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Designing Banking Sector Safety Nets: Australian Experience

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1. INTRODUCTION

At the start of 2004 Australia and New Zealand were the only two countries in the OECD which did not have some explicit form of deposit insurance. Given the trend world wide towards inclusion of deposit insurance as an integral component of the "safety net" associated with banking regulation it is of interest to examine why the Antipodean approach has, to date, been different. Indeed, a wide ranging official review of Australian financial sector regulation conducted in 1997 (Wallis, 1997), explicitly recommended against introduction of deposit insurance.

More recently, however, the topic has reemerged as a matter for public policy debate, driven, perhaps unusually, not by developments in the banking sector, but by Australian experience in the insurance industry. In March 2001, one of Australia's largest insurance companies, HIH, failed with a shortfall of assets relative to policy and other liabilities estimated to be in the order of AUD 4 billion (USD 2 billion at the exchange rate of the time). Although there was no policy holder protection scheme in existence, the Australian government (after a delay of several months) introduced a taxpayer funded compensation scheme for retail customers of the failed institution. The resulting cost to taxpayers is in the order of AUD 800 million. In addition, two State governments assumed liability for payments to certain beneficiaries under compulsory third party insurance policies (workers compensation, auto insurance etc) written by HIH[1], substantially increasing the cost borne by government.

[1] HIH only operated in those markets in the states where private rather than government insurance was possible.

This experience prompted a government initiated review of the case for deposit insurance, and several possible reasons can be identified. First, the HIH Royal Commission report (HIH Royal Commission, 2003) recommended the introduction of a policy holder guarantee scheme, thereby putting the issue of financial sector safety net arrangements firmly in the public policy debate. Second, as a result of the Wallis Report's recommendations, Australia has an integrated prudential supervisor, The Australian Prudential Regulation Authority (APRA), responsible for supervising deposit taking institutions, life and general insurance, and superannuation (pension) funds. To consider introducing a guarantee scheme as part of the safety net relevant to some financial products provided by institutions supervised by APRA without at least considering the merits of similar schemes for products (such as deposits) provided by other institutions would seem shortsighted. This appears to be particularly so when the widespread international use of deposit insurance schemes is compared with the relatively limited use of policy holder protections schemes.

In addition to these specifically Australian features, the continued international growth of deposit insurance schemes since the Wallis Report, and the "best practice" pronouncements of international agencies such as the IMF and World Bank in favor of (well designed) deposit insurance, perhaps suggested a need to review whether the negative view of the merits of deposit insurance of the Wallis Report was still warranted.

Following what has become common Australian practice towards the process of financial reform, the Australian Government initiated a Study of Financial System Guarantees in

September 2003 to provide opportunity for public consultation and debate on the topic, before any policy changes would be considered. A focus of the Study was which, if any, financial products (including insurance and deposits) had characteristics which would warrant the introduction of guarantee schemes providing limited coverage to retail customers. This chapter draws on that study (Davis, 2004) to review the issues involved in a consideration of whether deposit insurance is warranted as a component of a financial system safety net for Australia.[2]

The case, it is argued, is finely balanced, with the relative weights to be attributed to various arguments important and, in the absence of strong empirical evidence, open to debate. It is suggested here that, on balance, a case exists for introduction of some form of deposit insurance scheme (with characteristics to be outlined subsequently), but it should be noted that this conclusion is at variance to the views generally expressed by executives of deposit taking institutions and their industry associations as part of the public consultation process. It is unlikely that a policy decision on the issue will be made until some time in 2005.

The remainder of this chapter is structured as follows. Section 2 provides an overview of the Australian deposit taking sector and the approach to regulation, depositor protection, and failure resolution which has been followed to date. Section 3 draws on that experience to review the merits of the arguments for and against introducing deposit insurance into the Australian financial system. Section 4 considers some features of the

[2] A recent perspective from the Reserve Bank of New Zealand on the rationale for the absence of deposit insurance in New Zealand can be found at http://www.rbnz.govt.nz/banking/Regulation/0154814.html

type of scheme which might be appropriate given the institutional characteristics of the deposit taking sector. Section 5 provides concluding remarks.

2. INDUSTRY STRUCTURE, REGULATION AND DEPOSITOR PROTECTION

The deposit taking sector in Australia consists of three segments: banks, building societies and credit unions. All are subject to common licensing and regulation by APRA under the category of approved deposit-taking institutions (ADIs), with banks differentiated within that category primarily by a minimum capital size requirement. In practice, size, financial sophistication, range of activities, balance sheet structure, and organizational form (joint stock versus mutual ownership) are characteristics which distinguish the three segments, but all are effectively banking institutions raising deposit funds from the public. The term ADI will be used henceforth.

Table 1 shows the structure of the ADI sector in Australia at June 2003. The dominance of the four major banks is readily apparent, with the heavily skewed size distribution suggesting to some commentators a potential problem for any ADI wide contributory deposit insurance scheme.

[Insert Table 1]

What is also noteworthy about the sector structure, particularly for considering depositor protection issues, is the relationship between domestic deposit liabilities and assets in Australia (transactions with residents on the domestic book of the institution[3]) of the different groups. The Australian banks have Australian assets significantly in excess of Australian deposit liabilities. For the major banks only some 50 percent of the funding of Australian assets comes from Australian deposits with the remainder due to equity and other regulatory capital, subordinated debt issues and overseas borrowings (through branches and subsidiaries). The difference is much less for building societies and credit unions, but the buffer of Australian assets over Australian liabilities is significant and larger than might be suggested by a focus solely on capital ratios.

[Insert Table 2]

These figures assume major importance in examining the nature of depositor protection existing in Australia because of the operation of *depositor preference* legislation found in the *Banking Act*. Specifically, Subsection 13A(3) of the Banking Act provides that[4]:

> 'If an ADI becomes unable to meet its obligations or suspends payment, the assets of the ADI in Australia are to be available to meet that ADI's deposit liabilities in Australia in priority to all other liabilities of the ADI'.

[3] For the definition of a bank's domestic book see http://www.apra.gov.au/Statistics/Monthly-Banking-Statistics.cfm

[4] This provision does not apply to branches of foreign banks.

Further provisions of the Banking Act require an ADI to hold assets in Australia greater than deposits in Australia.

Given the existence of depositor preference and the current structure of bank balance sheets, there is, in aggregate, a very substantial buffer of claimants on Australian assets who rank behind Australian depositors. At this time, the severity of failure required for Australian depositors of a major bank to lose money is so extreme, that the probability of losses to Australian depositors and the likely extent of any such losses are very small. Thus the focus of some commentators on the skewed asset distribution of ADIs as an impediment to pooling of risks for a deposit insurance fund misses the critical point that risks to such a fund are not closely related to the asset size of the institutions involved.

These aggregate figures do, however, disguise some variability across banks, and it is possible that changes in the relative cost of alternative sources of funds could cause the future structure of bank balance sheets to be markedly different (even for the four majors). For example, one relatively recent entrant into banking in Australia had (at end July 2004) a ratio of Australian assets / Australian deposit liabilities of 118 (significantly less than the industry average), on a balance sheet size of $20 billion, while another of size $2 billion had a ratio of 114.[5]

[5] The banks referred to are ING Australia and Elders Rural Bank respectively. Source: APRA Monthly Banking Statistics, http://www.apra.gov.au/Statistics/Monthly-Banking-Statistics.cfm

Even in these latter cases, and for Building Societies and Credit Unions, current balance sheets indicate a significant buffer of capital and other subordinated liabilities to provide protection to Australian depositors as shown in Table 2.

Complementing the depositor preference rules is the application of the Basel Capital Accord to all ADIs, requiring capital to exceed eight per cent of risk weighted assets. For the non-bank ADIs and smaller banks with primarily Australian operations and few non-deposit liabilities, the requirement to comply with this minimum capital ratio is potentially more relevant for assessing the level of depositor protection than is the operation of depositor preference rules. The effectiveness of such capital regulation in protecting depositors, however, depends on the veracity of asset valuations and the enforcement of minimum requirements, rather than forbearance, by the supervisor.

Examination of the historical record over several decades, without knowledge of subsequent regulatory changes, would not give significant comfort in this regard. In the late 1980s and early 1990s, two large State Government owned banks failed, the largest building society failed[6], and two relatively large credit unions failed. In no case did Australian depositors lose money, but that reflected the facts of government ownership (and thus liability), taxpayer funded bail-outs, and in the case of one credit union the operation of a (now defunct) State industry-based "stabilization" fund.

The structural problems mitigating against adequate supervision of the ADI sector were attended to during the course of the 1990s, firstly by creation of a national supervisor for

[6] Kane and Kaufman (1993) provide an analysis.

non-bank ADIs (rather than relying on state government based supervision) and subsequently by the creation of APRA in 1998, with responsibility for all ADIs as well as insurance and superannuation. Strict quarterly reporting requirements, involvement of external auditors in the supervisory process, application of the Basel Capital Accord, and other regulatory restrictions involving such things as large exposures and liquidity management requirements are among the regulatory requirements faced by ADIs. Although there is no legal requirement to enforce "prompt corrective action" by the supervisor in dealing with troubled institutions, APRA's inability to forsee the troubles facing HIH and its eventual (costly) failure, have led to improvements in the governance and incentive arrangements for APRA which are designed to prevent forbearance and induce prompt action whenever potential breaches of minimum capital requirements are suspected.[7]

In summary, Australia's financial supervisory and safety net structure has not included deposit insurance. Current strong capital adequacy requirements and depositor preference provisions, allied with strict supervisory activities, could be seen as suggesting little need for introduction of such a scheme. At the same time it can be argued that an implicit insurance scheme already exists – despite government disavowal – prompted in part by a history of measures taken to protect (at least some) customers of failed financial institutions. Whether the current approach (which can be characterized as either implicit guarantees or as a case-by case government response to compensation following failure)

[7] Details of the changes made in the Australian Prudential Regulation Authority Amendment Act 2003 can be found in APRA (2003)

is preferable to introduction of an explicit scheme providing limited deposit insurance to retail customers is considered in the following section.

3. ASSESSING THE CASE FOR CHANGE

The case for introducing deposit insurance as a component of safety nets has been reviewed by many authors, including recently by Demigurc-Kunt and Kane (2002) who noted that "deposit insurance is neither always good nor always bad. It can be a useful part of a country's overall system of bank regulation and financial markets". They argue that poorly designed schemes can create significant risks for taxpayers if institutional arrangements inhibit market discipline and do not provide appropriate incentives for regulators to prevent forbearance towards weak institutions.

This perspective highlights the fact that a cost benefit analysis of the case for introducing deposit insurance has two major components. On the one hand, from an *ex post* perspective, a deposit insurance scheme is simply a mechanism for redistributing across society the losses which have occurred as a result of an ADI failure. Whether such redistribution is necessary or desirable (which may depend on the type of scheme involved) is one relevant component of the cost benefit analysis (as are the administrative and compliance costs of operating such a scheme). On the other hand, such an *ex post* perspective is, by itself, inadequate, since it ignores the potential behavioral consequences, and their economic effects, which may arise from the existence (and design) of a deposit insurance scheme. The cost benefit calculation thus also needs to

incorporate an assessment of behavioral responses and their consequences such as those examined by Demigurc-Kunt and Kane.

3.1 Loss Redistribution

Any assessment of the need for and merits of redistribution of losses involved in a deposit insurance scheme needs to take account of the counterfactual. If there were no explicit deposit insurance scheme and an ADI failure occurred how would the failure be resolved and what losses would be incurred by its depositors?

In the absence of a government bailout, depositors would face two potential types of loss. One is the possibility that assets of the failed institution are inadequate to meet depositor claims. (Remember that depositors rank ahead of other claimants under depositor preference legislation, so that the failed institution's assets may still be sufficient to meet depositor claims in full). The second is temporary loss of access to their deposit funds, and a period of uncertainty about what financial loss might be incurred.

These latter transition costs depend very much on how the regulatory failure management process operates. In some cases, it may be that the institution's decline is sufficiently orderly that the regulator (APRA) is able to facilitate a transfer of business or use other resolution processes which enable (at least some) depositors continued easy access to their funds. In others, however, the extent of potential insolvency may be sufficiently unclear as to create difficulties for arranging an orderly exit of the institution with

minimal transition costs for depositors. In these circumstances an explicit deposit insurance scheme has the advantage that it enables immediate payouts to insured depositors (typically involving transfers of accounts to other institutions, rather than explicit cash payouts), with the insurer becoming a substitute claimant on the failed institution. Given a lack of experience and some uncertainty about how well existing failure management mechanisms would operate for ADIs in a distress situation in Australia under current regulatory arrangements, the clearer specification of such mechanisms which is associated with an explicit scheme is one significant advantage.[8]

The possibility and scale of financial losses to depositors at a failed institution in the absence of an explicit scheme also depends upon government policy. Here, despite an avowal of *caveat emptor*, Australian governments have shown a tendency to use taxpayers' funds to at least partly compensate some individuals facing financial loss from financial institution failure.[9] The responses to the HIH insurance failure in 2001, and to the failure in 2002 of a medical insurance fund (UMP/AMIL), are recent cases in point.[10] In the late 1980s – early 90s, the State Governments of Victoria and Western Australia respectively bailed out depositors of a large building society and credit union operating in their states. Failures of the State Government owned banks in Victoria and South Australia at the start of the 1990s, also saw depositors protected by those Governments as owners. Consequently, no depositor has lost money from the failure of an Australian ADI

[8] APRA has a range of failure management powers including directions powers, external administration powers, compulsory transfer of business powers, and the ability to apply to the Federal Court for wind-up and appointment of a liquidator who would be subject to direction by the court.
[9] Another tendency has been to provide compensation to individuals who face losses from lack of (or under) insurance following bushfires and other natural disasters.
[10] See Davis (2004, Appendix 4.3) for details.

since depositors in the Primary Producers Bank of Australia lost minimal amounts in 1931.

This past experience suggests that it is at least arguable that public expectations and political proclivities are for Australian governments to protect (at least) some groups of depositors from loss due to ADI failure. If this is so, the introduction of explicit deposit insurance would not necessarily involve significant change to the losses eventually faced by those groups at a failed ADI, but would have the benefit of providing greater clarity regarding their exposure to potential losses. A potentially more important benefit is that the contingent liability for funding the compensation to those depositors would be shifted from the taxpayer to the contributors to the deposit insurance scheme (who are also, in an *ex ante* sense, the potential beneficiaries from the scheme).[11]

A further inference which might be drawn from past experience and practice is that there exists a public policy objective that retail customers of some financial institutions who are unable to assess counterparty risk should be protected from such loss. Three factors provide support for such an inference. The first is the observed tendency for bail outs. The second is the existence of a separate regulatory and supervisory body (APRA) with a mission "to establish and enforce prudential standards and practices designed to ensure that, under all reasonable circumstances, financial promises made by institutions we supervise are met within a stable, efficient and competitive financial system".[12] While such a mission clearly stops short of guaranteeing deposits, there is a difficult political

[11] It is, of course, possible that governments may choose to bail out uninsured depositors, thus weakening the force of these arguments.
[12] See http://www.apra.gov.au/aboutAPRA/

balance in having a government authority charged with that supervisory role and simultaneously claiming that *caveat emptor* should apply if failure does occur. The existence of a regulatory body specifically for a group of financial institutions reflects both the special role of such institutions in the economy and the problems which many customers face in assessing the financial strength and health of such institutions.

The third factor supporting the view that public policy places great weight on depositor protection lies in the existence of explicit depositor preference legislation (Banking Act, 1959, subsection 13A (3)) which places Australian depositors as the most senior claimants on a failed ADI. Together with subsection 13A (4) of the Banking Act which requires ADIs to hold assets in Australia exceeding deposit liabilities in Australia, this creates a significant buffer of more junior claimants and protection for depositors.

While depositor preference provides an illustration of the political desire for existence of a safety net to protect Australian depositors from loss, it also creates the possibility that it serves as an effective substitute for explicit deposit insurance, thus rendering the latter unnecessary. If Australian ADI balance sheets were, for example, structured such that the possibility of a failure of the scale needed to inflict losses upon depositors were exceptionally small, the case for an explicit scheme, on grounds of protection from financial loss, might be weakened. For example, the short term probability of failure of a hypothetical ADI with assets of $100m, deposits of $25m, other debt liabilities of $70m and equity of $5m, may be relatively high, while the probability of a shortfall of assets relative to deposit liabilities would be extremely small.

For some Australian ADIs, with their current balance sheet structures as shown in Table 2, the short term probability of failures which are large enough to create financial losses for depositors is indeed extremely small. At the same time, the assessment of the merits of a scheme needs to consider more general circumstances. First, not all ADIs currently operate with such a large buffer of non-deposit funding. Second, new ADI institutions with low non-deposit funding may emerge over time and gain significant market share. Third, over a longer horizon, non-deposit funding may prove sensitive to perceptions of ADI solvency leading to marked declines in the relative share of non-deposit liabilities at times of stress and potential failure. Fourth, at least some part of the explanation for relatively high use of non-deposit funding may lie in the existence of the depositor preference requirements themselves. By subordinating such claims to those of depositors, the cost of such funding is increased, but this effect may be moderated if deposit funding is a small part of total non-equity funding. Introducing explicit deposit insurance by itself would not change this, but would provide the opportunity to consider whether depositor preference remains warranted as a component of the safety net.

The figures in Table 2 suggest that, based on current balance sheet structures, the pure insurance (loss redistribution) arguments for introducing a deposit insurance scheme are not overly strong. Even for those institutions which rely heavily on deposit funding, capital ratios which exceed minimum requirements and regulatory oversight suggest low probability of failures which would lead to significant losses for depositors. At the same time this suggests that the pure insurance costs of a scheme, and resulting premium rates

for participants, would be relatively low. If both potential benefits and costs associated with the loss redistribution function are small, greater importance may attach to the assessment of other benefits and costs associated with introduction of a scheme.

Among the other costs are the administrative and compliance costs associated with any scheme. These costs include the resource costs associated with supervision and investigation by the deposit insurer. In Australia, such activities are undertaken by APRA and funding for those activities raised by levies on ADIs. Hence the incremental costs of supervision and investigation are potentially minimal (if not zero). Other administrative costs depend upon the type of scheme adopted, and there is scope for scheme design which would keep such costs very low. Finally, compliance and reporting costs would appear to be little changed from those currently incurred as a result of the supervisory process.

3.2 Behavioral Consequences and their Economic Effects

Two main types of potential behavioral effect can be identified, one beneficial and one detrimental.

The beneficial effect often underpins the argument for explicit deposit insurance as a mechanism for reducing bank runs and systemic financial crises. As demonstrated by Diamond and Dybvig (1983), the “sequential servicing” characteristic of bank deposits and liquidity production activities of banks, exposes even initially solvent banks to the

possibility of destructive runs. In addition, the inability of depositors to distinguish specific from general factors affecting bank solvency creates the risk of contagion. Deposit insurance is one potential solution to this problem.

In practice, the limits placed on deposit insurance coverage, with the objective of encouraging market discipline by larger (wholesale) depositor stakeholders with the capacity to assess risk, works to reduce the force of this argument. Banks remain at risk of runs induced by actions of wholesale depositors or other creditors. Nevertheless, the protection afforded to retail depositors has the beneficial effect of reducing the possibility of runs or contagion arising from this source.

The detrimental effect most commonly pointed to is the potential for *moral hazard* involving increased risk taking, to exploit the benefits of a guarantee, with potentially adverse consequences for financial system stability. Demigurc-Kunt and Detragiache (2000) note a positive correlation between the existence of deposit insurance and financial sector instability from an international study, but point to the important role of weak institutional and regulatory structures in leading to that result.

It is worth examining the moral hazard argument in more detail, to see how institutional arrangements in the Australian financial sector affect its practical significance. To do so, note that incentives for risk taking and /or reduced monitoring could, in principle, arise for ADI stakeholders such as insured depositors, uninsured depositors, other creditors,

ADI owners, ADI managers, and ADI supervisors. Such incentives need to be compared with those arising under the alternative, current, regulatory structure and safety net.

To the extent that the current regulatory structure is viewed by retail depositors as involving implicit guarantees over ADI deposits, a move to an explicit scheme would not be expected to lead to any significant increase in incentives for risk taking and reduced monitoring by retail, insured, depositors. If instead, retail depositors perceive that *caveat emptor* prevails, it is possible that explicit insurance could lead to greater willingness to place deposits with ADIs offering higher than average interest rates without concern for, or need to assess, the default risk of the ADI. Whether retail depositors have the ability (or access to reliable, understandable information) to effectively assess such risk is a moot point. More generally for such an outcome, it is necessary that governance and regulatory arrangements give incentives to, and permit, ADI management to increase risk taking in this manner. This is considered shortly.

For depositors who would not be insured under an explicit scheme and for other creditors, the introduction of a limited explicit scheme may lead to increased monitoring and sensitivity to ADI risk, if current perceptions are of implicit guarantees and potential bail outs if an ADI fails. Gropp and Vesala (2001) interpret observed changes in interest rate margins in European countries following the introduction of explicit schemes as evidence of such reactions consistent with replacement of a system of implicit guarantees. If *caveat emptor* is believed to currently apply, there would not appear to be any strong arguments

to suggest that the risk sensitivity and monitoring of such stakeholders would be significantly affected.

Textbook analysis of the moral hazard arising from deposit insurance focuses upon the benefits accruing to ADI owners (equity holders) from increased risk taking when the pricing of deposit insurance is not appropriately risk related or is underpriced. Removal of such adverse incentives for increased risk taking can be achieved by ensuring risk based pricing of deposit insurance, although the ability to successfully implement risk based pricing when ADIs have private information has been questioned (Chan, Greenbaum and Thakor, 1992).

In the absence of risk based pricing, ADI owners can benefit if ADI managers take actions which increase the value of the implicit put option reflected in the deposit insurance contract. However, given the separation between ownership and management which prevails in Australian ADIs because of dispersed ownership, the ability of owners to direct management to act in such a way is extremely limited. Indirect incentives may nevertheless exist through the contracting and governance arrangements and through equity market forces. It is therefore necessary to consider the incentives for management to increase risk taking to exploit the deposit insurance scheme and the constraints which exist to prevent them from doing so.

Whether an ADI's management with minimal equity stake in the ADI has incentives to increase risk to exploit deposit insurance depends upon issues such as compensation

design, reputational considerations, governance arrangements and entrenchment. As Macey and O'Hara (2003) note, "managers are not perfect agents of risk-preferring shareholders. Managers are fixed claimants to that portion of their compensation designated as salary. In addition, managerial incentives for risk-taking are reduced, since managers have invested their nondiversifiable human capital in their jobs." Nevertheless, stock market pressures and equity linked compensation structures may give rise to some incentives to increased risk taking which is not counteracted by discipline from other fixed claimants such as depositors. If that is the case, the role of the ADI regulator becomes important in limiting moral hazard.

Some authors, such as Kane (2002) have focused on the possibility that regulatory authorities may face inadequate incentives and accountability arrangements which cause them to engage in forbearance towards troubled institutions. The critical issue here, however, is the design of such arrangements rather than the existence or non-existence of an explicit scheme *per se*.

In summary, while moral hazard is a potential issue arising from introduction of an explicit deposit insurance scheme, there appears to be little reason to believe that it is a necessary consequence which cannot be ameliorated by careful scheme design (including risk based pricing and limited coverage) and attention to governance and incentive arrangements within ADIs and the prudential regulator.

3.3 Other consequences

In addition to loss redistribution and behavioral effects which might arise from introduction of an explicit scheme, several other important consequences need to be considered. Insured depositors are saved the resource costs of attempting to monitor the solvency of ADIs, which are, arguably, sufficiently high for retail depositors as to make effective monitoring impossible. Deposit insurance can also affect competitive dynamics in the ADI industry and more broadly. To the extent that implicit guarantees are believed to exist but apply only to some groups of ADIs, resulting competitive inequities could be reduced. At the same time, entry of new ADIs might be facilitated (perhaps excessively so) since potential customers would place less emphasis on a history of prudent management when deposit insurance applies also to new entrants and provides them with some instant "charter value". Competition between ADIs and other financial institutions could also be enhanced if implicit guarantees over bank non deposit liabilities are perceived to exist and are effectively removed.

Much of the preceding discussion has involved considering whether implicit guarantees already exist for ADIs. Even if government protection of depositors does not involve automatic implicit guarantees, there is still the potential for governments to intervene and compensate depositors at failed institutions on a case by case basis in response to political pressure. An explicit guarantee scheme does not preclude similar political reaction, but does provide a clear, pre specified, "line in the sand" behind which a government can

stand to resist political pressure for more widespread compensation involving costs to the taxpayer.

3.4 An Assessment

On balance, the case for introduction of deposit insurance in Australia is finely balanced, primarily because the safety net provided by depositor preference provisions (combined with current balance sheet structures) works to limit potential losses to Australian depositors if an ADI fails. Nevertheless, the scope for significant future changes to occur in (existing and future entrant) ADI balance sheet structures suggests that a possible role for some such redistribution mechanism should not be ruled out on these grounds. Provided that those institutions which create little risk of calls on such a scheme incur appropriately minimal costs from operation of such a scheme, their low probability of costly failure does not, of itself, create a case for not introducing such a scheme covering all ADIs.

Given the current role of depositor preference in weakening the case for explicit deposit insurance, it is the other considerations which, in this author's view, tip the balance in favor of such a scheme. Important among these is a perception that implicit guarantees are believed to prevail by much of the community and that this belief is more strongly held in the case of large institutions. Shifting to an explicit limited guarantee could then have potentially beneficial effects for market discipline, competition and government resolve not to engage in more widespread bail outs at tax-payer expense. Also important

is the opportunity provided by an explicit scheme to reduce potential disruption to affected insured depositors when an ADI fails. Finally, removing an anomaly that has a prudential supervisor monitoring ADIs on behalf of retail consumers who are unable to do so effectively, but who are still exposed to losses if the institution fails would seem to have merit.

In practice, finance industry lobby groups and senior management have generally expressed strong opposition to introduction of a deposit insurance scheme. Although concerns about moral hazard are often mentioned, more emphasis should be placed on perceptions about necessity and cost. One reason is concerns about the total cost of such a scheme. A second reason is the fear that their institutions and customers will incur an unfair share of costs – generally premised on their perception that their institution will not be one which fails. A third possible reason is that (at least) some ADIs already have "free" deposit insurance (and competitive advantages) because of the existence of implicit guarantees.

Since the significance of such concerns depends upon the precise nature of any scheme introduced, it is important to consider briefly the type of scheme which might warrant introduction.

4. DESIGNING AN EFFECTIVE AND ACCEPTABLE SCHEME

Historical experience, industry structure, current balance sheet structures, and an effective regulatory and supervisory process all suggest that the number of Australian ADIs which might fail and create claims on a deposit insurance fund within a time frame of, say, a decade, is quite small. In such circumstances, there are cost minimization grounds for considering adoption of some form of a "post funded" scheme. In such schemes, immediate compensation to insured depositors at a failed institution is funded by the scheme temporarily borrowing from the Government budget or using pre-arranged lines of credit and ADIs are subsequently levied to pay off that debt. In a financial sector where ADI failures are expected to be rare events (less than one or two per decade), and where failure management remains the responsibility of the prudential supervisor, a legislated and well designed post funded scheme can remain largely dormant for much of the time and be "brought off the shelf" as required to facilitate payments to insured depositors and determine and collect levies in the event of a failure. The scheme replaces insured depositors as a claimant on the fund and, with other creditors, awaits the outcome of (and perhaps has some influence on) the failure management process undertaken by APRA. Ongoing administration costs are minimized and the risks of expense generating activities by managers of the pool of funds accumulating under a pre-funded scheme[13] are reduced.

[13]In a pre funded scheme, ADIs are charged regular premiums to build up a stock of fund reserves out of which payments to insured depositors can be made in the event of a failure.

Conventional wisdom appears to favor pre-funded schemes, but it is important to be aware of the key differences between pre and post funded schemes. In fact, at the level of theory, they are very similar. A pre-funded scheme typically has a target level of reserves (such as 1.25 per cent of insured deposits for the US FDIC), achieved by levying annual premiums on ADIs until that target level is reached. When depleted by an ADI failure the fund is built up again from annual premiums on remaining ADIs. A post-funded scheme operates in essentially the same way except that the target level of funds is zero, with the fund debt following a failure gradually reduced by levies on remaining ADIs. Unlike a private insurer, where capital (the fund balance) determines the probability of fund insolvency and ability to meet claims, a government backed deposit insurance scheme with guaranteed access to credit and the ability to compulsorily impose future levies on ADIs, does not necessarily have the same requirements for a minimum capital level.

From this perspective the main difference is simply that a pre funded scheme involves the fund managing a stock of assets which would otherwise be retained by and managed by the individual ADI contributors.[14] Ownership of that stock of assets and entitlement to returns on the assets may vary between the two schemes, but this depends on precise structuring of the scheme. Macroeconomic asset market consequences of ongoing portfolio choice and portfolio adjustments involved in financing payouts also might vary, but not necessarily. Both schemes involve payments by remaining ADIs following a failure to restore the fund to its desired target level, and there is no reason to expect that a

[14] In both cases, ADIs have contingent liabilities to make future payments as determined by the scheme manager which are necessary to restore the fund to its target balance.

more rapid restoration (and thus higher annual rate of payment) would be required under one scheme relative to the other.

What then are the differences between pre and post funded schemes which lead to the widespread preference for pre funded schemes. One concern is whether risk based premiums can be applied in the case of a post-funded scheme. In principle, and in practice, there is no reason to believe that this cannot be done. It would require the regulatory authority to annually assess and advise ADIs of their current risk grading and implications for levies (perhaps based on an historical average of risk grades and asset size) should they be required. Perhaps more relevant, in this regard, is the concern that ADI managers may not be as sensitive to risk based contingent liabilities as they would be to risk related annual premiums involving ongoing cash outflows. Assessing the merits of that concern is difficult, but such behavior is difficult to reconcile with a view of ADI managers as financial sophisticates able to recognize the essential similarity between the two situations. Although one difference is that the contingent liability disappears for institutions which have failed, ADI managers contemplating increased risk taking with increased risk of failure are still faced with the non zero probability that failure of another institution would leave them exposed to higher levies because of a higher risk rating

Another reason for aversion to post funded schemes appears to arise from notions of equity and fairness. In a post funded scheme no contributions have been received from the failed ADI prior to its failure. To the extent that failure is driven by external events rather than excessive risk taking by the ADI in question this concern has little basis. For

example, if a thousand ADIs all operated with economic capital such that the risk of failure was 1 in 500 p.a., there would be an average of two failures p.a. drawn randomly from the population. Ex post the stakeholders in failed ADIs may lose less than if premiums had been paid prior to failure and payouts were the same in both cases, but this difference can be resolved by adjusting the payout arrangements to involve only partial coverage of insured deposits. If on the other hand, failure reflects increased risk taking relative to the average, the argument may have some merit. Assuming that regulators could identify such risk taking (as is necessary if risk based pricing in a pre funded scheme is to occur), this suggests a role for possible regulatory action such as increased capital requirements. Alternatively, when combined with concerns about the lack of ADI management sensitivity to risk related contingent liabilities associated with post funding, it may suggest a role for some small amount of risk related pre funding.

Also relevant to the choice between pre and post funding is the question of whether there are resulting differences in the ability of regulators to pursue alternative methods of resolving troubled institutions. With pre-funding it may be possible to use fund assets to facilitate a transfer of business of a distressed institution as a least cost resolution method, which may not be as administratively feasible when post-funding is used. Here a key issue relates to the governance arrangements of a scheme and its interaction with the prudential regulator in decision making regarding the resolution process.

A further consideration relevant to the choice between pre and post funding lies in the problems in determining appropriate contribution levels in a financial system where

failures have been infrequent such that reliable estimates of the probability of failure and loss given failure are hard to estimate with confidence. In such circumstances, post funding may have some advantages in terms of industry acceptability.

On balance, and contrary to international trends, there appears to be a case for a post funded scheme. Some small amount of pre-funding could be envisaged for reasons discussed above, although the potential for this to increase administrative costs needs to be recognized.

5. CONCLUSION

Judged by the history of the past seventy years, in which no Australian depositor has lost money from an ADI failure, it might be thought the performance of the existing regulatory structure and safety net indicate no need for the introduction of deposit insurance in Australia. However, to adopt that view is to ignore the possibility that the existing system has imposed costs which could be reduced by an alternative approach. Such costs include the possible distortions to competitive neutrality resulting from implicit guarantees, their effects on market discipline, and contingent (and in some cases actual) obligations for taxpayers.

Nevertheless, the alternative of a limited deposit insurance scheme is not without potential costs including redistributional effects due to errors in pricing, administrative costs, and moral hazard. However, it has been argued here that careful scheme design,

allied with the institutional and regulatory structure of the Australian financial sector can reduce such costs and tip the balance in favor of introducing an explicit scheme.

To some commentators, the heavily skewed distribution of the ADI industry in which four major banks hold 66 per cent of ADI assets is seen a potential impediment to an effective scheme. However, concerns that such size differences create excessive concentrations of risk and thus prevent the operation of a fairly priced deposit insurance scheme incorrectly associate asset size with risks imposed on a scheme which provides limited insurance of a subset of (deposit) liabilities.

On balance, it appears that a post funded scheme has some advantages over a pre funded scheme in the Australian context – although (it has been argued) many of the oft-claimed differences are more imagined than real. These advantages include minimization of administrative and compliance costs in an environment where failures are expected to be few and far between. Also important, however, is the likelihood of less industry opposition to a post funded scheme in which risks of growth of bureaucracy and concerns about the setting of unfair premiums (given uncertainty about true insurance costs) are reduced. Given the conspicuous lack of support for (and in many cases strong opposition to) introduction of an explicit scheme by senior executives in the Australian ADI industry, the fact that, on close examination, many of the perceived differences between pre and post funded schemes are imaginary is a blessing in disguise.

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TABLES AND CHARTS

TABLE 1: The ADI Market, June 2003

Classes of ADIs	Number of ADIs	Total Assets[1] as per cent of ADI Sector
Domestic banks	13	79.0
Major banks	4	66.0
Other	9	13.0
Foreign banks	37	17.2
Subsidiaries	13	7.2
Branches	24	10.0
Other ADIs	201	3.7
Building societies	14	1.2
Credit unions	187	2.5
Total	**251**	**100.0**

1. Assets in Australia.
Source: Davis (2004, Table B, p 175)

TABLE 2: ADI Balance Sheet Characteristics (June 2003)

	Major Banks	Other Domestic Banks	Foreign Bank Branches[1]	Building Societies	Credit Unions
	Per cent	Per cent	Per cent	Per cent	Per cent
Total Assets/ Total Liabilities	108	108	100	108	109
Australian assets/ Australian deposit liabilities (excluding CD's)	213	193	204	112	116
Australian assets / Australian deposit liabilities (including CD's)	179	148	148	111	116
Number of Institutions	4	9	24	14	187

1. The ratios for foreign bank subsidiaries are not markedly dissimilar.
Source: Davis (2004, Table F, p 183)