

system is similar to that employed by the banks of the Federal Reserve, namely, Fedwire, which has an explicit guarantee from the central bank throughout the day. In the case of TARGET, the national central banks bilaterally compensate their positions daily, and during the day allow only overdraft credit backed by collateral.

The monetary policy operations of the central banks of EMU will thus be channeled through TARGET. This system gives priority to stability, minimizing whatever systemic risk might derive from cross-border transactions, although it consumes more liquidity than alternative net settlement systems. In the alternative systems, the positions of the banks are compensated only at the end of the day, and this implies the existence of interbank credit during the day, with the consequent risk of contagion. A potential problem in the gross settlement system is gridlock, with paralysis of transactions owing to a chain reaction from an initial delay in payment. Gridlock represents essentially a lack of coordination (see Freixas and Parigi, 1997; Rochet and Tirole, 1996b).¹² A competitor to TARGET is the European Banker's Association system, which tends to process smaller cross-border payments (see Danthine et al., 1999).

The ESCB thus follows the model of the Bundesbank in not explicitly including the task of preserving the stability of the financial system, in contrast with central banks such as the Federal Reserve or the Bank of England. The Federal Reserve Board (FRB) determines the policy regarding supervision and last-resort lending on the part of the banks of the Federal Reserve. Thus the FRB determines, for example, under what conditions discount-window loans will be granted by the Federal Reserve banks—and, in practice, the FRB is consulted regarding any major loan.

A potential reason for the lack of responsibility of the ECB on stability matters is that there is no central European fiscal authority. Indeed, when a bank that is helped because of liquidity problems turns out to be insolvent, typically the Treasury must foot the bill.

Until the October 1999 declaration in the European Parliament of ECB president Duisenberg, there had been no official statement in the EMU about LOLR facilities and procedures.¹³ Duisenberg, however, clarified the issue:

The ECB's contribution to financial stability, and in particular the question of the provision of emergency liquidity to financial institutions in distress, is another issue upon which the interest of the European Parliament is focused. Allow me to explain some of the main considerations in this regard. The main guiding principle within the Eurosystem with reference to the provision of emergency liquidity to individual financial institutions is that the competent national central bank would be responsible for providing such assistance to those institutions operating within its jurisdiction. The ECB does, however, have to be informed of this in a timely manner. In addition, in operations of relevance to the single monetary policy, the decision-making bodies of the Eurosystem will be involved in assessing the compatibility of the envisaged operations with the pursuit of monetary stability. In the case of a general liquidity crisis resulting from a gridlock in the payment system, for instance, the direct involvement of the Eurosystem could be expected (Duisenberg, 1999).

In short, for illiquid institutions, otherwise presumably solvent, the relevant NCB should be in charge. This position seems to conform to the "banking policy" approach to

financial stability, which recognizes the need to intervene to save a solvent but illiquid institution.¹⁴ The ECB must be informed, and, if relevant for monetary policy, the Eurosystem must be involved. The need of intervention by the Eurosystem is explicitly recognized in the case of a liquidity crisis.

On the subject of constructive ambiguity, Duisenberg declared:

For the markets it would be sufficient to know that there is a clearly articulated capability and willingness to act if really necessary. It is not common practice among central banks to disclose the conditions and practicalities of emergency liquidity assistance arrangements. In particular, there are typically no official documents describing the conditions under which emergency liquidity would be extended or what procedures would be followed. Indeed, *ex ante* commitments would be counter-productive in this field, since they would restrict the ability of the central bank to act to contain systemic disturbances with unforeseen features. Moreover, this policy of “constructive ambiguity” can limit the associated problem of moral hazard (Duisenberg, 1999).

This position embraces constructive ambiguity, in the sense of not specifying the circumstances under which emergency liquidity assistance will be granted while, at the same time, the “clearly articulated capability and willingness to act if really necessary” is left unspecified.

It must be noted furthermore that the ECB credit operations must be based on adequate collateral (according to Article 18 of the ECB Statute). The definition of what constitutes adequate collateral is left to the Governing Council of the ECB. Assets eligible for being used as collateral can be of tier I (marketable debt instruments) or tier II (nonmarketable assets such as loans and equity) types. A list of tier II assets is approved by the ECB upon recommendation by each NCB. It is understood that losses associated with tier II collateral will be shouldered by the proposing NCB. Losses associated with tier I collateral would be shared within the ESCB.

3.2. Regulatory competition, harmonization, and supervision

Two essential tools for integrating the financial sector in Europe are freedom of capital movements and freedom of establishment. The European Commission set up the single banking license, along with the principles of home country and of mutual recognition, in the Second Banking Directive (of 1989, revised in 1992 and 1995, effective in 1993).¹⁵ If a financial institution is authorized to operate in one European country, it may offer or establish financial services anywhere else. That is, the financial institution can branch from one member country to any other member country.¹⁶ The Second Community Directive establishes the control of the home country (i.e., the member state in which the financial institution has been authorized) for the prudential supervision of solvency and of major risks, and a minimum harmonization between countries in other areas, such as minimum capital levels, concentration of risks, and protection of investors. The Directive regarding deposit insurance proposes a minimum coverage (90% of the first 20,000 ecus per depositor, 15,000

ecus during a transition period), which tends to reflect a greater interest in protecting the small investor than in protecting the stability of the banking system. The home country principle also applies here, according to which any bank granted a license in an EU country will be insured by the deposit insurance system of the home country when it operates in another EU country. However, a foreign branch may join a more favorable host country scheme.

The principles of home country control and mutual recognition lay out a regulatory competition framework that may be beneficial to avoid regulatory burden over and above the minimum European harmonization. At the same time, the framework may spur information production and limit the potential opportunism of the national regulators (see Kane, 1989, for an account of the benefits of regulatory competition). Country discretion ranges from legal differences in financial contracts, the organization and conduct of banking supervision, the structure of deposit insurance schemes, and the institutions and procedures to restructure banks. For example, the administration of deposit insurance may be in the hands of the government, the banking sector, or both. In general, deposit premia are flat, but some consideration to risk is given in Italy, Portugal, and Sweden. Funding is secured in some countries with *ex ante* contributions and in some others with *ex post* levies (see Barth, Nolle, and Rice, 1997).

More importantly, European countries may centralize supervision in the central bank, have a separate agency, or resort to a mixed solution. Currently in the EU, there are six countries in which the central bank is the main supervisory authority (namely, Greece, Ireland, Italy, The Netherlands, Portugal, and Spain).¹⁷ Supervision is in the hands of independent agencies, although normally in cooperation with the central bank, in Germany, Belgium, Denmark, Finland, Sweden, and, as of recently, the U.K. and Luxembourg. In France, this responsibility is divided between the regulator and the central bank. In Austria, it lies with the Department of Finance.

A recent development is the establishment of universal regulators for banking, insurance, and financial markets. This is the approach taken in the U.K., the Scandinavian countries, and Japan.¹⁸ Let us describe the U.K. approach. The Bank of England Act (1997) sets up the Financial Services Authority (FSA), which absorbs responsibility for the supervision both of markets (securities) and of financial intermediaries (including insurance).¹⁹ Indeed, the FSA will undertake the authorization and prudential supervision of financial entities of every kind, the supervision of financial markets, regulatory policy, and operations in response to problems in institutions and markets that do not enter into conflict with the competence of the Bank of England concerning the stability of the financial system and problems of systemic risk. In any case, and in particular in response to crises, the Bank of England and the FSA must work jointly, but each institution has a leadership role in its field of responsibility. The Bank of England, the FSA, and the U.K. Treasury have signed a Memorandum of Understanding (MoU) that delineates their respective responsibilities. In particular, when dealing with an emergency situation, “The Bank and the FSA would need to work very closely and they would immediately inform the Treasury, in order to give the Chancellor of the Exchequer the option of refusing support action” (MoU, par. 13).²⁰ It is specified also that the Bank and the FSA must share information and work jointly to avoid duplication in the gathering of information. Importantly, the Bank of England has free and open access to supervisory records (MoU, par. 21).

Supervision remains decentralized at the national level. National supervisors operate

mostly inside their borders. The main institutional channel of the ECB to obtain information regarding the banking and financial system is the Banking Supervision Committee of the ECB, where the national regulators of EU countries (the central banks and other agencies) are represented. In principle, it is here that the supervision of euro countries must be coordinated via exchange of information and cooperation of supervisors. The so-called BCCI Directive of the EU has removed obstacles to the exchange of confidential information from supervisors to central banks. To this bilateral cooperation between supervisors should be added. Those supervisors negotiate information exchange and supervisory procedures about cross-border activities in an MoU. A more informal (and lower-level) multilateral arrangement is the group of EU banking supervisors forming the Groupe de Contact, which deals with individual bank problems.²¹ Furthermore, in February 1999 a multilateral MoU was signed among European security supervisors representing members of FESCO (Forum of European Securities Commissions).

3.3. Competition policy, mergers, and TBTF policy

Merger control responsibility in European banking varies from country to country. Although in many countries responsibility lies with the competition authority, sometimes shared with the regulator (e.g., U.K., Switzerland, Scandinavia, France, Greece), in practice the central bank/regulator carries a lot of weight. In the extreme, as in Italy, the central bank approves bank mergers and the competition authority has only a consulting role.

European practice contrasts with that of the U.S., where banking mergers must receive approval of the regulator (be it the Federal Reserve, the FDIC, or the OCC) but the Department of Justice (DOJ) can (and does) challenge mergers that threaten to reduce substantially competition. Typically, the DOJ uses more stringent criteria to let a merger go unchallenged.

Whenever taxpayer's money is involved in a bank rescue, the European Commission may check whether the help is compatible with competition policy towards state aids.

The European competition policy authority can intervene, however, whenever state aid to a national champion is involved. As we will see in the next section, the intervention in the *Crédit Lyonnais* case follows this pattern. This intervention may be optimal even in the case where no negative cross-border externalities are involved because of the state aid. The reason is that the European competition policy authority may represent a commitment to screen state aids according to market failure principles away from local lobbying pressures (see the analysis of Besley and Seabright, 1999, for related points). At the same time, the European competition policy authority can play an important role in facilitating cross-border mergers and acquisitions by removing obstacles built by national authorities.

4. Problems in the present arrangements

The present regulatory arrangement raises several issues in relation to the adequacy of the LOLR and supervisory facilities in the euro area and the connection between supervision and competition policy. We examine the latter first.

4.1. TBTF, regulatory capture, and competition policy

Domestic mergers augment the TBTF concern because of the national governments' desire to protect national champions. A potential problem then is that both national regulators and national competition authorities align their interests in being too lenient with local market power. Domestic mergers, outside the reach of the EU competition authority, tend to go unchallenged by the national competition authorities.

TBTF concerns have been present in Europe. The failures of Banesto and *Crédit Lyonnais* are examples of this phenomenon, with an excessive credit expansion and risk-taking (in particular when the banks faced difficulties). Poor management and fraud compounded the problems. In the case of *Crédit Lyonnais*, an effort was made to set up a national champion that would help the French industry. The bank ended up with a mountain of delinquent loans. A series of supervisory mistakes aggravated its problems in the early 1990s. For example, irrecoverable loans were assumed by the Consortium de Réalisation, which was under the control of the bank itself until the European competition policy commissioner complained (and finally imposed privatization for the bank, as well as limits to its growth, and established minimum requirements in regard to the distribution of dividends as a percentage of income). Successive attempts to refloat the bank were marred by political interference and lack of transparency. The system of controls was effectively replaced by collusion between industry and the regulator.

In the case of Banesto, the supervisory authorities probably used TBTF forbearance to put off intervention until December 1993 (by which time 18 months had passed since the bank had first had problems in complying with capital requirements). The Spanish deposit insurance fund (FGD) contributed to the rescue of Banesto, and shareholders kept part of their investment. We have therefore an example of TBTF policy that also partially rescues shareholders (although not management).²²

Political obstacles to cross-border mergers have been pervasive, as shown by the examples of BBVA's failed takeover attempt of Unicredito in Italy, or the problems of BSCH in Portugal with the Champalimaud group. Interestingly, in the latter case, the Portuguese regulator stated its opposition to the takeover because of "stability concerns." The EU competition commissioner challenged this position. Another example is provided by the protectionist attitude of the French authorities in the three-way battle among BNP-SG-Paribas that ended with the merger of BNP and Paribas.

4.2. The home country principle for the LOLR?

In an arrangement in which each national central bank is responsible for the stability of the national financial system (including banks authorized and supervised in another country) several problems would arise. Indeed, the host central bank would face information and control problems about a foreign bank that has opened branches in the country.²³ Furthermore, there would be a conflict of interest between home and host country supervisors. The home country supervisor will not take into account the damage done in the host country because it does not have final responsibility for the foreign branches.²⁴

The question is who must authorize rescue operations and who bears the eventual cost.

A possibility (consistent with the principle of home country control for supervision and deposit insurance), and one apparently endorsed by the ECB, is for the home country central bank (NCB) to undertake the LOLR function together with its eventual cost. If the bank develops solvency problems and ends up being rescued, then the national deposit insurance fund or the national budget will pay the cost. If the liquidity assistance has monetary policy consequences, then the ECB and the Eurosystem have to be involved. The involvement of the Eurosystem is to be expected, in particular, in a general liquidity crisis such as a gridlock of the payment system.

Under this scenario, the following questions arise regarding the failure of a large entity or a systemic problem.

- *Conflict between host and home countries in a transnational crisis.* The central bank and/or the national regulator will, in principle, take into account the consequences of failure only in the national market, even though the failure of the institution may have adverse consequences in other countries. For example, in the case of the failure of the Bank of Credit and Commerce International (BCCI), many of the clients were not residents in the country in which the bank was authorized to operate (i.e., Luxembourg), and hence the costs of failure were borne by foreign clients or their insurers. In addition, there is the possibility that the failure of a foreign bank will have systemic consequences in the host country. Thus, for example, some local authorities in the United Kingdom withdrew their funds from small banks that had contracted risks with the BCCI. To this could be added the possibility for a foreign branch to join the deposit insurance scheme of the host country, although supervision remains in the hands of the home country. In short, the central banks and/or the national regulators will tend to pay too little attention to the problems of the foreign clients of domestic banks or to systemic problems that may arise outside the country.
- *Excessive interventionism of national authorities.* The national authorities will be more likely to have to yield to the pressure of domestic interest groups—pressure that will be directed at forcing the rescue of entities with problems, possibly including national champions that are TBTF. This excessive interventionism would be aggravated if the cost of intervention were to be distributed throughout the euro area (which, in principle, is possible according to the Statutes of the ESCB if the failure concerns general financial stability).
- *Regulatory jurisdiction problems.* Mergers and takeovers between entities of different countries of the EU will entail problems of regulatory jurisdiction. For example, as pan-European banks appear, authorized in several countries, the regulatory authorities in these countries will necessarily have to cooperate. A question, for example, is who will internalize the cost of failure of a pan-European bank, given that any single country would not reap the full benefits of a bailout.
- *Insufficient help in a crisis?* In a liquidity crisis, a shortage of eligible collateral under the present rules might develop, thereby preventing the unlimited liquidity supply necessary to avoid the crisis (in contrast, for example, with the Federal Reserve providing liquidity to financial institutions during the stock market crisis of 1987 and urging them to extend credit to intermediaries). Furthermore, the failure of

a large domestic institution may spread abroad through interbank commitments, thereby making the emergency assistance of the relevant NCB insufficient to contain the crisis.

- *The fiscal issue.* How will the amount of the rescue be decided, and who will pay for a failed insolvent transnational institution that has gone bankrupt after being helped? How will the losses be eventually shared among the fiscal authorities?

4.3. Regulatory fragmentation and the integration of stock markets

Capital markets are integrating quickly in Europe. The now failed merger proposal of the London Stock Exchange and the Deutsche Börse to form iX (international exchanges)—trying to forge a global market with Nasdaq, on the one hand, and Euronext (Paris Bourse, Amsterdam and Brussels) with the NYSE, on the other—are good examples. However, national regulation and lack of harmonization in settlements systems, disclosure, and supervision are creating obstacles for integration. Complex arrangements among the exchanges have been devised to circumvent regulatory hurdles in different countries. For example, in the iX project, secondary market trading on the pan-European blue chip market was to be regulated by the U.K. FSA, while trading on the pan-European high-growth market was to be regulated by the German federal equities regulator BAWE. Furthermore, existing companies could keep their home country listing, and newly admitted companies was to be listed through the competent authority of their choosing. Achievement of a consolidated settlement and a central counterparty was left vague in the proposal (see iX International Exchanges, Merger of Deutsche Börse, and LSE: Information Document, 2000).

5. Rethinking the European financial architecture

With the single currency, there is no going back in the consolidation of deep and liquid financial markets in the EU. The euro impels the process of financial integration, and it is to be expected that the predominance of financial intermediation in continental Europe will give way to greater weight of the markets. The consequence will be that potential problems of contagion and of liquidity crises come to the fore. At the same time, as European financial markets become integrated, the externalities between countries increase: the failure of an institution in one country may be passed on to other European countries, either through commitments undertaken in the European interbank market or through the payments mechanism. This means that the potential instability of the system also increases. Furthermore, the EMU may tend to increase the fragility of the banking system in the short term owing to problems of adjustment and to the process of restructuring (in spite of increasing stability in the long term, provided that opportunities to diversify are seized). Adjustment and restructuring apply not only to financial institutions but also to the national economies, which may now see credit risk increase because the buffer of monetary policy is no longer there. The problem may be

compounded by a wave of domestic consolidation, creating national champions that are TBTF. Finally, the increase in competition may bring about incentives to take more risk, as shown by the important exposure of European banks to emergent markets.

The potential counterargument to the problems exposed in section 4—namely, that European financial markets remain segmented—should be questioned. Although it is true that the retail business remains segmented, changes may be relatively quick (hand in hand with electronic banking, for example). At the same time, capital markets are integrating quickly and will tend to move together. The integration projects of the London Stock Exchange and Deutsche Börse to form iX and of the Paris Bourse, Amsterdam, and Brussels to form Euronext are good indications.

Nasty surprises may be in store unless the regulatory institutions are prepared. Furthermore, the objective is European financial market integration, and therefore regulation should anticipate and promote it. In fact, we have seen that an obstacle to financial integration in Europe, both for cross-border mergers and integration of stock markets, for example, is precisely regulatory fragmentation.

We take in turn the issues of the LOLR, supervision, and the role of market discipline and competition policy. The appendix provides the conceptual underpinnings of the recommendations that follow.

5.1. The ESCB as LOLR

The European financial system will need a guarantee of stability that can only be given by the ESCB, and by the ECB in particular. Ad hoc coordination in crisis situations will not be sufficient and may endanger the stability of the system. The necessity of quick intervention in a crisis situation enhances the value of a centralized authority. With the single currency in place, it is somewhat surprising that when discussions arise about the need for an LOLR at the international level, the responsibility of the ESCB remains not clearly specified.

The ESCB should explicitly assume the function of guarantor of the system (as urged by Chiappori et al., 1991; Vives, 1992; and Folkerts-Landau and Garber, 1994; see also Pratti and Schinasi, 1999, for a more recent discussion of the issue). This role probably would only require a broad interpretation of the Treaty (Article 105(2) and (5)) on the contribution of the ESCB to the smooth operation of the payment system and the stability of the financial system). Similarly, it would appear necessary that the ESCB establishes and makes public the formal framework of crisis resolution. The chain of command in a crisis situation should be clearly delineated. In particular, a decision should be made as to the cases in which national central banks will intervene, and to those in which the initiative will instead be taken by the ECB. Duisenberg's declaration of October 1999 in the European Parliament is a step in this direction, but what to do with transnational institutions should be clarified. All this can be done while maintaining, if deemed necessary, some degree of ambiguity about the circumstances and the form in which intervention will be carried out.

The function of LOLR of the ECB requires the ECB to have some monitoring powers as well, especially the power to access supervisory records and gather information. This role

is possible without amending the Treaty of the EU. Let us imagine what would have happened if the LTCM problems had been centered in Europe. Would the ECB have had the capacity to respond as swiftly as the Federal Reserve Bank of New York did? An ECB without any supervisory capacity would have had to base itself on information from the national central banks, which might have been tempted to protect themselves against domestic damage, and would have had to organize a complex deal in order to intervene. Greater capacities for the ECB would save costs in communication and negotiation, and might well facilitate the exchange of information.

At the same time, the fiscal issue must be confronted. A procedure must be devised to share losses in case a helped institution—in particular a transnational—develops solvency problems. In this respect, one possibility would be that an MoU be signed between the ECB, NCBs, and/or national supervisors and the national Treasuries to clarify responsibilities, award the ECB access to supervisory records, establish information-sharing protocols, and elucidate who would pay for failed (insolvent) institutions that have been helped. The European Union council of finance ministers (Ecofin) could have a consultative role when initiating interventions that may end up in losses to be paid by taxpayer's money. The basic idea is that transparency of crisis procedures minimizes costly bargaining *ex post* and provides a decision-making framework adequate for swift responses with clear responsibilities for the different regulatory institutions.

5.2. What framework for supervision?

We have seen how the increasing integration of the European financial and banking markets makes it necessary to have centralized supervision that will internalize the external effects between countries. In an integrated market, the mere coordination of financial regulation may prove insufficient. At the same time, obstacles for financial integration come precisely from a lack of a common supervisory frame. This is true in banking, given the resistance of national authorities to cross-border mergers, and in the stock market because of the reluctance of local regulators to relinquish control.

The European Commission would welcome a reinforcement of the cooperation among national supervisors but does not share the view “that the present arrangements are unsuitable for the present state of the single banking market.” At the same time, the Commission recognizes the need for a high-level political assessment “of the condition under which a review of present arrangements for banking supervision could be required” (Communication of the European Commission on the “Financial Services Action Plan,” 1999).

The case for a European Financial Services Authority (EFSA), with authority over banking, insurance, and securities like that of the U.K. FSA, is based on the underlying tendency toward the integration of intermediary and market operations, with the resulting difficulty of a separate analysis of risk. Such an independent agency would bring relief also in any conflict that might arise between monetary policy and supervision of the financial system. In this manner, the establishment and consolidation of the credibility of the monetary policy of the ECB would be facilitated in a context in which the existence of

deep financial markets increases the sensitivity of European economies to monetary policy.

Considerations of political economy indicate that an independent ESFA, along with the ECB itself, might better resist local pressure to assist particular institutions. The creation of an EFSA furthermore would in principle facilitate accountability (because both the ECB and the ESFA would have well-defined missions) and would not increase the power of the ECB, since the ECB is perceived already as having too little accountability and as being too powerful. An EFSA is not something for the immediate future, partly because it would most likely require a change in the Maastricht Treaty and because of the lack of European political integration. Indeed, under present conditions, such an agency would face the same accountability problems that the ECB does, namely, the lack of a well-defined European political principle. Despite these problems, it would be good to open a debate about the potential role of an EFSA in an integrated financial market. Meanwhile, the FSA in the U.K. and the experiences in the Scandinavian countries can serve as a laboratory.

More immediate consideration could be given to the establishment of a European Securities and Exchange Commission as a supervisory body for European financial markets. This would facilitate the integration of financial markets in Europe. One challenge would be to develop a common framework that allows different market institutions and trading systems to compete. Even this step, however, would require a lot of previous harmonization work among the different national authorities in terms of legal frameworks, surveillance of settlements systems, disclosure and enforcement (while adapting the Investment Services Directive). The Ecofin took step in this direction in July 2000 when it appointed a group of “wise men” to investigate the regulation of EU securities markets and to promote the single market. This group has to assess how the regulation of EU securities markets can respond to cross-border stock exchange alliances and make proposals to enhance cooperation and convergence of regulations.

5.3. Market discipline, closure, and regulatory forbearance

In the present decentralized supervisory framework, an increase in the information provided by financial intermediaries would contribute to an increase in market discipline and would reduce information asymmetries among European supervisors.²⁵ For example, if the banks that had lent to LTCM had declared their positions, capital suppliers and supervisors could have acted upon this information. However, increased transparency is no panacea and cannot be a substitute for a proper design of financial architecture.²⁶ First of all, more transparency may increase, rather than decrease, instability in some instances. Second, a basic problem of relying on market discipline is that agents have an incentive to free ride on the information generated by others about financial institutions. The free-riding incentive may be overwhelming for small investors, in particular. New Zealand reliance on market discipline to control risk has the particularity that most banks are foreign and are therefore supervised abroad. It can be argued then that New Zealand is free riding, at least partially, on international supervision. In summary, improved disclosure, which the ESCB could foster, would be good, but no miracles should be expected.

Another measure that would help control risk-taking incentives is to harden the budget constraint of national authorities when dealing with troubled institutions that have been deemed TBTF. In the U.S., prompt corrective action was introduced in the 1991 Federal Deposit Insurance Corporation Improvement Act (FDICIA) to avoid regulatory forbearance requiring mandatory intervention for undercapitalized institutions.²⁷ At the same time, the FDICIA limits the discretion of the Federal Reserve to help undercapitalized institutions (and if by doing so the losses of the FDIC are increased, the Federal Reserve has to compensate the FDIC).

In the EU, prompt corrective action mechanisms can derive from an EU Directive (the one on liquidation and reorganization of credit institutions has suffered delay after delay) and from European competition policy over state aids. At the same time, it must be noted that the remaining public financial institutions and savings banks have charters protected from the market for corporate control. Those charters may represent an obstacle to the efficient restructuring of the industry (see Vives, 2000).

5.4. Competition policy

The EU competition authorities should continue to serve as external commitment to make sure that state aids to the banking sector do not keep inefficient institutions in the market and check the application of the TBTF policy to national champions. Obstacles to cross-border mergers and acquisitions can be alleviated by the intervention of the EU competition commissioner.

On the domestic front, national competition authorities should scrutinize domestic mergers, dominant so far in Europe, because these threaten to raise local market power and increase the TBTF concern. The acquiescence of the national regulator should not be sufficient to give a green light to bank mergers.

6. Conclusions

We have argued that the present and the future of European financial integration call for the following:

- An ESCB that assumes the LOLR responsibility with some supervisory powers, together with the necessary fiscal arrangements. This seems feasible without amending the Treaty of the EU.
- Debate should begin about the convenience of establishing a European Financial Services Authority. This would most likely require a revision of the Treaty of the EU. The need for a European SEC is even more urgent.
- Competition policy should be active in European banking, at both the national level and the community level, to control domestic consolidations that may increase local markets and exacerbate the moral hazard problem implicit in national champions that are TBTF.

Financial regulation has traditionally been revised and developed in response to crisis. The examples of the Great Depression of the 1930s, the S&L crisis, or the recent international financial crisis come to mind. The question is whether the EU will wait for a major crisis before it develops an adequate stability and supervisory framework or whether it will be able to overcome the political obstacles to relinquishment of national control and move ahead with the needed reforms.

7. Appendix: A conceptual framework for financial regulation

The banking and financial system is subject to the failure of institutions, to panics, and to systemic crises that could have major impact on the real sector of the economy. The Great Depression of the 1930s is a good example, and the 1998 international financial crisis serves as a reminder.

Regulation has tried to provide banking and financial systems with the stability needed to avoid the negative effects associated with failing institutions and systemic crises. Another aim has been to protect the small investor.

A solvent bank may be subject to a purely speculative panic, wherein depositors withdraw the funds invested and the bank must quickly liquidate assets, at a significant cost. A panic can also be brought on by information regarding bank solvency problems; in this case, the panic may have a disciplinary effect on the assumption of risk by financial entities (see Diamond and Dybvig, 1983; Jacklin and Bhattacharya, 1988; Postlewaite and Vives, 1987). In addition, there is the danger of systemic risk owing to contagion from the bankruptcy of a particular entity, which may give rise to a strong negative externality both for the financial sector and for the real sector of the economy. Thus the failure of one entity may, via commitments assumed in the interbank market, lead to that of others (see Allen and Gale, 2000).

In providing liquidity, intermediaries in the capital and money markets are assisted by bank credit lines. Large variations in the price of assets, such as an abrupt fall in the stock market or the failure of a major intermediary, may generate a domino effect and systemic crises affecting the system of payments. These liquidity crises assume a greater significance in financial systems in which the role of the markets is large in relation to classical banking intermediation. In this case, contagion arising from the net of short-term commitments and exposures among financial institutions is a distinct possibility. An example is the stock-market crisis of 1987, which provoked problems in the clearing systems of the derivative markets and was overcome thanks to an injection of liquidity by the Federal Reserve. Financial intermediaries needed additional funds to meet the needs of their clients with margin calls (Bernanke, 1990). A similar situation arose with the recent crisis in long-term capital management (LTCM). This hedge fund had to be recapitalized before it could meet the margins requirements in derivatives when the market spreads moved in the opposite direction of the bet of the fund. On this occasion, the Federal Reserve Bank of New York organized a rescue operation with investment banks that had invested in the fund. According to Alan Greenspan, the hasty liquidation of the (large) fund positions could have caused a major disruption in world financial markets.²⁸

Let us describe briefly in turn the role of the LOLR, deposit insurance, and TBTF

policies; their associated moral hazard side effects; and the optimal structure for regulatory institutions.

7.1. Lender of last resort (LOLR), deposit insurance, and TBTF policy

The lender of last resort facility and deposit insurance are two of the basic instruments on which the stability of the banking system rests.

The LOLR is the outcome of a discretionary activity by a crisis lender (typically the central bank), which helps banks with temporary liquidity problems by means of discount or open-market operations. The advantage of the central bank is that it can create liquidity as needed and can credibly commit to unlimited lending and fast reaction because of its control of high-powered money. Another important role is that of crisis manager, helping to solve the coordination problem among creditors that a crisis entails. In many instances, the LOLR manages the crisis but does not put up its own funds, which may be private money as in the rescue of LTCM coordinated by the Federal Reserve Bank of New York, or money from the deposit insurance fund or the taxpayer as documented by Goodhart and Shoenmaker (1995).

The classical prescription for the LOLR (Bagehot, 1873; Meltzer, 1986) is that only solvent banks with liquidity problems should be assisted, with loans at a penalty rate and against good collateral, evaluated in “normal” times. The solvency and collateral terms under which help will be given must be clearly stated. The LOLR must announce also its readiness to lend without limit. This “banking policy” view has been disputed by Goodfriend and King (1988), who argue that in developed financial systems a solvent bank cannot be illiquid and that therefore only open-market operations are needed (see Rochet and Vives, 2000, for a modern justification of Bagehot’s view).

Deposit insurance is a regulated activity by means of which deposits are protected up to preset limits. If the limits are not very high, deposit insurance meets the aim of protecting the small investor.

There is a tendency, both in Europe and in the U.S., to protect banks and depositors above the levels required by the deposit insurance. In particular, according to the TBTF policy, a large, insolvent bank will be rescued (and its uninsured depositors will be protected) should failure be likely to affect other banks via the interbank market and the real economy (see Rochet and Tirole, 1996a, for a rationale of the TBTF policy).

7.2. The moral hazard problem and regulation

Both the TBTF policy and the deposit insurance system introduce distortions in the decisions of financial entities. They reduce the incentive of the depositor to keep an eye on bank performance, and, coupled with the bank’s limited liability, give rise to excessive risk-taking.

With a view to palliating the problem of moral hazard, central banks typically adopt a “constructive ambiguity” policy, declining to make explicit the criteria under which entities with problems will have access to last-resort loans (see Corrigan, 1990; Freixas,

1999). However, the TBTF policy would appear to prevail, and hence there is de facto insurance of, at a minimum, all those entities susceptible of causing systemic problems.

The general trend is to check risk-taking with capital requirements and appropriate supervision. Both risk-based deposit insurance and disclosure improvements have been proposed to limit risk-taking behavior. However, while it is feasible to introduce disclosure requirements for the market positions of banks, it is more difficult to assess the risk level of the illiquid loan portfolio of a bank (see Matutes and Vives, 2000; Cordella and Yeyati, 1998). Furthermore, more disclosure may in fact induce information-based runs of depositors generating instability. Market discipline can also be improved, introducing subordinated debt (see Calomiris and Khan, 1991; Calomiris, 1997).

7.3. Optimal regulatory design

We have claimed that the central bank is the natural candidate for LOLR. Alternative arrangements to provide liquidity, which involve private money (lifeboats, liquidity consortia) or funds raised with taxes (via deposit insurance funds, building “war chests,” or direct recourse to the Treasury), are costly and can in general be at best part of a solution in which the central bank is also involved.

The question then arises of whether the central bank should have supervisory powers and who should decide about mergers of financial institutions.

7.3.1. Central banks and supervision. The arguments in favor of the central bank having supervisory capacity are the following:

- To distinguish between problems of liquidity and of solvency in order to minimize the losses associated with loans granted as well as to make possible a role as crisis manager
- To determine the best kind of intervention (open-market or discount operations, for example)
- To profit from economies of scope in the acquisition of information between the function of providing liquidity and that of supervising (for example, the first of these functions requires a detailed familiarity with the banks’ liquidity requirements: see Goodhart and Schoenmaker, 1995; Vives, 1992)
- To exploit synergies between the conduct of monetary policy and information collected with supervisory purposes, since banking supervisory information (early warning of problems with nonperforming loans or changes in the lending pattern of banks) may improve the accuracy of macroeconomic economic forecasts (see the evidence in Peek, Rosengren, and Tootell, 1998).

The combination of control of monetary policy and the role of LOLR at the central bank raises an inflationary concern. However, a central bank committed to price stability will sterilize the injections of liquidity necessary for the stability of the system in the event of crisis (as the Federal Reserve did in 1987) so that there is no undesired increase in the money supply. In practice, matters may not be so simple, and intervention as LOLR may

give rise to confusion in the expectations of the private sector regarding the central bank's monetary policy stance.

A potential problem in combining the function of monetary policy, LOLR, and supervision in the central bank is a conflict of interest between the reputation of the central bank as guarantor of currency and financial stability. For example, concern for the reputation of the central bank as supervisor may encourage a lax attitude and a tendency to employ the LOLR facility excessively so that bank crises will not put its supervisory capacity in question.

Underlying the conflict of interest concern, there are incentive problems among regulators related to their career concerns, accountability and monitoring of their multiple tasks, allocation of control, incentives to produce information, and potential capture (see Vives, 2001, for a discussion of these issues).

Some preliminary evidence indicates that central bank involvement in supervision may increase inflation (see Bini Smaghi, 2000; Di Noia and Di Giorgio, 1999).

7.3.2. *The case for separation.* The problem of how to determine the optimal regulatory institutional structure is open. In the U.S., there is a debate about whether financial supervision should be centralized in the Federal Reserve or in an independent agency. Informational economies of scope between monetary policy, the LOLR facility, and supervision are probably the strongest argument to keep supervision within the central bank. The case for separation lies in the optimal provision of incentives for self-interested bureaucrats and the advantage of having agencies with well-defined missions.

At the same time, the convergence between the activities of financial institutions and markets points to the need for a combined regulation of banking, insurance, and securities, as in the United Kingdom and the Scandinavian countries. It is becoming difficult to separate market-derived risk from traditional banking risk. Banking crises that involve operations with financial derivatives (such as the Barings or LTCM crises) seem to require specialized knowledge of market regulators. At the same time, banking and insurance tend to converge.

Political economy considerations also bear on the case for an independent financial services authority. In a situation in which the ECB is perceived as already having too much power and therefore faces accountability questions, the creation of an independent regulatory agency may help lessen both concerns.

7.3.3. *Merger control.* In principle, an optimal design would involve both the banking regulator and the competition authority having a say on mergers. The acquiescence of the regulator should not be sufficient to give a green light to a bank merger. The regulator has an incentive to examine the merger from the safety and soundness point of view, while the competition policy authority checks the effect on bank customers.²⁹ The involvement of both institutions is necessary to generate the appropriate incentives to produce information regarding the effects of a merger. Transnational mergers raise other concerns when the regulator is captured by local interests and blocks cross-border operations.

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Notes

1. Schmidt, Hackethal, and Tyrell (1999) find that in France, but not in Germany and the U.K., a disintermediation trend is appreciable in the period 1982–1995, while a securitization tendency is manifested in the three countries.
2. Examples include Hypobank-Vereinsbank in Germany, ANN-AMRO in the Netherlands, UBS-SBC in Switzerland, BNP-Paribas in France, RBS and National Westminster in the U.K., IMI-San Paolo and Crédito Italiano-Unicredito in Italy, Santander-BCH to form BSCH, BBV-Argentaria to form BBVA in Spain, and the failed Deutsche Bank–Dresdner deal in Germany. Exceptions are Deutsche Bank’s acquisition of Bankers Trust and some cross-border deals in the Benelux and in Scandinavia (such as Merita-Nordbanken). At the same time, some European banks are taking positions in foreign entities (such as the BSCH in RBS, the privatized Crédit Lyonnais, and some Portuguese banks).
3. Some examples of mergers of bank and insurance companies are ING-BBL, Fortis-Generale de Banque, and CS-Winterthur.
4. For example, the concentration ratio C_3 for deposits ranges from 30% to 80% in EU countries, with the exception of Germany, which is less concentrated.
5. For example, the percentage of assets in the hands of the top level in the U.S. goes from 22.3% in 1988 to 35.5% in 1997.
6. See Neven and von Ungern-Sternberg (1998) for an analysis of the competitive impact of the UBS-SBC merger. Prager and Hannan (1998) provide evidence that substantial horizontal mergers of U.S. banks in the period 1991–1994 increase market power.
7. See Danthine et al. (1999) for an account of the future of European banking in EMU.
8. For example, in terms of the percentage of deposits captured or loans granted by foreign subsidiaries and branches, see White (1998). The asset market share of foreign subsidiaries and branches is less than 10% on average (see ECB, 1999).
9. There are indications that countries that have introduced more competition experience larger reduction in margins, profitability, and cost reduction (for example, Spain). Some countries lag behind in the move towards services (for example, France, Italy, and Spain as compared to Germany or the U.K.).
10. See Fatás (1997), Forni and Reichlin (1997) assert that the European component explains 50% of the fluctuations in a region’s income, while the rest is divided between the national component and the regional idiosyncratic component. There are central regions in Europe whose economic cycles are synchronized.
11. In a study of mergers and takeovers in Europe during the period 1988–1993, Vander Venet (1996, 1997) draws the conclusion that domestic mergers between banks of the same size improve the bank’s performance and that international mergers enhance cost efficiency. The evidence is consistent with a market power motive in mergers. Cybo-Ottone and Murgia (1998) study the effect of mergers and takeovers in Europe and find that the market evaluation of combined companies improves when the operation is announced. This improvement derives, in the opinion of the authors, from the domestic combinations (again, consistently with the market power motive) and the diversification of banks into the insurance business. Resti (1998) and Haynes and Thompson (1999) find evidence in favor of the cost efficiency of mergers, respectively, for Italy and the U.K. building societies.

12. Freixas and Parigi (1997) explicitly compare the gross and net settlement systems.
13. However, some indications had been given before by Padoa-Schioppa (1999), member of the Board of the ECB in charge of prudential supervision.
14. See the appendix for the views on the role of the LOLR to preserve financial stability.
15. Other important Directives are that of investment services (of 1993 and implemented in 1995) and those on own funds, solvency ratios, and large exposures. However, a proposed Directive on liquidation and restructuring of credit institutions has been paralyzed for years.
16. Furthermore, the legal obstacles to the setting up of subsidiaries have practically disappeared, although there are still restraints on the takeover of domestic institutions by foreign banks (namely, the need for approval by the supervisory authority and other restrictions in some countries).
17. Strictly speaking, among the dozen countries in the Basle Committee on Banking Supervision, only in Italy and The Netherlands is the central bank the only supervisory authority.
18. In Finland, Belgium, and Luxembourg, there is a regulator for banking and securities and another for insurance. In Ireland, the central bank regulates securities also.
19. The reform at the same time has abolished self-regulatory organizations.
20. At the same time, some ambiguity about the character of the intervention is maintained: "The form of the response would depend on the nature of the event and would be determined at the time" (MoU, par. 12).
21. Parent to the Groupe de Contact is the EU Banking Advisory Committee (which has mainly a legislative role). Parallel groups in insurance are the Conference of Insurance Supervisors and the Insurance Committee.
22. The new president of Banesto, Alfredo Sáenz, stated at the shareholders' meeting that approved the restructuring of the bank that the interest of the shareholder has been preserved because share were valued at 400 pesetas when "technically their worth was zero" (EI Pais, March 27, 1994).
23. If the foreign bank has opened a subsidiary, then the subsidiary will be under the control of the host country.
24. The supervisor of a large country (Germany) may allow the liquidation of a troubled bank because that bank represents a small fraction of the financial system. However, the effect of the failure in a small country (Finland) may be large, even though the percentage of activity of the bank in the small country is not very large (see Mayes and Vesala, 1998).
25. This point has been inspired by the New Zealand experiment, where quarterly disclosure of relevant bank information is mandatory and there is no deposit insurance. A system of penalties, including the possibility of unlimited civil liability of banks' directors for losses caused to creditors, enforces the disclosure requirements. See Mayers (1997) and Mayes and Vesala (1998).
26. See Favero et al. (2000) for a more optimistic view of the effects of disclosure in the European context. These authors also make some proposals to reduce interbank exposure.
27. The FDICIA allows risky activities only in the case of well-capitalized banks. When a bank's level of solvency is below a certain limit, then the bank may not expand its activities. It may be obliged to recapitalize, and it may even be subject to the imposition of maximum deposit rates.
28. Likewise, the collapse of Barings in 1995 induced the Bank of England, once it was clear that Barings would not be rescued, to issue an announcement in support of the markets.
29. For example, in Italy the decisions of the Central Bank concerning banking mergers often run contrary to the (nonbinding) opinion of the competition policy authority (Cafagna and Sciolli, 1996).

References

- Allen, F., and D. Gale. "Financial Contagion." *Journal of Political Economy* 108 (2000), 1–33.
- Bagehot, W. *Lombard Street: A Description of the Money Market*. London: H. S. King, 1873.
- Barth, J.R., D.E. Nolle, and T.N. Rice. "Commercial Banking Structure, Regulation, and Performance: An International Comparison." Economic Working Paper 97–6, Office of the Comptroller of the Currency, Washington, D.C., 1997.
- Berger A., A. Kashyap, and J. Scalise. "The Transformation of the U.S. Banking Industry: What a Long, Strange Trip It's Been." *Brooking Papers on Economic Activity* 2 (1995), 55–201.

- Berger, A., R. Demsetz, and P.E. Strahan. "The Consolidation of the Financial Services Industry: Causes, Consequences, and Implications for the Future." *Journal of Banking and Finance* 23 (1999), 135–194.
- Berger, A., R. DeYoung, and G. Udell. "Efficiency Barriers to the Consolidation of the European Services Industry." WP 2000. 37, Finance and Economics Discussion Series. The Federal Reserve Board, Washington.
- Bernanke, B.S. "Clearing and Settlement During the Crash." *Review of Financial Studies* 3 (1990), 133–151.
- Besley, T., and P. Seabright. "The Effects and Policy Implications of State Aids to Industry: An Economic Analysis." *Economic Policy*, 28 (1999), 13–53.
- Bini Smaghi, L. "Who Takes Care of Financial Stability in Europe?" In: *Open Issues in European Central Banking*, chapter 2. New York: Macmillan, in press.
- Cafagna L., and S. Sciolli. "Ruolo e responsabilità delle istituzioni: l'autorità antitrust." In: Fondazione Rosselli, ed., *Quali banche in Italia Mercati, assetti proprietari e controlli*. Milano: Edibank, 1996.
- Calomiris, Ch. *The Postmodern Bank Safety Net: Lessons from Developed and Developing Countries*. Washington, D.C.: American Enterprise Institute, 1997.
- Calomiris, Ch., and Ch. Kahn. "The Role of Demandable Debt in Structuring Optimal Banking Arrangements." *American Economic Review* 81 (1991), 497–513.
- Caprio, G., and D. Klingebiel. "Bank Insolvency: Bad Luck, Bad Policy, or Bad Banking." Mimeo, The World Bank, 1996.
- Cordella, T., and E. Levy Yeyati. "Public Disclosures and Bank Failures." Discussion Paper No. 1886, CEPR, 1998.
- Corrigan, E.G. "Reforming the U.S. Financial System: An International Perspective." *Quarterly Review of the Federal Reserve Bank of New York* 15 (1990), 1–14.
- Cybo-Ottone, A., and Murgia, M. "Mergers and Shareholders Wealth in European Banking." Associazione Bancaria Italiana, 1998.
- Chiappori, P., C. Mayer, D. Neven, and X. Vives. "The Microeconomics of Monetary Union." In: *Monitoring European Integration: The Making of Monetary Union*. London: CEPR Annual Report, 1991.
- Danthine, J.-P., F. Giavazzi, E.-L. von Thadden, and X. Vives. *Monitoring European Integration: The Future of European Banking*, London: CEPR, 1999.
- Demirgüç-Kunt, A., and E. Detragiache. "Financial Liberalization and Financial Fragility." Mimeo, The World Bank, 1998.
- Di Noia, C., and G. Di Giorgio. "Should Banking Supervision and Monetary Policy Tasks Be Given to Different Agencies?" *International Finance* 2 (1999), 1–18.
- Diamond, D., and P. Dybvig. "Bank Runs, Deposit Insurance and Liquidity." *Journal of Political Economy* 91 (1983), 401–419.
- Duisenberg, W., Introductory statement delivered on the occasion of the presentation of the ECB's Annual Report 1998 to the European Parliament. Strasbourg, October 26, 1999.
- Dziobek, C., and C. Pazarbasioglu. "Lessons from Systemic Bank Restructuring: A Survey of 24 Countries." Working Paper 97/61, International Monetary Fund, 1997.
- European Central Bank. "Possible Effects of EMU on the EU Banking System in the Medium to Long Term." February 1999.
- Fatás, A. "EMU: Countries or Regions Lessons from the EMS Experience." *European Economic Review* 41 (1997), 743–751.
- Folkerts-Landau, D., and P. Garber. "The ECB: A Bank or a Monetary Policy Rule." In: M. Canzoneri, V. Grilli and P. Masson, eds., *Establishing a Central Bank: Issues in Europe and Lessons from the US*. Cambridge: Cambridge University Press, 1994.
- Forni, M., and L. Reichlin. "National Policies and Local Economies: Europe and the United States." Discussion Paper No. 1632, Centre for Economic Policy Research, 1997.
- Favero, C., X. Freixas, T. Persson, and Ch. Wyplosz. "One Money, Many Countries." *CPER Monitoring the European Central Bank* 2 (January 2000), 74.
- Freixas, X. "Optimal Bail Out Policy, Conditionality and Creative Ambiguity." Mimeo, 1999.
- Freixas, X., and B. Parigi. "Contagion and Efficiency in Gross and Net Interbank Payment Systems." *Journal of Financial Intermediation* 7 (1997), 3–31.
- Goodfriend, M., and R. King. "Financial Deregulation Monetary Policy and Central Banking." In: W. Haraf and R. M. Kushmeider eds., *AEI Studies*, No. 481. Lanham, MD: UPA, 1988.

- Goodhart, C., and D. Schoenmaker. "Should the Functions of Monetary Policy and Banking Supervision be Separated?" *Oxford Economic Papers* 46 (1995), 539–560.
- Haynes, M., and S. Thompson. "The Productivity Effects of Bank Mergers: Evidence from the UK Building Societies." *Journal of Banking and Finance* 23 (1999), 825–846.
- Hughes, J., W. Lang, L. Mester, and C.-G. Moon. "Efficient Banking under Interstate Branching." *Journal of Money, Credit, and Banking* 28 (1996), 1045–1071.
- Hughes, J., W. Lang, L. Mester, and C.-G. Moon. "The Dollar and Sense of Bank Consolidation." Working Paper No. 98/10, Federal Reserve Bank of Philadelphia, 1998.
- IMF. *International Capital Markets, World Economic and Financial Surveys*. 1999.
- Jacklin, C., and S. Bhattacharya. "Distinguishing Panics and Information-Based Bank Runs: Welfare and Policy Implications." *Journal of Political Economy* 96 (1988), 568–592.
- Kane, E.J. "How Market Forces Influence the Structure of Financial Regulation." In: W.S. Haraf and R.M. Kushmeider, eds., *Restructuring Banking and Financial Services in America*. Washington, D.C.: American Enterprise Institute, 1989.
- Matutes, C., and X. Vives. "Imperfect Competition, Risk Taking and Regulation in Banking." *European Economic Review* 44 (2000), 1–34.
- Mayes, D., and J. Vesala. "On the Problems of Home Country Control." Discussion Paper No. 20/98, Bank of Finland, 1998.
- Mayes, D. "A Market Based Approach to Maintaining Systemic Stability: Experiences from New Zealand." Discussion Paper 18/97, Bank of Finland, 1997.
- Meltzer, A. "Financial Failures and Financial Policies." In: G.G. Kaufman and R.C. Kormendi, eds., *Deregulating Financial Services: Public Policy in Flux*. Cambridge, MA: Ballinger, 1986.
- Neven, D., and T. von Ungern-Stenberg. "The Competitive Impact of the UBS-SBC Merger." *Cahiers de Recherches Economiques*, No. 9805. Lausanne: DEEP, 1998.
- Padoa-Schioppa, T. "EMU and Banking Supervision." Lecture at the London School of Economics, February 24, 1999.
- Peek, J., E.S. Rosengren, and G.M.B. Tootell. "Does the Federal Reserve Have an Informational Advantage? You Can Bank on It." Working Paper No. 98–2 (a), Federal Reserve Bank of Boston, 1998.
- Peek, J., E.S. Rosengren, and G.M.B. Tootell. "Is Bank Supervision Central to Central Banking?" Working Paper No. 98–2 (b), Federal Reserve Bank of Boston, 1998.
- Postlewaite, A., and X. Vives. "Bank Runs as an Equilibrium Phenomenon." *Journal of Political Economy* 95 (1987), 485–491.
- Prager, R., and T. Hannan. "Do Substantial Horizontal Mergers Generate Significant Price Effects? Evidence from the Banking Industry." *Journal of Industrial Economics* 46 (1998), 433–452.
- Pratti, A., and G. Schinasi. "Financial Stability in European Economic and Monetary Union." Working Paper No. 86, IFS, Department of Economics, Princeton University, 1999.
- Resti, A. "Regulation Can Foster Mergers, Can Mergers Foster Efficiency? The Italian Case." *Journal of Economics and Business* 50 (1998), 157–169.
- Rochet, J.-C., and X. Vives. "Coordination Failures and the Lender of Last Resort." Mimeo, 2000, IAE, Barcelona.
- Rochet, J.-C., and J. Tirole. "Interbank Lending and Systemic Risk." *Journal of Money, Credit, and Banking* 28 (1996a), 733–762.
- Rochet, J.-C., and J. Tirole. "Controlling Risk in Payment Systems." *Journal of Money, Credit, and Banking* 28 (1996b), 832–862.
- Schmidt, R., A. Hackethal, and M. Tyrell. "Disintermediation and the Role of Banks in Europe: An International Comparison." *Journal of Financial Intermediation* 8 (1999), 36–67.
- Sutton, J. *Sunk Costs and Market Structure: Price Competition, Advertising, and the Evolution of Concentration*. Cambridge, MA: The MIT Press, 1991.
- Vander Vennet, R. "The Effect of Mergers and Acquisitions on the Efficiency and Profitability of EC Credit Institutions." *Journal of Banking and Finance* 20 (1996), 1531–1558.
- Vander Vennet, R. "Determinants of EU Banks Takeovers: a Logit Analysis." Working Paper No. 97/29, University of Ghent, 1997.
- Vives, X. "Banking Competition and European Integration." In: A. Giovannini and C. Mayer, eds., *European Financial Integration*, Cambridge: Cambridge University Press, 1991, pp. 9–31.

- Vives, X. "The Supervisory Function of the European System of Central Banks." *Giornale degli Economisti e Annali di Economia* 51 (1992), 523–532.
- Vives, X. "Lessons from European Banking Liberalization and Integration." In: *The Internationalization of Financial Services*, S. Classens and M. Jansen eds., Kluwer Law International (UK), 2000, 177–198.
- Vives, X. "Central Banks and Supervision." Forthcoming in A. Santomero, S. Viotti, and A. Vredin, eds., *Challenges for Modern Central Banking*, Kluwer, 2001.
- White, W.R. "The Coming Transformation of Continental European Banking." *Bank for International Settlements Working Paper series* 54 (1998).