A Case for Risk Based Deposit Insurance System in India D. Ajit*

The deposit and credit insurance system in India is examined in the light of experiences of other countries - both developed and developing. The study examines important issues such as flat fee, risk-based insurance system for banks/non-banks, ownership of deposit insurance agency, continuation of credit guarantee scheme, etc. As regards deposit insurance scheme for NBFCs the study cautions its introduction at this stage as it could amplify the regulatory divergence and moral hazard problems. It makes the case for introduction of a risk based deposit insurance scheme for NBFCs only after putting in place an effective regulatory and supervisory system for them.

Most countries have safety net system in the form of deposit insurance - both explicit and implicit - to protect the depositors and ensure stability of the financial system. Most of the industrialised countries have explicit deposit insurance schemes and these were largely in response to emerging problems in the financial system. The Savings and Loan crisis in United States in the 1980s and early 1990s and consequent liability on federal taxpayer to the tune of over US \$150 billion brought into focus what economists call the moral hazard problem. In fact there are a number of countries like New Zealand and Singapore which have successfully managed their financial system without any deposit insurance. Both theoretical and empirical literature in recent times favour a market based approach like that is prevalent in New Zealand. However, the South East Asian crisis has again swung the public opinion increasingly in favour of safety nets like deposit insurance. Argentina which had abolished deposit insurance a few years back, reinstated it in 1995 due to 'overwhelming political forces'.

Among the developing countries, India has an explicit deposit insurance for bank deposits and small loans since 1962 through a subsidiary of the Reserve Bank of India viz., the Deposit Insurance and Credit Guarantee Corporation (GICGC). Although the issue of safety nets like deposit insurance has not been controversial in India, the recent massive recapitalisation of weak public sector banks and the exit of a number of leading banks, both public and private, from credit guarantee cover of DICGC has rekindled a fresh debate. The recent collapse of a non-bank finance company has raised questions regarding the appropriateness of deposit insurance cover for banks and whether such a cover needs to be extended to non-banking firms. The on-going South-East Asian crisis and the fragility of finance companies in these countries (especially in Thailand) have exposed the problems of financial panics for economies and have strengthened the case for safety nets like deposit insurance. While there has been a large growth of empirical literature on deposit insurance in the context of developed countries, it is relatively less focussed in the case of developing economies, including India. This paper is an attempt towards filling this gap. The paper is organised as follows: Section I examines the historical evolution of deposit insurance scheme and examines the various types of deposit insurance schemes - explicit and implicit - in both developed and developing countries. Section II, based on deposit insurance scheme in U.S. as a case study, evaluates the nature of recent reforms towards risk-based deposit insurance scheme and draws lessons for developing countries like India. Section III discusses the working of deposit insurance scheme in India and examines the case for extending it to the non-banking sector. Section IV presents the concluding observations.

> Section I Evolution of Deposit Insurance Scheme

A History of Origin

The history of deposit insurance dates back to 1933 when in U.S. following the worst bank runs³, the Congress created the Federal Deposit Insurance Corporation (FDIC) to provide deposit insurance for commercial banks.⁴ In 1934, the Congress authorised the formation of the Federal Savings and Loan Insurance Corporation (FSLIC) to insure deposits in savings and loan association and mutual savings bank. In U.K. deposit insurance began with an implicit guarantee in 1973 under the 'lifeboat' fund arrangement following widespread banking distress. Explicit protection began in the U.K. only in 1982 as part of a broad based banking system reform under the Banking Act of 1979.

Under a system of deposit insurance, there is a guarantee by the government that all (or limited amount) of the principal and interest accrued on deposits will be paid to the depositors. The guarantee could be explicit as in the case of U.S. where there exists a formal arrangement for financial deposit protections. A recent survey by Kyei (1995) on deposit insurance practices around the world shows that more than 56 per cent of the schemes studied (102) were implicit schemes and the remaining 44 per cent were explicit. In developing countries implicit deposit insurance schemes are widely prevalent as the public sector banks dominate the banking system (see Appendix Table-1). Under the implicit system, both small and large depositors may be protected.

In Asia, 12 out of 20 countries mentioned in Appendix 1 have implicit schemes, while in the industrialised countries only Australia has an implicit system. A new approach has been adopted by Argentina and New Zealand which explicitly states the absence of government guarantee of deposits. Following the Mexican crisis, banks faced massive deposit withdrawals in Argentina and the Government set up US \$ 2.5 billion funds to help the distressed banks and later on reintroduced an explicit deposit guarantee in 1995.

Deposit Insurance Systems in Various Countries

Under explicit deposit protection, the arrangement is normally explicitly stated in a statute. Typically the statute would specify the types of institutions and deposits covered, coverage limits, management and membership, funding arrangements and procedures for the resolution of bank failures (See <u>Table 2A</u> and <u>2B</u>).

In the survey by Kyei (1995) four main administrative types of explicit deposit protection arrangements are mentioned: (1) Purely government-owned and officially administered, which is funded by the government. These tend to have the highest potential for moral hazard, because banks have no share in the cost of resolving failed banks; (2) Officially-administered by a public corporation and partially funded by banks; (3) Jointly-administered by representatives from banks and the government and funded by banks; and (4) Privately-administered, where depositories self-insure each other (mutual insurance scheme) without government involvement. The fourth arrangement puts part of the burden of bank failures on banks themselves and, therefore, forces them to regulate, supervise, and examine themselves although this would require government assistance if the resolution cost was so high as to affect the entire system; thus it could imply some form of implicit government guarantee. Kyei (1995) shows that 21

arrangements are officially-administered, 9 privately-administered, and 11 jointly-administered. These are distributed as follows: all the 4 arrangements in Africa are officially-administered; Asia has 4 official, 1 private and 2 joint; Europe has one private 5 joint and 7 each official and private; Middle East has 1 private; and Western Hemisphere has 6 official and 4 jointly-administered funds.

Financing Deposit Insurance

As regards financing of deposit insurance, there are two major issues: who should bear the cost? and how should the financing be arranged? In answering these questions, there are basically two models or practices: allocate the costs among insured banks, and create a fund.

As regards allocation of cost among insured banks, while the method is preferable, there are however, two major problems. First, in the case of large losses by banks, the absorption of costs could seriously erode capital and push them into insolvency. Second, if the cost of deposit insurance exceeds the benefits, the system would impose a 'tax' on banks. On the creation of a fund an important question relates to how should a fund be established? There are two basic ways in which deposit insurance is financed. The most popular way is to set up a fund and require banks to make periodic premium payment to the fund. The other is to levy premium assessment on banks. One of the crucial issue is to determine the appropriate size of deposit insurance fund. Traditionally, policy makers have used the ratio of capital and reserves to insured deposits to judge the adequacy of the fund.

Section II Deposit Insurance in United States: A Critical Evaluation

Following the Great Depression and stock market crash of 1929, over 9,000 banks failed in the United States. Federal deposit insurance was created when President Franklin Roosevelt signed the Banking Act of 1933⁵ to help restore the stability of the financial system (See Annexure I). The United States, has both explicit and implicit deposit insurance guarantees. All member banks of the Federal Reserve System are required to join FDIC; non-members may join if they meet the FDIC admission criteria. Ninety seven per cent of the U.S. banks representing 99.8 per cent of deposits are insured by the FDIC. FDIC member banks pay an insurance premium to the FDIC which is used to purchase securities and provide a stream of revenue. Initially, the FDIC was allowed to borrow \$3 billion from the Treasury. The FDIC insures only some deposit claims; the deposits excluded are foreign deposits, claims owned by other banks (most of the federal funds) and portions of deposits above US \$40,000⁶ for single private account and above US \$100,000 for single government account. However, the Federal Reserve System often provides de facto insurance for its member banks by furnishing liquidity to a troubled bank so that uninsured depositors can be paid off before the bank is closed. In 1980 the per account limit was raised from US \$40,000 to US \$100,000.

When Congress enacted federal deposit insurance in U.S in 1933, it was intended as a tool for helping small banks and lower-income individuals and for restoring the liquidity of bank deposits [Calamoris and White (1994)]. Even during that time some had pointed out that deposit insurance could have incentive effects. For example, Emerson (1934), and Scott and Mayer (1971) argued that deposit insurance would intensify risk-taking incentives for banks unless it

was properly priced. But it was not until the massive failure in U.S. of thrifts (Savings and Loan Association and Savings bank) in the 1980s and 1990s that the debate on the moral hazard costs of deposit insurance came to the forefront.⁷

At the end of 1990, there were approximately 900 out of 41,000 thrifts which collapsed costing the insurer US \$ 300 billion and the taxpayer US \$150 billion [Benston and Kaufman (1997)]. Bank failures which averaged six (mostly small banks) per year from 1946 to 1980, also rose exponentially, averaging 104 per year during 1980s [Gorton and Rosen (1995)]. It has been argued that bank failures as opposed to S&L failures was mainly due to regional recessions magnified by restrictions that prevented banks from operating across state lines (Glass - Steagall Act of 1933) thereby limiting their ability to reduce risk through geographical diversification [Benston and Kaufman (1997]. The FDIC tried to reduce demands on its insurance funds by merging problem banks with healthy banks. The Federal Savings and Loan Insurance Corporation (FSLIC), which is the insurance fund for the thrift industry, was declared insolvent in early 1987, as was its regulator, the Federal Home Loan Bank Board (FHLBB). Instead, two new deposit funds were created, the Bank Insurance Fund (BIF) and Savings Association Insurance Fund (SAIF) to replace the dissolved FSLIC.

A number of studies have identified federal deposit insurance as the primary cause of thrift and banking crisis, resulting into several proposals for reform of deposit insurance. Some proposals called for termination of deposit insurance, reducing its coverage to small individual accounts or replacing it with private insurance. Another proposal for reform of deposit insurance was the system of risk based insurance premiums. Besides, there were also proposals for 'narrow' or 'fail-safe' banking [Litan (1987), Bryan (1991)].

It was in this background that in early 1991 the U.S. Senate and the House Banking Committee introduced bills calling for major deposit insurance reform. The reforms proposed had three basic elements: (a) strengthen bank capital standards and regulators' enforcement of them, (b) reduce the risk-taking incentives inherent in deposit insurance and (c) allow banks and their holding companies to operate in all states to permit well capitalised bank holding companies to engage in a wide range of financial services and to permit nonfinancial firms to own bank holding companies. In so far as banks capital standards are concerned, the reforms were based on the internationally recognised norms. The reforms with regard to deposit insurance especially those relating to risk based deposit insurance premium and capital-based system of early regulatory intervention (to reduce the cost of bank failures to FDIC) stand out as the single most important reform in the last fifty years of banking history of US.

The deposit insurance reform consisted of the following components: (i) higher capital ratios, (ii) timely, pre-specified, and structured corrective actions by regulators in the affairs of financially troubled institutions, (iii) prompt resolution of failing institutions before their capital becomes negative (closure rule), and (iv) risk based deposit premiums. Besides these the reforms included re-capitalisation of insolvent Federal Savings and Loan Insurance Corporation (FSLIC). In response, the Congress created the FDIC Improvement Act (FDICIA) of 1991. The two innovative features of the deposit insurance reform in U.S. were (a) the Structured Early Intervention and Resolution (SEIR) and (b) the risk-based deposit insurance premium.

Structured Early Intervention and Resolution (SEIR)

Timely intervention has always been the responsibility of the regulators or supervisors. It has been argued that the provision of deposit insurance reduced the fear of bank runs and thereby reduced market discipline. This could lead to regulators being slack in monitoring and ineffective in intervention [Kaufman and Benston (1993)]. Previously, regulators had the authority to close down weak institutions, but adopted 'wait and see' attitude and did not take immediate action. Failures mounted and a taxpayer bailout became necessary. In order to overcome such delays the new regulatory framework provided by FDICIA called for 'Structured Early Intervention and Resolution'. This approach requires bank regulators to impose stiffer curbs on banks as their regulatory capital ratios decline and close promptly those institutions with capital below critical triggers or tripwires. Under the FDICIA 1991, regulators must initiate the re-organisation of an ailing bank if its risk-adjusted asset to capital ratio drops below 2 per cent¹¹ (see Table 1). The major virtue of this exit policy mandate is that it subjects a weakening firm to the same sort of discipline that its creditors would impose if they are not insured against loss by FDIC.

Table 1: Framework for Prompt Corrective Action by FDIC in United States

well capitalised	total risk assets ratio ≥ 10%
	AND tier one risk assets ratio: $\geq 6\%$
	AND tier one leverage: ≥ 5%
adequately capitalised	total risk assets ratio ≥ 9%
	AND tier one risk assets ratio: $\geq 4\%$
	AND tier one leverage: ≥ 4%
under-capitalised	total risk assets ratio < 6%
	OR tier one risk assets ratio: < 4%
	OR tier one leverage: < 4%
significantly under-capitalised	total risk assets ratio < 6%
	OR tier one risk assets ratio: < 3%
	OR tier one leverage: < 3%
critically under-capitalised	equity: assets < 2%

Banks wishing to be in one of the first two categories will have to conform to more stringent requirements than the 8 per cent risk assets ratio laid down in the Basle accord. Under the Act, it is mandatory to appoint a receiver if the tier one leverage ratio is £ 2 per cent. The benefits of such mandated legislation is that it not only prevent large losses to taxpayers (costly regulation hypothesis) and restore public confidence in the financial system but also reduce long-run costs to the industry and the risk carved by the subsidy of insolvent competitors (i.e., the decreased subsidies hypothesis).

Risk-based Deposit Premium

It has also been argued that the federal deposit insurance agencies based on flat premium system had underpriced their insurance and permitted banks to operate with lower capital ratios and riskier asset and liability portfolios and led to moral hazard problems. As Merton (1977) and

others show a fixed rate insurance system provides incentives to shareholders/managers to maximise the value of the (fixed rate) deposit insurance subsidy by taking on risk inefficiently, the so-called "moral hazard risk". Following Jensen and Meckling (1976), the literature on the agency relationship between managers and outside shareholders show how managers who benefit from control of the firm, in order to protect their private interest indulge in excessive risk-taking. According to Timmer (1993) "...there were several forms of moral hazard. Regulators couldn't be tough; bankers didn't have anything to lose..." Consequently, banks could not absorb large adverse shocks without depleting their capital. As a result, some economically insolvent or weak institutions were provided with both incentive to take undue risk and time to gamble for resurrection. The result was that low-risk banks effectively subsidised insurance premiums for high-risk banks. This often created losses for the insurer and the taxpayer. It should be stressed that empirical research has not reached a consensus on whether deposits insurance in U.S. is underpriced. ¹² Second, although the apparent beneficiaries of deposit insurance are deposit holders, in effect the true beneficiaries are the shareholders, managers of the bank. Flat fee based deposit insurance actually generates more subsidies to these parties (Kane, 1986).

Under section 302 of the FDICIA of 1991, the FDIC was required to increase premium income and develop and implement a system of risk-related insurance assessment by January 1, 1994. The higher premium income was intended to raise the reserves of the Bank Insurance Fund (BIF) and ensure the solvency of FSLIC's successor fund, the Savings Association Insurance Fund. Under the current statutory framework governing insurance fund in U.S., both the Bank Insurance Fund (BIF) and Savings Association Insurance Fund (SAIF) must maintain the fund reserve ratio - the ratio of the fund balance to estimated insurance fund - as 1.25 per cent. When the target 'designated reserve ratio' (DRR) is below 1.25 per cent¹³, FDIC is required to raise premiums sufficiently to achieve the target within one year, or establish a recapitalisation schedule, not to exceed fifteen years, under which the average annual premium charged must be 23-basis points of assessable deposits. If in a particular year, FDIC finds a 'significant risk of substantial future losses' in respect of an insurance fund, it is required not to lower DRR but raise it above 1.25 per cent. Whenever the actual reserve ratio exceeds DRR, FDIC has to refund to BIF-insured institutions; the refund is limited by the amount of the assessment paid by that institution for the current semi-annual assessment period and is only available to the lowest risk category of the premium schedule. There is no similar refund clause for SAIF premiums.

On September 14, 1992, the FDIC put in place its new system of risk-based deposit insurance premiums projecting an increase in the average risk premium to 25.4 cents (as against the earlier flat premium of 23 cents) per US \$ 100 of domestic deposits. The strongest bank would pay 23 cents per US \$ 100 and the weakest 31 cents. The 8 cents differential marked an important step in removing a long-standing moral hazard opportunity available to bank managers. In fact the schedule approved in September 1992 was transitional and FDIC recommended that a permanent risk-based premium schedule be implemented by January 1, 1994.

Table 2 presents the FDIC's premium structure and the number of banks in each risk class as reported by the FDIC in September 1992. As can be seen in <u>table 4</u>, each FDIC insured bank is assigned to one of three capital groups or "zones" (well-capitalised, adequately

capitalised or undercapitalised). Within the capital groups, the FDIC subclassifies each bank into three groups based on its evaluation of the risk posed by the institution.

The three supervisory subgroups have been defined as follows: 'Healthy banks' consist of financially sound banks, that at worst, have few minor weaknesses. 'Supervisory concern banks' consist of institutions that demonstrate weakness that, if not corrected, could result in significant deterioration of the bank. 'Substantial supervisory concern banks' consist of banks for which there is a substantial probability that the FDIC will suffer a loss in respect to the bank unless effective action is taken to correct the areas of weakness. Under the risk-based premium system, weaker institutions are subject to increased insurance premiums.

Table 2: FDIC Premium Structure and Number of Banks in Each Category in United States

Capitalisation/overall risk	Healthy	Supervisory	Substantial
		concern	supervisory concern
1	2	3	4
Well-capitalised	(1)	(2)	(3)
Premium	23%	26%	29%
Number of banks	9,115	1,766	363
Adequately capitalised	(4)	(5)	(6)
Premium	26%	29%	30%
Number of banks	192	164	174
Undercapitalised	(7)	(8)	(9)
Premium	29%	30%	31%
Number of banks	18	26	222

Notes: Premiums are listed per \$100 of domestic deposits. Number of banks are as estimated by the FDIC and reported in the Wall Street Journal on September 16, 1992, p.A4.

The FDIC's risk-based premium system assesses different rates on insured institutions depending upon (i) their capital levels¹⁴ and (ii) CAMEL¹⁵ rating. Since the financial institutions are classified into risk categories based on their capital and CAMEL ratings, the current risk-based premium focuses primarily on 'solvency risk' of institutions. But recently (i.e. in 1997), the FDIC has voted to reduce insurance premiums for the best rated banks to 0 cents per US \$100 (from 23 cents earlier) of deposits, while decreasing for the weakest banks to 27 cents (from 31 cents) per US \$100. This change increases the premium differential between the safest and riskiest banks from 8 cents to 27 cents per US \$100 of deposits. According to current risk ratings, more than 95 per cent of the 9,000 institutions are classified into the lowest risk category and pay nothing for deposit insurance.

Criticism of Risk-based Premium

One of the main criticism of FDIC's risk-based premium based on institutions capital

^{2.} Well-capitalised (Tier-I capital >5% or Total capital >10%). Adequately capitalised (Tier-I capital between 4% and 5% or total capital between 8% and 10%) and Undercapitalised (Tier-I capital <4% or Total capital <8%). Source: Cornett, Mehram and Tehranian (1998) (p.156)

levels and CAMEL(S) rating is that it does not price risk effectively as it is not forward looking ¹⁶. In fact a number of authors have suggested the need to look at additional factors as a supplement to capital and CAMEL(S) to differentiate among institutions according to risk profiles. One suggestion has been to include in the premium system an explicit rating for compliance with "best practices" or similar standards for establishing effective internal controls. Such an approach has been sugested by Canada Deposit Insurance Corporation (CDIC). The standards cover areas such as credit risk management, capital management, internal control, real estate appraisal, interest rate and foreign exchange risk management and liquidity management. Another suggestion is to incorporate reported market information or its surrogates into premium determination. For example, measures of stock market volatility, debt ratings, net income volatility are possible additional source of information regarding risk exposure The rapid pace of financial engineering suggests the potential feasibility of such "market guided" approach to deposit insurance pricing.

The Merger of Deposit Insurance Funds - SAIF and BIF

One of the issues that emerged out of the deposit insurance debate in U.S. in the 1990s was the proposal to merge Savings Association Insurance Fund (SAIF) and Bank Insurance Fund (BIF) and the thrift and commercial bank charters. The existence of the two funds is tied historically to the existence of two separate charters for banks and thrifts. It may be recalled that the savings and loan crisis in the 1980s and 1990s made SAIF insolvent and had to be recapitalised. It has been argued that difference between premiums in SAIF and BIF could lead to depositories being able to 'game' the system. In fact one of the advocates of merger of these funds was Alan Greenspan (1995) Chairman of the Fed who testified before the Congress in the in the following words:

"... two insurance funds with sharply differentiated funds cannot be sustained. Competitive depository institutions cannot differentiate themselves by quality of the deposit insurance that is offered because it is the same insurance, regardless of whether it is from BIF or SAIF..."

Besides, Alan Greenspan, the FDIC has also testified before the Congress that the merger of two insurance funds should be an element of financial modernisation plan. But the question of merger is delayed due to failure in reaching an agreement on charter unification.

Section III Deposit Insurance Scheme in India: Is There a Need for Reform and for Extending it to Non-Banks?

In this section we examine the nature of safety nets in the form of deposit and credit guarantees in India, drawing on lessons from U.S. and chart out possible areas of reforms. Besides, we also examine the issues involved in extending deposit insurance to non-bank financial companies (NBFCs) in India.

Deposit Insurance in India - Its Origin

The question of introducing deposit insurance in India came up first in 1948 after the

banking crisis in Bengal. But it was after the failure of the Palai Central Bank Ltd. and Lakshmi Bank Ltd. in the early 1960s that the need for deposit insurance on the lines of U.S. (Federal Deposit Insurance Corporation) was felt. Hence on August 21, 1961 a Deposit Insurance Corporation Bill was passed which led to the creation (from January 1, 1962) of Deposit Insurance Corporation as a subsidiary of the Reserve Bank of India. The introduction of Credit Guarantee Schemes by the erstwhile Credit Guarantee Corporation of India Ltd., was part of measures taken in the late sixties aimed at encouraging banks to extend credit to priority sector. In July 1978 DIC assumed also the function of credit guarantee and hence was renamed as Deposit Insurance and Credit Guarantee Corporation (DICGC). Thus, unlike its counterpart in other countries, the deposit insurance agency in India provides insurance to both deposits and bank credits to risky borrowers like small borrowers and small-scale industries.

The Deposit Insurance Scheme provides automatic coverage for deposits (current, savings and fixed) with all commercial banks (including regional rural banks), co-operative banks¹⁸ resident in India. In India deposit insurance is compulsory; in terms of geographical coverage, the benefit of deposit insurance now stands extended to the entire banking system leaving uncovered only 10 co-operative banks as they are yet to pass the necessary legislation. Under the Scheme, in the event of liquidation, reconstruction or amalgamation of an insured bank, every depositor of that bank is entitled to repayment of his deposits held by him in the same right and capacity in all branches of that bank upto a monetary ceiling of Rs. 1,00,000. A depositor can obtain more coverage by opening deposit accounts in different insured banks but not at different branches of the same insured bank. The insured bank has to pay premium at the rate of 5 paise per annum per hundred rupees, which is collected at half yearly intervals. The banks are required to bear this fee so that the protection of insurance is available to the depositors free of cost. Penal interest @8% above Bank Rate is charged on overdue premium. The bank cannot levy charge to the depositors on account of payment of premium to the Corporation. The number of banks covered under the deposit insurance scheme increased from 276 in 1962 to 2.438 in End-March 1998. Out of 2.438 insured banks, 108 were scheduled commercial banks, 196 RRBs and the remaining 2,134 Co-operative Banks. The proportion of insured deposit accounts increased from 78 per cent in 1962 to 90.4 per cent in 1998 although in terms of percentage of deposit accounts the corresponding figure was 25 per cent in 1962 and increased to 75 per cent by 1998.

Due to the compulsory nature of deposit insurance scheme in India and the policy of not allowing weak financial intermediaries to exit, the claims on deposit insurance has been meagre and hence the fund has been in surplus (See <u>Table 3</u>). However, there are overdues from banks especially from Regional Rural Banks on account of deposit insurance premium but this has been on the decline over the last few years; deposit insurance premium overdues declined from Rs. 659 lakhs in 1994-95 to Rs. 38 lakhs in 1997-98. Out of the overdues on account of deposit insurance premium of Rs. 38 lakhs in 1997-98, Rs. 2.5 lakhs was on account of Scheduled Commercial Banks, while RRBs owed Rs. 35 lakhs. During 1997-98, 131 out of 196 RRBs defaulted in payment of deposit insurance premium.

Table 3: Surplus/Deficit of Deposit Insurance Fund in India - 1995 to 1998

Year	Deposit Insurance	Deposit Insurance	Surplus(+)/
	Premium Received	Claims Settled	Deficit(-) (2-3)
1	2	3	4
1994-95	193.28	2.20	191.08
1995-96	226.43	8.75	217.68
1996-97	253.67	3.91	249.96
1997-98	319.27	2.26	317.01

Source: Deposit Insurance and Credit Guarantee Corporation, Annual Report (Various issues)

The deposit insurance fund as a percentage of insured deposits in India is a measly 0.05 in the last few years and compares unfavourably with the figure of 1.25 mandated by FDIC in U.S. The poor fund reserve ratio in India has to be seen against the background of the practice of deposit insurance fund cross subsidising the ailing credit guarantee fund.

Credit guarantee schemes - Nature of Coverage

The three credit guarantee schemes which were formulated by the Credit Guarantee Corporation (CGC) of India Ltd., and continued by DICGC were intended to provide the necessary incentive to banks for extending credit to small borrowers (including farmers) engaged in the non-industrial activities. A credit guarantee scheme for small-scale industries sponsored and formulated by the Government of India and administered by the Credit Guarantee Corporation (Reserve Bank of India) had been in operations since July 1960. In pursuance of the recommendations of a Working Group constituted by the Government in 1979, all credit guarantee schemes were integrated under one organisation.

Effective from 1 April 1989 and based on the recommendations of the Expert Committee, 1987 the scope of the credit guarantee schemes was enlarged to cover the entire gamut of priority sector advances. However, at the request of some credit institutions, DICGC has allowed exclusion of certain categories of advances guaranteed by Central/State Governments, ECGC etc., from total priority sector advances for the purpose of payment of guarantee fee and consequently these advances do not get DICGC guarantee cover. The schemes covered under the credit guarantee scheme are: (i) Small Loans Guarantee Scheme 1971; (ii) Small Loans (Financial Corporations) Guarantee Scheme, 1971; (iii) Service Co-operative Societies Guarantee Scheme, 1971; (iv) Small Loans (Small Scale Industries) Guarantee Scheme, 1981; (v) Small Loans (Cooperative Banks) Guarantee Scheme, 1984. With effect from April 1, 1992 with the termination of the schemes (ii), (iii) and (v), the Corporation presently operates only schemes (i.), (iv) and (vi). Initially guarantee was extended to 100 per cent of the total outstanding (loan including interest) which was reduced over a period of time to 50 per cent. Kave and Kaufman (1992) has described credit enhancements as 'implicit deposit insurance'.

The consideration for extension of the guarantee cover is the payment of guarantee fee at the stipulated rates calculated on the balances outstanding under the priority sector advances (except certain specified categories) and paid yearly in advance by the credit institutions. The fee rate is 2.50 per cent per annum for the Small Loans Guarantee Scheme, 1971 only. The Regional Rural Banks are however, allowed to pay the fee at half the normal rate (i.e. @ 1.25 per cent per annum) for first five years from the date of their joining the Scheme. The guarantee fee rate for two other schemes viz. Small Loans (Co-operative Banks) Guarantee Scheme, 1984 and Small Loans (SSI) Guarantee Scheme 1981, is 1.50 per cent per annum. The fee is required to be paid regularly and in advance on an annual basis in order to keep the guarantee in force. Penal interest @ 8% above Bank Rate is charged on overdue guarantee fee.

The credit guarantee scheme of DICGC has not been viable and has been in deficit except for the year 1989-90 resulting in huge losses for the insurance agency (Table 4). A major attraction of credit guarantee scheme for banks apart from guarantee was that the guarantee fee paid to DICGC was tax-deductible. Hence DICGC has been forced to cross subsidise the credit guarantee fund by transferring fund from deposit insurance fund and subsidy from the Reserve Bank². To overcome deficits in guarantee funds, the guarantee fee was enhanced in April 1989 and then in 1995 guarantee claims were confined to principal loan rather than outstanding loan as was the practice earlier. This change made credit guarantee scheme an unattractive proposition for banks. Consequently a majority of banks opted out of the scheme. At present only two scheduled commercial banks *viz.*, Central Bank of India and Union Bank of India are in the credit guarantee scheme apart from four RRBs and eleven co-operative banks.

The banks' feel that with an in-house corpus (Fund created out of credit guarantee fee paid to DICGC) they can manage the overdue problem of priority sector loans. In this connection it may be noted that under the prudential regulations of income recognition and asset classification, for calculation of net NPAs, DICGC credit guarantee is netted out. Nearly one-half of NPA's (gross) in India is accounted for by priority sector, out of which nearly three-fourth is accounted by agriculture and SSI advances. Given the high incidence of NPAs among agricultural and SSI advances, the viability of the credit guarantee scheme of DICGC is open to question.

Table 4 : Surplus/Deficit of Credit Guarantee Schemes in India - 1990-98(Amt.in Rs.Crore)

Year	Guarantee	Guarantee	Claims	Gap	Gap
	fee receipts	claims	paid	(2) - (3)	(2) - (4)
	_	receipts	_		
1	2	3	4	5	6
1989-90	593.83	548.33	508.54	(+) 45.50	(+) 85.29
1990-91	524.72	748.76	547.16	(-) 224.04	(-) 22.44
1991-92	565.88	627.23	462.29	(-) 61.35	(+) 103.59
1992-93	702.78	1143.27	633.55	(-) 440.49	(+) 69.23
1993-94	846.09	1490.76	889.99	(-) 644.67	(-) 43.90
1994-95	829.13	1726.82	1179.01	(-) 897.69	(-) 349.88
1995-96	704.64	2365.23	1042.27	(-) 1660.59	(-) 337.63
1996-97	564.02	2112.37	378.64	(-) 1548.35	(+) 185.38
1997-98	164.91	303.96	371.40	(-) 139.05	(-) 206.49

Source: Deposit Insurance and Credit Guarantee Corporation, Annual Report (Various Issues).

Should Deposit Insurance Be Extended to NBFCs in India?

Non-Banking Financial Companies (NBFCs) occupy an important place in the financial architecture in India, deposits of NBFCs contribute nearly 15 per cent of gross financial savings of households in the 1990s. NBFCs play a vital role in the saving-investment process particularly in areas where established financial entities are still not accessible to borrowers at large. NBFCs undertake a wide spectrum of financial activities ranging from hire purchase and leasing to pave investments. ²² Considering the growing importance of NBFCs in the Indian economy the recent Report of the Working Group on Money Supply (1998) (Chairman: Y.V. Reddy) has recommended a liquidity measure called **L3** which includes public deposits of NBFCs. <u>Table 5</u> presents growth of public deposits with NBFCs in relation to deposits with Scheduled Commercial Banks in India.

Table 5 : Growth of Public Deposits with Non-Banking Financial Companies in Relation to Deposits with Scheduled Commercial Banks in India - 1990-91 to 1995-96

						(Amount in	Rs. Crore)
Financial	Deposits	Growth	Public	Deposits	Public	Growth	Ratio of
Year	with	rate of	Deposits	with	Deposits	rate of	column
	SCB	Col. 2	with	RNBCs**	with	Col. 6	6 to 2
			NBFCs*	& Chit	NBFC		
				Fund Cos.	sector		
					(4+5)		
1	2	3	4	5	6	7	8
1990-91	204,773.9	16.7	1,894.5	1,166.7	3,061.2		1.5
1991-92	230,758.0	12.7	2,647.5	1,738.6	4,386.1	43.3	1.9
1992-93	274,562.3	19.0	3,387.5	2,124.8	5,512.3	25.7	2.0
1993-94	324,720.7	18.3	5,912.4	3,376.1	9,288.5	68.5	2.9
1994-95	376,011.0	15.8	8,616.6	4,608.2	13,224.8	42.4	3.5
1995-96	420,449.0	11.8	14,050.3	6,741.8	20,792.1	57.2	4.9

Note: * NBFCs include Equipment Leasing Companies, Hire Purchase Finance Companies, Loan Companies, Investment Companies, Housing Finance Companies and Mutual Benefit Financial Companies (Nidhis).

In India, various committees have gone into the role of NBFCs and have looked at different facets of its functioning and made recommendations, the latest being the Khanna Committee (1995) for designing the supervisory framework for NBFCs. But the question of extending deposit insurance to NBFCs in India became more vocal with the ever increasing fatality of NBFCs and the 1996 Supreme Court judgement (dated January 4) suggesting to the Reserve Bank to examine whether Deposit Protection Scheme on the lines of U.K. could be implemented for NBFCs in India. The Reserve Bank has constituted a Committee under the Chair-personship of Smt. K.S. Shere to look into this aspect.

^{**} RNBCs: Residuary Non-Banking Companies i.e. other than the aforesaid companies.

Appendix <u>Table 3</u> lists details of deposit insurance scheme for non-banks in various developing countries surveyed (in Appendix <u>Table 3</u>) there is no full comprehensive deposit insurance scheme for NBFCs although following the recent crisis in Asia, countries like Thailand have initiated action to institute deposit insurance for non-banks as well.

In U.K., non-banks include building societies²³, credit unions²⁴, insurance companies, securities houses, investment management firms and friendly societies. Apart from banks, only building societies and credit unions are able to take deposits from the public without first establishing a banking subsidiary or acquiring a bank (in both the cases authorisation of the Bank of England would be required). The Bank of England is not responsible for the supervision of either the building societies or the credit unions which are covered under separate status. The Building Societies Act, 1986 provides for the establishment of Building Societies Investor Protection Fund which is distinct from 'Deposit Protection Fund' meant for bank depositors. The fund is financed by contributions levied on each society. Under the Investor Protection Scheme, investors are able to receive 90 per cent of the value of their deposits up to a limit of £20,000 which is equal to the provisions under the similar scheme for banks - the Deposit Protection Scheme. There is currently no statutory or voluntary share protection scheme covering credit unions in U.K.

The regulation of NBFCs in India was introduced in 1966 mainly as an adjunct to the monetary and credit policy. RBI was vested with certain limited powers to regulate only the deposit taking activities of the NBIs. Depositors protection was only an indirect objective for which certain restrictions on deposit taking were introduced by issue of directions. In India in terms of the new amendments made in 1997, prior registration with RBI has been made compulsory for commencement of financial business by a new NBFC with an entry point norm of Rs.25 lakh. The existing NBFCs with Net Owned Funds (NOF) of less than Rs. 25 lakh have been given three years time to attain the requisite level of NOF. This period can be further extended by another three years. It means that it may take six years for weeding out the weak and unsound NBFCs and thereby consolidating this sector.

The NBFCs are rated by credit rating agencies on the basis of the amount that is proposed to be mobilised by NBFCs from the public and hence was amount specific. The Khanna Committee (1995) which went into the regulatory and supervisory aspects of NBFCs had recommended a system of supervisory rating of NBFCs based on (a) regulatory/supervisory compliance, (b) capital adequacy and (c) rating assigned by the credit rating agencies. Based on the ratings, NBFCs were to be placed in three supervisory watch-lists of low, medium and high risks. But the system of registration and rating of NBFCs are yet to stabilise in India. Till the rating system of NBFCs stablise it would be imprudent to introduce deposit insurance scheme as it is likely to yield in moral hazard problems. In fact the Narasimham Committee Report (1998) on Banking Sector Reforms had strongly come against introducing deposit insurance for NBFCs in the following words:

"Deposit insurance for NBFCs could blur the distinction between banks which are much more closely regulated, and the non-banks as far as safety of deposit is concerned and consequently lead to serious moral hazard problem and adverse portfolio selection. The Committee would advice against any insurance of deposits with NBFCs" (p.55).

Once the rating, regulatory and supervisory system stabilise for NBFCs in India, there could be a case for introducing a risk-based insurance scheme as prevalent in U.S. for banks. For this to happen one of the first pre-condition is to create a fund - may be partially through a regulatory levy on NBFCs and/or through funds from the central budget. Secondly, the risk-based deposit insurance scheme should be carefully devised so that incentives on the part of riskier NBFCs to take undue risks are removed. Thirdly, the scheme should be ideally operated by an agency outside the government and central bank. So far the existing public sector insurance agencies in India (like GIC) were reluctant to provide insurance to NBFCs due to lack of re-insurance from other agencies. With the opening of insurance sector in India to private sector the chances of private insurers coming into this field may not be far away. The key to success of a deposit insurance scheme for NBFCs depends on how risk is priced and how moral hazard problems are avoided.

Section IV Concluding Observations

The study of deposit insurance practices in India and abroad particularly in U.S. brings to fore the issue of whether there is a need to move towards market oriented regime with no deposit insurance (as in New Zealand) or to a flat fee based insurance system for banks and whether the system of deposit insurance itself should be extended to non-banks. In India, in recent period, the credit guarantee scheme of DICGC has been consistently running at a loss necessitating crosssubsidisation from deposit insurance fund. The reform in the credit guarantee since 1995 by confining insurance to principal amount has led to mass exodus of banks from the scheme thus bringing down deficits of credit guarantee funds. In the process the deposit insurance funds constituted only 0.06 per cent of total insured deposits. The emerging scenario may be one of credit insurance being availed only by weak banks and the burden of any such cost devolving on the government. This can raise several potential problems and presents challenges such as exploring alternative ownership schemes through which this function could be discharged and whether a private insurance agency could help taking up this task. The present structure of DICGC may be retained but its ownership could be transferred to insured institutions. The case for private insurance is weak as the ability of private insurance to guarantee enough resources in times of financial stress is limited.

In recent times, there has been considerable overlap in the functions and convergence in the asset-liability matrix of banks, NBFCs and FIs in India. But there exists considerable divergence in the regulatory framework for these institutions. For example, NBFCs and FIs are not subject to reserve requirements against their liabilities as the other counterpart such as banks. Moreover, the assets of NBFCs and FIs are relatively unfettered. Introduction of deposit insurance for NBFCs could aggravate the regulatory divergence and moral hazard problem. Such a measure for NBFCs should ideally be considered only when a sound regulatory and supervisory system for NBFCs has been put in place and the regulatory divergence between banks, FIs and NBFCs are lowered to a substantial extent.

Against the backdrop of US experience an important issue in the Indian context relates to the question of introducing a risk based deposit insurance system among banks and non-banks.

The flat based insurance system promotes the moral hazard problem as the strong banks in effect are made to pay for the misdeeds of the weak ones. The risk based insurance system is intended to make deposit insurance fairer to well-run institutions and to encourage weak institutions to improve their conditions. Given the fact that a nascent rating system similar to CAMELS approach has emerged in India, the case for moving towards risk-based insurance premium seems to have strengthened. Rating helps the insurer to identify higher risks and allocate appropriate resources to manage risk. Such a framework is possible even for NBFCs - at least for registered NBFCs if proper rating system is introduced for them. But this would require steps in creating a Deposit Insurance Fund or finding out a sound reinsurer.

An alternative deposit insurance system could be along the line of 'narrow banking' concept. The narrow banking concept generally requires banks to invest in low risk instruments and lending to be conducted in a separately capitalised affiliates funded by uninsured liabilities. Although narrow banking merits attention as a restructuring strategy with high NPAs, this may not provide a sound institutional arrangement for deposit insurance. Another set of deposit insurance reform proposal is to limit the activities of banks to a set of "core" banking activities which are essentially activities traditionally performed by banks while other activities could be taken beyond the purview of deposit insurance safety net. But to the extent that financial innovation has blurred the distinction between traditional and non-traditional banking in recent times the effectiveness of this system is not assured. Besides it would imply replacing a formal deposit insurance structure with an artificial imposed structure.

Notes

- 1. In most discussions, three types of safety nets are mentioned. They are (i.) deposit insurance, lender of last resort facility from the central bank and (iii) daylight overdraft loans from the central bank (to meet payment and settlement requirements). See, for example, Furlong (1997) and Helfer (1997).
- 2. In fact Argentina abolished its system of deposit insurance in 1992 but was forced by the Mexican crisis and consequent runs to announce a new system of (private) deposit insurance in April 1995.
- 3. In U.S. in 1930, out of the 11,777 Savings and Loan Societies (at that time called building and loans), 526 failed (4.5 per cent). These failed associations held\$410.6 million of the industries' US \$8,828.6 million total assets (4.7 per ceznt) [See, Benston and Kaufman (1990)].
- 4. The first study providing theoretical justification for deposit insurance came from Diamond and Dybvig (1983). Using a single-bank economy, Diamond and Dybvig(1983) presented a model of a banking system which enabled depositors to invest in production while still remaining liquid but which was subject to damaging bank run' if too many of them wanted to withdraw from production when it was still in progress. They went on to show how deposit insurance could eliminate these runs.
- 5. The Banking Act of 1933 separated commercial and investment banking limited bank securities activities, expanded the branching privileges of the Federal Reserve member banks, regulated the payment of interest on deposits etc. For details See, Flood, M. (1994).
- 6. The initial legislation limited the amount of deposit insurance to US \$2,500 in 1934 and US \$5,000 in 1935.
- 7. For a review of these developments, See Barth (1991), Benston and Kaufman(1990), Kane (1985,1989), Mayer (1990).
- 8. The FSLIC was abolished by Financial Institutions Reform, Recovery and Enforce- ment Act (FIRREA) of

- 1989. FIRREA created the Resolution Trust Corporation(RTC) and Savings Association Insurance Fund (SAIF) to assume the functions of FSLIC.
- 9. One of the significant changes initially proposed but finally omitted from the final law refers to the Treasury recommendation that deposit insurance coverage be limited to no more than \$100,000 per individual per institution. Many small banks opposed this proposal as they feared that funds would flee to banks thought "too big to fail".
- 10. The question whether an ailing bank should be closed has been examined by several authors. Following the Savings and Loans decable, Kane (1985) argued strongly that early closure is desirable. In a theoretical study, Acharya and Dreyfus(1989) argue for closure of banks even when they still have positive net worth. In contrast, Allen and Saunders (1993) argue that forbearance by banking regulators may be sensible in some cases. In a recent theoretical study Dreyfus et al (1994) argue that, if there are significant bankruptcy costs, forbearance may actually reduce the regulator's liability.
- 11. In Canada, insurance agencies like Deposit Insurance Corporation of Ontario(DICO) uses a higher risk-adjusted asset to capital ratio of 4 per cent.
- 12. In the pre-1991 period, a number of studies have been conducted to evaluate whether the fixed price deposit insurance has led to subsidy. Most of these studies have used the Black Scholes formula for option pricing to determine the actuarial fair price premium for deposit insurance. Marcus and Shaked (1984) using 1979 and 1980 bank accounting and stock price data for U.S. found that the FDIC deposit premium greatly exceed the estimate of fair price. With 1983 data, Ronn and Verma (1986) found the FDIC premium close to the fair premium.Pennachi (1987) in his study found that banks are overcharged by considerable margin by FDIC. Epps, Pulley and Humphrey (1996) using data for 1989 also found that deposit insurance premia to be more than the fair price. On the other hand, in the post1991 period, the study by Whalen (1997) using data for 1996 found that banks are overcharged by considerable margin by FDIC. Epps, Pulley and Humphrey (1996) using data for 1989 also found that deposit insurance premia to be more than the fair price. On the other hand, in the post1991 period, the study by Whalen (1997) using data for 1996 found that the subsidy is small.
- 13. The 1.25 per cent target was established following the banking and thrift crisis of the 1980s, and was adapted from the Depository Institution Deregulation and Monetary Control Act of 1980 which specified a 30-basis-point. This mid-point of 1.25 is the historical average reserve ratio for the FDIC fund prior to 1980. The DRR at 1.25 was found to be sufficient to finance all actual losses during the crisis in 1980s.
- 14. Going by the experience of U.S. it has been found that capital is a very poor in- dictor of bank safety. For example, many of the large Texas banks were well capitalised when they failed.
- 15. CAMEL refers to capital adequacy, asset quality, management, earnings and liquidity. The CAMEL rating is now CAMELS, with the additional "S" standing for sensitivity to market risk. This change underscores the importance to management of adequately measuring and controlling market risk factors.
- 16. One of the most popular ways to estimate value of deposit insurance is based on option pricing theory. It follows the approach of Merton (1977) who viewed deposit insurance as essentially a put option on the value of bank assets.
- 17. The authorised capital of the Corporation was initially fixed at Rs. 1 crore which has been gradually raised to Rs. 50 crore from May 1, 1984.
- 18. Following an amendment to the Deposit Insurance and Credit Guarantee Corporation Act in 1968, similar coverage was also extended in respect of deposits with co-operative banks in such of the States/Union Territories as have passed the necessary enabling legislation amending their local Co-operative Societies Acts.

- 19. The Small Loans Guarantee Scheme, 1971, which came into force on 1 April1971, covers credit facilities granted by commercial banks including regional rural banks to the priority sector (other than small scale industries) as defined by Reserve Bank and this includes farmers and agriculturists, small road and water transport operators, retail traders, small business enterprises, professional and self- employed persons and educational, housing and consumption loans.
- 20. The Small Loans (Small-Scale Industries) Guarantee Scheme, 1981 was introduced from 1 April 1981 and it covers credit facilities granted by commercial banks including regional rural banks, co-operative banks, State Financial Corporations and State Development Agencies to small-scale industries units for acquisition of or repairs to or replacement of fixed assets or equipment and for working capital requirements for production and marketing of products.
- 21. The Small Loans (Co-operative Banks) Guarantee Scheme, 1984 covers credit facilities granted by eligible primary (urban) co-operative banks to the priority sector as defined by Reserve Bank, including activities allied to agriculture, road and water transport operators, retail traders, small business enterprises, professional and self-employed persons and educational, housing and consumption loans. All eligible licensed primary (urban) co-operative banks are as defined in clause (gg) of Section 2 of the DICGC Act, 1961 as well as eligible unlicensed primary (urban) co-operative banks recommended by the Reserve Bank of India as eligible, can participate in the Scheme.
- 22. There are broadly, light types of NBFCs: (i) equipment leasing companies, (ii) hire purchase companies, (iii) loan companies, (iv) investment companies, (v) mutual benefit financial companies (Nidhis), (vi) miscellaneous non-banking companies (chit funds), (vii) residuary non-banking companies and (viii) housing finance companies.
- 23. Building societies are regulated by the Building Societies Commission under the Building Societies Act, 1986. Building societies are mutual organisations with the principal purpose of raising funds from members in order to lend to the members sums of money for the purchase of houses. However, the Act allows building societies to carry out banking services and insurance as well.
- 24. Credit Unions are regulated by the Registry of Friendly Societies under the Industrial and Provident Societies Act, 1965 and the Credit Unions Act, 1979. Credit unions are mutual savings and loan societies whose members 'save' with their credit union by investing in its 'shares'. There are stipulations regarding the amount of shares a member can hold, amount a member can borrow, repayment period of loans (maximum) and number of members in a credit union (maximum).
- 25. The on-site supervisory mechanism suggested by the Khanna Committee include proposals to bring larger NBFCs with assets size over Rs.50 crore and above under annual inspection. Companies with asset size between Rs.5 crore and Rs.50 crore is proposed to be inspected bi-annually and smaller companies on the basis of off-site returns besides conducting on-site inspections on a selective basis.

References

Acharya, S and Dreufuys, J.F. (1989): 'Optimal Bank Reorganisation Policies and the Pricing of Federal Deposit Insurance', *Journal of Finance*, **44**, 1313-33.

Akerlof, G.A. and Romer, P.M. (1993): 'Looting: The Economic Underworld of Bankruptcy for Profit', *Brooking Papers on Economic Activity*, **2**, 1-73.

Allen, L and Saunders, A. (1993): 'Forbearance and Valuation of Deposit Insurance as a Callable Put', *Journal of Banking and Finance*, **17**, 629-43.

Barth, J.R. (1991): The Great Savings and Loan Debacle, Washington D.C: American Enterprise Institute.

Benston, G.J. (1985): An Analysis of the Causes of Savings and Loan Association Failures, New York University

Graduate School of Business Administration, Salomon Brothers Center for the Study of Financial Institutions (Monograph Series in finance and Economics), Monograph 1985-4/5.

____(1989): 'Direct Investments and FSLIC Losses', In *Research in Financial Services*, 1, (Ed.) Kaufman, G.J. Greenwich, C.T, JAI Press.

Benston, G.J. and Kaufman, G.G. (1990): 'Understanding the Savings and Loan De-bacle', *The Public Interest*, **99**, 79-95.

____(1997): 'FDICIA After Five Years', Journal of Economic Perspectives, 11, 139-58.

Bryan, L.L. (1991): Bankrupt: Restoring the Health and Profitability of Our Banking System, New York: Harper Business.

Calomiris, C.W. and Kahn, C.M. (1994): 'The Origins of Federal Deposit Insurance', in Goldin, C and Libecap, G (Ed.) *The Regulated Economy: A Historical Approach to Political Economy*, Chicago: University of chicago Press, 145-88.

Calomiris, C.W. and White, (1994): 'The Origins of Federal Deposit Insurance' in Goldin, C and Libecap, G. (Ed.) *The Regulated Economy: A Historical Approach to Political Economy*, Chicago: University of Chicago Press for the NBER, 145-88.

Cornett, M.M., Mehran, H. and Tehranian (1998): 'The Impact of Risk-Based Premiums on FDIC-Insured Institutions', *Journal of Financial Services Research*, **13**, 153-69.

Deposit Insurance and Credit Guarantee Corporation, Annual Report, (Various issues).

Diamond, D.W. and Dybvig, P.H. (1983): 'Bank Runs, Deposit Insurance and Liquid-ity', *Journal of Political Economy*, **59**, 401-19.

Dreyfus, J.F., Saunders, A. and Allen, Y. (1994): 'Deposit Insurance and Regulatory Forebearance: Are Caps on Insured Deposits Optimal', *Journal of Money, Credit and Banking*, **26**, 412-38.

Emerson, G (1934): 'Guaranty of Deposits under the Banking Act of 1933', Quarterly *Journal of Economics*, **58**, 229-44.

Flood, M (1994): 'The Great Deposit Insurance Debate' in Stone, C.A. and Zissu, A. (Ed.) *Global Risk Based Capital Regulations - Capital Adequacy*, Richard D. Irwin.

Furlong, F (1997): 'Federal Subsidies in Banking: The Link to Financial Modernisation', *Economic Letter*, Federal Reserve Bank of San Franisco, October 24, 97-31.

Gracia, G. (1996): 'Deposit Insurance: Obtaining the Benefits and Avoiding the Pit-falls', IMF Working Paper No.83, Washington D.C: International Monetary Fund.

Greenspan, A (1995): Statement to the Congress before the Subcommittee on Financial Institutions and Consumer Credit of the Committee on Banking and Financial Services, U.S. House of Representatives, September 21, 1995, *Federal Reserve Bulletin*, 1020-21.

Gorton, G (1988): 'Banking Panics and Business Cycles', Oxford Economic Papers, 40, 751-81.

Helfer, R (1997): 'Testimony Before the Subcommittee on Capital Markets, Securities and Government-Sponsored Enterprises of the Committee on Banking and Financial Services of the U.S. House of Representatives', February 13.

Hoeing, T.M. (1996): 'Rethinking Financial Regulation', Economic Review, Federal Reserve Bank of Kansas City,

Second Quarter, 4-13.

Jenson, M and Meckling, W. (1976): 'The Theory of the Firm: Managerial Behaviour, Agency Costs and Ownership Structure', *Journal of Financial Economics*, 3, 305-60.

Kane, E.J. (1985): The Gathering Crisis in Federal Deposit Insurance, Boston: M.A, MIT Press.

____(1989): The S&L Insurance Mess: Hot Did it Happen?, Washington: Urban Institute Press,.

____(1995): 'Three Paradigms for the Role of Capitalisation Requirements in Insured Financial Institutions', *Journal of Banking and Finance*, **19**, 431-59.

Kaufman, G. and Litan, R (Ed.) (1993): Assessing Bank Reform: FDICIA One Year Later, Washington D.C: The Brookings Institution.

Kyei, A. (1995): 'Deposit Protection Arrangements: A Comparative Study', IMF Working Paper No. 134.

Litan, R.E. (1987): What Banks Should Do?, Washington, D.C: The Brookings Institution.

Marcus, A.J. and Shaked, I.(1984): 'The Valuation of FDIC Deposit Insurance Using Option-Pricing Estimates', *Journal of Money, Credit and Banking*, 16, 446-60.

Mayer, M (1990): The Greatest-Ever Bank Robbery, New York: Charles Scribner's Sons.

Merton, R.C. (1977): 'An Analytic Derivation of the Cost of Deposit Insurance and Loan Guarantees: An Application of Modern Option Pricing Theory', *Journal of Banking and Finance*, **1**, 3-11.

Pennachi, G.G. (1987): 'A Reexamination of the Over-(or Under-) pricing of Deposit Insurance', *Journal of Money, Credit and Banking*, **19**, 340-60.

Reserve Bank of India (1998): Money supply: *Analysis and Methodology of Compilation*, (Chairman: Y.V. Reddy).

Ronn, E.I. and Verma, A.K. (1986): 'Pricing Risk-Adjusted Deposit Insurance: An Option Based Model', *Journal of Finance*, **16**, 871-95.

Scott, K and Mayer, T. (1971): 'Risk and Regulation in Banking: Some Proposals for Deposit Insurance' *Stanford Law Review*, **23**, 857-902.

Tally, S., and Mas, I. (1990): 'Deposit Insurance in Developing Countries', Working Paper, Washington D.C: The World Bank.

Timmer, B (1993): 'Deposit Insurance: Back to the Future', in Kaufman, G.G. and Litan, R.E. (Ed.) *Assessing Bank Reform: FDICIA One Year Later*, Washington D.C: The Brookings Institution.

Walter, J.R. (1998): 'Can a Safety Net Subsidy Be Contained?'. *Economic Quarterly*, Federal Reserve Bank of Richmond, **84**, 1-20.

Whalen, G. (1997): *The Competitive Implications of Safety Net-Related Subsidies*, Office of the Comptroller of the Currency Economics Working Paper 97-9, May.

Table 1: Types of Deposit Protection Systems in Different Countries

	Explicit Deposit Scheme	Impl	licit Deposit Scheme	None	
<u>Africa</u>	Middle East	<u>Africa</u>	Europe II	<u>Asia</u>	

Kenya	Kuwait	Benin	Estonia	New Zealand
Nigeria	Lebanon	Burkina Faso	Kazakhstan	
Tanzania		Cameroon Central	Kyrgyz Republic	
Uganda	Western Hemisphere	African Republic	Latvia	
- 8	Argentina	Chad	Lithuania	
Asia	Canada	Côte d'Ivoire	Russia	
Bangladesh	Chile	Equatorial Guinea	Ulkraine	
India	Colombia	Gabon		
Japan	Dominican Republic	Ghana	Middle East	
Marshall Islands	El Salvador	Guinea	Egypt	
Micronesia	Mexico	South Africa	Iran	
Philippines	Peru	Togo	Iraq	
Taiwan	Trinidad & Tobago	Zaire	Israel	
	United States	Zambia	Jordan	
Europe I	Venezuela	Zimbabwe	Libya	
Austria			Oman	
Bengium		Asia	Saudi Arabia	
Chech Republic		Australia	Syria	
Denmark		China	UAE	
Finland		Hong Kong	Western	
France		Indonesia	Hemesphere	
Germany		Kiribati	Brazil	
Greece		Korea	Bolivia	
Hungary		Malaysia	Costa Rica	
Iceland		Pakistan	Ecuador	
Ireland		Singapore	Guatemala	
Italy		Sri Lanka	Honduras	
Luxembourg		Thailand	Jamaica	
Netherlands		Vietnam	Paraguay	
Norway			Uruguay	
Poland		Europe I		
Portugal		Bulgeria		
Slovak Republic		Romania		
Spain				
Sweden				
Switzerland				
Turkey				
United Kingdom				

Note: n.a. means either not applicable or not available.. Sources: Source: Kyei (1995),p.3.

Table 2 : Explicit Deposit Protection Arrangements - Agency, Statute, Management, and Membership

Country	Date Establi-	Name of Agency	Statute	Manage- ment	Membership
	shed			mone	
_			Europe I		
Austria	1979	Deposit Guarantee Fund	Credit System Act	Private	Compulsory
Belgium	1985	Rediscount and Guarantee	Royal Order 175 and March	Joint	Voluntary
		Institute	1982 legislation		
Czech Republic	1994	Deposit Insurance Fund	The Act of July 8, 1994	Official	Compulsary
Denmark	1988	Deposit Insurance Fund	Act 850, 1987; Order 118, 1988	Private	Compulsary

Finland	1969	Deposit Guarantee Fund	n.a.	n.a.	Compulsary
France	1980	Deposit Guarantee Fund	Banking Act of 1984	Private	Voluntary
Germany		Deposit Security Fund, Savings	German Bank Association		Voluntary/
		Bank Security Fund and Credit Coop.Security Scheme	Deposit Protection Fund Law		Compulsory
Hungary	1993	National Deposit Insurance Fund	Act on Natl. Dep. Ins.Fund	Official	Compulsory
Iceland	1985	DIF for Savings Banks; DIF for Commercial Banks	Acts 86 and 87/1985	Private/ Official	Voluntary
Ireland	1989	Deposit Protection Account (Central Bank)	Central Bank Act, 1989; Building Societies Act, 1989		Compulsory
Italy	1987	Interbank Deposit Protection Fund	n.a.	Private	Compulsory
Luxembourg	1989	Association Guarantee Deposits	n.a.	Private	Voluntary
Netherlands	1979	Collective Guarantee Scheme	n.a.	Joint	n.a
Norway	1961	Deposit Guarantee Fund	n.a.	Joint	n.a.
Poland	1995	Deposit Guarantee Fund	Law on Banking Guarantee Fund, 1994	n.a.	Voluntary
Portugal	1992	Deposit Guarantee Fund	n.a.	Joint	Voluntary
Spain	1977	Deposit Guarantee Fund	Royal Decree Law 4 & 18	Official	Compulsary
Switzerland	1984	Deposit Guarantee Fund	n.a.		Compulsary
Turkey	1983	Turkish Deposit Inusrance Fund	n.a.	Joint	n.a.
United	1982	Deposit Protection Fund	Banking Act of 1979 and 1987	Official	Compulsary
Kingdom		1	8		1 3
		Western H	Hemisphere		
Argentina	1979	SEDESA	Law 24, 485	Joint	Voluntary
8	(1995)		, ,		
Canada	1967	Canada Deposit Insurance	Deposit Insurance Corporation	Official	n.a.
		Corporation	Act of Canada		
Chile	1986		Banking Law	Official	Compulsory
Colombia		Financial Institution Guarantee Fund	Banking Law 1985		Voluntary
Dominican Republic	1962	Savings Account Insurance	National Housing Bank Law	Joint	Compulsory
E1 Salvador	1991	n.a.	Law on Financial Institutions 1991	n.a.	Voluntary
Mexico	1986	Bank Savings Protection Fund	Credit Institutions Law	Official	Compulsory
Peru		Deposit Insurance Fund	Banking Law 1991		Voluntary
Trinidad &		Deposit Insurance	Financial Institutions		Compulsory
Tobago		Corporation	Act 1986		
United States	1934	Federal Deposit Insurance Corp. (FDIC)	Federal Reserve Act	Official	Voluntary
Venezuela	1985	FOGADE/BANAP	Charter of Deposit Guarantee and Bank Protection Fund	Joint	Compulsory
		A	<u>sia</u>		
Bangladesh	1984	Deposit Insurance Fund	Deposit Insurance Ordinance 1984	Official	Compulsory
India	1962	Deposit Insurance and Credit Guarantee Corp. (DICGC)	DICGC Act 1961	Private	Compulsory
Japan	1971	Deposit Insurance Corporation (DIC)	Deposit Insurance Law	Joint	Compulsory
Marshall Islands	1975	Federal Deposit Insurance Corp. (FDIC)	Banking Act	Official	Voluntary
Micronesia	1963	Federal Deposit Insurance Corp. (FDIC)	Banking Act	Official	Voluntary

Philippines	1963	Philippine Deposit Insurance Corp. (PDIC)	Republic Act 3591/7800	Joint	Compulsory
Taiwan	1985	Central Deposit Insurance	Deposit Insurance Act, 1985	Official	Voluntary
		Corporation			
Vietnam	1998	Vietnam Bankers' Association		Official	Voluntary
		<u>Midd</u>	lle East		_
Kuwait	n.a.	n.a.	n.a.	n.a.	n.a.
Lebanon	1967	National Deposit Guarantee	n.a.	private	Compulsory
		Company			
<u>Africa</u>					
Kenya	1985	Deposit Protection Fund Board	Banking Act No. 17, 1985	Official	Compulsory
Nigeria	1988	Nigerian Deposit Insurance	NDIC Decree No. 22	Official	Compulsory
		Corp. (NDIC)			
Tanzania	1993	Deposit Insurance Fund (DIF)	Financial Inst. Act. 1991	Official	Compulsory
Uganda	1995	Deposit Insurance Fund	Financial Inst. Act 1993	Official	Compulsory

Note: n.a. means either not applicable or not available. Source: Kyei. (1995), p.6-7.

Table 3: Deposit Insurance Scheme for Non-Banks in Various Countries

S.No. Cou	untries	Nature of Deposit Cover/Insurance/Protection
1. Aus	stralia	There is no direct deposit insurance scheme for the deposits of Non-Banking
		Financial Emergency Liquidity Support Scheme (ELSS) is in operation.
		Under the Institution in Australia. However, a different type of scheme viz.
		Scheme, a society may be required on advice from Australian Financial
		Institutions Commission (AFIC) to provide liquidity support to another
		society upto an amount not exceeding 50 per cent of the value of certain
		specified unencumbered assets. A particular society may face a short term
		liquidity crisis or a long term solvency crisis. This ELSS helps the society in
		crisis meeting its immediate obligations. Emergency liquidity support is
		provided only against acceptable securities, the value of which should not be
		less than 10 per cent of the society's total assets and these assets should either
		be held by Special Service Providers (SSP) or any other manner acceptable to
		AFIC or State Supervisory Authority (SSA).
		Societies are to provide AFIC with reports of compliance from their external
		auditors, at six-monthly intervals, certifying that security is being held in the
		appropriate form, that loan balances are updated regularly and that where land
		and buildings are identified as security, valuations are updated at the latest, at
		three-yearly intervals. AFIC may delegate to the SSAs responsibility for
		verifying the holdings of such security during regular on-site inspections.
2. Ho	ng Kong	Hong Kong does not have any Deposit Insurance Scheme. However,
	6 - 6	amendments were introduced to the Companies Ordinance in 1995 to enable
		priority payment to be made for the first \$100,000 deposit of each eligible
		depositor by the liquidator in the event of a bank liquidation. This priority
		payment scheme applies only to banks but not other non-bank deposit-taking
		institutions.

Singapore There is no deposit insurance scheme in Singapore.

4. Thailand

There is no formal deposit insurance scheme in Thailand. However, there exists a Financial Institutions Development Fund which is a separate legal entity, managed by the Bank of Thailand. The Fund collects yearly contributions from all financial institutions under the supervision of the Bank of Thailand at the ratio of 0.1 per cent of deposits. Under certain circumstances, the Fund may borrow from the Bank of Thailand when necessary.

The fund may step in to lend money, take equities in certain institutions or bail out troubled institutions by purchasing their non-performing assets when it deems appropriate. Even though it is under no definite legal obligation as such, the Fund has done so on a few occasions in the past. In more than one instance, the Fund was able to dispose equities after the acquisition at substantial profits. The Fund Management Committee consists of high ranking officials from the Ministry of Finance, Bank of Thailand, Judicial Council and some other public entities.

In 1997 a proposal was floated to set up bank deposit insurance scheme and to guarantee the debt and deposits of finance companies. The corpus of the insurance would be funded from budget surplus and contributions by the banks to the Financial Institutions Development Fund (FIDF).

^{*} D. Ajit is Director in the Department of Economic Analysis and Policy of the Bank. The author is grateful to Dr. Y.V. Reddy for initiating my interest in this area and valuable comments on an earlier draft of this paper. The author is also grateful to Dr. A. Vasudevan and Dr. R. Kannan for their valuable comments. However, the errors that remain are the sole responsibility of the author.