Supervision of banks after EMU

Clas Wihlborg

1. Introduction

More than l00 episodes of bank insolvencies have been documented by Caprio and Klingebiel (1996) for the period from 1980 to 1995 - and this does not include the Asian crisis. About 75 percent of these were classified as major insolvencies with potential systemic implications. The overwhelming majority occurred in developing or transition countries but eleven major episodes were recorded for industrialised countries including the Scandinavian crises in the late 1980s (Norway) and the early 1990s (Finland and Sweden), the Savings and Loans crisis in the USA during the late 1980s, the Crédit Lyonnais case in l994-95, and Japan in the 1990s. These are the most recent episodes of stress where large losses led to insolvencies.

The transfer payments from governments in the wake of these crises are often very large. The costs of the Savings and Loans clean up in the USA has been estimated at 3.2 percent of GDP. This figure is actually low even by industrialised country standards. In the Finnish, Norwegian and Swedish crises, the transfers to banks amounted to 8.1 percent, 3.6 percent and 4.1 percent of GDP, respectively. In developing countries the costs have been between 10 and 20 percent of GDP in many cases. The two most expensive cases were Argentina and Chile in the early 1980s. In both countries, the transfers associated with the banking crises exceeded 40 percent of GDP (Caprio and Klingebiel, l996). These transfer costs do not include the potentially more serious effects of banking crises on output and employment. Thus, an important objective of supervision and regulation of financial institutions is to prevent the occurrence of crises that burden the tax-payers, while providing incentives and conditions for efficiency in the provision of financial services.

The paper is organised as follows. The next section contains a review of banking supervision. The view taken here is broad, and the discussion will include the role of the safety net for financial institutions in general. Section 3 turns to the EU institutional framework. The creation of a new, almost Europe-wide, central bank raises the prospect of conflicts between centralised monetary policy-making, and decentralised - to the national level - responsibility for regulation and supervision. These potential conflicts and some solutions are discussed. In Section 4, proposals for reform of the supervisory and regulatory regimes in the EU are reviewed. In particular, it is argued that the efforts of supervisory agencies should focus on insolvency procedures. In brief, reforms should contribute to more frequent failures of insolvent financial institutions without creating systemic risk, and fewer failures of non-financial firms caused by crisis in the financial sector.

2. Elements of, and reasons for, supervision

Supervision generally includes licensing and the continuous monitoring of banks' financial conditions and operations. These supervisory activities are intertwined with the regulatory framework for a "safe

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and sound" financial system. One reason for the special supervision of financial institutions is that the detection of crime may require special expertise, though this is not discussed here.

One bank's failure may lead to "contagion" and runs on healthy banks. This argument has spread from banks to other large financial institutions.

Another major reason for singling out the financial sector for supervision is that disruptions in this sector are considered to be particularly severe for the economy as a whole. Do failures of financial institutions have consequences that make them different from other firms? The conventional argument is that there is systemic risk in banking. One bank's failure may lead to "contagion" through the payment system and runs on healthy banks. The contagion argument applies especially to banks, and it becomes particularly relevant when the sector becomes concentrated. The "too-big-to-fail" argument is usually accepted, although there is disagreement about what is meant by "too big." It applies to non-financial firms, as well, although they do not seem to require special supervision.

However, the contagion argument has spread from banks to other large financial institutions. Last year's episode in the US with Long-Term Capital Management, a hedge fund, indicates the concern of the authorities with all kinds of financial institutions if they are sufficiently large. These developments may be seen as a result of technological changes that make money less special as a financial asset. Liquidity may be provided by various forms of "near - money" and the range of such instruments has expanded by electronic means.

The battery of regulatory and supervisory measures aiming at reducing the risk of contagion and bank-runs include the "lender of last resort" (LOLR) role of the central bank, deposit insurance schemes, and implicit guarantees of the liabilities of financial institutions. A LOLR is expected to provide liquidity to solvent banks should the need arise. Insurance and guarantee schemes should reduce the risk of contagion through runs on healthy banks.

A further argument for special supervision of banks is based on moral hazard, meaning that explicit and implicit guarantees of banks' liabilities induce excessive risk-taking. The supervisory authority can influence risk-taking behaviour by direct regulation of banks' assets, indirectly through capital requirements, or by means of supervision of internal procedures for risk evaluation. These various elements of supervision and prudential regulation are closely tied to the activities of the LOLR, and insurance activities cannot be discussed without linking all the elements of the "safety net" for the financial system. In fact, the argument that banks and other financial institutions are in any way special is very much strengthened by the existence of the safety net.

In fact, as the following Box shows, concern with the stability of the financial system may have led to greater instability in economic activity. A major challenge for regulation and supervision is, therefore, to credibly remove the protection of financial institutions, while retaining an adequate level of protection against contagion.

3. The division of regulatory and supervisory responsibility under EMU

The Maastricht Treaty specifies that the European Central Bank (ECB) is responsible for monetary policy within EMU. Financial institutions are regulated and supervised at the national level as specified by the relevant EU Directives (1). Each national authority is responsible for domestic and international

1) See European Commission (1992a).

activities of the banks that it licenses, with mutual recognition within the EU of licenses. In order to prevent competition among national authorities leading to a relaxation of prudential requirements, the harmonization of capital requirements and deposit insurance schemes have also been agreed.

"Stop-Go" banking

The current supervisory regime means that the financial system in Europe is crisis-prone. It is also a "Stop-Go" regime, as it tends to contribute to an over-expansion of credit in expansionary periods and an excessive credit crunch in times of crisis.

The implicit guarantee of most European banks is the cause of the "Go" periods. During such periods banks supply financing at an excessive rate without sufficient consideration of risk. The dynamics of competition when banks' liabilities are guaranteed tend to favour volume and lenders do not ask penetrating questions about borrowers. A bank is unable to increase its profitability by demonstrating that it is a superior credit and risk evaluator.

Risk evaluation will rely on predictions that are strongly influenced by recent experiences. The longer the time goes without a crisis, the less likely it is that dramatic downside events are considered. If banks behave as outlined, without a strong risk-evaluation culture, they would nevertheless tend to be different and prone to failure to different degrees. Bail-outs of different kinds imply, however, that the relatively weak institutions do not fail and exit from the scene. As Kane (1998) puts it "small problems" are allowed to "fester" with the result that the whole system becomes more vulnerable to a large macroeconomic shock. Such shocks will, therefore, tend to become systemic to a higher degree than they would be without explicit and implicit guarantees.

The "Stop" phase for banking occurs when a macro-shock of unusual magnitude causes substantial system-wide credit losses. If the losses are large enough, a number of banks will no longer satisfy capital requirements. At this stage, it is crucial how banks try to restore their capital base. There are two possible models for the "Stop" phase. One is observed in the Asian crisis, where regulatory authorities practice forbearance with banks that are burdened with a large share of non-performing loans. Banks in turn allow non-performing firms to continue operations with the result that the available credit supply remains tied up and unavailable to healthy firms. The second model for the "Stop" phase is characterised by an excessive failure rate among firms that face temporary liquidity problems, or that would still be viable after debt restructuring. This model is exemplified with the Swedish experience in the early 1990s. Thousands of firms were forced into bankruptcy "unnecessarily" when some banks suddenly reduced the value of collateral by 50 percent and recalled loans. There are currently a large number of court cases, where banks are accused of unilaterally having broken credit promises or contracts, thereby throwing employees in viable firms with insufficient liquidity into unemployment.

LOLR responsibilities for handling the liquidity problems of individual banks are also assigned to national central banks (insolvent banks would be expected to be closed down). Bilateral co-operative agreements between national central banks would resolve the division of responsibility when, for example, the insolvency of one large multi-national institution creates liquidity problems for banks under different jurisdictions.

Unfortunately, this division of responsibility among regulatory and supervisory authorities under EMU lacks credibility for several reasons. One reason is that there is uncertainty about crisis procedures in individual countries. For example, authorities in one country could be relatively more inclined to bail-out insolvent banks under its jurisdiction, and this would distort competition. Regulators are often "captured" by domestic interest groups, including the industry they are to regulate and supervise. The degree to which this happens varies from country to country, but there is certainly enough suspicion of biases in favour of domestic institutions within the EU to undermine the principle of mutual recognition. Large public sector ownership of banks creates further ambiguity over what will actually be done in crisis situations.

Central banks and national supervisory authorities tend to consider such ambiguity as reducing moral hazard, because they avoid promising to bail-out institutions. However, when financial institutions approach "too-big-to-fail" status and have substantial international activities, the ambiguity may actually contribute to moral hazard as noted by Prati and Schinasi (1998). The lack of commitment either to bail-out or not to bail-out becomes interpreted as an implicit bail-out guarantee. Since a bank failure may be associated with the stigma of incompetence for supervisory authorities, there exists also an incentive to provide LOLR-support to insolvent banks.

A second and related reason why the division of responsibility lacks credibility is the regime for deposit insurance in the EU. The deposit insurance directive states that deposits up to at least EUR 20 000 must be insured (European Commission, 1992b) (2). There are substantial differences among countries, with many countries near the minimum, but with France and Italy providing much greater coverage. This partial deposit insurance is a protection device for the relatively small depositor. In other words, the risk of contagious bank runs remains. With the increasing pan-European activities of financial institutions, insolvency of one partially insured bank could cause runs on banks and financial institutions in other countries. Thus, the supervisory authorities in each country must be concerned about the health and riskiness of foreign financial institutions.

An additional reason why the formal division of responsibility lacks credibility is that LOLR activities of a national central bank affect EMU-wide monetary conditions. The ECB is charged with responsibility for monetary policy; however, a large LOLR intervention by one national central bank would increase the EMU wide money supply and perhaps induce sterilisation operations by the ECB, leading to an increase in interest rates. Thus, the involvement of the ECB in large LOLR operations is almost inevitable.

Given these sources of potential conflicts of interest among national authorities, and between national authorities and the ECB, the real question is whether the existing ambiguity is "constructive", or whether a more transparent regime for supervision and crisis management should be set up.

Recent European crises illustrate that the level of implicit guarantees, even for shareholders, could be high.

The behaviour of national authorities in recent European crises illustrate that the level of implicit guarantee for depositors, lenders, and even shareholders in banks could be high. The Swedish

2) Deposit insurance in each country is intended to cover domestic deposits as well as deposits in foreign branches after the year 2000. Until then, deposit insurance is issued in each country for deposits in local banks, whether the bank is domestic or foreign.

banking crisis, for example, occurred under a system of no formal guarantees and no deposit insurance. Nevertheless, pre-crisis expectations regarding protection of depositors and other liability holders were that the level of protection would be high. A high-quality bank could not lower its cost of funds by demonstrating relatively low risk, and the rating differences between banks were also negligible. The markets proved correct, as the crisis was "solved" by the issuance of a blanket guarantee for all liabilities of Swedish banks. One can assume that a major reason for this guarantee was to prevent Swedish banks having to pay more for funds than competing foreign banks. In the end, Swedish shareholders were bailed out as well by the liability guarantee, although the exante expectations of the market about this was less sure. Share prices for banks first tumbled, but only to rebound after the issuance of the guarantee. The Norwegian approach to crisis resolution was to nationalise the insolvent banks, thereby guaranteeing liabilities, but not shareholders. The French authorities' transfers to cover the enormous losses in the state-owned Crédit Lyonnais are also well known. The implicit guarantee in the EU certainly extends fully to liabilities and partially to shareholders in most countries, even if there is some variation from country to country with respect to the bail-out of shareholders.

The ECB should be charged with assuring that all financial institutions are under the domain of one supervisory authority.

The removal of the non-constructive ambiguity about supervision and crisis management has two necessary elements. First, a credible division of responsibility among national central banks, national supervisory authorities, and the ECB must be specified. Second, and as discussed in the next section, a transparent and credible regime for dealing with financial institutions in liquidity and/or solvency crises must also be created.

Any proposal that is going to be both transparent and credible will entail some compromise with respect to the principles of subsidiarity (as exemplified by mutual recognition and home-country responsibility). Lannoo (1998) makes the case for a stronger role for the ECB in European banking supervision, and for co-ordination of activities among national supervisory agencies. One reason for abandoning the pure delegation to national authorities is that there is a risk when financial institutions become increasingly internationalised, that some financial activities may fall between the cracks of the supervisory network. For this reason, both Lannoo and the European Shadow Financial Regulatory Committee (ESFRC, 1998b) (3) propose that the ECB should be charged with the responsibility of assuring that all financial institutions and activities are under the domain of one supervisory authority.

Mayes and Vesala (1998) argue that thorough on-going cupertino among supervisors would help overcome the information problem regarding international activities facing home-country supervisors, in small countries in particular. However, they consider such co-operation potentially inadequate unless an EU-level body is given an expanded role, and information disclosure is improved. A "disclosure regime" with penalties in place to ensure prompt and correct disclosure as in New Zealand is suggested. The disclosure would include a range of quantitative data on exposure, asset quality, directors' interests, and capital adequacy, as well as more quantitative data regarding prudential behaviour.

3) The European Shadow Financial Regulatory Committee (ESFRC) was formed in 1998 to serve as an independent commentator on European regulation of and legislation for the financial services industry. Information about activities, statements, and members can be obtained from the committee's chairman Harald Benink, Maastricht University, Limburg Institute of Finance, P.O. Box 616, 6200 MD Maastricht, The Netherlands. E-mail: h.benink@berfin.unimaas.nl

Information availability for national supervisors is a major concern for the ESFRC as well. It has argued for the creation of a "European Observatory of Systemic Risk" (ESFRC, 1998b). The Observatory, which need not be part of the ECB, would be able to obtain information from national authorities, but not able to supplant their decision-making power. The main role for the ECB would be to act as a "clearing-house" for co-ordination, with provisions for the allocation of responsibilities in crises. The only direct involvement of the ECB in crises would be for LOLR operations, since it would have to approve national LOLR intervention for the monetary policy implications mentioned before (4).

The above proposal presumes that home country control with mutual recognition are principles that should be retained, although modified. It also presumes that appropriate rules for dealing with insolvency are in place, and it is to these that we now turn.

4. Dealing with problem banks

Principles

We start with a number of principles for dealing with problem banks. They are formulated under the assumption that if it were not for the possibility of serious contagion effects, an unregulated, competitive financial system would be preferred:

1. **Regulation should enhance rather than replace market incentives.** Capital adequacy rules may be seen in this light, since they ensure that shareholders risk their capital.

If it were not for the possibility of contagion, an unregulated financial system would be preferred.

2. To the extent possible, **regulation should be "enabling" rather than mandatory**. This means that regulation should, in general, not impose exact procedures for credit allocation. This would only be compatible with the first principle in the unlikely event that the regulator knows what the competitive outcome would be. Wihlborg (1997) discusses the distinction between enabling and mandatory law, and argues that enabling law contributes to a dynamically more efficient financial system, since organisations and contractual relations develop over time to resolve market imperfections. Unfortunately, if the contagion problem is to be addressed, it is impossible to make law and regulations entirely enabling; nevertheless, mandatory regulation should be confined to the minimum.

3. **The regulatory framework must be based on political reality if it is to be credible.** For example, a regime without explicit deposit insurance may lack credibility, because the political reality in times of crises is that some or all liability holders will be bailed out. Economists may argue that no deposit insurance is preferable, because the fears of contagion are exaggerated. Political authorities are rarely willing to experiment and subject this proposition to a test. Thus, if deposit insurance is not made explicit, credibility requires the regulatory framework to address the contagion problem by other means.

4. **Insolvent financial institutions should be allowed to fail.** For the banking sector, the LOLR should help banks survive liquidity crises. The LOLR should not contribute to the bailing out of insolvent banks. However, there is a substantial information problem to determine whether a

4) It should also be noted that banks' international involvement extend beyond EMU and the EU. Thus, coordination and cooperation beyond the EU is necessary. It is likely that an EU-wide body like the "Observatory" would be in a better position to coordinate internationally.

bank's distress is due to insolvency or illiquidity. Supervisory authorities are likely to err on the side of a bail-out, and so apply excessive forbearance towards insolvent banks.

5. **Financial institutions should be induced to provide liquidity to illiquid, but not insolvent, firms.** They should also contribute to the restructuring and reorganisation of firms when this is wealth maximising. The behaviour of banks is particularly important, since they are senior debt-holders, and are likely to take the lead in the restructuring of distressed firms (Boot and Thakor, 1997).

Proposals

Free banking advocates (e. g. Dowd 1989) argue that contagion is no more of a problem for banks than for other firms, and that specific regulation of banks is unnecessary. One important reason is that if non-intervention were credible then banks would organise themselves in such a way that the risk of bank-runs would be minimised. For example, it is likely that the credit and payment functions of banks would be separated to a much greater degree than they are today. Payment services and the provision of liquidity would be offered by "narrow" banks, holding safe assets for the most part. The argument that the risk of contagion is overstated has also been made by economists that are not free banking advocates. Kaufman and Kroszner (1997), for example, refer to the pre-Federal Reserve era as evidence that the failure rate of banks without insurance would most likely be lower than it is now. They argue that the incidence of losses would be greater if the capital is very low, and that the macroeconomic effects of bank-failures would not be strong if only insolvent banks were allowed to fail.

Economists may argue that the fears of contagion are exaggerated. Political authorities are rarely willing to test this.

Along these lines, New Zealand has the requirement that banks disclose information making their risk taking transparent, but has no government run system for protection of liability holders. Any insurance scheme is left to private market participants. If this system remains credible, it will be interesting to see whether financial institutions emerge that specialise in liquidity provision with a minimal presence in the credit market (i.e., narrow banks).

Even if a "hands-off" approach is potentially the most efficient one, it is not transferable to Europe at the present time. The reason is that such a non-interventionist approach to dealing with problem banks is not credible in most EU countries (5). It clearly breaks the principle on political reality set out above (Principle 3).

Petri and Fry (1998) and Calomiris (1998) have devised different schemes for the "privatisation" of banking supervision. The first authors suggest that banks insure each other and that they thereby are given incentives to evaluate each other. Calomiris suggests that banks issue a certain amount of subordinated debt only to other banks. This would provide incentives for mutual risk evaluation. The pricing of marketable debt would make it possible to price deposit insurance according to risk. These proposals are potentially very interesting. However, there remains the question of whether non-intervention by authorities in a bank crisis is really credible under this scheme. This proposal may also fall foul of the political reality test.

5) One intermediate approach could be to regulate the creation of narrow banks, and apply the government safety net only to these narrow banks. However, this proposal may well be out-dated, as liquidity is provided by a variety of instruments (see Eliasson and Wihlborg, 1998), and contagion is possible through a number of channels.

In the USA, a different approach, that of "**structured early intervention**", has been adopted. A fall of a bank's capital ratio below certain levels triggers increasingly severe restrictions on its activities and possible intervention by the Federal Reserve. For example, at a 12 percent ratio a bank comes under increased scrutiny by supervisors and certain operations become non-permissible. As the capital ratio falls further, restrictions on activities become increasingly severe, and at four percent a bank could be forced to seek a merger partner or be closed down. The advantage of this scheme is that it restores the buffer role of the required capital. The likelihood that banks recall loans to viable firms in a crisis for the sake of improving the capital ratio, as discussed in the box, is thereby reduced.

The proposed insolvency procedures includes a set of capital ratios that trigger early intervention, a mechanism for the completion of settlements, and marking-to-market accounting practices.

Along these lines, the European Shadow Financial Regulatory Committee has proposed insolvency procedures that minimise the probability of contagion through bank runs and settlement systems. These procedures should make deposit insurance unnecessary and a no bail out policy credible (ESFRC, 1998a). They would include a set of capital ratios that trigger early intervention, and a ratio that forces the bank into receivership. At this ratio, managers and shareholders would have to relinquish control to a court-appointed trustee with the task to unwind the bank and sell its assets. In addition, the procedures would include priority rules for creditors based on liquidity considerations. Depositors' funds would be at risk only in the very rare instance when a large sudden shock has wiped out all capital, rendering any early intervention impossible. Even then, the depositors would lose only a fraction of their deposits. The probability and magnitude of these losses should be small enough that bank runs are prevented.

The ESFRC proposal has two further legs. One is that a mechanism for the completion of settlements should be created in order to avoid contagion through the settlement system. Such a mechanism could be a voluntary arrangement among banks to cover the interbank liabilities of a failing bank according to certain rules. In most cases when the bank is taken over by a trustee, the bank would still have capital left. Therefore, it should be able to borrow against assets to settle non-completed transactions.

The third leg of the ESFRC proposal suggests "marking-to-market" accounting practices. Since loans are not traded, proxies for market values must be used. Such proxies include consideration of probability of non-payment, and recovery rates in case of non-payment (6). Marking-to-market would increase the variability of the value of assets, and induce banks to target higher capital ratios (to reduce the likelihood of hitting a trigger ratio that would restrict activities). There is evidence from Denmark of this effect (see Bernard *et al.*, 1996, and Möller and Nielsen, 1995).

The ESFRC proposals are consistent with the principle of enhancing market incentives. To illustrate this point, consider how banks would behave if there were no guarantees and no priority rules for creditors in law. In order to be competitive when offering payment services and in order to attract deposits with varying degrees of liquidity, a bank would have to specify in its charter a certain priority rule for creditors. The bank offering the highest priority to the most liquid liabilities would be most attractive for depositors who want high liquidity. Similarly, without any government involvement, banks would be likely to agree on procedures for handling settlement risk (7).

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6) With this information one can calculate the Value-at-Risk of the loan book. A number of software packages, such as CreditMetrics*, are now available for this purpose.*

7) In the Herstatt bank case in 1974 (a bank that had suffered large losses on foreign exchange positions) such procedures were agreed upon among the banks owed funds.

The ESFRC scheme would make it possible to credibly state that insolvent banks will be allowed to fail and be liquidated, because a bank's insolvency would not create systemic risk except in the rarest of circumstances. Depositors and other creditors would, nevertheless, face some risk inducing them to demand information from, for example, rating-firms about the quality of bank portfolios. Banks would also find it in their interest to signal customers in different ways about the quality of their assets.

5. Conclusions

Two issues have been discussed in this paper. One issue is how to design a regime for the allocation of supervisory and regulatory responsibility among national central banks, supervisory authorities and the ECB. The second issue is how to deal with problem banks without inducing moral hazard. Credibility has been emphasised in the discussion of both issues. If credibility is lacking with respect to the allocation of supervisory and regulatory responsibility, ambiguity contributes to the possibility of a crisis not being detected before the systemic implications become severe. Ambiguity with respect to procedures for dealing with problem banks implies that governments are likely to bail out banks in distress and, therefore, to provide an implicit guarantee to bank creditors.

The principles of home country control and mutual recognition must be modified within EMU.

The internationalisation of financial institutions and technological developments have already created a need for international co-operation in supervision of financial institu-tions. EMU will contribute further to internationalisation, and especially to cross-border activities in Europe. Supervisors on the national level will find it increasingly difficult to remain informed about the exposure of banks to risk. For this reason it has been proposed that the principles of home country control and mutual recognition must be modified within the EU. Following the European Shadow Financial Regulatory Committee, an expanded role for the European Central Bank has been suggested. This role would include veto power over lender of last resort operations of national central banks, and the active co-ordination of activities of national supervisory authorities.

The proposal put forward to deal with problem banks also follows the ESFRC. In order to credibly abandon high levels of deposit insurance and bail-out guarantees, solvency procedures for banks should be specified in such a way that the risk of contagion of one bank's failure is minimal, while incentives to evaluate bank exposures remain.

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