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NARROW BANKING: THEORY, EVIDENCE AND PROSPECTS IN INDIA

Saibal GHOSH and Mridul SAGGAR¹

Introduction

The 1980s and the 1990s has witnessed dramatic changes in the financial marketplace. Firstly, the availability of financial information for individual investors has increased dramatically. At the same time, there has been a substantial decline in the transaction costs for making investment decisions. These developments have multiplied investors' options, so that in the process, they have been able to bypass the traditional intermediation process. Although the role of banks in countries such as U.S., U.K. etc., has been on the decline, banks nonetheless continue to play an important role in Germany, Italy etc. In India, banks still enjoy a predominant role in the intermediation process (Ajit and Bangar, 1997). At the same time, bank failures have become increasingly recurrent in the 1990s. The International Monetary Fund (IMF) estimates that around 130 countries are facing banking problems of various intensities. With rapid cross-border international capital flows, there are serious risks of systemic crisis and contagion arising from a run on a currency and/or a run on a bank. Growing internationalisation of banking in a country otherwise affected by endemic problems associated with largely state-owned banking, has necessitated regulatory authorities to undertake speedy reforms of the banking sector. The conventional remedies in the form of recapitalisation, prudential norms, lender-of-last-resort facility, have been employed and there are yielding slow but significant gains. These remedies nevertheless have imposed severe constraints on the monetary authorities and the Government. For instance, the fiscal burden borne by the Government towards recapitalisation of public sector banks (PSBs) for the period 1993-94 to 1996-97 totalled Rs.16,384.3 crore.

A solution advocated has been the establishment of 'narrow banks'. In India, this concept has gained wider currency especially after the publication of the Report of the Committee on Capital Account Convertibility (CAC) (RBI, 1997). The Report of the Committee on the Financial System (Chairman: Shri M.Narasimham) had advocated the establishment of Asset Reconstruction Fund (ARF) to help strengthen the weak banks. Subsequently, large budgetary provisions were made to strengthen the capital base of such banks, though the ARF itself was not set up. The CAC Report's stress on narrow banking was one

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alternative, which could in theory obviate the need to make fiscal or monetary provisions for bailouts of weak banks. While the CAC Report does not explicitly explain the *raison d'être* for its preferences for narrow banking in relation to alternatives such as ARF, strengthening deposit insurance or mergers or closures of weak banks, the issue has recently been examined afresh by the Committee on Banking Sector Reforms (Chairman: Shri M.Narasimham) and the Working Group on Harmonising the Role and Operations of DFIs and Banks (Chairman: Shri S.H.Khan) which have presented their reports. While the Committee on Banking Sector Reforms in its recommendations has reiterated the need to establish ARF, it has also strongly advocated synergetic mergers among banks. The Committee further notes that there could be some weak banks that are potentially viable and need corrective measures. In such cases, the Committee has suggested the possibility of taking recourse to the narrow banking route as a possible short-term solution to facilitate their rehabilitation. However, if the narrow banking option is found unviable, the Committee suggests the issue of closure could well be examined. The Khan Committee Report has also recommended mergers as a solution for addressing the weak banks' problems and comes out with a cogent argument in favour of universal banking. An interpretation of the recommendations of the two Reports as the former advocating narrow banking and he later favouring universal banking, in preference of the other, would be an oversimplification. Yet, clearly, while the CAC Report sees narrow banking as the solution for the weak banks, the Narasimham Report sees narrow banking as one of the possible options to address the weak banks' problems. The Khan Report does not directly address the appropriateness of narrow banking for strengthening weak banks, but favours promotion of universal banking.² The appropriateness of narrow banking in the Indian context needs to be discussed in a threadbare manner. The objective of this paper is to explore this issue in-depth.

2. Narrow Banks and Narrow Banking

The term 'narrow banks', developed by Robert E. Litan of the Brookings Institution in 1987 argues that banking sector reforms should strive to create institutional structures aimed at minimizing the *potential risks* to which financial systems are vulnerable.³ In other words, it envisages the *functional separation* of depository and lending activities of *highly diversified* (italics in original) firms (banks). These

² Both the Narasimham Committee Report (1998) and the Khan Working Group (1998) have in essence cautioned against the mergers of weak and strong banks unless they are synergetic. The Khan Group endorses possible mergers between DFIs and banks. The Narasimham Committee Report (1998) notes the possible implications for financial sector regulation of the increasing trend towards universal banking. The Khan Working Group, on the other hand, expressed itself unequivocally in favour of a gradual elimination of extant boundaries between commercial banks and DFIs and a progressive move towards universal banking. In this context, the Group also recommended the development of an enabling regulatory framework for the purpose, including the establishment of a 'super-regulator' to co-ordinate and supervise the multiple supervisory authorities.

³ Ely (1991) believes that a "narrow bank" proposal was effected when President Clinton signed the tax bill on August 10, 1993. The bill had a "depositor preference" provision that gives the FDIC and domestic uninsured depositors priority over other bank creditors..... The idea is that this virtually creates a "core bank" of domestic deposits within the larger bank that can be viewed as being akin to a holding company (quoted in Greenbaum and Thakor, pp. 573).

Minimal risk assets has been defined by narrow bank proponents to include tradable securities, investment-grade securities.

banks – the ‘narrow banks’ would offer only *demand deposit* accounts and back these accounts entirely with marketable securities of minimal risk⁴. Activities outside the purview of the narrow bank would be funded by liabilities *other than* insured deposits. Due to the risk-free nature of the underlying assets, moral hazard and capital adequacy problems are likely to be minimal. They would only be needed to make reports of their assets and deposits, subject to a verification on occasion. Table 1 lists a few papers that deals with the issue.

Table 1: Studies on Narrow Banking

Author/Year	Country/ Period	Issue
Wallace (1996)	--	Theoretical model of narrow banking
Fernandez and Schumacher (1996)	Argentine banks	Applicability of narrow banking in Argentina
Spong (1996)	US banks	Narrow banking as an alternative to traditional banking
Kobayakawa and Nakamura (2000)	--	Survey of narrow banking proposals in US and Japan and their feasibility for financial system stability
Bossone (2001)	Estimates the cost of bank narrowness	Impact of foreign bank entry on Turkish banks

The idea is that an insured deposit is essentially a *transactions account*, not an investment vehicle for the depositor. The narrow bank could be embedded within a larger bank with unrestricted powers. Under narrow banking therefore, the return to the depositor would essentially be the return on the securities *minus* fees for servicing the accounts. To quote from Bruni (1995: 96):

“Narrow banks ...would take care of liquidity services, with no risk of bank runs and, virtually no need of capital or of deposit insurance.....therefore the typical lending operations of banks would not produce any systemic risk and would not need any special regulation or supervision”.

In practice, narrow banking in a stricter sense has come to be associated with restriction on weak banks to accept only demand deposits and place all these incremental funds in Government securities. It is an offshoot of the ‘100 per cent reserve banking proposal’. In a somewhat broader sense, narrow banking amounts to defining a class of deposits which are backed fully by securities of high liquidity and safety so that banks are always in a position to meet any run on deposits. To make the concept operational, it has sometimes been suggested that narrow banks should be embedded in a parent company to be set up as a financial holding company (FHC). The FHC would be expected to lend financial support to the weak bank, but would have no claim on the dividends of the weak banks as its

⁴ Minimal risk were initially defined by narrow bank proponents to include a broad class of tradable and investment-grade securities, but are presently increasingly viewed only as Government securities which are of proven liquidity. To this end, Litan advocates legislation that provides for the establishment of financial holding companies in which a deposit-taking subsidiary would be required to invest only in cash, Government securities or securities insured by the Government against default (Herring and Litan, 1995).

subsidiary/affiliate. In a somewhat restrictive version of the proposal, earnings generated by depository subsidiary could be channelled back to the FHC parent and there from to ailing affiliates undertaking para-banking activities. It is apparent that banking proposals of these kinds aims at safeguarding depositors' savings without any formal deposit insurance mechanism. The present chapter discusses the theory underlying narrow banking and examines its relevance in the Indian context.

3. The Pros and Cons of Narrow Banking

In a Diamond-Dybvig economy, depositors might resort to premature withdrawal of deposits in anticipation that the intermediary will run out of assets. Such runs on deposits result from asset-liability mismatches. Narrow banking might be a viable alternative in such a case. The highly marketable assets of these banks would provide ready and ample liquidity to meet unforeseen deposit withdrawals, preventing bank runs. Secondly, for banks with high levels of non-performing assets (NPAs), narrow banking could be a viable proposition. Any *incremental* deposit can be diverted to riskless securities, foreclosing the build-up of any non-performing assets. Thirdly, with compliance regulation being restricted to a simple monitoring of the narrow bank's asset portfolio, the need for extensive Government intervention in bank lending and related policy decisions would stand curtailed. Finally, narrow banking ensures stability of the financial system by allowing for the structural separation of the deposit acceptance and loan making activities.

Critics have been quick to point out several drawbacks of narrow banking. The feasibility of narrow banking depends, to a large extent, on whether these banks can obtain adequate low-risk assets to back their deposits. The supply of riskless assets might not suffice to back the potential demand for such deposits. Furthermore, in a narrow banking world, if society were to value riskless assets highly, it would raise their price so much so that narrow banks might end up holding less secure paper (Caprio and Summers, 1996). Second, rational expectation theorists (Wallace, 1996) have argued that the proposal of narrow banking does not offer any consistent model-based explanation. Such an omission might have serious repercussions because a coherent model-based explanation is likely to suggest the benefits accompanying the introduction of such systems. As Wallace observes "...experimentation on the actual economy may be very costly, particularly if narrow banking is not, in fact, a good idea" (pp. 3). Thirdly, narrow banking places an overriding emphasis on the stability of the financial system and ignores altogether the two other major functions of the financial system: lowering intermediation costs and promoting productive investment. These functions, narrow banking proponents assume, will be largely accomplished in a deregulated financial market. Concerns have been voiced that an integrated marketplace might often leave some credit needs unmet, especially for marginal participants in the credit market (Dymski, 1993). Moreover, given the interrelations among the various segments of the financial

sector, it might be difficult to maintain stability of the financial system by controlling merely one category of financial institutions at the cost of ignoring others. Complex connections and contagion effects exist within the financial system so that an exclusive focus on one sector might prove counterproductive engender large systemic risks (Spong, 1996).

The key to narrow banking lies in the answer to the question whether narrow banking in fact would reduce the risks in banking. Proposal to convert weak banks to narrow banks pre-supposes that narrow banking is the best way to reduce risks for weak banks. By locking all incremental assets in Government securities, so that the gilts match all demand liabilities of the bank, these banks, in effect, seek to minimise the possibilities of a liquidity mismatch to a degree that it can cope with any future run on the bank. Banks in face of liquidity mismatches are unable to obtain sufficient funds through new liabilities or by converting assets promptly at reasonable cost. The resultant asset-liability mismatch erodes bank's profitability and can eventually trigger a run that may see the bank becoming insolvent in a relatively short span of time. Narrow banking also minimises the credit risks facing the banks as all their new investments are in gilts, and these sovereign guaranteed securities are the safest form of assets against possibility of defaults.

But liquidity and credit risks are not the only type of risks facing banks. If weak banks were converted to narrow banks, they would expose such banks to heightened market risks. These banks would potentially face losses in on- and off-balance sheet positions arising from volatility in market prices of the securities. Most of the weak banks have displayed poor treasury management skills. Unless the proposal to convert weak banks to narrow banks is accompanied by a thorough revamping of their treasury operations, the narrow banks would perhaps saddle themselves with various market risks. These risks may even outstrip the reduction in credit and liquidity risks brought about by narrow banking. The interest rate exposures would, in due course, become so sizeable that any shifts in the slopes, kinks or intercept of the yield curve can shrink bank's earning and capital base. Besides, given the archaic treasury management skills endowed in their organisational and incentive structures, locking of assets predominantly in gilts would make their balance sheet susceptible to repricing risk, basis risk and optionality.⁵ Also, the very announcement effect of narrow banking is a source of incipient reputational losses. These reputational losses can, in extreme cases, engender a shift in customer perception turning an otherwise viable bank into insolvent one amidst runs typical to financial markets characterised by multiple equilibria.

Narrow banking proposal may appear to be an easy route for reforms of the weak banks, but a surer way may lie in a more comprehensive action covering all facets of banking activities. Liquidity

⁵ Repricing risk refers to the risk arising from timing differences in maturity differences in case of fixed rate securities or from repricing of assets itself in case of floating rates. Basis risk originate from the non synchronous movements and incomplete adjustment in the prices of instruments with similar maturity and other characteristics. Optionality is the risk embedded in options, contracted or uncontracted, in the bank's on- and off-balance sheet positions.

management would have to remain an integral, and perhaps even a central, part of the process. The goal of ensuring that the banks are able to meet all contractual commitments is not mutually exclusive from other goals of banking sector reforms. Also, narrow banking is not the only tool for sound liquidity management. Banks should no doubt maintain adequate levels of liquid assets. But, they should also seek a broader funding base as well as diversified portfolio of their asset holdings to minimise market-related risks. The financing patterns on the sources side and the investment pattern on the uses side should be supported by sound management information systems (MIS) and central liquidity control. Improvements in MIS comprising timely assessment of the character and degree of risk being assumed by the bank in the course of its operations, greater clarity and accountability to the roles of the Board of Directors and external auditors, transparent policies in areas like investment, loans, asset-liability management and recovery management needs to be put in place. These measures will help strengthen the perceived linkage between management and risk control.

Enforcing exacting credit disbursement and monitoring standards can also turn around weak banks. Such contraction does not classify as a classical narrow banking proposal, *albeit* some may mix it up with a loosely defined narrow banking. A clear distinction between a proposal which seem to impose narrow banking constraint and a proposal which seek to bring down the non-performing loans of weak banks by stricter accounting norms or through monitoring standards appear necessary to critically assess the viability of narrow banking proposal. Banking reforms can aim at setting up guidelines for freeing credit decisions of extraneous pressures, which are not guided in sound commercial lines or economic viability. If gilts offer the best option for investment on these considerations, the weak as well as the narrow banks can benefit from them. If this is not the case, weak banks could better benefit from granting more collateral-based loans or in investing in other relatively safe financial assets. In either case, banks need to continually assess and appraise any kind of assets, whether they are primary assets reflected in the books or underlying assets which afford some kind of guarantee. Gilts are no exception to this rule, even while it is true that under certain circumstances, weak banks can benefit by correcting their asset-liability mismatch by increased coverage of their demand liabilities by safe and liquid investments.

A cardinal principle of sound banking practice is avoiding concentration of risk and large exposures. Narrow banking proposal unduly increases the concentration in advances to Government. It is generally believed that the default risk attached to Government securities is zero. This view does not find unconditional acceptance in the literature. Dornbusch and Draghi (1990) have documented episodes of repudiation of public debt. In case of developing countries, the problem of bankruptcy or of defaults on domestic or international debt is not uncommon. Besides, if the narrow banking proposal cover investment in state Government securities, then the default risk needs to be evaluated even more carefully in the face of envisaged reforms of the debt markets. Public finances of some states in India are in a rather bad shape and unless these states are forced to issue mortgage-backed securities, their default

risk could be even higher. In any case, it seems reasonable to assume that the default risk attached to Government securities is close to zero, though not zero. An essential element in the consideration of banking risks is the recognition that far more important than the default risk is the risk of capital losses that banks can incur on their portfolio of Government securities. History is replete with cases when central banks or the Government has tried inflicting capital losses on holders of public debt, not just by inflating but also by manipulating the yields against a floating rate instrument or otherwise (Dornbusch and Draghi, 1990). Even considering that this has not been a designed practice in this country, one would still have to tread with caution. Auctions and secondary trading are zero-sum game in which the weak banks are more likely to end up on the losing side against the better-endowed banks. A large exposure to single borrower, viz., the Government, in this case does not appear to be a reasonable policy for banking reforms. In the event of the banks being permitted to invest in treasury bills and treasury bonds of foreign Governments as the economy progresses on the path of capital account convertibility, their exposures can be somewhat diversified. But, in such a regime, the banks would need to assess not only the credit ratings of sovereigns, but also take cognizance of the foreign exchange risk.

New accounting practices have helped in better recording the non-performing loans (NPLs) of the banks. As a result, the credit risk is getting relatively clearer reflection in the balance sheets of banks. However, the stated NPLs do not give a clear picture of the risks the banks are trading in their trading book. Many of the banks still do not have a satisfactory practice of marking their securities portfolio to the market and very few of them have a comprehensive model for assessing value-at-risk. The evident risk in classical banking may, therefore, be overrated, while that of narrow banking, underrated.

While there may still be cases where conversion of weak banks to narrow banks may be a preferred policy option, it is essential that this case be brought out clearly on a case-by-case basis. A detailed exercise is necessary for specific risk factors. The interest rate risk needs to be worked out by taking differential risk factors for a segmented yield curve and these risk factors would have to be a function of bank's trading strategies, keeping in view the trading limits and other related instructions and rules which govern trading dealers. The spread risk between various kinds of fixed income securities including Government securities would have to be quantified. Exchange risk is increasingly becoming important and risk factors need to be worked out separately for currency of denomination and weighted by bank's positions in these currencies before value-at-risk is stated in domestic currency. For equity price risks, it is essential to work out specific and general market risks separately. Furthermore, beta risks need to be derived relative to market index as well as on a sectoral basis. For banks having considerable exposures in commodities, the risk has to be commodity-specific with risks for derivative positions accounted separately. Only with such financial analysis would relative risks in banking come out clearly enough for a judgement over whether narrow banking could sufficiently reduce risks in banking.

Finally, the narrow banking proposal has repercussions for the overall structure of the banking industry. While the entry of number of private banks, including foreign banks, in the last few years has increased competition, the industry is still not competitive enough by global standards. The large dominance of the State Bank of India (SBI) in all segments of banking has affected market play. This is reflected in the fact that amongst the public sector banks, SBI group (SBI and its seven associates) is the biggest unit with over 13,000 offices and deposits aggregating Rs.1,24,880 crore and advances amounting to Rs.83,914 crore at the end of March 1997. As such, the SBI group accounts for around 34 per cent of aggregate banking business (aggregate of deposits and advances) conducted by the public sector banks and around 27 per cent of the business for the entire banking system. Introduction of narrow banking proposal may perpetuate this position as fewer banks may be placed to render classical banking function. The conversion of weak banks to narrow banks could, therefore, accentuate antitrust problems for the Indian banking industry.

4. Which Banks can be converted to Narrow Banks?

Considering the diffused nature of the risks, narrow banking is clearly not a solution to reform weak banks. In any case, in the first place, one has to take a view on which banks can be considered for conversion into narrow banks. In other words, being 'how weak' is weak enough for imposing the speed limits ascribed to in the narrow banking proposal? There are scant guidelines in the literature to answer this question. Nevertheless, helpful inferences can be extracted from indicators for banking insolvencies and banking crises.

While a number of indicators have been proposed in the literature covering both macroeconomic and microeconomic variables, the key to banking soundness is seen to lie in capital adequacy and low level of NPAs. This helps prevent isolated bank failures and timely action to strengthen banks on a case-by-case basis can provide the best insurance against pervasive failures. Based on the capital status and the asset quality of banks, we propose a two-factor criteria for identifying banks, which are weak and prospective candidates for narrow banking (Table 2).

Table 2: Indicators of Bank Soundness

Capital Status	Risk-Weighted Capital	Core Capital
Well capitalised	0 per cent	5 per cent
Absolutely capitalised	8 per cent	4 per cent
Under capitalised	Less than 8 per cent	Less than 4 per cent
Significantly under-capitalised	Less than 6 per cent	Less than 3 per cent
Critically under-capitalised	4 per cent	Less than 2 per cent

In the context of banking crisis, Sheng (1992) has observed that banking systems with problem loans of 15 per cent or more have inevitably encountered a crisis. Although bad debts accumulate over a period of time, more often than not, they accumulate quickly over a short/medium time span (say, two or

three years), and once they exceed the critical level of 10 per cent, the likelihood of bank failure escalates rapidly. Following Sheng (1992), we consider the NPA ratio of 15 per cent and above as 'explosive'. The maturity of bank loans, on an average, may be considered to be seven years. In that case, the discount in the values of all assets marked to market like a seven-year bond implies that a 15 per cent decline in loan yield due to corresponding increase in non-performing loans would totally decapitalise a bank with 8 per cent. Also, if the banks were asked to make an average provision of 50 per cent against non-performing loans, the capital base of 8 per cent would get eroded by loan loss provisions if these non-performing loans exceed 15 per cent of total loans. The explosive nature of the 15 per cent threshold limit for non-performing loans is also confirmed by an examination of cross-country evidence presented by Sheng (1992). Clearly, banks with NPAs exceeding 15 per cent are obvious candidates for narrow banking. Furthermore, Sheng (1992) observes that bad debts accumulate over a period of time. However, once they build up, they accumulate quickly over a short/medium time span (say, two or three years), and once they exceed the critical level of 10 per cent, the likelihood of bank failures escalates rapidly. As such, we consider NPAs in the range [10,15) per cent to be 'high', even though not explosive. Banks having NPAs in this range can also be considered as prospective candidates for narrow banking. As an early warning signal, the benchmark of NPAs of 7 per cent can be considered on ground of soundness. NPAs above this level may be worrisome, but need not necessarily graduate into danger zone. Therefore, the range of NPAs of [7, 10) per cent can be considered 'fragile' warranting remedial action, but these banks need not be subjected to narrow banking to ensure their liquidity and solvency. NPAs in the range of [5, 7) per cent may be viewed as 'moderate' and measures within the control of bank management should suffice as an action. Finally, NPAs below 5 per cent are quite 'manageable' and can be considered commensurate with sound banking.

On the capital front, we consider the regulatory action under the 1991 Federal Deposit Insurance Corporation Improvement Act (FDICIA) and several documents of the Bank for International Settlements (BIS), including the capital accord. One needs to recognise that the ratio of 8 per cent for the capital to risk asset ratio (CRAR) is recommended as a *minimum*, and there is a view that higher CRAR may be necessary in select cases and markets. Therefore, in our judgement, while banks with CRAR of 8 per cent may be considered as sufficiently capitalised, above with CRAR of 10 per cent or above may only be considered as absolutely capitalised. The FDICIA considered banks with CRAR of 10 per cent and core capital of 5 per cent and above as well-capitalised. The Act nevertheless makes it clear that even these banks cannot make any capital distribution or pay a management fee to a controlling person that would leave the institution undercapitalised. Therefore, we consider only those banks having CRAR of 12 per cent and above as 'well capitalised'. If such banks also have a low level of NPAs, we can comfortably place them outside any regulatory action concerning capital status or asset quality. However, we do recognise the remote possibility of some banks getting overcapitalised and not making full use of

leveraging possibilities. Yet, perhaps in the context of categorising weakness in banking structures, it may not be useful to separately classify them. Banks with CRAR in the range of [10, 12) per cent can be considered as 'absolutely capitalised', but they could continue to be under watch to prevent any weakening of their capital base, even if no action is contemplated. On the other hand, banks with CRAR in the range of [8, 10) per cent qualify as being 'sufficiently capitalised', keeping in view the BIS norm and the fact that Government-owned banks in any case have an implicit sovereign guarantee of some kind. Yet, it would be advisable for the management of these banks to aim to further strengthen their capital base. Banks which do not meet the BIS capital adequacy criteria and have CRAR in the range [4, 8) per cent can be considered as 'undercapitalised'. These banks need to be subjected to enhanced monitoring; a memorandum of understanding covering the asset liability management (ALM) and a Government approved plan for increasing the capital base. Banks with even lower CRAR may be classified as 'critically undercapitalised'. These banks should need immediate capital restoration plan and may be subjected to enhanced provisioning, some kind of restriction on asset growth and on interest rates offered on deposit. Also, a closer look at their accounting practices is necessary. We prefer not to make a distinction between critically undercapitalised banks and those which have their net worth completely eroded so as to have zero or negative CRAR. We view banks with CRAR of below 4 per cent as sure candidates for complete erosion of net worth at slight shocks, so that this deterioration can only be considered a matter of time. Banks that are critically undercapitalised are obvious choices for narrow banking. Banks that are undercapitalised may also be considered for narrow banking, especially if they have a high level of NPAs as well.

Considering the two factors together, we earmark PSBs, which are either undercapitalised or have high NPAs as 'weak' and probable candidates for barrow banking. Of these, banks which are critically undercapitalised or have explosive NPAs are obvious choices. But even banks which are critically undercapitalised are saddled with high NPAs or have explosive NPAs are undercapitalised, can clearly be considered as candidates for narrow banking.

5. The Indian Evidence

The concept of narrow banks has been at the forefront of public policy discussion in India in recent times. The Report of the Committee on Capital Account Convertibility (Chairman: Shri S S Tarapore), popularly referred to as the CAC Report , has put forth the view that "... the weak banks should be converted into what are called 'narrow banks'; the incremental resources of these banks should be restricted only to investments in Government securities..." (pp. 65) As part of overall consolidation of the financial sector, such measures, the Committee recognized "...are unavoidable if the financial system is to be safeguarded during the move towards CAC" (pp. 65).

In the Indian context, the prescription of capital adequacy ratio of 8 per cent seems to follow a 'one size fits all' formula. This way of judging bank riskiness might not be appropriate as it often fails to take into account the credit-worthiness of different groups of borrowers. It is therefore imperative that banks be classified according to their levels of capitalisation so as to 'have a balanced portfolio between risk-free assets and risk assets' (Rangarajan, 1997). Accordingly, one can envisage the following categorization of capital and non-performing assets (Table 3).

Table 3: Classification of Banks according to CRAR and Asset Quality

Capital Status	CRAR (per cent)	Asset Status	NPA to total assets (per cent)
Well Capitalised	0	Explosive NPA	15 and above
Absolutely Capitalised	10 and above	High NPA	10-15
Sufficiently Capitalised	8-10	Critical NPA	7-10
Under Capitalised	4-8	Moderate NPA	5-7
Critically Undercapitalised	Less than 4	Managable NPA	Below 5

In India, concerns have been expressed in certain quarters that, at least in the short-run, the promotion of narrow banking can distort the yield curve as narrow banks are compelled to bid non-market prices to increase their Government securities holdings. Therefore, it is frequently asked if there are enough Government securities in the country to feed the concept of narrow banking. A careful analysis of the asset-liability position of the Indian banks, as available from their audited balance sheets, show that these fears are quite misplaced. Of the 27 PSBs, 10 banks have NPAs above 10 per cent and can be considered as well and prospective candidates for narrow banking (Table 4). Their demand liabilities were placed at around Rs.14,000 crore at end-March 1997 or only 12 per cent of their aggregate deposit liabilities (Table 5 (A)).⁶ Maturity pattern of the deposit liabilities exhibited no clear relationship with the strength of these banks, but on average, weak banks had a lower proportion of their liabilities callable at demand. Demand deposits accounted for about 12 per cent of aggregate deposit liabilities in case of the 10 weak banks in comparison with 18 other PSBs at the end of March 1996 as well as March 1997 [Table 4 and 5 (A to C)].

⁶ The demand liabilities of the weak banks were higher at Rs.18,000 crore or 13 per cent of their aggregate deposit liabilities during 1997-98.

Table 4: Matrix of Banking Fragility based on Capital Adequacy and Non-performing Assets

Variable	High NPAs	Low NPAs
Low CRAR	Indian Bank (-18.71, 25.91) UCO Bank (3.16, 13.96)	0
High CRAR	United Bank of India (8.20, 19.08) Allahabad Bank (10.57, 14.84) Central Bank of India (9.41, 14.40) Punjab and Sind Bank (9.22, 12.04) State Bank of Hyderabad (10.84, 11.42) State Bank of Indore (9.31, 11.29) State Bank of Mysore (10.80, 10.96) Punjab National Bank (9.15, 10.38)	Bank of Maharashtra (9.07, 9.66) Vijaya Bank (11.50, 9.60) Dena Bank (10.81, 9.38) Canara Bank (10.17, 9.32) Bank of Baroda (11.80, 8.94) State Bank of Travancore (8.17, 8.84) State Bank of Bikaner & Jaipur (8.82, 7.96) Indian Overseas Bank (10.07, 7.64) Syndicate Bank (8.80, 7.53) State Bank of India (12.17, 7.30) Union Bank of India (10.53, 6.98) Bank of India (10.20, 6.51) State Bank of Saurashtra (12.14, 6.50) State Bank of Patiala (11.25, 5.88) Oriental Bank of Commerce (17.50, 5.70) Andhra Bank (12.05, 4.10) Corporation Bank (11.27, 3.63)

Figures in brackets are (CRAR, NPA) ratios in that order

High NPAs are defined as NPAs of 10 per cent or above

Low CRAR is defined as CRAR of less than 8 per cent

Figures in the bottom RHS of each quadrant indicates the number of banks falling in that quadrant.

Table 5 (A): Balance Sheet Ratio of Public Sector Banks (end-March 1993)

Bank	GoI Sec less DD liabilities (Rs. crore)	DD liabilities/ Aggregate liabilities	DD liabilities covered by			DD and TD liabilities covered by Liquid Invt	Interest Income/ Total Income	Interest on Deposit/ Interest Expn	Interest Expn/ Total Expn
1	2	3	GoI Sec 4	Approv Sec 5	Liquid Invt 6	7	8	9	10
Indian Bk	2046	5.69	395.50	555.15	588.10	35.53	91.28	66.08	75.66
United Bk of India	1410	0.25	300.70	371.54	411.40	47.02	93.64	81.69	61.49
(A) Total:	3456	7.33	347.71	362.63	499.15	39.56	91.96	71.06	70.48
Explosive NPAs									
Allahabad Bk	416	2.91	136.53	264.19	271.74	40.35	89.55	84.68	69.92
Central Bk of India	927	14.93	138.22	213.98	221.06	38.84	91.42	87.32	60.03
UCO Bk	1109	11.22	188.79	258.53	275.91	34.59	87.04	87.81	58.22
Punjab & Sind Bk	435	8.50	238.22	233.16	457.16	42.43	90.77	89.09	54.17
State Bk of Hyderabad	384	19.72	140.56	189.97	177.41	43.61	86.40	94.01	59.22
State Bk of Indore	170	15.84	160.87	208.87	253.21	47.69	87.15	85.97	63.21
State Bk of Mysore	287	12.87	186.43	248.50	281.19	41.55	83.65	92.43	62.19
Punjab National Bk	646	14.22	121.41	240.63	228.93	38.09	92.68	88.79	67.63
(B) Total: High NPAs	4376	13.79	145.00	239.61	242.83	38.87	90.00	88.11	62.68
Total : Narrow Banks (A+B)	7832	12.42	170.56	267.65	275.04	39.06	90.46	83.80	64.48
Bk of Maharashtra	677	11.45	235.36	325.01	343.46	44.40	91.28	91.38	53.69
Vijaya Bk	589	12.91	220.19	258.53	278.29	41.21	85.25	85.29	53.85
Dena Bk	752	12.50	227.11	282.60	294.37	42.01	91.04	94.69	58.04
Canara Bk	116	15.48	103.89	258.26	178.89	32.76	88.68	81.74	59.99
Bk of Baroda	920	12.80	129.93	199.47	213.39	31.39	91.54	88.29	66.25
State Bk of Travancore	491	8.02	275.34	401.23	401.91	35.11	88.67	91.77	65.60
State Bk of Bikaner	173	14.16	135.84	219.56	221.95	36.66	86.28	93.04	62.01

& Jaipur									
Indian Overseas Bk	1281	10.02	221.17	289.11	314.97	35.02	83.02	79.82	44.55
Syndicate Bk	1177	10.65	211.47	283.36	283.56	33.89	89.89	94.23	42.82
State Bk of India	1997	20.68	111.65	163.86	157.64	31.12	86.92	81.40	61.47
New Bk of India	470	10.01	279.08	389.57	415.11	46.22	91.56	94.00	59.22
(C) Total: Fragile NPAs	8173	16.63	129.45	197.79	188.84	37.78	87.90	84.38	58.73
Union Bk of India	1096	13.29	176.89	247.01	257.53	39.56	90.14	96.84	67.60
Bk of India	1189	12.97	140.93	191.52	208.96	31.12	90.02	89.65	62.85
State Bk of Saurashtra	177	14.62	160.62	210.40	204.11	34.96	75.19	83.03	60.79
State Bk of Patiala	94	15.41	115.14	192.65	197.98	36.11	92.66	92.35	59.86
Oriental Bk of Commerce	584	11.62	203.83	277.53	295.36	38.87	92.29	94.79	69.97
(D) Total: Moderate NPAs	3140	13.20	154.04	214.52	227.87	34.65	90.30	91.80	64.24
Andhra Bk Corporation	501	9.79	210.11	329.78	355.06	38.50	90.53	94.97	58.89
Bk	135	19.16	80.17	159.91	243.96	34.12	87.65	91.37	61.91
(E) Total: Manageable NPAs	366	13.84	132.43	228.22	228.89	36.77	89.23	93.65	59.96
Total of 28 PSBs	16435	14.85	142.53	217.54	215.61	37.63	81.83	85.42	61.07
SBI & Subsidiaries	1776	14.65	154.82	222.50	227.07	39.05	87.43	91.24	61.69
(8) Nationalised Bks	14659	12.47	157.88	253.56	253.33	36.12	90.14	86.35	60.88
(20)									

Figures in per cent unless indicated otherwise.

Table 5 (B): Balance Sheet Ratio of Public Sector Banks (end-March 1996)

Bank	GoI Sec less DD liabilities (Rs. crore)	DD liabilities/Aggregate liabilities	DD liabilities covered by			DD and TD liabilities covered by Liquid Invt	Interest Income/Total Income	Interest on Deposit/Interest Expn	Interest Expn/Total Expn
			GoI Sec	Approv Sec	Liquid Invt				
1	2	3	4	5	6	7	8	9	10
Indian Bk	2208	11.01	250.53	337.25	340.28	37.48	88.70	61.06	46.54
United Bk of India	2511	11.74	343.33	431.75	421.10	49.44	89.45	95.84	55.56
Allahabad Bk	1387	11.16	222.44	376.97	356.23	39.77	88.01	91.89	61.59
(A) Total: Explosive NPAs	4716	11.30	288.86	376.28	373.67	42.24	88.66	77.38	51.90
Central Bk of India	2972	13.70	209.86	293.87	286.01	39.18	98.76	92.44	57.00
Punjab National Bk	4422	11.49	241.90	383.06	350.80	40.30	89.51	91.91	58.37
Vijaya Bk	1121	17.20	208.79	274.61	238.23	40.99	91.20	85.76	49.36
UCO Bk	2380	14.87	239.83	313.96	304.76	45.33	89.27	89.36	54.76
Punjab & Sind Bk	1120	9.01	311.55	465.16	448.49	40.39	89.88	88.36	57.93
(B) Total: High NPAs	12015	12.94	232.27	336.03	315.80	40.87	92.03	90.75	56.43
Total : Narrow Banks (A+B)	16731	12.55	244.48	344.71	328.28	41.20	90.97	86.14	54.79
State Bk of Hyderabad	397	20.36	132.03	173.74	160.68	32.72	84.72	93.26	55.92
State Bk of Indore	247	9.34	151.78	191.66	192.22	37.18	86.56	89.23	53.54
Bk of Maharashtra	1410	13.66	272.88	388.23	346.69	47.36	90.57	90.23	57.29
State Bk of Mysore	508	14.55	191.86	250.99	246.80	35.90	84.74	92.43	55.23
Indian Overseas Bk	2513	13.98	223.22	298.24	277.64	38.81	92.10	73.38	70.12
Syndicate Bk	2751	13.88	261.59	357.93	311.97	41.75	90.57	95.16	58.42
Bk of Baroda	2741	13.15	173.47	257.94	244.42	32.14	87.99	91.30	59.39
Canara Bk	800	18.20	116.73	224.22	169.13	30.77	86.18	84.66	59.98
State Bk of Travancore	894	9.77	268.61	354.52	370.14	36.18	86.78	89.37	63.84
Dena Bk	1118	13.68	226.24	312.07	286.65	39.20	89.27	88.61	59.93
Bk of India	2907	15.17	169.65	229.58	213.88	32.44	87.29	92.68	63.88

(C) Total: Fragile NPAs	13377	14.93	179.87	267.31	237.45	35.46	87.95	88.47	60.97
State Bk of India	8120	23.32	136.12	194.95	174.32	40.65	82.46	80.30	55.27
State Bk of Patiala	423	17.89	137.99	195.36	193.88	34.68	88.00	95.10	58.42
State Bk of Bikaner & Jaipur	478	17.46	158.79	230.16	225.47	39.36	84.95	91.60	54.31
Union Bk of India	1806	14.35	170.35	253.98	223.73	32.10	91.34	96.59	61.53
State Bk of Saurashtra	635	18.20	211.03	250.15	282.23	51.37	82.74	90.70	34.36
(D) Total: Moderate NPAs	11461	21.47	141.62	202.66	183.47	39.38	83.76	83.59	55.28
Oriental Bk of Commerce	1357	11.86	231.42	346.94	292.71	34.71	91.05	94.31	65.52
Andhra Bk	1193	11.64	271.70	337.47	367.15	42.73	98.89	90.27	61.84
Corporation Bk	192	20.78	116.11	178.61	155.51	32.31	85.85	92.85	60.73
(E) Total: Manageable NPAs	2550	11.77	247.61	359.21	322.64	37.97	91.55	92.67	63.01
Total of 27 PSBs	44121	16.58	176.60	254.72	232.46	38.54	87.26	86.38	57.32
SBI & Subsidiaries	8895	13.44	195.22	284.39	260.96	35.07	89.13	92.97	59.20
(8) Nationalised Bks	33384	17.45	170.48	247.79	225.74	39.40	86.76	83.89	56.14
(19)									

Figures in per cent unless indicated otherwise.

Table 5 (C): Balance Sheet Ratio of Public Sector Banks (end-March 1997)

Bank	GoI Sec less DD liabilities (Rs. crore)	DD liabilities/Aggregate liabilities	DD liabilities covered by			DD and TD liabilities covered by Liquid Invt	Interest Income/Total Income	Interest on Deposit/Interest Expn	Interest Expn/Total Expn
			GoI Sec	Approv Sec	Liquid Invt				
1	2	3	4	5	6	7	8	9	10
Indian Bk	2534	11.00	260.82	340.04	328.71	36.14	87.81	72.97	66.47
United Bk of India	3688	10.06	454.23	589.00	530.26	53.36	91.19	98.56	65.74
(A) Total: Explosive NPAs	6222	10.60	337.77	439.09	408.89	43.36	89.10	82.10	66.21
Allahabad Bk	1962	10.33	264.61	441.90	390.84	40.37	87.60	97.15	62.85
Central Bk of India	6121	13.54	296.08	379.79	360.12	48.77	89.25	98.56	63.14
UCO Bk	3029	13.96	271.94	367.00	336.47	46.99	91.11	97.32	61.43
Punjab \$ Sind Bk	1398	9.94	320.44	474.98	436.38	43.38	88.88	95.39	66.51
State Bk of Hyderabad	870	20.03	160.00	202.15	181.58	36.38	86.73	94.55	57.89
State Bk of Indore	297	21.67	149.04	180.29	183.36	39.72	87.79	95.74	55.42
State Bk of Mysore	571	16.87	177.48	241.57	220.51	37.20	87.30	97.36	57.18
Punjab National Bk	5704	10.62	274.41	427.35	373.91	39.69	88.63	96.06	62.77
(B) Total: High NPAs	19952	12.93	256.21	363.13	330.34	42.71	88.68	97.81	60.26
Total : Narrow Banks (A+B)	26174	12.46	270.08	376.04	343.69	42.84	88.76	94.43	64.73
Bk of Maharashtra	1675	14.11	261.18	358.94	322.09	45.43	91.47	95.06	60.16
Vijaya Bk	1080	19.62	180.64	321.36	207.16	40.65	92.05	96.08	64.18
Dena Bk	1383	14.25	223.53	332.09	284.31	40.50	99.01	90.43	60.86
Canara Bk	1154	18.20	120.16	214.62	162.26	29.53	88.24	94.32	61.21
Bk of Baroda	2909	1.03	169.43	260.81	226.30	29.48	89.13	93.04	64.70
State Bk of Travancore	1401	11.32	291.40	358.77	342.73	38.81	87.98	91.37	66.62
State Bk of Bikaner & Jaipur	749	16.48	184.17	256.52	243.11	40.06	85.17	93.66	56.51
Indian Overseas Bk	2743	14.64	217.28	281.84	267.23	39.14	90.66	86.41	73.57
Syndicate Bk	3117	14.56	243.25	342.51	280.09	40.78	91.07	97.50	61.80
State Bk of India	8413	23.17	132.80	182.59	165.47	38.34	84.98	86.54	58.97
(C) Total: Fragile NPAs	24624	18.90	154.49	220.25	193.67	36.60	87.37	75.21	64.31

Union Bk of India	2230	15.58	171.54	248.85	216.42	33.73	92.05	98.63	67.34
Bk of India	2487	16.84	146.19	198.18	184.18	31.02	87.76	93.99	65.14
State Bk of Saurashtra	485	19.05	168.86	219.22	215.10	40.99	85.85	94.52	62.21
State Bk of Patiala	500	19.93	134.68	184.76	181.78	36.23	90.78	98.41	62.34
Oriental Bk of Commerce	1543	12.11	226.72	360.44	279.60	33.86	92.30	97.61	65.67
(D) Total: Moderate NPAs	7245	16.26	161.06	227.76	203.99	33.17	89.76	96.27	63.66
Andhra Bk	1362	13.26	244.83	355.04	312.97	41.51	88.89	95.93	62.75
Corporation Bk	241	22.05	116.38	223.34	155.82	34.36	88.12	96.44	63.21
(E) Total: Manageable NPAs	1603	17.52	166.46	274.68	217.09	38.04	88.50	96.17	62.58
Total of 27 PSBs	59647	16.66	179.68	355.22	226.90	37.80	88.13	94.61	69.20
SBI & Subsidiaries	13287	21.78	141.25	191.72	175.78	38.28	85.59	88.64	59.28
(8) Nationalised Bks	46360	14.15	208.69	303.16	265.50	37.57	89.69	93.81	64.35
(19)									

Figures in per cent unless indicated otherwise.

If the presumption behind narrow banking is that in any event of a run on the banks, the demand liabilities should be fully covered by safe and liquid assets in the form of gilts, then the weak bank's investments in Government securities should aggregate around Rs.15,400 crore. This is hardly a problem considering that their investments in these instruments were nearly 270 per cent of this requirement (!). Inclusive of other liquid assets, such as cash in hand, balances with other banks in current account and investment in other approved securities, total liquid investments of the weak banks aggregated Rs.50,000 crore. Therefore, liquid investments not only back demand liabilities fully, but at 43 per cent of aggregate deposit liabilities, they also provide a reasonable coverage for the time liabilities of these banks. In a broad sense, narrow banking is already in practice on the asset side of the balance sheet and it does not afford any solution for reforming the weak banks in India.

However, narrow banking may still be instrumental in improving the financial health of the weak banks if it enables banks to cut their interest costs. The expenditure structure of the weak banks is not significantly different from those of the other banks. Despite a lower proportion of liquid deposit liabilities, their interest outgo on deposits, as a ratio of total expenses is similar to those of the other banks. Bank-wise analysis for 1996-97 shows that five PSBs had incremental demand-total deposit liabilities ratio of 30 per cent or more⁷. Over the longer period 1993-97, six banks had incremental demand-total deposit liabilities in excess of 20 per cent⁸. The interest cost on deposits for these banks as a proportion of their total expenses was not significantly different from those whose incremental demand liabilities to total deposit liabilities were in the range of 10-20 per cent. For most banks, interest/deposit ratio hovered around 7 per cent during this period. This ratio had no clear relationship with either the NPAs or the demand/time deposit ratios, except for the fact that the interest cost ratio was markedly

⁷ Vijaya Bank, Corporation Bank, State Bank of Indore, State Bank of Mysore and State Bank of Patiala.

⁸ Indian Bank, State Bank of Indore, Vijaya Bank, State Bank of Patiala, Corporation Bank and State Bank of Saurashtra.

higher for five banks, which had most of their incremental deposits coming in the form of term deposits⁹. Moreover, increased reliance on term deposits also seem to have put some pressure on operating costs of these banks and these increased at a much faster pace than the banks which were able to attract demand deposits along with term deposits. Thus, there is weak evidence that interest outgo could be lowered by attracting more of demand liabilities.

Notwithstanding the weak evidence above, in the extreme case of asset-liability management that the narrow banking represents, the lowering of interest costs may almost be taken as a truism arising from the theoretical construct. However, in practice, two problems arise. Firstly, the term structure of deposit liability is not entirely a control variable in the hands of bank management. While in a regime of deregulated interest rates, banks are in a much better position to decide their deposit-mix, weak banks may find it almost impossible to expand their liabilities exclusively through demand deposits, even if a policy decision was taken to this effect. Given the structure of ownership of bank deposits in India, there aren't enough demand deposits available to the banks to do business at the short-end spectrum of liabilities as its base. Survey of ownership of bank deposits based on the Basic Statistical Returns (BSR-4) and Form X data for end-March 1995 reveals that of the total deposit liabilities of SCBs, only 13 per cent are in form of current deposits; term deposits account for 66 per cent of these liabilities, while savings deposits, which too have a pre-dominant time deposit component, account for the remaining 21 per cent. Net of inter-bank liabilities, the households own about 80 per cent of bank deposits; the private corporate sector and the non-bank financial institutions account for around 5 per cent, while the Government sector account for the remaining 10 per cent. Clearly, the demand deposit base is quite narrow in relation to the size of the banking activity. The size of the organized sector in the form of private corporate business and the Government sector is rather limited and this reduces the demand deposit base. Imposition of narrow banking constraint under these circumstances can restrict the growth in bank business for these banks. The squeeze could help in avoiding build-up of any new NPAs on the loan portfolio, but can continue to cause erosion in their balance sheets, both on liability and asset sides. Given the already existing NPA problems, instead of allowing weak banks to gain financial strength, shrinking balance sheets can result in weak banks becoming unviable in a shorter time span than otherwise. Secondly, while narrow banking may lower interest expense, it may lower interest income as well. Whether narrow banking would increase or decrease net income of the bank is an indeterminate issue in theory. A lot depends on the returns on financial assets. Since narrow banking restricts banks' investments in Government securities, which, on average, can be considered low-risk, low-return instruments, odds are that weak banks may lower its interest income considerably. The effect on net income of the bank, even after adjusting for gains arising from lowering of NPAs, may well be negative for the narrow banks. The gains on NPAs on loan

⁹ Bank of Baroda, United Bank of India, Central Bank of India, Punjab National Bank and Allahabad Bank.

portfolios could be undone by a single interest rate shock and even the seemingly risk-free Government paper could turn out to be of poor quality. As debt markets develop further and new instruments including interest rate derivatives are introduced in the market, these risks could be compounded further, unless these banks display treasury skills to successfully these risks.

Commercial and co-operative banks accounted for only a quarter of the investments in central Government securities in 1992-93. Their share jumped to three-quarters in the following year and has stayed around two-thirds thereafter (RBI, 1996). The Monetary and Credit policy announcements in recent years, with its focus on a softer interest rate stance, have sparked off a virtual rate war across the entire spectrum of the banking industry. The attempt to kick-start real activity in the manufacturing sector encountered some difficulties as a result of currency pressures arising from large-scale devaluations of East Asian currencies. Measures taken in January 1998 to stem unwarranted speculative activity in the forex markets reversed the downward pressures on interest rates. On one hand, this indicates that banks will have to cope with increased interest rate risks as domestic markets become increasingly integrated with global ones. On the other hand, in the short-run, rising interest rates may exacerbate the slowdown in credit demand. Also, in view of the relaxation in external borrowing guidelines, better-rated corporates have been substituting domestic, costlier bank borrowings with relatively cheap overseas funds, leaving domestic banks with a surfeit of liquidity. Given the limited outlets for productive deployment of funds by banks, they have been resorting to parking their funds in Government securities. With interest income comprising over 80 per cent of income of PSBs, lower interest rate regime has implied pressures on bank spreads (Table 24.5). Such low spreads coupled with limited outlets for investment opportunities have impacted bank profitability.

Secondly, the Monetary and Credit Policy announcements in October 1997 wherein the Bank Rate was reduced by 100 basis points has sparked off a virtual rate war across the entire spectrum of the banking industry. With an across-the-board deceleration in industrial growth in 1996-97 and the first half of 1997-98, whether credit off take will improve or not remains a moot question. Given the recent relaxations in external borrowing guidelines, better-rated corporates have been substituting domestic, costlier bank borrowings with relatively cheap overseas funds.

Notwithstanding the recent reforms of the financial sector, signs of inefficiency in certain areas are evident *viz.*, a well-defined short-term yield curve is missing, and, the money market is volatile: T-bills and Government dated securities do not enjoy secondary liquidity. This leads to risk management problems for investors and inhibits further development of a primary market in Government debt. Thus, even if banks hold on to Government securities, it might encounter problems of illiquidity in the event of a run on its deposits.

6. Can Narrow Banking Substitute Deposit Insurance?

Deposit insurance found its rationale in the seminal contribution of Diamond and Dybvig (1983). However, there has been a greater recognition of the moral hazard problem of deposit insurance in recent times. It has been suggested that banking failures make bailouts a political necessity, which even reasonably independent central banks may find difficult to avoid. Any bailout can only be undertaken at the taxpayers' cost as bailout invites transfer of resources from poorly organised taxpayers to better lobbying depositors¹⁰. While deposit insurance, in itself, reduces pressure for other forms of bailouts, it also creates moral hazard in weaker prudence attached to lending activities of the bank. Adverse selection effects in the form of more risky investment behaviour compound the problem. Narrow banking proposal has sometimes been advocated on the ground that it would limit the compulsions for deposit protection. Since narrow banking is based on defining a class of deposits which are backed by assets that are sufficiently liquid and safe to cover any bank run, deposit insurance no longer remains necessary to meet the bunching of deposit withdrawals.

It seems likely that absence of deposit insurance will increase pressures for better disclosure norms, enforce tighter supervision and regulation and eventually compel the bank management to adopt more sound banking practices. Yet, it is not clear whether this in itself can preclude banking failures. Banking failures are more likely to arise in absence of deposit insurance. Notwithstanding the moral hazard argument, limited deposit insurance may still be the best way to avoid bank runs as it can avoid a shift to a bad equilibrium by shifting some of the incentive of monitoring to shareholders (i.e., making the system 'incentive-compatible'). Narrow banking can obviate deposit insurance need to the degree it can be seen as a credible alternative to avoiding the need for bailouts to arise in the first place. But, if narrow banking scheme limits the size of the banking business of these weak banks to a degree that it calls into question the viability of the intermediation process, it can hasten the shift to a bad equilibrium. This can put increased pressure for interventions and bailouts by the authorities. Substitution of deposit insurance by narrow banking, which tends to lack credibility, would raise the return on deposits, which the narrow banks have to offer to compensate for the expected risk to their deposit in a deregulated environment. This could dampen the gains of reduced interest outgo that narrow banking affords. As such, narrow banking proposals might turn out to be more costly and more distortionary than deposit insurance. It would be more costly as the bailout size and the probability of occurrence of such an event would be larger in the absence of deposit insurance. It will also be more distortionary as costs of deposit insurance, at least in part, will be borne by the failed institution.

¹⁰ Tax-payers may have to pay costs directly in the form of increased mobilisation of tax revenues or no-tax revenues (e.g., hike in administered prices) if the rescue package involves strengthening of capital base or writing off of bad loans; or they may have to pay these costs indirectly by seigniorage and capital asset losses if the central bank inflates to perform its lender-of-the-last resort function.

In this context, Honohan (1997) cautions that blanket deposit insurance coverage is best avoidable, especially if banks facing a run are strong enough to be bailed out by lender-of-the-last resort facility, which can be deployed to protect these banks at a lower cost. He describes the success of the blanket insurance in Turkey in stemming the depositor run in 1994 as effective, but only because the banking crisis was not accompanied by a currency crisis.

7. Narrow *versus* Universal Banking

Traditionally in India, short-term credit for working capital requirements were provided by banks, while financial institutions advanced long-term finance for industrial development. In recent times, there has been a gradual blurring of distinction between these two sorts of entities. On the demand side, with the drying up of concessional sources of finance, financial institutions have to perforce raise resources from the market at competitive rates. On the other hand, with each of them making a foray into the others' traditional domain of operations, the competition for supply of funds has also intensified. This has compelled both types of entities to fine-tune their (interest) rate strategies with even provision for sub-PLR rates. Such moves represent the first step towards universal banking practices in the Indian financial system.¹¹

In economies affected by severe banking crises, it is only natural to ask whether it would serve the interest of financial stability to restrict the scope of banks' activities and whether alternative institutions could provide the financial services that households and firms demand. As has been argued, the costs and benefits of alternative financial structures should take into account the fact that the main goal of financial sector is to have a system characterised by high performance and stability. In systems with weak regulatory and supervisory framework, restricting bank portfolios may lead to fewer bank failures, but not necessarily result in greater overall financial stability-the deficiencies in the regulatory framework may merely cause risks to be shifted from banks to non-banks. On the other hand, universal banks allowed to carry more risky assets may be subject to larger losses, but the diversification of their activities may lend them greater stability. However, universal banks are often closely interconnected with the rest of the financial system, so that the potential systemic effect of a bank failure could be greater than under narrow banking regime.

The analysis of efficiency issues likewise produces inconclusive results. For example, universal banking may result in higher concentration in the banking industry and therefore, less competition, whereas narrow banking, although it might lead to less concentration, may prevent banks from realising the efficiency gains arising from scale and scope economies. Secondly, although narrow banking might keep banks out of certain financial activities, it might be susceptible to political manipulation. Since the

¹¹ The essay was written in 1998. Subsequently, in 2001-02, ICICI, a financial institution, converted itself into a bank by integrating itself with ICIC Bank Ltd.

definition of 'safe' assets that narrow banks may hold is determined by the authorities, the temptation remains for policymakers to make 'safe' synonymous with 'Government or Government-related', which, in turn, increases the incentives of policymakers to finance fiscal deficits with Government paper held by banks.

8. Do Country Experiences Reveal Anything?

Narrow banking, till data, has remained more of a theoretical proposal. In spite of widespread banking fragility in 1980s and 1990s, narrow banking has, at best, been implemented in a very weak form. Lindgren *et al.* (1996) note that since 1980, over 130 countries, comprising almost three-fourths of IMF's member countries have experienced significant banking problems. Of these, 32 countries encountered banking crises with 38 such episodes. It is instructive to look at Lindgren *et al.*'s (1996) narrative and other available country studies to examine what these experiences reveal. Upon examination of the policy responses in these experiences, it is observed that narrow banking has not been tried as a policy action to stem the rot in the banking system anywhere. On the contrary, bank restructuring, merger, closure, nationalization, privatization and recapitalisation have been the preferred options. In several instances, the classical lender-of-the-last resort function by the central bank in infusing temporary liquidity has been attempted. Cases of temporary suspension of debt repayment as also deposit insurance routes have also found favour in certain cases. But, explicit restrictions on asset-liability structures of the banks have seldom been implemented. This indicates that narrow banking is not an easy solution in overcoming banking difficulties.

Principles advocating some restrictions on asset liability structures have been tried in Sao Tome and Principe, where banking problems began in early 1980s, and became magnified by early 1990s with non-performing loans mounting to over 90 per cent in 1992. A new central bank and two commercial banks were created in 1993 and the new commercial banks took over many of the assets of the old banks, including some sticky portfolio. The new banks also ran into serious difficulties and the central bank responded by suspending the credit operations of one of these banks, though not restricting other activities. Given the state of the underdeveloped markets for fixed income securities in this country, the regulatory authorities' intervention cannot be viewed as a typical narrow banking response. But even in this case, suspension of credit activity proved to be counterproductive in rescuing a bank. In another case, the central bank of Chad faced with non-performing loans of 35 per cent in the banking system, responded by consolidating these sticky loans of three main commercial banks, but stopped short of imposing severe restrictions on future lending or investment decisions of the bank. In both these cases, narrow banking was infeasible given the banking structure and the stage of development.

In contrast to restrictions on classical banking functions, restructuring of the banking system has been a more popular alternative and often yielded better results. In Estonia in mid 1990s, two large but weak banks were merged and converted into a loan recovery agency. Two other banks were also merged and nationalized, even while licenses of five others were revoked. Lithuania also established a loan-collecting agency in 1996. The Baltic country experiences with setting up of centralized loan collection agency have not been encouraging. Evidence indicates that a transfer of NPAs to a loan collecting agency, while drawing down their capital by equivalent amount, create an added incentive problem since there are little incentives to collect past dues than what is necessary to cover administrative costs. Such agencies, by creating a 'bad loan bank', signal admission of systemic problems in the banking sector. In the African state of Niger and Senegal, massive restructuring was undertaken in response to banking crises of mid 1980s. In Niger, four banks were liquidated and four others were restructured, whereas in Senegal, as many as eight banks were liquidated and the remaining ones were restructured. Liquidation also became necessary in Central African Republic where four banks had to be closed and in Equatorial Guinea where two of the largest banks went bust. In Benin and Guinea, the banking crises were so widespread that closures became an inevitable consequence. In Argentina, closures have been more frequent. In 1980-82, 168 financial intermediaries had to be closed as sticky loan mounted and were at a high of 35 per cent by mid 1980s. In 1989-90, the failures became more widespread and 40 per cent of the financial sector assets were lost. In 1995, in the aftermath of the *Tequila* crisis, 45 out of 205 institutions were closed or merged inspire of multilateral institutions providing bailout money. More recently, a spate of mergers has engulfed the banking industry. Notable among these include merger of Norway-based *Nordbanken* with *Merita* (cross-border merger with the largest Finnish bank), of Belgium-based *Banque Bruxelles Lambert* with *ING Bank* of Netherlands, the acquisition of 35 per cent stake in *United Bulgaria* by *European Bank for Reconstruction and Development*, a 40 per cent holding in *Laem Thong Bank* (Thailand) by foreign interests and a 60 per cent majority holding in *Bank of South-East Asia* (Philippines) by *Development Bank of Singapore*. Several other mergers/acquisitions notably of *Bank Indonesia International* with *Bank Dagan Negara Indonesia* (in Indonesia), the *Royal Bank of Canada* with *Bank of Montreal* (Canada), a three-way merger to create the second largest publicly-owned bank, *Landesbanken Baden-Wurttemberg* (Germany), *Banco Santander* with its subsidiary, *Banesto* (in Spain) have also taken place. Cross-country experiences reveal that in a large number of cases, banking closures have been the inevitable consequence of banking crises. In several other instances, closures and mergers have emerged as a practical response for turning over weak banks.

Among other alternatives to stem the rot in the banking system, options such as nationalization, privatization and recapitalisation have also been attempted. During the Mexican debt crisis of 1982, Government effectively stepped in to take over the banking system. In Philippines, a number of financial institutions, including banks failed in the mid 1980s, had to be taken over by the Government. Even in

Scandinavian economies like Norway, Government became the principal shareholder of the three largest banks accounting for 85 per cent of commercial banking assets as non-performing loans mounted to 6 per cent by end-1991. It has been pointed out that Norwegian banking problems were grounded in cyclical downturn in economic activities, weakening of capital ratios and inadequate loan loss provisions. In contrast, Congo faced with a banking crisis in 1994, privatized two state-owned banks, while liquidating two others. Recapitalisation was successfully tried in South Africa. In particular, one particular bank accounting for 15 per cent of banking assets was recapitalised after suffering loan losses and became solvent as a result. Temporary suspension of debt as a response to the banking panics was also attempted in South Africa in mid 1980s, where faced with large short-term liabilities, an official moratorium on external capital repayments by banks was effected by the Government.

Classical lender-of-the-last resort (LOLR) functioning by central bank to bailout crumbling banks has also been implemented in recent times, most notably in Jordan, Venezuela and Bulgaria. In Jordan, runs followed the collapse of the third largest bank in 1989 and could be arrested by LOLR support from central bank. In Venezuela in 1994, the Government and the central bank joined the bailouts incurring resolution costs approximating 17 per cent of its GDP. In Bulgaria, the central bank let lose its reign on base money totally to quell runs on amidst 75 per cent non-Government loans becoming 'past-due'. These bailouts are not a direct form of deposit insurance, but is, nevertheless, an indirect form of insurance without any insurance premium being paid.

Deposit insurance as a means of tiding over banking crises have been less popular, and attempted mostly in the transition economies and that too, in the decade of the 1990s. In Mexico, banks were placed under the governance of the deposit insurance agency (FOBAPROA) after the crises. In Turkey, run on banks in 1994 led the Government to introduce full deposit insurance to stem the crisis. In the US, studies find that deposit insurance coverage is generally on the higher side, amounting to US \$1,00,000; whereas elsewhere, deposit insurance offers very little coverage, as in Lebanon, where the coverage is only US \$18.

Despite its intuitive appeal, narrow banking has not been found practical in addressing the problems associated with bank soundness. The impracticality of narrow banking is more obvious in case of developing countries, where money and debt markets are largely underdeveloped and the deposit base is often skewed in favour of longer maturities.

It is not easy to decipher any stylized facts from the cross-country experiences on banking difficulties. Mergers and acquisitions are financial decisions contingent upon the perceived value of the bank and can be decided on a case-by-case basis. But in general, restructuring has been a useful strategy to cope with banking difficulties. Changes in ownership either by nationalization or by way of privatization have not been very successful in addressing banking problems. Nationalisation often results in some crowding-out of private investment as directed credit to Government sector rises, encouraging

these Governments to indulge in fiscal profligacy. In turn, when these banks are privatized at a later date, their skills in lending tend to become blunted. Mishkin (1994) provides evidence in favour of this in the context of Mexico, where bank lending to Government jumped to 50 per cent after nationalization in 1982 and privatization in early 1990s led to excessively risky loans, resulting in adverse selection and moral hazard problems accompanying a virtual credit boom. The Mexican banking and financial crisis, which began in 1994, was rooted in this history. Recapitalisation has been an important element in providing strength to a fragile banking structure, but undeniably the fiscal burden it imposes makes the option less appealing. Bailouts through increased central bank accommodation, likewise, suffers from moral hazard. Diamond and Dybvig's optimal deposit insurance contracts can be worked out and have been tried in some countries. In Turkey, it seems to have worked despite the seeming irrationality of providing complete insurance, but full deposit insurance can obviously not be endorsed as a policy tool. Narrow banking remains an unknown quantity, but experiences suggest that overtly restrictive asset-liability management regime could be counterproductive. Perhaps the best recourse is a mix of policies based on restructuring and improved management of assets, liabilities and attendant risks.

The country experiences reveal very little on the prospects of narrow banking. Yet, the proposal for some kind of 'speed limits' on bank loan growth to limit banking problems has been advanced by Caprio *et al.* (1994). They ascribe the most common case of individual bank failures to rapid growth in loan portfolios. However, Honohan (1997) points out that limiting credit growth *ex-ante* may be difficult and induce avoidance. Besides, as observed earlier, other forms of banking risks cannot be ignored. There are enough episodes excessive market risks, not related to credit activities of the bank, have engendered banking failures.

9. Policy Implications

As the aforesaid discussion suggests, narrow banking has its benefits as well as pitfalls. On one hand, narrow banking would create a stable payment system by backing transactions deposits with risk-free securities. This will help contain interest outgo and eliminate credit risk. The arrangement would pose little risk to depositors and would not require extensive Governmental support and intervention. On the flip side of the coin, narrow banking, with an overriding focus on stability, neglects other crucial functions of the financial system.

In practice, the structure of the Indian economy and the history of bank regulation and institutional development make narrow banking a difficult proposition for India. First and foremost, the predominant share of financial surplus available for intermediation is sourced from households who maintain term deposits. This makes the demand deposit base extremely narrow to sustain weak banks through narrow banking. Second, although the Government securities market has become developed in

recent times, narrow banking entails a risk of further crowding-out private investments. Third, narrow banking can affect directed credit to priority sectors even where recovery rates are reasonable and credit subsidization is not unduly large. Fourth, narrow banking exposes weak banks to heightened interest and other market-related risks. Unless treasury management skills of these banks improve, narrow banking could increase the overall risks in the banking system rather than reduce it. Fifth, in the context of Basel norms, narrow banking could be employed to circumvent capital requirements by use of tier-3 capital to support market risks. Sixth, unless the narrow banks are set up under the umbrella of stronger banks, they may perpetuate dominance of the dominant bank groups in the Indian banking industry by pre-empting possibly synergetic mergers and consolidation in the industry. Seventh, narrow banking might deny the weak banks the benefit of 'other income'. Finally, a narrow banking scheme, which lacks credibility, might turn out to be even more costly and more distortionary than a deposit insurance scheme.

10. Concluding Observations

Banking problems in India are rooted in the structure, but they are less extreme than in many other countries elsewhere. The levels of non-performing assets are high, but have witnessed a secular decline over time, testifying improved credit risk management skills by banks. International experiences with narrow banking is yet to throw up cases where the same has been successfully employed. Country experiences indicate a wide array of possibilities that may be considered for furthering banking sector reforms in India. While the practice of narrow banking in its strict sense appear to be infeasible on grounds of inadequate demand deposit base, alternatives such as securitisation of overdue loans, setting up asset reconstruction fund, mergers of weak banks, expanding LOLR options, incentive-compatible deposit insurance schemes might provide viable alternatives.

In view of the above, narrow banking may be placed on hold till clearer cases emerge where such banking practices could help in reviving weak banks. Also, variants of the narrow banking proposal need to be identified to judge if they are viable, even if these forms do not fit into a strict traditional mode of narrow banking proposal. Some reduction in the scale of operations of a weak bank and consequent contraction in balance sheet might be an unavoidable outcome of any of the alternative designs for banking sector reform. The quality of incremental credit portfolio of the weak banks could be closely watched by the regulators, but continuation of classical banking activities of making commercial advances appear to be essential for survival of these banks. The revival of the weak banks appears contingent upon using moderators, which do not pitch for overtly restrictive speed limits.

There is limited empirical evidence to justify the applicability in real-world economic problems. It therefore seems prudent that a thorough analysis of the pros and cons of narrow banking needs to be done before one can advocate its implementation in the Indian context.

References

- Ajit, D. and Bangar, R.D. (1997), 'Banks in Financial Intermediation: Performance and Issues', *Reserve Bank of India Occasional Papers*, Special Issue: June and September 1997, 303-349.
- Bossone, B (2001), 'Should Banks Be Narrowed?', *IMF Working Paper* No.159. IMF:Washington.
- Bruni, F. (1995) "Prudential Regulation in an Integrated Financial Market: Issues of Optimality and Credibility" in Ferrarini, G. (ed.) *Prudential Regulation of Banks and Securities Firms: European and International Aspects*, London: Kluwer Law International.
- Caprio, G. and Summers, L.H. (1996) "Finance and its Reform: Beyond Laissez Faire", in Papandimitriou, D.B. (ed.) *Stability in the Financial System*, Great Britain: MacMillan Press Ltd.
- Caprio, G., I.Atiyas and J.A.Hanson (1994) *Financial Reform: Theory and Experience*, Cambridge: Cambridge University Press.
- Diamond, D. and P.H.Dybvig (1983), 'Bank Runs, Deposit Insurance and Liquidity', *Journal of Political Economy*, 91, 401-419.
- Dornbusch, R., and M. Draghi (1990), *Public debt management: Theory and Evidence*, Cambridge University Press: UK.
- Dymski, G., G.Epstein and R.Pollin (1993), *Transforming the U.S. Financial System: An Equitable and Efficient Structure for the 21st Century*, M.E.Sharpe Inc.
- Ely, B., (1991). The narrow bank: A flawed response to the failings of Federal Deposit Insurance, *Regulation* 14, 12-20.
- Fernandez, R and L.Schumacher (1996), 'Does Argentina Provide a Case for Narrow Banking?', World Bank (mimeo).
- Greenbaum, S.I and Thakor, A.V (1995), *Contemporary Financial Intermediation*, The Dryden Press, USA.
- Honohan, P (1997), 'Banking System Failures in Developing and Transition Countries: Diagnosis and Predictions', *BIS Working Paper* No.39, Basle, Switzerland.
- Kobayakawa, S. and H.Nakamura (2000), 'A Theoretical Analysis of Narrow Banking Proposals', *Monetary and Economic Studies* (Bank of Japan) 18, 105-118.
- Lindgren, C.J., G.Garcia and M. Saal (1996), *Bank Soundness and Macroeconomic Policy*, IMF: Washington, D.C.
- Litan R.E. (1987), *What Should Banks Do?* The Brookings Institution, Washington, D.C.

Mishkin, F.S. (1994), 'Preventing Financial Crises: An International Perspective', *NBER Working Paper* No.4636, NBER, New York.

Rangarajan, C (1997), *Indian Economy: Essays in Money and Finance*, UBSPD: Mumbai.

Reserve Bank of India (1997), *Report of the Committee on Capital Account Convertibility* (Chairman: Shri S.S.Tarapore), RBI: Mumbai.

Reserve Bank of India (1954), *All-India Debt and Investment Survey*, RBI: Mumbai.

Reserve Bank of India (1991), *Report of the Committee on the Financial Systems* (Chairman: Shri M.Narasimham), RBI: Mumbai.

Reserve Bank of India (1999), *Harmonisation of the Role of DFIs and Banks: A Discussion Paper*, RBI: Mumbai.

Wallace, N (1996), 'Narrow Banking Meets The Diamond-Dybvig Model', *Federal Reserve Bank of Minneapolis Quarterly Review*, Winter, 3-13.