



## **Banking and the Financial Sector in Transition and Emerging Market Economies**

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# WHO PAYS FOR BANK INSOLVENCY IN TRANSITION AND EMERGING ECONOMIES?

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## Abstract

This paper explores the equity of the way losses from bank insolvencies and their avoidance through intervention by the authorities have been distributed over creditors, depositors, owners and the population at large in transition and emerging economies. In the light of this it suggests a number of regulatory reforms that would alter the balance between seeking to avoid insolvency and lowering the costs of insolvency should it occur. In particular it considers whether a *lex specialis* for dealing with banks that are in trouble through prompt corrective action and if necessary resolving them if their net worth falls to zero, at little or no cost to the taxpayer can be applied in the institutional framework of transition and emerging economies.

The last two decades have seen an unwelcome rash of banking difficulties round the world. The difficulties have resulted in substantial losses not just to those directly involved in the banking system as owners, creditors and depositors but to society at large as taxpayers, consumers and savers. In response there has been substantial analysis of the causes of such difficulties and a rash of advice about how to avoid such difficulties in the future and how to handle such difficulties as do occur.<sup>1</sup> There has also been substantial institutional and regulatory change, with the setting up of stronger independent supervisory authorities, a focus on 'financial stability reviews' and the improvement of information on both the economy and on the banks themselves. The 'Basel' network has been highly active both with the original Capital Accord and the new, Basel2, proposals (Basel Committee, 2003) and the Financial Stability Forum. We can go on. However, remarkably little has been done to assess the distribution of costs and the degree to which various resolution techniques might affect both the cost and its distribution. In Mayes *et al.* (2001) and Mayes and Liuksila (2003) we suggested a scheme for handling bank exit in a manner that would minimise the costs to taxpayers and

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<sup>1</sup> The list is long but Asser (2002), Basel Committee (2002), Campbell and Cartwright (2002), Giovanoli and Heinrich (1999), Group of Thirty (1998), Gup (1998), Hoggarth et al. (2002), Hüpkes (2000), Lastra and Schiffman (1999), Ramsey and Head (2000), and Stern and Feldman (2003) give some idea of the flavour of what is available on the handling of difficulties.

would generally seek to place the costs of banking difficulties on those who had voluntarily taken the risk or were responsible for the losses. These proposals were made very much in the context of the European Economic Area (EEA)/EU, where there has been a reluctance to let any than small banks fail and a consequent redistribution of the losses. It is possible that the proposals are not readily transferable to transition and emerging markets. That is therefore the focus of the present paper.

The structure of the rest of the paper therefore begins by outlining why the problem of insolvency is different for banks than for other companies and hence why it is difficult to apply general insolvency law to banks. Section 2 then considers why in the light of this exceptions to insolvency are often applied in the case of large banks or if many banks face problems at the same time. Section 3 then investigates the moral hazard involved in having such exceptions. This provides the framework for the proposals in section 4 for a *lex specialis* for banks which will enable all sizes of banks to be resolved rapidly and without interruption to their business in the event of insolvency without the need for public money except in the form of a guarantee for the new institution. Implementing these proposals satisfactorily in the transition and emerging economies entails a raft of institutional prerequisites and consideration of these comprises section 5. Section 6 concludes.

## **1 The Nature of the Problem**

The business of banking involves taking calculated risks in taking deposits from one group in society and lending to others, particularly when deposits can be withdrawn rapidly and loans have a longer time to maturity. Banks price the expected risks in the cost of their lending, along with a margin for profit, and hold a cushion of capital against the unexpected. Since bank failures can have expensive knock-on effects the authorities tend also to insist on a minimum capital cushion and on safeguards to try to ensure that risks are well managed. These safeguards include constraints on who may own and run banks, corporate governance structures, risk management systems, risk concentration and requirements for disclosure of information. Even if banks are well managed the taking of risks means they will occasionally be unlucky or subject to a special event such a major fraud. Hence failures will always be possible.

We can expect that the incidence of bank failures or circumstances that would lead to failure without intervention will be rather greater in transition and emerging economies for a number of reasons. Banks will tend to be smaller and hence less able to diversify risks, managements and supervisors may also tend to have less experience. This will be particularly true in a rapidly changing environment, where new firms, products and markets are emerging all the time. Information about borrowers may be more inaccurate and accounting and auditing standards generally may make it more difficult to assess the quality of the banks themselves. Secondly economic structures in such

economies may lead to greater volatility and to more correlated risks if the economies are not particularly diversified.

Furthermore, the transition and emerging economies may also be distinguished by the extent of the loss in the event of failure compared to total assets of the banking system, deposit insurance funds, government borrowing ability and GDP. If losses are small relative to the resources available then reallocations to enable greater equity may be readily possible. As they become larger so it becomes more difficult to offset the impact of their initial distribution.

Bank failures are different from the failure of other companies in at least five important respects:

- the extent to which ordinary individuals are affected in their normal lives
- the ability to take informed decisions
- the consequences of the time it takes to complete an insolvency
- the knock-on effects in the economy
- the nature of insolvency and the ability to run down assets

*The Effect on Ordinary People.* In the event of failure of other companies customers are only exposed to the extent of their current transactions and even then, where substantial sums are advanced before delivery, as in the travel industry, it is customary to insure such advances or keep them legally separate from the assets of the firm so they cannot be attached in the event of failure. In banking, depositors are exposed to the full extent of their deposits, which could represent people's life savings. Even if losses are only partial, having one's assets tied up for the long periods typical in insolvency could have a major impact on the well-being of those involved, particularly if they have few other resources to draw on. The authorities have therefore tended to respond by insuring deposits, at least up to some limit that covers the sorts of balances that ordinary private individuals hold. However, most insurance funds are structured on the basis of relatively small financial 'accidents' and larger events bring the cost straight through to the public budget.<sup>2</sup> The FDIC, for example, is based on 1.25 percent of insured deposits for normal risks. In Brazil the funding element is 5 percent (Beck, 2003).<sup>3</sup> The less financially developed the economy the less ordinary people and particularly the less informed and poorer groups in society will be exposed. However, financial development is likely to be an aim of governments in the hope this can improve the rate of development of the economy as a whole, so offering security to people in their early dealings with banks will be particularly important. This will be of particular relevance for transition economies where previously the vehicles for deposits will have been part of the state apparatus and hence automatically

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<sup>2</sup> Unless the fund is held in the private sector, then in effect the whole balance will form part of the public sector's net debt and changes in it will affect the year to year public sector deficits.

<sup>3</sup> To get an idea of how readily such funds can reach their limits, the savings and loan debacle in the US, which was not big enough to register any decline in GDP, nevertheless exceeded the resources of the Federal Savings and Loan Insurance Corporation and had to be replenished from public funds.

viewed as being underwritten. A switch to the commercial remuneration of deposits can act as an incentive for people to switch to much more risky institutions without realising it.

*The Lack of Information.* The reasoning for protecting depositors in this way thus also includes the fact that it is unreasonable to expect the ordinary person to be informed about the risks that individual banks are running. However, banks are relatively opaque by the nature of their business, even to the authorities. Most people cannot be expected to appraise the risks they are taking on.<sup>4</sup> There are further consequences of this lack of information. First, in the event of difficulty, the more informed larger depositors and creditors will be able to get their money out first. Second, depositors in other banks, whether or not sound, may feel their deposits are at risk and start to withdraw them, thereby contributing to an expensive contraction of the financial system, as banks seek to realise assets in a slack market at discounted prices. Informational asymmetries are likely to be larger in the transition and emerging markets. The less effective is market discipline, both in normal and problem times then the more misaligned prices are likely to be and the greater the chance of problems becoming larger before they are recognised and the more difficult it is to piece together a solution that does not involve financial intervention by the authorities.

*The Element of Time.* Insolvency is a time consuming process. It can take a long time for cases to pass through the judicial system. It can take even longer, in the case of banks, to work through the process of determining and valuing all the various claims and realising the loans to maximise the return to the creditors. It may make more sense to forbear on impaired loans because borrowers may be able to recover and service a loan sufficiently well that it can then be sold to another bank. In the short run, particularly in small economies, it may be very difficult for the private sector to find the resources to buy the impaired assets, even at deeply discounted prices. This increases the probability in emerging markets that the state will be involved. The alternative of selling to foreign interests, even if politically acceptable in concept, might effectively involve a substantial net transfer of resources. (Since overseas purchasers of the business are buying both sides of the balance sheet there may be no capital inflow.) Even if it is possible to make an interim payment, creditors' and depositors' assets will be tied up in the resolution process for substantial periods of time. This may then have knock on effects to their suppliers and creditors in a contractionary spiral. It is worth noting that this deflationary spiral occurs on both sides of the balance sheet. Liquidators may take a harsher view of extending loans and cause a contraction in the enterprise sector of the economy, increasing the number of bankruptcies and defaults along the way. The authorities thus also have to consider the impact on debtors, who are not a party to insolvency proceedings, yet are affected by them, as part of assessing the general equity of the outcome.

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<sup>4</sup> The banks themselves face the problem of limited information. Repayment of loans depends on future circumstances, such as the returns on projects and household incomes, whose current predictability will be difficult.

*Knock-on Effects* In addition to the direct knock-on effects we have just noted to creditors and borrowers alike there are knock-on effects within the financial system as banks have substantial exposures to each other, particularly in short-term and unsecured instruments. While netting and other closure rules may mitigate this (at the expense of other creditors and depositors) this runs the risk of exporting the problem to otherwise healthy banks. The evidence for the size of such contagion is mixed even in the advanced countries (de Bandt and Hartmann, 2000) but this may be an area where markets are less developed in transition and emerging economies, particularly in areas such as derivatives which pose special problems in the US (Hunter, 2003). Even more contentious is the suggestion that depositors themselves lose confidence in the system as a whole and seek to withdraw their deposits from healthy banks, thereby tipping them too into difficulty through premature sale of assets (Lastra and Schiffman, 1999). However, in this case the central bank should step in as Lender of Last Resort as this is problem of illiquidity not insolvency.

*The Special Nature of Bank Insolvency and the Ability to Run Down Assets* In the case of an ordinary company, insolvency normally occurs when it is unable to pay its bills and not because its balance sheet shows liabilities greater than its assets. It is normally triggered by a cash flow problem. Most of a nonfinancial company's assets will be already used as collateral for loans and hence there is little opportunity for it to alter the balance sheet in a major manner. (Although some companies have effectively been able to raid the pension fund in the short run (Draghi *et al.*, 2003).) A nonfinancial company insolvency will therefore tend to result in a substantial loss to unsecured creditors given default. A bank on the other hand normally trades with its assets clearly exceeding its liabilities, not least because the authorities require it to have a substantial capital cushion. Hence it can run down its assets a long way to pay off the liabilities that are called before it reaches a cash flow constraint. If a bank can be caught early, the extent of the insolvency may be quite small and the loss given default relatively minor to all but the most junior creditors. This impels the authorities to put in place requirements for Prompt Corrective Action, so that banks do not have the opportunity to worsen their position substantially. These requirements usually inhibit the owners from expropriating the creditors and push them to coming to agreements that will recapitalise the bank. Unfortunately the evidence, even in the countries with the strongest PCA requirements such as the US, is that the authorities tend to delay and allow the problem to mount. In emerging and transition economies this problem is likely to be considerably greater even if there are no problems from the authorities being open to pressure to forbear from the government and other vested interests. It may be more difficult to determine the extent of the problem, to find potential buyers and impose sanctions on those involved, for example. The ownership form of the bank is particularly important in this regard. If a bank is not a quoted company and does not have any marketed subordinated debt it may be very difficult to get any effective market signals about its condition. There will be few other

forces encouraging the management and owners to restrict their risk-taking and the exposure of the creditors. If the deposit insurance fund does not have enough resources to cover the potential loss then it too may seek to put off declaring insolvency (Eisenbeis and Wall, 2002).

## **2 Too Big To Fail, Too Many To Fail and the assessment of losses**

The sheer size of the financial crises in recent years has impelled governments to act. If many banks are in difficulty at the same time and the financial and economic system are under threat a government cannot sit idly by, even in circumstances where there is little it can do, as that would be political suicide. One of the dangers of this experience is that it leads people to think that this is a normal reaction to banking problems, and we consider the moral hazard this involves in the next section. Traditionally, the approach has been that in normal circumstances individual banks facing failure would not be saved, even if there were substantial compensation for depositors and creditors. At 'best' there would be an assisted merger in the private sector, probably with a division of the bank into a saleable part and into non-viable 'bad' bank, or the creation of a 'bridge bank', run by the authorities in some temporary form of nationalisation. Hoggarth *et al.* (2002) have a neat exposition of the choices available. However, in some cases, where the authorities think that the existing bank has a future, loans have been made in an extension of Lender of Last Resort into what is effectively Investor of Last Resort. The collateral for such loans may be of disputable value if the bank is insolvent in the sense of having negative net worth. The less transparent the regime, then the easier it is to offer such support and the more likely it is that interest groups will be able to push the government into making such loans. Indeed many governments have not needed pushing and have been prepared to advance loans to institutions that are of political value to them. Even among the most advanced financial systems such support can occur (Hadjiemmanuil, 2003). Goodhart and Schoemaker (1995) show in a study of failing banks in 24 countries that bailing out with public funds is more than twice as frequent as permitting liquidation. However, it is important to bear in mind that at the time the central bank may not be sure if it is lending to an insolvent bank if it receives what appears adequate collateral (Goodhart and Huang, 1999).

At some point, however, even in regimes like the United States where the framework is relatively transparent and the scope for support limited, the potential costs of failure of a large bank may be thought too large for the authorities to contemplate. This is normally because of their potential spillover into the rest of the system. Stern and Feldman (2003) contend that this argument is readily overdone and indeed encourages banks to try to grow or play such a role that they are 'indispensable' to the success of the financial system. They suggest that it is possible to run the regime, in the US at any rate, in such a way that no bank is 'Too Big To Fail'. Our own proposals are certainly designed to enable that to be the case.

However, it is difficult to avoid the 'Too Big To Fail' argument in economies where the banking system is highly concentrated, as in the Nordic-Baltic region (Sigurðsson, 2003) and in many other transition and emerging economies. The same applies if the problem is not detected before it becomes very large, even though it applies to only one bank. A major loss representing a noticeable proportion of GDP may have a harsher effect on the economy as a whole if its impact is concentrated on those immediately affected rather than if it is spread more widely or indeed spread over time through public debt and later taxation.

The argument for government action is, however, most persuasive when the banking problem runs across many institutions at the same time – a problem of 'Too Many To Fail' rather than too big to fail. Ingves (2003) argues that such circumstances normally have either macroeconomic or microeconomic causes (although a combination is likely). In the macroeconomic case the problem – may be a major external shock or natural disaster. The collapse of the former Soviet Union was a contribution in the case of the Finnish crisis at the beginning of the 1990s. The ripples from the Asian crises in 1997 extended to other countries, such as the Czech Republic, even though they were not directly affected. In such general 'no blame' circumstances, governments try to stabilise the macroeconomy against the consequences of the shock. It is easy to extend the argument to generalised support for the financial system to avoid the external shock leading to a debt-deflation spiral (King, 1994). However, such macroeconomic problems are often also the consequence of government action (Kaminsky and Reinhart, 1999). Following unsustainable policies, say in the form of an exchange rate peg, result in rapid adjustments when the last straw is added. Such a policy, in trying to track the ERM was clearly an important contribution to Finland's crisis. The government is therefore responsible for the crisis in the sense of having a system that is prone to generate such drastic adjustments. There is therefore an argument that if the shock is external, society at large should pay not just those exposed in the more marginal banks.

It is difficult to see where such an argument should end. It will clearly be easier to apply in small open economies, particularly those with relatively undiversified systems. They always find it relatively difficult to attain a stable exchange rate regime, hence solvency-threatening shocks will be more likely. However, rather than responding through bailing out, it may be possible to increase the economy's resilience to shocks. A move to inflation targeting and a fully flexible exchange rate may offer rather more protection from extreme shocks (Sepp and Randveer, 2002), for example.<sup>5</sup>

The argument is equally open to misuse in the case of the 'microeconomic' causes, which in Ingves's terminology implies that it is the regulation and supervision of the banking sector that is not being run satisfactorily. Thus if banks are being allowed to evade capital adequacy requirements



or run very risky strategies, then in some sense it is the authorities' fault that they get into difficulty and the authorities' responsibility to help get them out of it. One of the most common examples is financial deregulation/liberalisation – also a feature contributing to the Finnish crisis. Removing barriers faces banks with competitive threats and market opportunities that they have not previously dealt with. Even prudent organisations will make serious strategic errors in these circumstances. If there are strong possibilities of first mover advantage then banks would be foolish not to try to move rapidly into the new business. Yet just that rush for the market is bound to create a fallout. Not everyone can succeed, as is obvious from the development of new industries. The internet boom of the late 1990s was a rational response to the probability of major gains for the successful few. For banking authorities the fallout is more complex and arguably therefore the way in which liberalisation is introduced has to be preceded by changes in the supervisory framework and risk management regime within banks.<sup>6</sup> Such novelty for both supervisors/regulators and bank managements will tend to be larger for transition and emerging markets even if they follow templates laid down by the IMF or OECD countries.

A third factor that contributes to the willingness of the authorities to act by bailing out banks is a failure to unpick the consequences of different bank exit policies from the overall effects of the crisis. The costs of the Finnish banking crisis of the early 1990s is variously estimated between around 7 percent of GDP, if one takes the net injection of public funds into the banking system, to around 50 percent of GDP, if one considers how long it took to regain the level of GDP implied by projecting the longer run trend that prevailed before the crisis. Indeed, if one takes unemployment as part of the cost, that cost is still continuing and even on optimistic forecasts is not expected to reach pre-crisis levels in the current decade (Mayes and Liuksila, 2003, ch.1; Jonung and Hagberg, 2002; Hoggarth *et al.*, 2002). In the face of such frightening numbers, it is not surprising that governments feel inclined to act. In the main, however, they will be gross over-estimates of the costs of one form of bank resolution compared to another, as they assume that all of the costs of the crisis are due to the banking problems and that the comparator should be a zero effect. The drawbacks of the approach can be seen from the fact that of the 32 cases considered by Hoggarth *et al.* (2002) five were followed by an increase in GDP compared with previous trends – not a loss. Even this we cannot write off, as crises may easily be therapeutic and enforce changes that would otherwise be difficult to achieve (see Bollard and Mayes, 1993, for a discussion of the mid-1980s crisis in New Zealand).

Thus, these numbers do not tell us the difference in impact between one approach to banking

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<sup>5</sup> In agricultural societies, where losses of income may be massive when a harvest fails and not reversible until the following year, farmers, their suppliers and financing institutions all operate with much larger cushions, hence reducing the threat of insolvency to levels tolerable elsewhere.

<sup>6</sup> It has to be said that despite this being well-known by the second half of the 1980s (Hunn *et al.* 1989), the Nordic countries, with the exception of Denmark implemented the liberalisation process in a manner that contributed to the subsequent crisis by having banks and supervisor who were insufficiently prepared.

problems compared to another. In particular they do not tell us the difference in effect between a strong preventive regime and a regime where there is a swift reaction in the event of a crisis. In a very helpful and comprehensive comparison Hoggarth *et al.* (2002) show how costs vary in a sample of 32 crises according to the measures used. Costs are measured by 'fiscal' costs (how much was paid out gross from public funds)<sup>7</sup> and two measures of output (GDP) costs (deviation in growth rates during the crisis period from the previous 3-year trend; deviation in GDP level during crisis period from previous 10 year trend). Nevertheless, there is an obvious reverse causation problem here. Larger difficulties will result in larger payouts even if larger payouts reduce the size of a given crisis.

Even though we can estimate for a particular bank what the direct fiscal cost of different methods of exit are likely to be *before* taking a decision, a much more comprehensive model is required to estimate the feedback effects onto the rest of the economy. Ex-post estimation of the net fiscal costs, as in the case of Ingves and Lind (1997), does not offer a clear answer either, even if the results are appropriately discounted to allow for the delays. Ex-ante the costs face a probability distribution for the likely future receipts on selling assets or repayment of loans. Once one is no longer prepared to take the current market valuation as being correct, the whole area becomes open to debate. This is a particular worry for economies where very little of the banks' assets and liabilities has a market price or any reasonable means of marking to market. Then ex-ante valuations will be highly contentious and there will be considerable scope for the authorities and interested parties to produce optimistic valuations that coincide with their objectives.

It is clear from the analyses of Daniel (1997) and Daniel *et al.* (1997) that governments have used a variety of devices over the years to disguise the extent of the costs to the taxpayer of intervention in the banking system. While the US system assumes that the cost to the deposit insurer, FDIC, is as good a proxy as any, the number of routes available to the FDIC in the event are actually quite small – bailing out not being one of them. Furthermore wider costs are not considered, particularly any distributional consequences. Wider concerns are only possible in the US case if it is decided to invoke Too Big To Fail, which has not been done since the 1988 FDICIA reform and could only apply to between 10 and 30 of the largest banks.

### **3 Moral hazard**

The biggest problem in assessing the potential cost of different approaches to bank exit is that expectation of the regime that will be applied affects people's behaviour, particularly that of bank owners and management prior to insolvency. Thus if creditors and depositors expect a blanket guar-

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<sup>7</sup> It is not clear how much these sums include all of the ancillary costs and contingent liabilities, such as administrative and legal costs, which can be several percentage points of the assets of a bank.

antee in the event of widespread banking problems they will be much more prepared to lend to banks without regard to the risks involved as they have less to lose. If on the other hand bank management expects to lose its job and bank owners see a good chance of seeing the value of their shares wiped out, they will have much greater regard to the prudence with which the bank is being run. 'How much?' is a much more difficult question to answer.

Granlund (2003) suggests that the impact of bank exit regimes on bank financing costs could be as much as 30-40 basis points. The valuation by Fitchratings of implicit governmental guarantees is of the order of two ratings classes, again nontrivial. However, there is very little evidence that larger banks actually run greater risks as a result of their too big to fail status. Even if disciplining devices exist in the form of subordinated debt, Bliss and Flannery (2000) find that bank managements may not respond. The extent of the moral hazard involved from expected bailout is therefore difficult to judge. Stern and Feldman (2003) regard it as being significant even in the US, which has a regime strongly geared against bailing out.

The potential impact of moral hazard in transition and emerging economies seems likely to be larger. Bank deposits tend to be a smaller ratio of GDP and hence the ability to bail out may be greater. On the other hand the probability of default and the loss given default may also be larger, hence reducing the ability of the fund to pay in the event of default. In the face of a lack of clear rules to the contrary, practical difficulties in the implementation of insolvency proceedings, and generalised worries over the fragility of the financial system the chance of the moral hazard being greater seem good. The idea of 'constructive ambiguity' works in the opposite direction to that often suggested. While the risk averse may react to uncertainty about whether they will be bailed by being more cautious, those more inclined to take risks and hence be those most likely to encounter problems are more likely to take an optimistic view and hence take more risk. The spread of prudential behaviour by banks may increase if the authorities are ambiguous about their likely actions under potential bank failure. Since it is the tail of the distribution, which matters for bank failures, this is likely to increase both the number of potential failures and their size.

The discussion of moral hazard in this context normally revolves round the existence of deposit insurance, particularly if the financing of that insurance places little burden on banks or their customers (Beck, 2003). However, it is not at all clear that the general run of insured smaller scale depositors pay much attention to the riskiness of banks even where insurance does not exist. This is in part because of the existence of implicit guarantees. Even though deposits may be uninsured in New Zealand, for example, it would be very surprising if one of the main banks were to fail and no funds were made available to small depositors if large numbers of them seemed set to lose a lot of money. The insurance may deter a run on the bank by the uninformed mass of depositors but it is the larger uninsured depositors and creditors who have the main interest in monitoring and disciplining the

bank. Since the deposit guarantee fund becomes a major holder of contingent liabilities it may exert a strong influence where there was little beforehand.

#### 4 The scheme

Key features of any efficient and equitable approach to bank exit therefore have to include:

- those involved in running banks and exercising control over management as shareholders, creditors, depositors etc. have to believe it will be applied – without exceptions
- it should cut in rapidly at an early stage in the process so that there is less opportunity for losses to mount
- it has to be capable of being applied very quickly so that the business of the bank can be continued on the next trading day
- it needs to offer an outcome no worse than the parties would get under insolvency and it needs to respect priority of creditors under insolvency
- losses should fall first on the owners and managers of the bank to the extent of their liability
- it should avoid calling on taxpayers, except in the process of ensuring the smooth functioning of deposit insurance and ensuring public confidence in the subsequent arrangements
- it should apply equally to all banks whatever their size and ownership and the actions of the authorities in applying it should be public and transparent.

Such a programme cannot of course stand on its own and will need to form part of a wider system respecting the rules of good corporate governance, bank regulation and supervision. Deposit insurance is not fundamental to the scheme as such. However, the structure of any insurance schemes that do exist will affect both the credibility of the exit regime and the institutional arrangements required to deal with the priority of the insurance fund in insolvency. Moreover any such scheme will be in addition to other measures being implemented for reducing the chance of banking crises and the early detection of factors that might lead to such crises.

The MHL (2001) scheme seeks to meet these concerns. It provides a credible means for resolving any bank that is facing insolvency in a manner that avoids the use of public money and yet appears equitable in the face of the normal balances applied in a country under insolvency. The scheme wipes out the shareholders first and leaves the creditors and uninsured depositors to bear any remaining loss according to the priority principle that would apply under insolvency. It can be applied very rapidly so there is no need for the bank as a business to suspend trading even though ownership changes and it is applied early in the process of distress so that the chances of developing very large losses is reduced.<sup>8</sup> This means that the problems of too big too fail are likely to be

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<sup>8</sup> We assume that the reorganisation process would take place over a 'weekend' so that a problem revealed on one trading day has a solution that results in trading being resumed on the next trading day.

avoided in the event of idiosyncratic shocks. However, too many to fail pressures might still emerge. The key impact of the scheme is expected to be largely deterrent. Managers, owners and uninsured creditors would have an increased incentive to see that the banks in which they have a stake are managed prudently and avoid getting into difficulty. If difficulty is encountered then there is a strong incentive to work quickly towards some private sector injection of capital, as the losses are likely to be larger if the state has to intervene.

The scheme has three principal ingredients

- the authorities are required to take control of the bank according prescribed benchmarks
- the new administrator of the insolvent bank values the assets and liabilities up front and writes down the claims far enough to return the bank to operational solvency
- the bank reopens for business under new control/ownership with no material break in operation.

It is worth filling in a little more of the detail before considering how well the scheme might operate in transition and emerging economies. The scheme is designed to meet the normal prerequisites for a good insolvency law. Aghion *et al.* (1992) and Hart (1999) for example suggest three goals for a good insolvency law, each of which is aimed at making the process efficient.

- (i) a good insolvency law should maximise the total value (in money terms) available to be divided amongst the insolvent firm's appropriate stakeholders;
- (ii) it should adequately penalise incumbent management and shareholders so as to preserve the bonding role of debt, and
- (iii) observe the absolute priority of contracts negotiated ex ante.

The Bank for International Settlements (2002) identifies three similar goals: efficiency (in terms of more to be shared out), equity (people getting what they should, relative to each other) and the reduction of legal and financial uncertainty.<sup>9</sup>

The key starting point is that bank insolvency needs to be covered by a *lex specialis* (public law) that enables the authorities to step in and take control of the bank from the existing shareholders. A *lex generalis*, private law approach to insolvency means that the process has to be handed over to the courts and that quick resolutions are much less likely. Hadjiemmanuil (2003) (and to a lesser extent Blowers and Young (2003)) argue in favour of the 'London approach', whereby the courts manage the process under general insolvency law but normally act closely under the advice of the competent regulator, now the Financial Services Agency and previously the Bank of England. The UK has the benefit of having operated this partnership for some time. It is not immediately clear that other regimes would be able to operate this in a non-conflictual manner. Courts would have to make it very clear that private petitions that could upset and delay the process would not normally be entertained without very good cause, otherwise the scheme would fall at the first hurdle and the

reorganisation would not be rapid enough to keep the business of the bank operating. The Swiss proposals (Hüpkes, 2003) come much closer to the balance we have in mind.

The second requirement is a straightforward required intervention point for the authorities that cannot be evaded. We suggest it should be zero net worth or 'economic insolvency', so that value of the bank is zero and hence in taking over the bank from the shareholders they are not being deprived of anything (except worthless claims). As we have noted, determining the net worth is a non-trivial manner but it is necessary not just for intervention but for writing down the claims to the point that the value becomes positive.<sup>10</sup> In the US the mandatory intervention point for closure is when regulatory capital falls to two percent of assets. It is judged that at this point a bank will clearly have negative net worth. We did not follow this lead because it involves using a valuation that is expected to be misleading and may in practice permit considerable insolvency before the intervention point is reached. Nevertheless, having a hard fast intervention point based on supervisory measures as in the US is better than having inexplicit benchmarks.

The third requirement is institutional. In many countries a whole variety of organisations plus the courts have to be involved in bank resolution. The problems are even worse if the bank is part of a complex financial organisation that runs across both sectors and countries. Some institution needs to have the lead and the administrators who can be put in to implement the change have to form part of a panel that is agreed in advance. The list of possible candidates for taking the lead includes the central bank, the bank supervisory authority, the deposit insurance agency and some high level corporate regulator or commerce commission. It should not include the ministry of finance or any other organisation that might have direct access to funds that could be used in a bailout. Clearly the rules, priorities and forms of consultation need to be agreed in advance, particularly where one country is going to act on behalf of all the interested parties in a single action.

Our proposals are thus very similar to what exists in the US since FDICIA but are somewhat more encompassing and have a different suggested intervention benchmark. They also form part of a much wider supervisory framework for banks, that includes requirements for corporate governance structures, public disclosure, transparency in the regulatory process and accounting/auditing standards.<sup>11</sup>

## 5 Factors working against the scheme

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<sup>9</sup> I am grateful to Bethany Blowers and Garry Young for this formulation (ch. 5 in Mayes and Liuksila, 2003)

<sup>10</sup> The Reserve Bank of New Zealand suggested to us that the claims should be written down to the point that the new bank met the capital adequacy requirements and that the creditors/depositors in effect became the new owners of the bank, receiving an equity for debt swap in proportion to the absolute write down of their claims. This is similar to the Aghion *et al.* (1992) proposals but these have not to our knowledge been implemented.

<sup>11</sup> Chapters 8-10 of Mayes *et al.* (2001) outline the proposals for bank exit policy while chapters 4-7 set out the wider proposals for reforming banking supervision, drawing heavily on the arrangements that have been in place in New Zealand since 1996.

Since our proposals represent a substantial change to existing procedures, many reasons can be advanced as to why they might pose problems in implementation. This section considers six of the most obvious that might apply in transition and emerging economies.

### *5.1 Power To Act*

The biggest barriers to effective action in the run up to insolvency are institutional and legal. If clear and predictable means of resolving problem banks do not exist then every problem becomes a political one. If the supervisors or whichever is the relevant agency charged with ensuring compliance with the regulations and prompt corrective action in the event of noncompliance do not have both the freedom and duty to act, then resolution will be difficult.

In transition countries in particular, the authorities face a major problem in handling insolvency, in that many of the significant banks will be foreign owned. While this may impart more stability and better management of risk, hence reducing the chance of insolvency or problems, it means that the host country will not have much in the way of a say in the resolution of problems by the lead regulator, who will be in the home country. This offers two major difficulties. In the first place a bank that is important in the host country, in the sense that their closure or problems may have systemic implications, may not be systemic in the home country. The home country authorities may therefore be prepared to encounter all the problems of insolvency and allow the bank to shut. Even if they do not, the form of resolution of the problem they choose may be very different from that the host country might apply. Mayes and Vesala (2000) cite the theoretical case of Finland and Germany. It would be quite easy for such a discrepancy in interests, as the economies have a factor of 20 difference in size. In the case of many emerging and transition economies the discrepancy in size is much greater. The second difficulty that emerges is that if public funding or insurance is to be used in the home country it will not extend to the host country to the same extent or possibly at all. The degree to which the authorities in one country will be prepared to bail out or otherwise compensate the depositors or creditors in other countries is likely to be decidedly limited. Indeed the natural reaction, as in insolvency itself, would be for each country to try to find a solution that is to its relative advantage, as was demonstrated in the BCCI failure.

Although the worst of the of the opportunities for beggar-thy-neighbour solutions have been reduced since the BCCI affair the problem has not disappeared, even in the EU, with the Winding-up Directive (Hadjjemmanuil, 2003). Although the EU now has an approach to handling banks whose operations run across borders through branches, there are still discrepancies in the case of subsidiaries. The single entity approach to the resolution of companies is normally thought to be the way of maximising value for the creditors. It is then possible in the resolution of the group as a whole to consider the selling of parts for the benefit of the group's creditors, wherever they happen to be.

Outside the EU/EEA the authorities have discretion over whether foreign banks should be allowed to set up or acquire subsidiaries and can reject solutions that would change the management of banking subsidiaries in their jurisdiction in ways they find unacceptable. However, in rejecting a resolution, they might precipitate a closure of the subsidiary instead.<sup>12</sup> In the EU/EEA, the ‘passport’ and the principle of home-country control make the position clearer but not necessarily easier and may actually make resolution of bank insolvency for a transition country entering the EU, become somewhat more difficult.

Supervisory authorities have a network of memoranda of understanding (MoUs) such that they can share information in order to co-ordinate the supervision of large and complex cross-border banks. While these may be slanted to provide more information in the event of difficulty, it is clear that each supervisor will be concerned to resolve the problem from its own point of view. More importantly, this co-operation does not normally extend to the use of powers for resolution or the injection of public funds. Here it is still the case that the authorities expect to act on a case by case basis. When actions have to be taken in a hurry then it would be difficult to include the views of second countries even where the home country is keen to do so. When the problems result in an extended period of ‘prompt’ corrective action then the opportunity for such discussions exists (Brouwer *et al.*, 2003).

## 5.2 *The Incentive for Delay*

The incentives for delay may well be even larger in emerging and transition markets if the authorities are less immune from political pressure, the banks wield greater influence, especially if they can claim with some justification that their lending has been directed towards riskier projects by the government. The banks themselves will be keener on delay if they can manage to abstract more value for the owners at the expense of the creditors. Debtors may also be able to form a rather effective lobby group, if they constitute strategic firms in the economy, whether from the point of view of export earnings or employment. In so far as public ownership is more prevalent then the government may face a conflict of interest over whether to keep its own problems as unrecognised bad loans in the banks or as acknowledged liabilities to depositors or new owners of the bank. The poorer the information available, the less the transparency of the supervisory purpose the easier it will be for the supervisor to feel that decisions can be postponed. Supervisors will be particularly keen to avoid precipitating closure if they think they rather than the bank's management may be blamed for the problem. The authorities also have a strong incentive to let banks continue if they do not have the resources to meet the costs of insolvency in terms of the demands on the deposit insur-

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<sup>12</sup> Clearly there are attractions in having locally incorporated subsidiaries that are themselves required to hold adequate capital against risks. Then the authorities have a functioning entity that can be compulsorily acquired and placed under new ownership in the event of insolvency. However there must also be attractions to having branches or other arrange-



ance fund.

### 5.3 *Too Big To Save*

One of the key issues for some of the smaller EEA countries is that they are rather small compared to their largest banks, which are international. The problem applies even more to Switzerland where UBS and Credit Suisse while headquartered in Switzerland have most of their operations elsewhere. Schoenmaker and Oosterloo (2003) show that around a third of Europe's 30 largest banks have at least half of their assets outside the home country and would pose major problems of saving for their home authorities. Transition and emerging market economies are not normally in that position as a home country, but may readily be a host with a bank whose home country cannot cover the world-wide losses.<sup>13</sup> However, they can readily find the cost of a banking crisis or of demands on a deposit insurance fund can be greater than the fund can bear. While for advanced countries the solution may be simply to issue some more debt in the short run this option may not be open. The extent of the problem is readily illustrated by Finland, which went from having a trivial public sector debt to GDP ratio to nearly 60 percent as a result of the crisis. Although by far the largest of the Nordic crises this crisis was still not by any means the largest in international terms. Switches of this size may well be impossible to sustain. Two outcomes are therefore possible. One is to allow the deposit insurance fund to default. The other is to start monetising the debt. The second leads to all sorts of other problems but limiting the liability of the deposit insurance fund has a lot to recommend it. In Switzerland the liability of the fund is limited to 4bnCHF.<sup>14</sup> The Finnish problem is simply that with international banks it becomes much more difficult to follow a solution that is manageable for the domestic economy and suitable for all the countries involved. It would be difficult to justify a major expenditure by taxpayers in one country to support depositors in another. In these circumstances banks would be 'too big to save'. However, the necessary international co-operation to address the problem seems more likely to occur after the first serious crisis in this regard rather than before it (Brouwer *et al.*, 2003).

Our proposals go down this road by a different route, which is to limit the potential demands on the fund by acting early. This reduces the chance of a large claim, except when there is an economy-wide problem. In those circumstances, of course the remedies themselves are better macroeconomic than financial. However, the other tightening up of the supervisory arrangements should reduce the chance of banking induced financial crises.

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ments where local depositors are insured by home (foreign) country, as is the case for Deutsche Bank in New Zealand (Deutsche Bank New Zealand Group, 2003, pp.2-3).

<sup>13</sup> Where such countries are acting as an offshore 'haven' for foreign banks then they may very well have banks that are large compared to the country's resources but in those cases no one is expecting a bailout. Indeed, the lack of protection for depositors and creditors normally forms part of the objection to the existence of such havens.

<sup>14</sup> Such a limit is in addition to any that may be applied on each individual depositor or to the share of the liable capital (30% in the case of Germany, for example).

One of the inherent problems in monitoring banks is opacity. Banks themselves can only estimate the risks they face and second-hand observers, whether market analysts, rating agencies or supervisory authorities, will always be at a disadvantage. The more open banks are, the greater the chance that outsiders will be able to detect problems and force earlier action. However, the main aim is deterrence, if banks expect that they may be found out, then they become more reluctant to run the risks that may cause the problem. No disclosure regime will provide enough detail but the Basel2 proposals, by falling short in some respect of what is already disclosed in New Zealand, for example - quarterly reports with short delays, regularly audited, with disclosure of peak exposures, not end period figures or period averages - are not offering a great deal of assistance to outside monitors (or indeed to shareholders).

The key incentive in the New Zealand case is to make bank directors liable for the disclosure statements made (rather more forcibly than the controversial requirements in the US following the Enron collapse). By making them responsible for the accuracy of what is disclosed directors, whether executive or nonexecutive have an incentive to ensure that they are convinced that the management in the company are revealing what is actually the case and so on down the chain of responsibility. Fining rich people and banks for infringements is always likely to be ineffective but making bank directors liable for up to three years in gaol simply for false disclosures sharpens the focus considerably. (Fining banks when they are in difficulty is singularly unhelpful as it simply makes the problem worse. It does not even work as a deterrent as it is the uninsured depositors and creditors who pay. In countries where the deposit insurance fund does not have priority in claims it results in one part of the public sector paying another. If it is private sector fund then the successful banks and their depositors pay and not those responsible in the failed bank.)

However, transparency is equally important for the supervisory authority. If the supervisors know that their actions will be audited by parliament and hence publicly they need to make sure that their procedures in respect of each bank are followed through properly and that their actions fit with their objectives. This form of liability for public servants is not common in many societies but helps avoid the tendency to forbear and to hope that problems may go away (Tison, 2003). It also makes for consistency of treatment across banks. Applying it in a relatively small agency such as banking supervision where staff need to be well qualified may increase the chance of successful introduction and avoiding generating labour disputes in a way that may not be true of the public sector at large. The Finnish supervisory agency even includes transparency for its management methods. If subject banks need to monitor their risks effectively, the supervisory setting a good example in its own management methods should be a help.

Given that many of the OECD countries have problems with the extent and quality of disclosure

it is only to be expected that transition and emerging economies will find the problems even more difficult. There are some clear problems here. Ingves (2003), for example, argues for 'clear [legal] protection for supervisors' (p.7) so they can withstand pressures from the interested parties. However, such protection has to be carefully phrased if it is not also to allow them to make arbitrary decisions in favour of particular groups. The opening up of public authorities and officials to the consequences of their actions if not performed within the terms of the regulations or indeed from applying regulations that do not meet adequate standards is a reasonably new concept. Having an ombudsman who can exercise separate impartial review is not universally accepted.

### *5.5 Quality of Information, Accounting Standards*

However, disclosure of information is of little value if what is being disclosed is itself rather inaccurate. In many countries, even where accounting standards are adhered to the conventions relate largely to historical values and hence produce information that is of little value for decision-making. This provides one of the biggest barriers to assessing the extent of problems in EEA countries, for example. Information is not produced in a form that enables the assessment of net worth. The trend is towards more market valuation but slowly and with considerable reluctance. Having audits that are both independent and informative is a widespread problem, as has been revealed in the US. In some jurisdictions auditors are not obliged to show adequate independence and are not open to court action for the accuracy of their statements. It is interesting in this regard that the Japanese authorities have used auditing and accounting standards as a means of forcing banks to admit their insolvency, as in the case of Resona earlier this year. Simply disclosing the problem and the extent to which the taxpayer is going to pay is a better route to resolving the issue than leaving extent an incidence of the loss uncertain. In that case, households will seek to protect themselves, by building up saving outside the banks, helping to induce deflation.

### *5.6 Market Discipline*

It is clear from the foregoing that market discipline plays a crucial role in supporting the efforts of supervisors both to maintain prudent risk management in banks and to resolve problems swiftly through the market mechanism (i.e. private sector solutions including insolvency). In general it requires highly developed, deep and well-informed markets to work well. This implies immediately that it is less likely to be effective in transition and emerging economies. The question is whether that limited operation will be sufficient. However, although the term market discipline is a widely used in the context of supervising and regulating banks it is largely undefined. The new Basel proposals (Basel Committee, 2003) do not offer a definition despite labelling the 'Third Pillar', 'Market Discipline'.

While market discipline is a general concept, which can be applied to all activity, there are many special features that affect its application in the field of banking. First of all the authorities restrict

its operation by controlling entry and the range and nature of products. Borrowers have difficulty taking their business elsewhere particularly when its bank is in trouble, while depositors can usually do so with all too much ease for the stability of the system. Discipline on banks through the product market is therefore severely impaired in many countries and this in itself should be a cause for concern to regulators in designing and supervising the operation of the system.

Attention in the banking industry therefore tends to focus on factor markets, primarily on the provision of financial capital. However, particularly since banking is a service industry, the labour market is an important ingredient in the process. In investment banking, teams can be bid away from one bank to another and the business will tend to move with them. The operation of the labour market is particularly important for senior management. One of the key features governing how problem banks behave relates to the expectations of senior management over their future. In the market for corporate control, the senior management may be part of what the acquirer wishes to purchase or they may precisely what the acquirer wishes to dispose of as being the main reason for poor performance of the company compared to its potential.

The functioning of the market for corporate control is likely in many cases to be the most important in handling a problem bank. The existing owners retain control of the bank up to the point of insolvency or takeover by the authorities, as in the United States, although their actions may be increasingly circumscribed as the problems worsen. If a bank can be bought on the open market either directly or through an open bid for the holding company then the discipline on the bank from the 'market' will be much more effective. If the bank has a mutual structure, is largely private in character or part of a large industrial group (or owned by central or local government) then these pressures will operate very differently. It is clear therefore that in the current context 'market discipline' will be very uneven. There may be few alternative buyers and little pertinent information for such buyers as there are to make informed decisions except at very substantial discounts – they may want to be paid to take on the problem bank.

It is because of all the possible constraints on the other markets that there has been a focus in the literature (see Evanoff and Wall, 2002, for a survey) on the market for subordinated debt. If all banks had to hold a proportion of their capital in the form of subordinated debt that was actively traded and needed to be rolled over frequently, then it might be possible to get some fairly clear market signals that would act as a disciplining device on the bank. This seems a rather unlikely source of finance in most emerging markets but inter-bank finance will be normal. Here, in a less developed market, different pressures may emerge. With relatively few players it may well be possible for the other banks to gang up on a bank thought to be in trouble and in effect refuse to lend to it, in the hope that they as the most likely purchasers can extract a discount. This market closure then pushes the authorities towards intervention.

In any case it is necessary to have more than a clear market signal for it to act as a disciplining device (Bliss and Flannery, 2000). Bank managements or the other stakeholders, including the authorities, that are involved have to respond.<sup>15</sup> Thus the vital ingredients for market discipline are twofold: that there should be an open active market with sufficient well-informed players that the resulting 'price' signal reflects a general view. Second that the corporate governance of the bank and the financial system should be such that this signal is translated into action. Given the constraints we have mentioned affecting markets that impinge on banks it is likely to be a combination of effects on all of the 'stake-holders' in the bank that is required to offer effective market discipline. Lewellyn (2000) suggests it is possible to identify at least seven necessary conditions for market discipline to work effectively, which between them comprise a viable framework.

The disciplining role of the markets (including the inter-bank market) was weak in the crisis countries of South East Asia in the 1990s. This was due predominantly to the lack of disclosure and transparency of banks, and to the fact that little reliance could be placed on the quality of accountancy data provided in bank accounts. This is not an issue for less developed countries alone. For instance, market discipline has not operated efficiently in Japan due largely to insufficient financial infrastructure (weak accountancy rules, inadequate disclosure etc.). The lack of monitors in the form of rating agencies, market analysts and even competitors will be a substantial limitation in many small and emerging markets.

An exit regime merely provides an endpoint to the continuing sequence of pressures that assist the maintenance of prudent banking behaviour. If there is little pressure through the market then the main effort will have to come through the supervisory authorities who are not best placed to exercise it.

## **6 Concluding Remarks**

Taken together the list of six drawbacks suggests that emerging and transition economies will tend to have more problems in handling problem and insolvent banks than their more advanced market counterparts. This will inevitably put more pressure on the authorities to intervene and will tend to result in the distribution of the losses entailed across the economy in ways many would find both arbitrary and inequitable. This increases rather than diminishes the advantages from having a simple and robust scheme of bank exit that not just pushes the authorities into early action before the problems become unmanageable and turn into a crisis but also pushes the banks themselves towards

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<sup>15</sup> The relevant stakeholders include: supervisory agencies, rating agencies, market traders, shareholders, debt-holders, depositors, managers, borrowers and employees. The list is not necessarily complete. The group clearly includes borrowers as they may be heavily affected as a bank gets into difficulty. Loans may be called in rather than rolled over and new business may become difficult.

wishing to keep out of the problem territory and to find private sector solutions.

That said, the authorities in emerging and transition economies are likely to find themselves increasingly in the hands of the advanced country authorities, as foreign ownership of banks becomes more pervasive. While this is likely to help in the maintenance of prudent practices it may pose additional difficulties as banking problems emerge. The home authorities may be prepared to take decisions that have a harsh impact on small host markets, where the banks may be more systemically important, yet have little requirement or willingness to contribute to the costs this imposes. As the European transition economies join the EU they may be able to negotiate a way out of this through local agreements or regional co-operation but generalised international agreement, even at the EEA/EU level, seems a rather distant prospect at present.

The institutional arrangements made to cover problems banks interact, particularly the protection of depositors and robust exit policy. If the deposit insurance company does not have a strong incentive to ensure that banks are well supervised in order to protect its funds, then a robust exit policy may be relatively ineffective in encouraging prudence by banks and may still shift the risks onto the taxpayer in an inequitable manner. If the fund is inadequately capitalised this will still push the cost onto the smaller and less informed depositors (households) and can lead to wider economic consequences in the form of an economic downturn or a spreading financial crisis. In many transition and emerging market economies the incentives in the deposit insurance scheme are inadequate (Beck, 2003). A wider range of changes than just bank exit law is required if the allocation of losses in the occurrence and avoidance of bank insolvency is not to be inequitable for the groups in society less able to protect themselves.

## References

- Aghion, P., Hart, O. and Moore, J. (1992), 'The Economics of Bankruptcy Reform', *Journal of Law, Economics and Organization*, vol.8, pp.523-46.
- Asser, T M C (2001) *Legal Aspects of Regulatory Treatment of Banks in Distress*, Washington DC: International Monetary Fund.
- Bank for International Settlements (2002), 'Report of the Contact Group on the Legal and Institutional Underpinnings of the International Financial System: Insolvency Arrangements and Contract Enforceability'.
- Basel Committee on Banking Supervision (2002) *Supervisory Guidance on Dealing with Weak Banks*, Report of the Task Force Dealing with Weak Banks, March, Basel: Bank for international Settlements.
- Basel Committee (2003) 'The New Basel Capital Accord', Consultative Document, April.
- Beck, T (2003) 'The Incentive Compatible Design of Deposit Insurance and Bank Failure Resolution – Concepts and Country Studies', chapter 4 in Mayes and Liuksila (2003).

- Bliss, R and Flannery, M (2001) 'Market Discipline in the Governance of US Bank Holding Companies: Monitoring vs. Influencing', Federal Reserve Bank of Chicago, March.
- Blowers, B and Young, G (2003) 'The Economic Impact of Insolvency Law', ch.6 in Mayes and Liuksila (2003).
- Brouwer, H, Hebbink, G and Wesseling, S (2003). 'Problems to be Addressed in Resolving European Banking Crises', ch.8 in Mayes and Liuksila (2003).
- Campbell, A. and Cartwright, P. (2002), *Banks in Crisis: The Legal Response*, Aldershot: Ashgate.
- Daniel, J A (1997) 'Fiscal Aspects of Bank Restructuring', IMF Working Paper 97/52.
- Daniel, J A, Davis, J M and Wolfe, A M (1997) 'Fiscal Accounting of Bank Restructuring', IMF Paper on Policy Analysis and Assessment 97/5.
- De Bandt, O and Hartmann, P (2000) 'Systemic Risk: A Survey', ECB Working Paper 35.
- Deutsche Bank New Zealand Group (2003) *General Short Form Disclosure Statement*, Auckland, May.
- Draghi, M, Giavazzi, F and Merton, R C (2003) *Transparency, Risk Management and International Financial Fragility* Geneva Conference on 'Financial Markets: Shock Absorbers or Shock Creators?' ICBM Geneva.
- Eisenbeis, R A and Wall, L D (2002) 'The Major Supervisory Initiatives Post FDICIA: Are they Based on the Goals of PCA? Should They Be?', Federal Reserve Bank of Atlanta Working Paper 2002-31.
- Evanoff, D and Wall, L (2002) 'Subordinated Debt and Prompt Corrective Regulatory Action', Federal Reserve Bank of Atlanta Working Paper 2002-18.
- Giovanoli, M and Heinrich, G, eds. (1999) *International Bank Insolvencies, A Central Bank Perspective*, The Hague: Kluwer Law International.
- Goodhart, C and Huang, H (1999) 'A Model of the Lender of Last Resort', LSE FMG discussion paper 131.
- Goodhart, C and Schoenmaker, D (1995) 'Should the Functions of monetary Policy and Bank Supervision Be Separated?', *Oxford Economic Papers*, vol.39, pp.75-89.
- Granlund, P (2003) 'Do Bank Exit Regimes affect Banking Conditions?' ch.7 in Mayes and Liuksila (2003).
- Group of Thirty (1998) *International Insolvencies in the Financial Sector*, Washington DC.
- Gup, B E (1998). *Bank Failures in the Major Trading Countries of the World: Causes and Remedies*, Westport, Connecticut, & London: Quorum Books.
- Hadjiemmanuil, C (2003) 'Bank Resolution Policy and the Organisation of Bank Insolvency: Proceedings: Critical Dilemmas' ch.11 in Mayes and Liuksila (2003).

- Hart, O. (1999), 'Different Approaches to Bankruptcy', presented at Annual World Bank Conference on Development Economics, Paris, June.
- Hoggarth, G, Reidhill, J and Sinclair, P (2002) 'Resolution of Banking Crises: Theory and Evidence', mimeo, Bank of England.
- Hart, O (1999) 'Different Approaches to Bankruptcy', presented at Annual World Bank Conference on Development Economics, Paris, June.
- Hunn, N, Mayes, D G, Vandersyp, S and Williams, N (1989) 'Financial Deregulation and Disinflation in a Small Open Economy, *NZIER*, Research Monograph 44.
- Hunter, C (2003). Comments on 'Who Pays for Bank Insolvency', Bank of Finland, May.
- Hüpkes, E (2000) *The Legal Aspects of Bank Insolvency*, The Hague: Kluwer Law International.
- Hüpkes, E (2003) 'Learning Lessons and Implementing a New Approach to Bank Insolvency Resolution in Switzerland', ch.10 in Mayes and Liuksila (2003).
- Ingves, S (2003) 'Banking Crisis from an International Perspective', Buenos Aires, 8 April, [www.imf.org](http://www.imf.org).
- Ingves, S and Lind, G (1997) 'Loan-Loss Recoveries and Debt resolution Agencies: the Swedish Experience', in (C Enoch and J H Green, eds.) *Banking Soundness and Monetary Policy*, Washington: IMF.
- Jonung, L and Hagberg, T (2002) 'How Costly Was the Crisis of the 1990s? A Comparison of Finland and Sweden's Deepest Crises', paper presented at 'Sweden and Finland: Economic Interaction, Processes and Comparisons', Työväen Akatemia, Kauniainen, September.
- Kaminsky, G L and Reinhart, C M (1999) 'The Twin Crises: the causes of banking and balance of payment problems', *American Economic Review*, vol.89(3), pp.473-500.
- King, M (1994) 'Debt Deflation: theory and evidence', *European Economic Review*, vol.38, pp.419-55.
- Lastra, R M and Schiffman, H N (eds.) (1999) *Bank Failures and Bank Insolvency Law in Economies in Transition*, The Hague: Kluwer Law International.
- Lindgren, C-J, Baliño, J T, Enoch, C, Gulde, A-M, Quintyn, M and Teo, L (1999) *Financial Sector Crisis and Restructuring: Lessons from Asia*, Washington: IMF Occasional Paper 188.
- Llewellyn, D (2000) 'Financial Regulation: a Perspective from the United Kingdom', *Journal of Financial Services Research*, vol. 17(1), pp. 309-17.)
- Mayes, D G, Halme, L and Liuksila, A (2001) *Improving Banking Supervision*, Basingstoke: Palgrave.
- Mayes, D G and Liuksila, A (2003) *Who Pays for Bank Insolvency?*, Basingstoke: Palgrave (in press)
- Mayes, D G and Vesala, J (2000) 'On the Problems of Home Country Control', *Current Economics*



*and Politics of Europe*, vol. 10 (1), pp.1-25.

Ramsey, R L and Head, J W (2000) *Preventing Financial Chaos: an International Guide to Legal Rules and Operational Procedures for Handling Insolvent Banks*, The Hague: Kluwer Law International.

Schoemaker, D and Oosterloo, S (2003) 'Financial Supervision in an Integrating Europe: Measuring cross-border externalities', mimeo, Ministry Finance, Netherlands.

Sepp, U and Randveer, M (2002) *Alternative Exchange Rate Regimes in Entry to EMU*, Tallinn: Bank of Estonia.

Sigurðsson, J (2003) 'Small Countries, Large Multi-Country Banks: a challenge to supervisors – the example of the Nordic-Baltic area', ch.5 in Mayes and Liuksila (2003).

Stern, G and Feldman, R (2003) *Too Big to Fail: The Hazards of Big Bank Bailouts*, Washington: Brookings Institution (forthcoming).

Tison, M (2003) 'Challenging the Prudential Supervisor: liability vs (regulatory) immunity', mimeo, Ghent University.