THE MONETARY AUTHORITY OF SINGAPORE

DEPOSIT INSURANCE SCHEME

Consultation Paper

DATE OF ISSUE: 6 August 2002

CLOSING DATE
FOR COMMENTS: 5 September 2002

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PREFACE

In July 2001, the Monetary Authority of Singapore (MAS) announced that it was studying whether a deposit insurance scheme for enhancing depositor protection should be introduced in Singapore. Deposit insurance schemes are present in over 70 countries and are well-established in virtually all developed economies. Deposit insurance takes the form of a guarantee to depositors that they will be compensated up to a maximum specified amount of their deposits in the unlikely event that the bank they placed their deposits with fails.

2 The study found that a deposit insurance scheme is suitable for Singapore. Deposit insurance will complement the role of prudent bank management and MAS supervision to provide a further layer of protection to depositors. The study further identified the key considerations in the design of a deposit insurance scheme and made proposals on scheme membership, coverage and funding.

3 The MAS is mindful of keeping the cost of providing deposit insurance low whilst providing adequate protection for the majority of depositors. The design of the deposit insurance scheme should also ensure an equitable allocation of deposit insurance cost among participating institutions. MAS has engaged an external consultant, Oliver, Wyman & Company, to advise on the deposit insurance fund size and premium structure.

4 This MAS Consultation Paper sets out the rationale and proposed features of a deposit insurance scheme in Singapore. The Consultation Paper consists of two parts. The first sets out the objectives and proposed structure of the scheme. The second part is a technical addendum and describes in detail Oliver, Wyman & Company's recommendations on key issues related to funding and premium structure.

5 We invite comments from the industry and interested parties on the proposed deposit insurance scheme for Singapore. We will carefully consider all comments received. MAS will then proceed with the second phase of the deposit insurance study, which will focus on implementation details of the deposit insurance scheme, including the structure, organisation and mandate of the deposit insurance scheme administrator, legislation, depositor compensation procedures and public awareness programme. The deposit insurance study is estimated to take another year to complete and further consultations will be undertaken at suitable junctures.

SECTION 1
RATIONALE FOR DEPOSIT INSURANCE

DEPOSITOR PROTECTION

1.1 In Singapore, the protection of depositors is achieved principally through strong prudential oversight of the financial industry. Aimed at promoting the safety and soundness of banks and maintaining systemic stability, the key elements of MAS' prudential oversight are strict licensing standards, prudential regulation, risk-based supervision and systemic surveillance.

1.2 International experience has shown that even in reputable jurisdictions with highly competent supervisors, prudential oversight cannot eliminate the possibility of a bank failure and loss to depositors. Frameworks for depositor protection need to be continually reviewed to keep pace with industry developments. Two particular developments are highlighted below.

1.3 First, the business of banking has grown in scope and complexity. International banks are increasing their scale of operations and venturing into new foreign markets, as well as engaging in new financial activities and products. Singapore-incorporated banks are taking advantage of domestic consolidation and overseas acquisitions to expand their commercial presence in the region. These new opportunities for growth and diversification also bring new sources of risk to banks.

1.4 Second, with the progressive liberalisation of Singapore's banking sector, international banks will gain further access to domestic deposits. Although most of the international banks operating in Singapore are well-managed, all of them operate as branches and do not maintain capital here. Furthermore, MAS’ supervision is limited to the bank's operations in Singapore even though risks to the bank might arise from any part of its global operations. Primary responsibility for the challenging task of consolidated supervision of an international bank and all its branches resides with the home supervisor, which co-operates with host supervisors in the various countries that the bank has operations in.

1.5 Many countries have established financial safety nets to provide explicit protection for depositors. Deposit insurance (DI) is an integral part of such a depositor protection scheme and is well-established in virtually all mature economies. DI takes the form of a guarantee to depositors that they will be compensated up to a maximum specified amount of their deposits in the unlikely event that the bank they placed their deposits with fails. In a funded DI scheme, this guarantee is backed by an insurance fund that is built up through premium contributions from each participating bank, and which will be drawn upon to meet payouts to depositors in the event of a bank failure.

1.6 We have assessed whether a DI scheme should be introduced as a complement to our prudential framework in enhancing depositor protection. MAS' assessment is that a well-designed DI scheme can provide an appropriate level of depositor protection without imposing undue cost on the banking industry. The potential contributions of an explicit DI scheme to depositor protection are discussed below.

ROLE OF DEPOSIT INSURANCE IN ENHANCING DEPOSITOR PROTECTION

1.7 DI can enhance the current depositor protection framework by improving the certainty of depositor compensation and providing clarity on the extent of protection and procedure for obtaining compensation.

Certainty Of Depositor Compensation

1.8 Several regulatory measures help to ensure that upon winding-up, a bank has sufficient assets to meet most, if not all, of its deposit liabilities. Singapore-incorporated banks are required to maintain paid-up capital of at least S$1.5 billion and a minimum capital adequacy ratio of 12%. This capital requirement buffers creditors and depositors against losses arising from a deterioration in the bank's assets. Furthermore, MAS may ring-fence a troubled bank's assets for depositor protection and, in an insolvency, the Banking Act accords depositors priority claim, ahead of other unsecured creditors, over the assets of the bank in Singapore.

1.9 Although these are important measures, they do not ensure that assets will always be available to meet depositors' claims in the event of a bank failure. The amount of assets available may be reduced by asset flight and impairment. Further, many banks operating in Singapore are internationally active and have assets located in different countries, where domestic laws may accord domestic creditors priority over the assets. A DI fund, built up through contributions levied on participating institutions, ensures that payouts to insured depositors will be independent of whether liquidated assets are sufficient to meet insured deposit claims.

Clarity In Depositor Compensation

1.10 In our present regime, the extent of protection that depositors can expect to receive is not spelt out in legislation. An explicit DI scheme defines and specifies the extent of depositor protection. It can also make quick depositor payouts from a standing DI fund built up over previous years so that depositors are compensated within a reasonable time.

1.11 A good DI scheme will be governed by clear rules and procedures for timely and accurate depositor payouts, which are important in averting hardship among small depositors and maintaining confidence in the financial system. Equally important is clarity in communicating to the public the extent of protection that they can reasonably expect to receive on their bank deposits as well as the procedures for making claims.[1] Ambiguity on depositor protection may lead to confusion, loss of confidence and unnecessary delays in depositor payouts. A DI scheme will bring greater coherence to a depositor protection framework for the orderly winding up of banks and compensation to insured depositors.

A DI scheme strengthens protection of small depositors in Singapore by providing greater certainty of and clarity in depositor compensation.

OBJECTIVES OF DEPOSIT INSURANCE

1.12 The Singapore DI scheme will have two primary objectives of small depositor protection and dispelling the mistaken perception of an implicit government guarantee of deposits.

Protect Small Depositors

1.13 Small depositors are the least able to exercise market discipline and make informed decisions about which bank to deposit their money with. Yet they are most affected by the loss of their bank deposits. By giving certainty and timeliness of depositor payouts independent of the process and outcome of liquidation, DI can lessen the impact of a bank failure on small depositors. Many DI schemes in the world share this objective of small depositor protection.

Reduce Moral Hazard Of An Implicit Government Guarantee

1.14 An element of moral hazard is inherent in all insurance schemes and this is frequently cited as one of the pitfalls of DI. If deposits are insured, depositors no longer have an incentive to impose market discipline on banks, which in turn may engage in excessive risk-taking.

1.15 In Singapore's context, however, a privately funded DI scheme will reduce moral hazard by making explicit the extent of protection that depositors can expect. It dispels the mistaken impression that depositors may have, in the absence of an explicit DI scheme, that the government has provided an implicit guarantee and will bail them out in the event of a bank failure. Such a guarantee weakens market discipline and undermines banking system stability. Depositors would lose the incentive to seek out sound banks, and banks would lack discipline to manage their business prudently, taking comfort that public funds will be made available to bail them out. Moral hazard can be further reduced through judicious design of the scheme and appropriate public communication that DI is not a substitute for *caveat emptor* and market discipline. For example, coverage under the Singapore DI scheme will be limited to small depositors.

[1] Options for bank resolution and procedures for making claims will be covered in greater detail in the second phase of the DI study.

The design of the Singapore DI scheme is guided by the objectives of small depositor protection and of dispelling any mistaken public perception of a government guarantee.

KEY CONSIDERATIONS

1.16 The design of the DI scheme is guided by the following considerations: that it be cost-effective, equitable, and minimise moral hazard.

Cost-effectiveness

1.17 Contributions to the DI fund from participating banks should be calibrated to provide sufficient assurance of fund solvency without imposing undue costs to banks and depositors. Financing of DI should not impair the competitiveness of Singapore's banking system or undermine the financial position of individual banks.

Equitable Allocation Of Cost

1.18 DI should be priced so that banks which expose the DI fund to the largest risk of losses pay higher premiums. The DI premium regime should minimise both moral hazard and the degree of subsidisation of weaker banks at the expense of stronger, well-managed banks.

Market Discipline

1.19 The introduction of DI should not dilute the incentive for banks, creditors and depositors to exercise prudence and market discipline. DI coverage should be explicit, well-defined and limited only to small depositors who may not be reasonably expected to exercise market discipline. Protection under the DI scheme should be sufficiently credible to dispel the mistaken expectation of a government bail-out of banks.

The design of the Singapore DI scheme is guided by considerations of cost-effectiveness, equitable allocation of cost and minimisation of moral hazard.

SECTION 2
PROPOSED STRUCTURE FOR A DEPOSIT INSURANCE SCHEME

MEMBERSHIP

2.1 To provide comprehensive protection to small depositors and avoid adverse selection, participation in the DI scheme should be compulsory for all retail deposit-taking institutions. Wholesale Banks and Offshore Banks, which do not accept retail deposits, are excluded from the DI scheme.

The Singapore DI scheme will cover all Full Banks and finance companies[2] and membership will be compulsory.

COVERAGE

2.2 The extent of protection provided by the DI scheme is determined along two dimensions – which deposits are covered and how much:

i. *Depositor Coverage*

In line with the objective of small depositor protection at reasonable cost and on account of the effect on market discipline, DI should only cover deposits in accounts held by resident and non-resident individuals. Corporate deposits and inter-bank placements should be excluded from coverage.

Survey results[3] show that the bulk of retail deposits held by individuals are denominated in Singapore dollar. Whilst some depositors may own foreign currency deposit accounts, they are primarily held for investment purposes and should be distinguished from Singapore dollar deposits held for savings and transactional purposes. Further, due to the substantially higher balances maintained in foreign currency deposit accounts, the marginal benefits from extending DI coverage to foreign currency deposits will not accrue to small depositors. For these reasons, the case for extending DI coverage to foreign currency deposits is weak. DI should only cover Singapore dollar deposits held by individuals.

The Singapore DI scheme will cover Singapore dollar deposits held by resident and non-resident individuals.

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[2] References to banks in the rest of this paper will also include finance companies.

[3] A survey of deposits and depositor profiles of all banks and finance companies in Singapore was carried out in May 2001 to map out the operating context of DI.

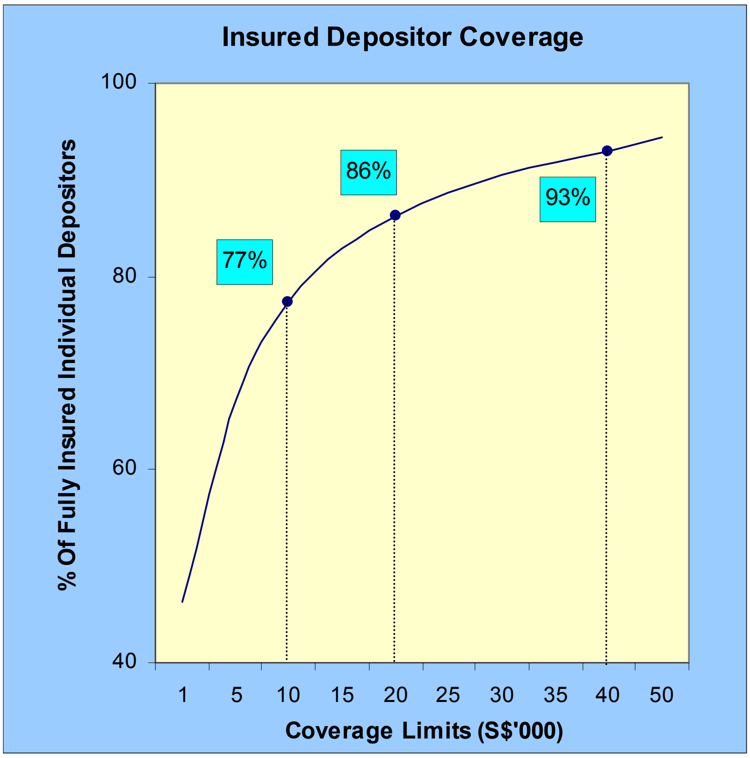
ii. *Coverage Limit*

DI coverage should be extended to the depositor, rather than to each deposit account. A scheme that insures on the basis of deposit accounts will not distinguish between small and large depositors as deposits held by the same depositor can be divided into a number of accounts with the bank. Insuring on a depositor basis means that a depositor will enjoy DI coverage on all deposits he maintains with a bank up to the coverage limit. This is in line with international practice.

As for the insurance coverage limit, Chart 1 depicts the options available. It shows how the proportion of fully insured individual Singapore dollar depositors in Full Banks and finance companies increases with higher coverage limits. A coverage limit of S$10,000 will fully insure 77% of such depositors. A coverage limit of S$20,000 will fully insure about 86% of depositors. Beyond the coverage limit of S$20,000, the marginal benefit of DI is very small. For instance, doubling the coverage to S$40,000 insures only an additional 7% of depositors.

The Singapore DI scheme coverage will be S$20,000, on a per depositor, per institution basis.

Chart 1: Percentage Of Fully Insured Individual Depositors Under Various Coverage Limits



FUNDING

2.3 DI schemes in all major jurisdictions are privately funded by participating institutions, rather than by the government from tax revenues. This minimises moral hazard and allocates the cost of DI among its beneficiaries. In a privately funded DI, contributions may be levied ex-ante to build up a DI fund or ex-post a bank failure. In practice, funding for many DI schemes comes from both ex-ante and ex-post sources. For example, a DI fund may be established but is empowered to levy ex-post contributions to make up for any shortfall in the DI fund. Thus the real choice is not between a pure ex-ante or ex-post funding but the relative extent to which DI relies on both.

2.4 For any given level of protection, ex-post funding imposes a lower funding cost on the industry due to the opportunity costs of premium contributions to an ex-ante fund. However, there are several important advantages to having ex-ante funding. First, ex-ante funding ensures that a liquid pool will be readily available to make quick payments to depositors. Second, ex-ante funding reduces the degree of cross-subsidisation among banks in the provision of DI, as the failed bank would also have contributed to the fund. Third, on the premise that bank failures are more likely in a weak banking system, accumulated funds from ex-ante premiums mitigate the pro-cyclical effect that large ex-post contributions can have on banks. Fourth, a credible DI fund helps to reinforce public confidence in DI and dispels the expectation of a government bail-out.

2.5 Instituting insured deposit priority and asset maintenance, as explained below, will significantly reduce the losses posed to the fund by failures in the banking system, and makes possible a small but credible DI fund. The four advantages of ex-ante funding described above remain relevant under these circumstances, with consideration of liquidity and public confidence assuming greater relative importance.

A credible ex-ante DI fund should be established through premium contributions from participating institutions.

FUND SIZE AND INSURED DEPOSIT PRIORITY

2.6 Some countries use historical bank failure resolution costs as the basis for estimating the optimal fund size. Singapore does not have a similar history of failures that can yield a useful reference. Nonetheless, the target DI fund size should be calibrated based on a sound and reasonable methodology.

2.7 To assess the optimal fund size, the consultants have recommended an approach that quantifies the potential losses that a fund may bear. The model, which is based upon techniques developed in modelling portfolios of bank loans (i.e. credit portfolio modelling), incorporates estimates of the probability of default (PD) and loss given default (LGD) of banks, as well as the default correlations between banks. A detailed exposition of their recommendation is contained in the technical addendum to this paper.

2.8 LGD may differ for different groups of creditors and is affected by the seniority of claims on the assets of failed banks. The higher the seniority, the greater the assurance that claims will be paid in full. Since insured deposits generally comprise only a small proportion of a bank's total liabilities, this has two important implications. First, if insured depositors are accorded priority claim over an insolvent bank’s assets up to the amount of their insured deposits, LGD and thus the fund size can be lower. Second, implementing insured deposit priority will not place uninsured deposits at a significant disadvantage, since insured deposit claims are relatively small and should not have a significant impact on asset recovery for uninsured depositors. We propose that priority be accorded to insured deposits in order to provide effective depositor protection with a modest fund and at low cost.

2.9 The DI fund can be allowed to grow indefinitely or a target fund size could be set, beyond which premium contributions can be reduced for the majority of banks. On account of the low probability of bank failure and the cost of maintaining a large fund, premium contributions will be reviewed and reduced if appropriate once the DI fund reaches the target fund size.

2.10 The consultants propose that the target fund size be set at 30 basis points of insured deposits or an estimated S$120m. Whilst modest by international standards, this target fund size coupled with insured deposit priority meets the criteria recommended by the consultants, namely that the fund should credibly cover losses of institutions of all sizes, offer strong assurance to depositors, and achieve a solvency standard equivalent to an investment grade credit rating.

Insured deposit priority should be instituted to provide effective depositor protection with a modest fund and at low cost.

The Singapore DI fund will have a target fund size of 30 basis points of total insured deposits, beyond which premium contributions will be reviewed and reduced if appropriate.

ASSET MAINTENANCE

2.11 The effectiveness of insured deposit priority in minimising the risk of loss to insured depositors, and hence the required fund size, is premised on the availability of a minimum pool of assets to meet insured deposit liabilities. Asset flight and asset impairment can diminish the pool of assets available for depositor compensation. Local incorporation provides a capital buffer against losses as well as legal claim over assets. With foreign bank branches, there is less certainty that sufficient assets will be available for depositor compensation when a foreign bank branch is wound up, as assets may be repatriated to the head office. Furthermore, the complexities of crossborder insolvency proceedings and home country priority legislation in some countries create more uncertainties in claims on a foreign bank branch assets. Singapore depositors have certainty of claim over only the bank's assets located in Singapore.

2.12 Asset maintenance (AM) requires banks to hold at all times sufficient quality assets located in Singapore that may be used to meet insured depositors' claims. With the appropriate haircuts on assets, an AM ratio of at least 1 will provide comfort that assets will be available for this purpose. The recommendations on eligible assets for AM, appropriate haircuts for asset flight and impairment, and ratio of eligible assets to insured deposit liabilities are explained in the technical addendum.

2.13 Currently, the majority of banks meet the required AM ratio of 1. However, it is important to ensure that banks continue to maintain an adequate AM ratio and to monitor this through bank returns. MAS will require a bank to raise its AM ratio should it fall below the threshold.

Foreign bank branches should maintain sufficient eligible assets located in Singapore to meet its insured deposit liabilities (i.e. AM ratio of 1) at all times. MAS will monitor compliance through regular reports submitted by banks.

PREMIUM ASSESSMENT

2.14 DI agencies generally specify contributions to the DI fund as a percentage of the premium assessment base (PAB). The definition of PAB varies among countries and includes a bank's total deposits, total insurable deposits, total insured deposits or some combination of deposits and assets. While calculation of total deposits is administratively straight forward, it is a bank's total insured deposits that will determine the actual payouts (and hence potential loss to the DI fund) to depositors in the event of its failure. Thus total insured deposits are a more equitable basis for premium assessment.

The premium assessment base for the Singapore DI scheme will be total insured deposits.

Differentiating Between Banks

2.15 Apart from keeping the cost of DI low, the MAS is also mindful of the need to allocate the funding of DI equitably among contributing banks. Some DI schemes levy flat rate contributions on banks, under which all banks are charged a uniform rate on the PAB. A flat rate contribution structure, while simple, has its disadvantages. First, it does not recognise differences in the risk profiles of banks and hence the differing levels of expected losses to which each bank exposes the DI fund. Well-managed, highly-capitalised banks would in effect be subsidising riskier banks for the insurance cover the latter enjoy. Second, flat rate contributions do not provide an incentive for banks to improve their risk profiles in order to enjoy lower contribution rates.

2.16 A growing number of deposit insurers are setting premium rates that attempt to reflect the risk and magnitude of loss to the deposit insurer arising from the bank's failure. Banks can be differentiated according to indicators of their PDs and LGDs. The higher the PD, the riskier the bank; the higher the LGD, the larger the loss to the DI fund if the bank fails. Hence, banks with high PDs and/or LGDs should be levied higher premium rates.

2.17 Under the risk-based system recommended by the consultants, insured banks are assigned to different contribution categories in accordance with their supervisory ratings and their asset structure. Each category of banks is charged a different contribution rate, which ranges from 2.5 basis points to 30 basis points. The recommendations for a risk-based premium system are elaborated in the technical addendum.

The Singapore DI scheme will levy risk-based premiums on member banks based on their supervisory ratings and AM ratios (in the case of foreign bank branches).

SUMMARY OF PROPOSALS

1. *The Singapore DI scheme will cover all Full Banks and finance companies and membership will be compulsory.*

2. *The Singapore DI scheme will cover Singapore dollar deposits held by resident and non-resident individuals.*

3. *The Singapore DI scheme coverage will be S$20,000, on a per depositor, per institution basis.*

4. *A credible ex-ante DI fund should be established through premium contributions from participating institutions.*

5. *Insured deposit priority should be instituted to provide effective depositor protection with a modest fund and at low cost.*

6. *The Singapore DI fund will have a target fund size of 30 basis points of total insured deposits, beyond which premium contributions will be reviewed and reduced if appropriate.*

7. *Foreign bank branches should maintain sufficient eligible assets located in Singapore to meet its insured deposit liabilities (i.e. AM ratio of 1) at all times. MAS will monitor compliance through regular reports submitted by banks.*

8. *The premium assessment base for the Singapore DI scheme will be total insured deposits.*

9. *The Singapore DI scheme will levy risk-based premiums on member banks based on their supervisory ratings and AM ratios (in the case of foreign bank branches).*