

## **Financial Safety Nets: Their Roles and Effects on Market Discipline of Banks**

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## Introduction

There are two principal elements to a financial system safety net – lender of last resort (LoLR) and depositor protection. Much has been written, especially on the latter, with many subtle, ingenious and innovative suggestions made<sup>1</sup>. Many of these are covered in the background paper of this volume. The focus here will be different. It will be to explore the issues that have practical application in East Asia. Many of the proposals in the academic literature come out of the mind-set in which the “magic of the market” should be allowed to do the job. Many of these proposals might have some value in the perfectly efficient markets of Chicago, but have limited application where information is scarce, financial markets shallow, expectations poorly formed and risk premia high. Many are driven by a fixation with moral hazard, which is seen as a deadly sin rather than a fact of life which surrounds us all constantly. Many of the academic ideas come out of the particular circumstances of the USA (where there are a large number of small regional banks, clearly not in the “too big to fail” category), in particular out of the experience with the S&Ls in the early 1980s. For this paper, the filter through which all ideas should pass is to ask the question: “Would this have made any difference if it had been in place in 1997 in East Asia?”

The message that should be taken from this literature and from the experience of bank failure is that incentives and institutions are both important (Douglass North (1990)). The S&L crisis in the USA illustrated the problems of the combination of generous deposit protection, partial de-regulation and inadequate prudential supervision. This created high intrinsic risk, plus the incentives and the opportunity for exploiting the deficiencies of the institutional environment. More relevant to East Asia, the high proportion of banks which are state-owned presents intractable problems of governance which over-shadow many of the financial safety-net issues

To anticipate the conclusion, safety nets are a flawed and imperfect means of preventing a repeat of the hugely-expensive bail-outs of financial sectors in East Asia in 1997-8. It would be a serious policy mistake to rely too heavily on them to prevent another crisis. The main thrust of policy should be towards creating a resilient financial sector that doesn't need much help from safety nets, and a strong and independent prudential supervision that will keep the system sound, identify problems early, and close banks before the owners' equity is wiped out. This might seem an unhelpful conclusion, but it is important to understand what *can't* be done. With this in mind, the paper includes a section (Section III) on the structure of the financial sector, and some discussion of where prudential supervision should sit within the organizational structure. But first, in Sections I and II, the paper looks at the two specific types of safety nets – lender of last resort and depositor protection.

### I. Lender of Last Resort

This is relatively simple in principle, but tricky in application. It has long been accepted<sup>2</sup> that a central bank should “lend freely” (i.e. liberally) to a bank which is illiquid but not insolvent. The special characteristics of banks make them subject to self-fulfilling “runs” which could cause the failure of a sound bank and threaten system stability, so the idea of support in these circumstances is widely accepted<sup>3</sup>. The central issue, almost always, is to distinguish

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<sup>1</sup> Two useful introductions are Garcia (2000) and MacDonald (1996)

<sup>2</sup> See Bagehot (1873)

<sup>3</sup> Following the perceived poor performance of Bank Indonesia during the 1997 crisis, its LoLR function was in effect cancelled in the new Bank Indonesia Act of 1998. It was recognised, however, that this was not a viable position and it has since been restored, although with heavy involvement by the MoF for LoLR loans not secured by government paper. While this may be an understandable reaction to the earlier deficiencies, the danger now is that the decision-making process is too cumbersome to handle problems with the speed that will be required.

between illiquidity and insolvency. The practical issue superimposed on top of this is that the decision has to be made very quickly – in a “next-day” settlement system, the decision whether to support a bank or not could be taken overnight, but now, with RTGS, a bank’s illiquidity will show up in the RTGS payment queue and may become widely known within a very short period of time.

The second major issue with LoLR is co-ordination. If it turns out to be a case of illiquidity, the central bank quickly recovers its funds and there is no need to involve other parties. But usually there is a serious co-ordination issue, made more critical by the need for speedy decision-making. The central bank may be privy to some of the signs of crisis, showing up in the payments system and in the short-term money market. But, even earlier than this, the supervisor may have early warning of the potential need for LoLR from monitoring the bank. In any case, the required information to assess whether this is a problem of liquidity or insolvency certainly requires the sort of information that the supervisor has, so there must be close co-ordination between the supervisor and the central bank.

In practice, illiquidity is often an early sign of insolvency, in which case the co-ordination issue is more complex still. If an insolvent bank is closed while there is still positive shareholder equity, there is no need for budgetary funds. But the usual experience is either the closure takes place after equity has already been exhausted, or (more common still) the bank remains in “open resolution” (i.e. it remains open, usually under the direct control of the supervisor or the central bank). In these cases it is likely that budgetary funds will be needed, so the MoF needs to be involved in the decision-making.

The central issue, then, is to ensure that there is a system in place (including MoUs, well-based strong legal positions, and a detailed “war book”) for rapid decision making, with agreed procedures and time-table for resolving differences of views on, e.g. whether the bank is illiquid or insolvent, and whether to close it or not). Given the need for rapid decisions, there may be a case for the task to be delegated to one organization (which would tend to be the central bank, with its first call on funding).

In the text-book view of LoLR, the authorities weigh up the moral hazard disadvantages of giving a LoLR loan, against the benefits of providing liquidity to the troubled bank. This (which might be called the Bagehot formula) implies a quite narrow and restricted role for LoLR. If markets were perfect and the illiquid bank had acceptable security, there would be little case for the central bank to intervene – in a well-developed financial market, the inter-bank market would sort it out, providing precisely the sort of assistance that Bagehot envisaged – lending at a penalty rate against good security. In practice, the bank may not have marketable security with a well-established value and its solvency may be in question. So the authorities have to weigh up a different set of factors: the possible loss of public funds versus the damage to the financial sector if the bank fails: so the question of systemic impact has to be considered. It is not so much a case of “information asymmetry” (i.e. justifying LoLR on the view that the authorities have more information about the troubled bank than the market does), but rather a sharper feeling of responsibility, on the part of the central bank, for systemic threats, and a greater preparedness to accept some risk to shore up the financial system. It may be that the authorities can persuade the market to provide the financing (e.g. with LTCM, and as was attempted with Barings), but even here there is implicit official support which makes the deal possible – its is not simply a matter of the authorities acting as an honest broker to persuade the other players that it is in their interests to support the illiquid bank. These issues of systemic knock-on effects are probably the hardest to evaluate in practice. It would be wrong to think that this can be settled simply in terms of size. While “too big to fail” may be clear enough, even failures of small banks can trigger re-appraisals of risk that have strong systemic implication (e.g. the “wake-up call” that Thai banking problems gave for other East Asian banks in 1997, with the resulting contagion, or the closure of seven small banks in Jakarta in November 1997).

Whether a bank is “systemic” is context-dependent. The LTCM crisis is a reminder, too, that systemic problems may not simply take the form of runs on banks: the imploding of important derivative markets, or even the drying up of the inter-bank market, may be symptoms of systemic problems which would justify action by the authorities. And, as soon as it is acknowledged that there are important systemic issues at stake, the simple rule of not helping insolvent banks has to be re-assessed: there are times when the cost of saving a bank will be less than the cost of the damage to the financial sector through its collapse. What starts out as a relatively simple idea – provide liquidity to an illiquid but solvent bank which has good security – gets more complicated in practice, and the result is that LoLR has wider application than the original Bagehot concept.

There are, of course, other less difficult technical issues. One issue is what rate of interest to charge on LoLR. The traditional thinking is to charge a penalty rate, in order to discourage use of the facility and encourage early repayment. But in practice this may not be the best course: during the 1997 crisis, when the general level of interest rates was raised significantly, even-higher penalty rates further undermined the viability of banks, and increased the accounting cost of the ultimate taxpayer funded bail-out. Another technical issue is the type of security which the central bank should require when it makes a LoLR loan. While it is obviously desirable that this security be strong, it may be a mistake to write this into laws or regulation, as there may be circumstances where loans have to be given without security<sup>4</sup>.

Does the existence of LoLR cause lack of discipline on the part of banks? The problem here seems to be grossly over-stated in the literature. No bank manager consciously goes ahead with a business plan based on receiving LoLR. Moral hazard will be kept in close check by the sure knowledge that bank management will be dismissed in those cases where the bank needs LoLR to stay afloat. And a carefully-crafted “constructive ambiguity” is one more assurance that a business plan based on intentional excessive risk-taking will not be fostered by the existence of LoLR. The more serious concern is that LoLR may keep a bank in operation longer than is optimal, but this is the central issue discussed above, of deciding whether a bank is illiquid or insolvent, not one of moral hazard. The failure of LoLR in Indonesia in 1997-8 was one of implementation (more banks should have been closed and/or the authorities should have “stood astride” the balance sheets of troubled banks much more vigorously and intrusively), not an indictment of LoLR as such. The suggestions that the market can provide the LoLR facility (Goodfriend and King 1998, Flannery 1996, Kaufman 1999 Freixas, Parigi and Rochet 2000) might make some sense in Chicago, but not in the real world of East Asia.

## II. Depositor Protection

The academic literature tends not to make any *in principle* distinction between partial protection through depositor insurance which covers only a proportion of the funds in the financial sector, and a blanket guarantee (explicit or implicit) which fully protects depositors. In practice, this distinction seems crucial for any discussion of system stability (preventing bank runs), moral hazard and market discipline, and is central also to the organizational structure of depositor protection. So this distinction will be emphasized, calling partial insurance *deposit insurance* and using the term *deposit guarantee* for the (often-implicit) backing by the government of the full deposit.

### (a) Deposit Insurance

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<sup>4</sup> The Republic of Korea handles this issue by allowing the central bank to temporarily redefine what is “acceptable” security.

A fundamental misunderstanding often seen in the literature is that this has much to do with stopping bank runs<sup>5</sup>. The coverage is often low in terms of proportion of deposit *volume* covered (even though the proportion of *depositors* protected is usually high), and the depositors protected are those with the least information about the health of the bank, so they are unlikely to be in the vanguard of a run, even if uninsured. Even though insurance might discourage them from joining a run already started by better-informed depositors, the fact that a large volume of deposits is held by uninsured depositors will mean that the insurance is of little help in staunching the run.<sup>6</sup> The point could be put more forcefully: unless deposit insurance offers an immediate and trouble-free return of deposit and interest *in full*, then it will be in depositors' interests to "run".

So deposit insurance should be seen as performing two *other* functions, not related to stopping runs:

- First, as consumer protection for economically-weak less-well-informed depositors who for social reasons need to be protected.
- Second, to attempt to define *ex ante* what the authorities will do in the event of bank problems. If policy can define clearly who should be helped *before* the event ("in the cool light of day"), this will limit the budget cost of that help.

If this starting point is accepted, then the critical issues surrounding deposit insurance are the *specifications*, so as to achieve these two limited aims efficiently, without being confused by any other purported benefits of deposit insurance. This has important implications (examined below) for the institutional arrangements of the deposit insurance.

### Specifications

- Who should be covered? The current policies in East Asia (see the country papers) give quite wide coverage to institutions and creditors of financial institutions, specifying the *size* of deposit rather than *type* of instrument or institution. This has two deficiencies. First, depositors are able to widen the coverage by deposit-splitting

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<sup>5</sup> In certain circumstances (not relevant to East Asia at present) there was a connection between deposit insurance and weakness in a particular segment of the financial sector. Much of the US interest in this topic (e.g. the many articles of Ed Kane) came out of the experience of the S&L crisis in the early 1980s, where the S&L management used their protected and subsidised position to make unwise and sometimes illegal loans. The combination of circumstances was four-fold: the substantial size of the insured deposits (which meant that institutions could make these deposits the predominant source of their balance sheet funding), the subsidised nature of the insurance (the premia were not risk-related), the partial de-regulation of the S&Ls (which had restrictions on their lending interest rates but none on their deposit rates, which gave these institutions huge intrinsic interest-rate risk when the general level of interest rates rose, as it did in the course of the Volcker deflation of 1979-82), and the woefully inadequate prudential supervision. The expansion of the S&Ls certainly depended on the existence of the subsidised insurance, but this says more about the role of subsidised insurance in inhibiting market discipline (hence the conclusion of Demirguc-Kunt and Kane (2001) that "badly designed deposit insurance curtails market discipline") than it does about the ability of insurance to prevent bank runs. There seems to be agreement in the academic literature that "the presence of poorly designed explicit deposit insurance tends to increase the likelihood that a country will experience banking crises", but the corollary is not true – it is not true that a well-designed system will help prevent bank runs.

In some of this academic literature, there is a process of setting up a straw man (assuming that the rationale of deposit insurance is to inhibit bank runs) and then knocking it down. Thus we see in Demirguc-Kunt and Kane (2001): "According to the theory, more comprehensive coverage should be a better guarantee against depositor runs, but it would also create more incentives for excessive risk taking", and then the test results show, unsurprisingly, that banking systems with deposit insurance are in fact more fragile.

<sup>6</sup> While it may well be that ordinary depositors can exercise a type of discipline on individual financial institutions, it would be a mistake to draw from this that the financial system as a whole will be safer if there is this kind of discipline. Ordinary depositors will not have enough information to assess the viability of a bank (particularly as this requires expert judgements about the value of non-market assets – the loan-book). When depositors become alarmed, they do not exercise gentle increasing pressure on a bank to get its assets in order, but instead rapidly and contagiously remove their funding, so that instead of discipline, the result is crisis.

in the early stages of a crisis, increasing the cost.<sup>7</sup> Second (and more serious), the coverage is not tightly confined to the target group – consumers whose social status warrants protection. There seems no good reason on consumer protection grounds to insure anything other than basic deposits (with banks, or better still, with savings banks, if such institutions exist).<sup>8</sup> All other creditors should go through the normal bankruptcy or winding up process, without an *a priori* claim on the insurer or the government.

- Covering inter-bank deposits seems very risky, as these will be open to collusion during a crisis. These are, in any case, the most likely place that depositor monitoring will take place, and to provide comprehensive insurance for creditors removes this discipline. It would seem better to accept that the inter-bank market is likely to dry up in a crisis and that the central bank will have to redistribute liquidity among banks, using the LoLR.
- Most of the schemes proposed for East Asia involve the depositors paying a premium. It seems to be common practice that the fee is levied on ALL deposits (even the ones that aren't protected).<sup>9</sup> Surely it is a distortion to burden deposits with an insurance cost for which there is no benefit? It is surprising that there is not more effort to implement differential premia for different institutions, with the riskiest institutions paying a higher premium to reflect this<sup>10</sup>. Even where there *are* differential premia (e.g. in the USA), there is no real attempt to make the riskiest pay anything close to the true premium (the highest risk premium surcharge is only 27b.p.). It is, of course, politically difficult to achieve this, but when banks are paying different interest rates to attract deposits (which characteristically might have a differential of as much as 500 b.p.), most of this difference would reflect risk, and justify a premium that was a substantial proportion (say, just for the sake of argument, 50-75 percent) of this differential<sup>11</sup>. Needless to say, this is much higher than anything in practice at present. Of course the weakest institutions would resist, but why do they deserve subsidized insurance?
- The accumulated premia may not be sufficient to meet the cost of pay-out. Whether this is borne by the other insured institutions or by the general taxpayer, it will be better if the means of funding this potential shortfall is determined in advance, rather than after the event (when it almost always falls to the taxpayer). Getting the remaining industry survivors to meet the cost of any scheme shortfall seems both unfair and inefficient<sup>12</sup>.

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<sup>7</sup> This happened in the S & L crisis, when depositors with deposits larger than the protected limit simply split them so that all their funds were covered).

<sup>8</sup> Protection might also be offered (probably from a different insurer) for insurance claimants whose claim is already made, and perhaps for pension funds in the few cases where the private sector provides these to the target group in the community.

<sup>9</sup> Of course there is an argument that if deposit insurance protects the system from runs, then everyone benefits. But we argue here that it doesn't.

<sup>10</sup> This is the key to reducing moral hazard – if there is no subsidy in the insurance, bank management will not have an incentive to over-use it.

<sup>11</sup> It might be noted in passing that if the premia were set at the deposit interest differential, it would then be possible to distinguish between two hypotheses usually confounded in the academic literature – the first hypothesis is that depositors are sensitive to risk and quickly shift out of uninsured deposits, and the second hypothesis, that insured deposits have a hidden subsidy from the insurer, and that depositors favour the subsidised product.

<sup>12</sup> But note that this is the opposite of the advice offered in Demirguc-Kunt and Kane (2001), who see the existence of a fund as an invitation to plunder it. They offer the following: " Empirical research supports the hypothesis that the following features enhance market discipline and reduce moral hazard:

- Credibly low coverage limits per account

- Should the deposit insurance corporation (henceforth DIC) be public or private? Even in the USA it is public (in the sense that the government stands behind it, guaranteeing payment). There seems no compelling reason why this is so, if deposit insurance is seen as a strictly limited obligation.<sup>13</sup> Perhaps the justification is that, as crises are rare events, private insurers will try to wriggle out of their obligations (even if this harms their reputations), and the social objective of the insurance will not be achieved. Granting this point, private sector insurance could be used to *supplement* any compulsory scheme. There should be nothing to discourage a small financial institution which does not have a well-established and widely-accepted risk profile (or which doesn't have a good one) from obtaining additional insurance from a stronger institution, making its own product more attractive. This kind of "credit enhancement" is commonly used in fund management: why not in deposit funding?
- Who should arrange resolution when a bank fails? Because the traditional mind-set of deposit insurance has associated it with managing bank runs, most current systems have the DIC in charge of bank resolution. This is a curious administrative arrangement. The people who have all the background to the bankruptcy event are the prudential regulators (either the central bank or the universal regulator). If there were a constant stream of small banks failing as a matter of routine (as in the USA), it might be argued that the personnel of the DIC would be expert in the specialized task of closing a bank and resolving its assets, including the payment of the depositors. Even here, only a proportion of these depositors will be "customers" of the DIC, in the sense of eligible for payment. In the common circumstances of East Asia, where the DIC is less likely to have this continual low-level stream of cases to hone its expertise, it seems particularly anomalous to give the task of bank resolution to the DIC. It is difficult to believe that its personnel will have the experience and expertise to handle these issues well. In addition, to separate resolution from both the LoLR and prudential supervision creates a serious issue of co-ordination. In many cases, failure is preceded by LoLR. At some point the decision has to be made that this is not a case of illiquidity, but of insolvency. Who makes this decision? The LoLR is clearly the domain of the central bank. When they decide that it is no longer a case for LoLR, does this automatically make it a case for the DIC? If so, the central bank is making the decision which will trigger the DIC's obligations. Will the DIC have the incentive for quick closure of banks, when this triggers its obligations? Doesn't the prudential supervisor have the best information on managing an insolvency? There will be needless duplication of monitoring if the DIC resolves bank failures. And why should the DIC be in charge of an event which not only involves significant depositors *other than* those eligible for protection, but with significant implications for financial system stability? For all these reasons, the DIC seems the wrong institution to carry out bank resolution. It has a well-defined narrow task of paying out eligible depositors, and it should leave the resolution to the prudential supervisor or the central bank.
- There will be wide-spread calls for assistance in the event of a crisis. A very narrow deposit insurance will not be enough, and as this is widened ex post under political pressure, any value in defining and limiting the claims will be lost. Either the authorities should accept that there will be a different response to a crisis (e.g.

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- Narrow coverage (e.g., excluding interbank deposits)
  - Coinsurance (and alternative private loss-sharing arrangements such as subordinated debt and extended stockholder liability)
  - Compulsory membership
  - Ex-post funding
  - Targeting surviving banks to cover losses (although taxpayers may be asked to assist banks in a truly systemic crisis)
  - Private-public joint management

<sup>13</sup> Similar guarantees on housing mortgages in Australia are made by private insurers

temporary introduction of a blanket guarantee), or the insurance coverage needs to be quite wide, to cover all groups who might make a legitimate claim for help in the event of a system-wide crisis.

Where does this leave the question of moral hazard in relation to deposit insurance? Again the dangers seem to be exaggerated or misunderstood. For any insurance policy, there will be some element of moral hazard: those who carry fire insurance on their houses may be a little less careful with the stove: but they would still regard a fire as a serious event, so will not be subject to much moral hazard. This would be the case also with deposit insurance if the premia were fully risk-adjusted. The real problem here is that the premia are rarely adequately risk-adjusted, so there is an implicit subsidy to the most risky banks. It is this problem of *subsidy*, rather than moral hazard, which causes the system to be more risky than it should be. Perhaps the most commonly-cited paper supporting the view that deposit insurance creates substantial moral hazard is Demirguc-Kunt and Detragiache (2000), which uses a large data sample from sixty or so countries to show that the presence of deposit insurance raises the probability of a banking crisis. The power of the econometric technique is hard to evaluate (including the instrument variables used to establish direction of causation), but in any case the connection between deposit insurance and moral hazard (and hence to over-extension of risky lending) is only one possible explanation: if deposit insurance premia are subsidized for the most risky banks (which seems to be universal in practice), this would be enough to explain the over-expansion (and subsequent failure) of risk-prone banks. Just as banning the wearing of seat-belts would not be the appropriate answer to the moral hazard issue, arguing against deposit insurance on the grounds of moral hazard seems mis-guided: the answer is to devise forms of insurance which are not overly-prone to moral hazard.

#### (b) Deposit Guarantees

These are almost always implicit and in quite a few cases there is a strong presumption of full protection for depositors.<sup>14</sup> In this case, all the criticisms usually directed against deposit insurance are relevant<sup>15</sup>. There is never enough pre-arranged funding, and the burden always falls on the taxpayer. There is a large open-ended commitment on the taxpayer's behalf to make good not only the deserving cases, but those who should have known better. There is moral hazard for depositors, management and shareholders, although the moral hazard element is often exaggerated. Some analysts talk as if bank managers set out to fully exploit the opportunities by embarking on reckless risk. No doubt there are cases in history where this occurred, but the more common form of moral hazard is the "gamble for resurrection". The institutions does not start out with a business plan based on the probability that it will be saved by the government, but rather it is run by natural risk-takers who when faced by adverse circumstances, then decide that if they are going to go broke anyway, they might as well "throw the dice" for resurrection or spectacular collapse; and the presence of the guarantee lets the business stay alive longer and run up bigger debts. Four points might be made here:

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<sup>14</sup> This is well-based on history in most countries. Is Argentina the only recent case where depositors have lost significantly in a systemic collapse?

<sup>15</sup> The academic literature is generally quite critical of unlimited deposit guarantees. Honohan and Klenggebiel (2000) probably reflect the consensus when they say that these guarantees raise the fiscal cost of crises and are adverse for longer-term growth, but it is difficult to see how either of these assertions can be tested in the absence of the counterfactual – either how the particular country would have gone without the guarantee, or a good sample of countries that did, in fact, try to go without a guarantee (c.f. Argentina). It was probably these views that inhibited Indonesia from adopting a blanket guarantee in 1997, and the delay in putting this in place is now generally accepted to have been a serious mistake, which probably made the resolution even more expensive. If it's such a bad idea, why do so many countries do it (Sweden 1992, Japan 1996, Thailand 1997, Malaysia 1988, Indonesia 1998, Turkey 2002)?

- This is a reminder that the main effort ought to be in building a resilient financial sector and ensuring speedy resolution of problem institutions while they still have positive equity.
- To combat moral hazard, it is legitimate to have ambiguity about when and how it should be used. But it should be thought out in advance so that it is not chaotic. The decisions to use it will be far-reaching and require substantial coordination between central bank, prudential regulator, DIC and the MoF (which will have to meet most of the funding cost). A detailed “war book”, with settled legal positions and agreed co-ordination procedures, seems vital.
- Above all, it should be thought of as a *totally-different* system from deposit insurance, with completely different problems and different solutions. A key insight here is that deposit insurance involves little or no discretion on the part of the implementing institution (it is just like any other insurance, such as fire insurance), but implicit deposit guarantees require huge discretion and flexibility when they are implemented. So the methods for control and governance will be hugely different.

How to go from a deposit guarantee (blanket guarantee) to a deposit insurance regime? The important point is to recognize that the latter is not a substitute for the former, and whatever the motivation for the former, it has to have sorted itself out before the guarantee is ended. Each of the countries examined here has used, or will use, a staged reduction of the deposit guarantee. To have a progressive reduction in the amount insured, as a quasi transition measure, seems to misunderstand the relationship (or lack of relationship) between insurance and guarantees. The issue is whether the removal of the blanket guarantee will cause a run on some banks (e.g. the small ones) that can be seen as “systemic”. If the system is strong enough to avoid this sort of run, and prudential supervision politically-strong enough to close individual banks that get into trouble, then the blanket guarantee can go, and there doesn’t seem to be any real reason for doing staged reduction in coverage – once the blanket is gone, the system is vulnerable to a bank run and every time there is a new “stage” of the reduction process, attention will be drawn to the issue. Thinking of deposit insurance (which doesn’t stop bank runs) as a replacement or successor to a blanket guarantee (which does stop bank runs) just confuses the issues.

### III. Elements in an Improved Financial System

The starting point is that another crisis is likely in East Asia at some stage. Financial systems remain vulnerable because of unreliable commercial information, uncertain legal systems, the huge and destabilizing capital flows that are a part of globalisation, the strains brought by deregulation and still-evolving institutional structures, and the likelihood of asset bubbles.

The other basic starting point is that, in the face of a systemic crisis, depositors are almost always saved (at the expense of the taxpayers).<sup>16</sup> If the issue is to avoid these costly systemic crises in future, either this almost-universal practice of saving the depositors would have to change, or the financial system has to become more robust. So clear thinking about this choice would help. The first question to ask is: “Is it realistic to think that bank depositors can be allowed to lose a substantial part of their deposits?” In most countries the answer is “no”, no matter how many times the authorities say that they won’t save depositors.<sup>17</sup> If the judgment is that depositors will be saved, then the pre-crisis task is

<sup>16</sup> Argentina in 2002 is the obvious exception, but the cost of this policy was to leave the banking sector seriously scarred, even years later.

<sup>17</sup> The Argentine experience may be relevant, with judgements made about whether the long-term damage to the financial system was worthwhile. New Zealand tried hard to create this environment, but as almost all the banks operating in New Zealand are foreign owned (and protected by the foreign prudential supervisor), this was a rhetorical exercise rather than a test of deposits-at-risk.

two-fold. First, to limit the depositors who will be saved to as small a group as possible. The second element is to make the financial sector more robust.

We have already explored one tactic for limiting the coverage of the depositors to be saved, through deposit insurance. If this insurance cover is wide enough, it may meet the political need to save depositors. But consumer protection (the social need to protect the weak and ignorant) is not the only reason why banks are bailed out. The risk of contagion combined with the value of a stable, reliable and secure financial system are the common motivations for bank bail-outs. So the answer is not to be found in deposit insurance (although that may help), but in a more robust financial system. The key question, then, is whether it is possible to create a financial system which is either robust as a whole or, if this is not feasible, one which has a sufficiently substantial *core of robust institutions* which can survive serious shocks, and the non-core institutions can fail without this threatening overall financial sector stability.

This perspective takes the focus away from *depositors*, to the financial *institutions*. Which ones should be made robust and how? The core institutions should serve a two-fold purpose: to provide the basic essential services of the financial sector (e.g. the payments system) which need to be maintained during a crisis, and at the same time, these institutions should hold deposits of those who will be saved on consumer-protection grounds.

This suggests the need for *differentiated* financial institutions, each with different risk characteristics. It might be seen in terms of concentric circles, with “savings banks” (Milton Friedman’s “narrow banks”) as the safe core. These institutions are safe, because they hold government securities as their predominant asset.<sup>18</sup> Weak depositors should keep their deposits in the safe core institutions, and this does away with the need for deposit insurance. The key insight is that depositor protection comes through protecting the *institution, not the depositor*. These savings banks could provide a basic payments system (including the facilitation of foreign trade). So, even businesses should keep some funds with saving banks. Protection could be explicit – i.e. guaranteed by the government, as it is costless to guarantee an institution which holds predominantly government securities.

Of course there is more to a financial system than savings banks. A well-functioning economy requires financial intermediation - providing loans to businesses too small to raise funds directly through own-name bond issuance, and provision of basic hedging services. So the next ring of the concentric circles – commercial banks – needs to be robust as well. Much more intrusive supervision (and restrictive rules) for such near-core institutions are the key. For example, perhaps they shouldn’t be allowed to give FX loans, and their hedging and derivative activities may need close control. Wider concentric circles encompass commercial bond markets, futures markets, mutual funds, pensions and insurance, each with its own risk characteristics and its own specific methods of supervision, with these risk differences well understood by the public<sup>19</sup>.

If this is such a good idea, why is it not widespread practice? The problem, for most developed financial markets, is that the dominant institutions had already become conglomerates early in the process of financial deregulation, and those that hadn’t, didn’t want any constraints on their development. The mind-set of the de-regulation era was that any government interference was bad, including rules that confined certain institutions to certain sectors of the market (“the playing field must be level”). This was, of course, inconsistent with what was happening elsewhere in the economy, as rules confining people to particular professions were regarded as acceptable (doctors and plumbers were each

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<sup>18</sup> Of course this balance sheet needs to be managed to avoid interest rate risk.

<sup>19</sup> This system has been suggested for Indonesia in Grenville (2004)

required to “stick to their last”, and not do each others’ work). It is, for the developed countries, now too late to change. Using the powerful analogy of Al Wodjnilower (1991), the animals have escaped from their cages, and cannot be put back. But for emerging markets, it may not be too late. A strong case can be made for requiring separation of institutions by risk, and enforcing this for the next few decades until deep institutional changes happen – to the availability of commercial information, the legal system and governance in general.

This is a big issue, and it may not be realistic to leave the analysis there, and wait for this major change in the evolution of the financial sector. If we accept that this kind of risk re-arrangement is not going to occur, then the remaining task is to make prudential supervision very much better than it has been. What are the issues?

- Contrary to the current wisdom (or fashion), the central bank is probably the best prudential supervisor. It is independent, already has expert staff and pays good salaries. No newly-created universal supervisor will have this degree of independence, and in all likelihood will not be able to pay the same salary levels. A central bank is more likely to act quickly to protect its overall reputation by closing a weak bank. The concern of conflict between prudential and monetary policy is a misunderstanding of the issues: it is right and proper for the stance of monetary policy to take account of the health of the financial system (c.f. Greenspan’s now-lauded efforts to “lean against the wind” in the early 1990s). Obviously, putting prudential supervision, payments supervision, LoLR and crisis resolution all in the central bank removes many of the coordination problems that arise between institutions in a crisis, although there is still a need for coordination with the MoF.
- Perhaps the greatest misunderstanding that resulted in the popularity of universal supervisors is the idea that all financial institutions are affected by risk, and therefore their supervision would be the same. It is now clear (if it wasn’t ten years ago) that the balance sheet of an insurance company is totally different from that of a commercial bank, and needs to be managed differently. Managing a mutual fund or fund manager is totally different again, and each type of institution tends to have a certain type of person working for it<sup>20</sup>. The case for having these different institutions over-seen by the same supervisor is no more logical than having the technical work of surgeons and lawyers over-seen by the same regulator.
- The main drawback of a universal regulator, from the taxpayers’ viewpoint, is that it creates a presumption that if some institutions are saved (and banks always are), then all financial institutions ought to be saved.
- When prudential supervision is carried out by the central bank, there is the possibility of funding the administrative costs from the central bank’s budget (often derived largely from seigniorage). With the popularity of stand-alone universal regulators, the common practice is to levy a charge on the supervised institutions, but this tends to leave the regulator with insufficient funds to carry out the intensive supervision which is often required, and may leave the regulator subject to pressures from the regulated institutions. Above all, it doesn’t recognise the substantial externalities that come from good regulations, and the cost to the general taxpayer of poor supervision: there is a strong case for funding the supervisor from the budget.
- Speed of closure is the central issue to protect taxpayers. This makes independence of the regulator paramount. Judging by the experience in East Asia in 1997, the main vulnerability of the taxpayer’s purse is from looting by management and owners during a banking crisis.

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<sup>20</sup> It might be worth noting that the fashion for “bankassurance” seems to have passed, and some banks which went down this path have attempted to unwind the union.

- State-owned banks have intrinsic governance problems that suggest it is desirable to privatize them as soon as feasible. (These problems are much less serious with narrow banks, so one step in the right direction is to transform state commercial banks into savings banks).
- Competition makes banks commercially efficient, but not necessarily safer.
- There are advantages in encouraging foreign banks to set up or take over existing domestic banks. Why not give the riskiest tasks in the economy to foreigners, especially ones with deep pockets? (and they are also the most profitable ?)
- If family ownership causes problems, why not impose a limit on shareholding (as is done in many countries). If multi-industry conglomerates and related lending are a problem, why not prevent non-financial companies from also owning banks (as is done in many countries)?
- Transparency and disclosure are laudable and desirable attributes, but depositors will never be able to give useful advance warning of problems. For a bank, the critical issue is almost always with the quality of loans, which balance sheets don't reveal in a timely way. Only good supervision will pick the problems in advance.
- Subordinated debt might have a place as an early warning in deep sophisticated markets, but not yet in East Asia. And it requires control over ownership of this debt.

#### **IV. Country Comparisons**

This section compares the situation (and the prospective situation) in the four countries under study here. Rather than do this country-by-country (which is done to a large extent in the individual country papers), the comparison will be by characteristic.

First, each country has a well-established (and well used) lender of last resort. As is usual, it is administered by the central bank, but in the case of Thailand, the legal institution is the Financial Institutions Development Fund, effectively a division of the central bank (but with its own balance sheet and capacity to issue a range of debt (backed by the BoT) and hold equity in the troubled institution). As is normal, the exact circumstances under which the LoLR would be used in these four countries are left ambiguous. Again following convention, the principle is that a bank which is illiquid but not insolvent would be given assistance, but there is enough ambiguity in this (both before and after an event) to make the provision of LoLR less than automatic, which may help reduce the moral hazard aspects. In each of these four countries, however, the LoLR has been used often enough, and in a sufficiently comprehensive manner, to mean that there is a strong presumption that it would be available for any bank experiencing illiquidity. In practice in all four countries, LoLR has been used as a holding operation – providing temporary liquidity while the authorities were working out what to do with the troubled bank – whether to close, merge or re-organise it. Even though the central bank is always the formal administering institution, in several cases the funds and the means of resolution came from outside the central bank's balance sheet – with the resolution of Bank Summa in Indonesia in the early 1990s and though Petronas funding in Malaysia in the 1980s. It might be worth noting that, following the perceived poor performance of Bank Indonesia during the crisis, the LoLR was effectively removed in 1998, but this was recognized to be an error and LoLR capacity was restored in 2004, with a prominent role for the MoF in implementation. As formal deposit insurance schemes are generally a post-crisis phenomenon (except for the Republic of Korea, which introduced a scheme in 1995), and with all but the Republic of Korea yet to remove the blanket guarantee, the relationship between LoLR and deposit insurance (each implemented by a different institution) has not yet been tested in any of the countries, so the central issue of co-ordination remains to be definitively resolved in practice.

The experience of The Republic of Korea in removing the blanket guarantee might be of some wider relevance. While there is some evidence of “depositor discipline” (in the sense of withdrawal of funds from the less secure banks), this occurred most noticeably during the period of the crisis, when the blanket guarantee was in place. There are no obvious indications that the depositors reacted to the ending of the blanket guarantee, either by withdrawing deposits in general or by shifting their deposits to stronger banks.

Acknowledging that LoLR and deposit insurance have tended to overlap in the past, we can look ahead at the characteristics of *deposit insurance* which have been put in place since the crisis. First, the coverage. At present, in three of the four countries, blanket guarantees still exist, a legacy of the 1997 crisis (the exception is The Republic of Korea). But in all countries a deposit insurance agency is planned. In all cases it is envisaged that the guarantee will cover only “smaller” deposits (although the cut off is generally quite high by international standards: in Europe the minimum cover, according to the EC-wide requirement, is approx \$20,000 and the actual coverage tend to be around \$40,000, for countries with much larger GDP). This generally gives coverage to the vast majority of depositors (around 90%), but it is important to note that the *percentage of deposits covered* is very much smaller – generally around 25-30 percent. With 70-75 percent of the volume of funds *not* covered, these funds will be subject to withdrawal by depositors who have doubts about the bank. If a bank lost even a small part of these funds, it would be illiquid. So the important point to note is that deposit insurance, as planned or implemented in these countries, does not provide much protection against a bank run.

Still on the issue of coverage, it is surprising that deposit insurance in three of the four countries extends beyond commercial banks, to cover other financial institutions as well. There may be grounds for providing some consumer protection to, say, insurance companies, but it would generally have quite different characteristics from bank deposit insurance – it might cover claims made but not yet paid out. To the extent that deposit insurance is mainly aimed at providing consumer protection to weaker depositors, there seems no strong reason to provide it to institutions beyond the core banks, provided the weaker elements in the community know that they should place their deposits with the insured institutions.

None of the deposit insurance institutions will attempt, at least initially, to set different premia so as to reflect risk differential of individual institutions, although Malaysia specifically envisages doing so after two years of experience with the scheme, and the other three countries may do so.

In each of these countries, the deposit insurer is seen as the central institution in resolution of failed/failing banks. If the arguments made above are accepted, this seems a sub-optimal institutional arrangement.

Perhaps the main moral hazard issue arises from the extent of government ownership (either full or partial) of the banking system. It is very difficult to imagine circumstances in which a government would *not* fully protect all depositors in a financial institution in which the government held any significant ownership (even well short of full ownership).

Finally, the issue of co-ordination seems potentially very difficult. With four separate institutions involved (central bank, universal prudential supervisor, deposit insurance agency and Ministry of Finance) the task of coordinating information and decision-making seems particularly challenging. Unless there are clear MoUs and specific plans (“war books”), it is difficult to make good policy in the fraught atmosphere of a financial crisis.

Table of Country Comparisons

	Indonesia	Thailand	Malaysia	The Republic of Korea
<b>Explicit DCI before 1997 Crisis?</b>	No	No	No	Yes (1996)
<b>Implicit guarantee by precedent?</b>	Yes	Yes	Yes	Yes
<b>Blanket guarantee during crisis?</b>	Yes (Jan 1998)	Yes (Aug 1997)	Yes (Jan 1998)	Yes (Jan 1998)
<b>Blanket guarantee still?</b>	Yes	Yes	Yes	No
<b>DIC now?</b>	The Deposit Insurance Agency (LPS) will be effective in September 2005	Not yet but planned	Not yet but planned	Yes
<b>Institutional coverage</b>	Commercial Banks	Most financial institutions	Banks and finance companies	Most financial institutions
<b>Depositor coverage (approx \$US)</b>	10,000	25,000	?	40,000
<b>Depositors protected %</b>	90	“protect vast majority”	“protect vast majority”	
<b>Deposits protected %</b>	25	32		
<b>Universal prudential supervisor?</b>	Not yet but legislated for 2010	No but under review		Yes
<b>Will DIC resolve failed banks?</b>	Yes	Yes	Yes, under delegation from BNM	Yes
<b>DIC premium for banks</b>	0.1% of TOTAL deposits	0.4% of TOTAL deposits		0.1% of deposits
<b>Risk-related premia?</b>	Not yet but later	Not yet but later	Later	Not yet but later
<b>% of financial sector controlled by Govt</b>	70	30+	Quite high – see Table 2.6 of Country paper	20

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