## VI Financial Sector (Part 1 of 3)

### Introduction

6.1 Until the early 1990s, the role of the financial system in India was primarily restricted to the function of channelling resources from the surplus to deficit sectors. Whereas the financial system performed this role reasonably well, its operations came to be marked by some serious deficiencies over the years. The banking sector suffered from lack of competition, low capital base, low productivity and high intermediation cost. After the nationalisation of large banks in 1969 and 1980, the Government-owned banks have dominated the banking sector. The role of technology was minimal and the quality of service was not given adequate importance. Banks also did not follow proper risk management systems and the prudential standards were weak. All these resulted in poor asset quality and low profitability. Among non-banking financial intermediaries, development finance institutions (DFIs) operated in an over-protected environment with most of the funding coming from assured sources at concessional terms. In the insurance sector, there was little competition. The mutual fund industry also suffered from lack of competition and was dominated for long by one institution, *viz*., the Unit Trust of India. Non-banking financial companies (NBFCs) grew rapidly, but there was no regulation of their asset side. Financial markets were characterised by control over pricing of financial assets, barriers to entry, high transaction costs and restrictions on movement of funds/participants between the market segments. This apart from inhibiting the development of the markets also affected their efficiency. It was in this backdrop that wide-ranging financial sector reforms in India were introduced as an integral part of the economic reforms initiated in the early 1990s.

6.2 Financial sector reforms in India are grounded in the belief that competitive efficiency in the real sectors of the economy will not be realised to its full potential unless the financial sector was reformed as well. Thus, the principal objective of financial sector reform was to improve the allocative efficiency of resources and accelerate the growth process of the real sector by removing structural deficiencies affecting the performance of financial institutions and financial markets.

6.3 The main thrust of reforms in the financial sector was on the creation of efficient and stable financial institutions and markets. Reforms in respect of the banking as well as non-banking financial institutions focused on creating a deregulated environment and enabling free play of market forces while at the same time strengthening the prudential norms and the supervisory system. In the banking sector, the particular focus was on imparting operational flexibility and functional autonomy with a view to enhancing efficiency, productivity and profitability, imparting strength to the system and ensuring financial soundness. The restrictions on activities undertaken by the existing institutions were gradually relaxed and barriers to entry in the banking sector were removed. In the case of non-banking financial intermediaries, reforms focussed on removing sector-specific deficiencies. Thus, while reforms in respect of DFIs focussed on imparting market orientation to their operations by withdrawing assured sources of funds, in the case of NBFCs, the reform measures brought their asset side also under the regulation of the Reserve Bank. In the case of the insurance sector and mutual funds, reforms attempted to create a competitive environment by allowing private sector participation.

6.4 Reforms in financial markets focused on removal of structural bottlenecks, introduction of new players/ instruments, free pricing of financial assets, relaxation of quantitative restrictions, improvement in trading, clearing and settlement practices, more transparency, *etc.* Reforms encompassed regulatory and legal changes, building of institutional infrastructure, refinement of market microstructure and technological upgradation. In the various financial market segments, reforms aimed at creating liquidity and depth and an efficient price discovery process.

6.5 In response to reforms, the Indian financial sector has undergone radical transformation over the 1990s. Reforms have altered the organisational structure, ownership pattern and domain of operations of institutions and infused competition in the financial sector. The competition has forced the institutions to reposition themselves in order to survive and grow. The extensive progress in technology has enabled markets to graduate from outdated systems to modern market design, thus, bringing about a significant reduction in the speed of execution of trades and the transaction costs. However, despite substantial improvements in the financial sector, some issues have to be addressed over time as the reform process is entrenched further. Whether the public sector character of the banking sector is affecting its performance adversely? Whether dilution of the government stake would have a positive impact on the efficiency of the banking sector? As a result of various reform measures aimed at enhancing stability of financial institutions, there is a possibility that such measures might have affected the efficiency of financial institutions. Whether DFIs have lost their relevance? The relevant issue, however, is how to fill the vacuum that would be created when DFIs withdraw from the scene. The role of mutual funds in promoting savings continues to be insignificant. There is also an issue of availability of adequate risk capital with the resource mobilisation from the primary capital market showing a sharp decline in the second half of 1990s and the early 2000s. It has also been argued by some that various markets are still segmented. With blurring of boundaries among providers of various financial services, the issue as to what should be the appropriate supervisory framework for regulating them has also arisen.

6.6 As wide-ranging reforms have been initiated in the financial sector with a view to making it more efficient and stable, the main focus of this chapter is to assess the impact of reforms on efficiency and stability of financial institutions and financial markets. Besides, this chapter attempts to seek answers to the following three questions: (i) whether ownership pattern (public or private) impinges on the efficiency of the banking sector; (ii) whether various stability enhancing measures introduced in the Indian banking system have had any adverse impact on its efficiency; and (iii) whether the various market segments have become integrated.

6.7 The Chapter is structured as follows. Section I provides the theoretical underpinnings of the financial sector reforms and cross-country experiences with respect to reforms in the financial sector. Section II assesses the impact of reforms on the banking sector and other financial intermediaries in terms of various parameters relating to efficiency and stability. It also highlights some of the issues emerging out of the operations of various categories of non-banking financial institutions (NBFIs) such as DFIs, NBFCs, insurance companies and mutual funds. Section III presents an analysis of the impact of reforms on various segments of the financial market, *viz.*, the money market, the Government securities market, the foreign exchange market and the capital market. The integration of various market segments is also tested empirically and analysed in this Section. The final Section sets out an overall assessment of reforms.

## I. FINANCIAL SECTOR REFORMS: THEORETICAL RATIONALE AND INTERNATIONAL EXPERIENCE

6.8 The financial system acts as an efficient conduit for allocating resources among competing uses. The role and importance of the financial sector in the process of economic growth has evolved over time along with the changing paradigms. Till the late 1960s, the role of financial intermediaries in general, and banks in particular, in the process of economic growth of a country was largely ignored. The views on neutrality of financial intermediaries to economic growth, however, came under attack during the late 1960s. It was pointed out that there exists a strong positive correlation between financial development and economic growth of a country (McKinnon, 1973; Shaw, 1973). The McKinnon–Shaw paradigm highlighted the negative impact of 'financial repression', under which the Government determined the quantum, allocation and price of credit, on the growth process. They argued that credit is not just another input and instead, credit is the engine of growth. Subsequently, the proponents of endogenous growth theories argued that with positive marginal productivity of capital, development of financial market induces economic growth in the short as well as long-run by improving efficiency of investment (Bencivenga and Smith, 1991). Under this approach, efficient financial intermediation is growth-inducing through its role in allocating financial resources in the best possible uses. This approach challenged the McKinnon–Shaw paradigm that efficient financial intermediation results in positive real interest rate and that this enhances both saving and investment and thereby economic growth.

6.9 Notwithstanding the debate over the relative significance of the channels of financial intermediation in promoting economic growth, an efficient financial system is regarded as a necessary pre-condition for higher growth. Several developing countries, therefore, undertook programmes for reforming their financial systems. In the initial stages of the development process, the financial sector in developing countries was characterised by directed credit allocation, interest rate restrictions and lending criteria based on social needs, *etc.* These policies retarded the nature of financial intermediation in developing countries and the recognition of the same paved the way for financial sector reforms. Since the late 1970s and the 1980s, financial sector reforms encompassing deregulation of interest rates, revamping of directed credit and the measures to promote competition in the financial services became an integral part of the overall structural adjustment programmes in many developing economies (Box VI.1).

**Box VI.1**
**Financial Sector Reforms: Cross-Country Experiences**

The guiding objectives of financial sector reforms in several countries were to improve financial sector efficiency while strengthening financial stability. It was believed that stable and efficient financial systems provided the foundation for implementing effective stabilisation policies, stepping up savings and improving the efficiency of investment, all of which help in achieving sustainable and higher rates of economic growth.

Cross-country experiences relating to financial sector reforms exhibited significant diversity, both over time and across countries. Despite the evolving consensus on the underlying rationale of a robust financial system, there was no unique approach that was uniformly applied across countries. Significant differences could be observed in respect of the content, pace and sequencing of reforms, which, to some extent, were due to the reason that some countries experienced financial crises after implementation of liberalisation measures.

There was significant liberalisation of the financial sector both in industrial and developing countries over the period 1973-2002 (Table 6.1). Interest rate controls were almost universally eliminated and barriers to entry for most non-bank financial institutions were lowered, and in certain instances, rationalised. Most Latin American economies eliminated directed credit programmes and interest rate controls (exceptions being Brazil and Venezuela). Competition in the commercial banking sector was permitted in Latin American economies in the late 1970s and more recently in several Asian countries. Privatisation of state-owned banks was less sweeping across developing countries. For instance, prior to reforms, in several developing countries, the state-owned banks accounted for at least 40 per cent of the total banking sector assets. In several Asian (Korea, Taiwan and Indonesia) and Latin American countries (Chile and Mexico), the share of state-owned banks was higher than 70 per cent. However, recent evidence suggests a significant scaling down of Government ownership in the banking sector.

**Table 6.1: Financial Liberalisation in Select Countries: 1973-2002**

| Country | Year | Credit Controls | Interest Rates | Entry Barriers | Gover nment Regu lation of Ope-rations | Priva-tisa-tion |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| United States | 1973 | B:L; S&L:R | LL | PR | L | L |
| | 2002 | L | L | LL | L | L |
| United Kingdom | 1973 | LL | B:LL | B:LL | L | L |
| | 2002 | L | L | L | L | L |
| Korea | 1973 | R | R | R | R | R |
| | 2002 | LL | LL | B: PR NBFI:LL | PR | LL |
| Philippines | 1973 | R | R | R | PR | PR |
| | 2002 | PR | LL | LL | PR | LL |
| Thailand | 1973 | R | R | R | - | PR |
| | 2002 | LL | L | LL | - | LL |
| Argentina | 1973 | R | R | R | - | R |
| | 2002 | LL | LL | L | - | PR |
| Brazil | 1973 | R | R | R | - | PR |
| | 2002 | PR | LL | LL | - | PR |
| India | 1973 | R | R | R | R | R |
| | 2002 | LL | LL | PR | LL | PR |

L: Liberalised – A liberalised system is one where the role of the Government has been largely curtailed.
LL: Largely liberalised – Largely liberalised denotes a system governed more by market forces, with Government role in certain important spheres.
R: Repressed – A repressed system is one in which virtually all decisions in the relevant dimension are made by the Government.
PR: Partly repressed – A partly repressed system is one where repression is not complete, but the system is closer to that end of the spectrum.
B: Banks; NBFIs: Non-banking financial institutions; S&L: Saving and Loan Associations
**Note/Source :** The position for 1973 is from Williamson and Mahar (1998). The position for 2002 is compiled based on information from central bank websites, IMF reports, *etc.*

As regards the pace of reforms, Asian countries like Japan, Korea, Malaysia and Indonesia followed a gradualist approach to financial liberalisation in contrast to transition economies of Eastern Europe and some of the Latin American countries which adopted the 'big-bang' approach. While the Asian countries could afford a gradualist approach and maintain a system of financial repression because it did not reduce their ability to mobilise savings for economic development, some of the Southern Cone countries needed to liberalise rapidly to encourage greater mobilisation of savings to finance development. The pace of liberalisation tended to be faster in the Latin American countries, although there were instances of reversal. For example, Chile first liberalised with a big-bang in the 1970s when it privatised nationalised banks and removed controls on interest rates. Argentina also eliminated directed credit and interest rate controls in the late 1970s. However, both Chile and Argentina re-imposed controls during the financial crisis of the early 1980s, although they were subsequently relaxed. Chile, for instance, removed most controls by 1984 and re-privatised the nationalised banks in the mid-1980s. Argentina, on the other hand, embarked on a course of bank regulatory reform in the early 1990s, *albeit* at a slower pace. The major elements of the reforms comprised privatisation, free entry, limited safety net support and a mix of regulatory and market discipline to ensure stable growth of the banking system during the liberalisation process (Calomiris and Powell, 2000). Mexico's liberalisation in the late 1980s was punctuated by four turning points: 1982 (exchange rate crisis and bank nationalisation), 1988-89 (interest rate liberalisation), 1991-92 (bank privatisation) and 1994 (Tequila crisis). The financial liberalisation process culminated into transfer of ownership of state-owned banks to the private sector in 1991-92 and elimination of most of the entry barriers.

A number of countries in Asia, following the gradualist approach, progressively dismantled their directed credit programmes by introducing market-based rates on directed loans and increasing the number of categories eligible for special credit access. In Thailand, for instance, directed credit was eased in 1987 by widening the definition of agricultural credit to include wholesale and small-scale industrial activities. In Indonesia, Malaysia and South Korea, targeted lending programmes were reduced in scope, and subjected to market rates in the 1980s and the 1990s. In Philippines, however, the Government exerts influence over credit allocations through commercial banks' dependence on central bank rediscount window. Indonesia, Malaysia and Philippines assumed the lead in interest rate deregulation, beginning the process in the early 1980s.

Following the macroeconomic crisis in the early 1980s in Argentina and Chile and subsequent to the initiation of financial sector reforms, a strand of literature evolved which sought to explain the failure of reforms in terms of incorrect sequencing of the reform programmes (McKinnon, 1993). According to the conventional wisdom, stable macroeconomic environment and a sound system of prudential supervision are prerequisites for domestic financial deregulation. In practice, however, several countries implemented macroeconomic reforms prior to, or in tandem with, financial liberalisation. Chile, Peru and Turkey began financial sector deregulation under conditions of macroeconomic instability, but implemented their reforms as part of a larger stabilisation effort. Argentina, Brazil and Mexico, however, deregulated their financial sectors during periods of high inflation ahead of stabilisation programmes.

The apprehension that financial liberalisation is destined to breed crises has been documented in an influential study (Diaz-Alejandro, 1985). Several developing and industrial countries experienced episodes of systemic or borderline banking crises of varying magnitude and frequency, although in several instances they were not associated with financial liberalisation. Most developing countries, in particular, witnessed some financial instability, following liberalisation, including those in Latin America (Argentina, Chile, Brazil and Mexico) and Asia (Indonesia, Malaysia, Philippines, Sri Lanka, Thailand and Turkey). Banks generally found their existing loan portfolios to be less sound in a liberalised environment, because borrowers were not able to service debts due to higher interest costs or simply because implicit guarantees from Government on these debts were no longer available.

Thus, the evidence suggests that there are no iron cast formulae for financial liberalisation. A strategy adopted by a country could largely depend on the initial conditions of its financial infrastructure and extent of repression, the response of monetary and credit aggregates to monetary reforms and the health of its banking sector. Recent studies indicate that banking crises tend to precipitate balance of payments crises, but not *vice versa* (Kaminsky and Reinhart, 1999). The analysis of the experience of over 50 countries during 1980-1995 reveals that banking crises are more likely to occur in liberalised financial systems, but not where the institutional environment is strong in terms of respect for the rule of law, low level of corruption and good contract enforcement (Demirgüc-Kunt and Detragiache, 2002).

## II. FINANCIAL INTERMEDIARIES -AN ASSESSMENT OF REFORMS

6.10 While financial institutions and financial markets are two generic mechanisms for transferring resources from the surplus sectors to deficit sectors, their relative significance varies from country to country. In the context of the underdeveloped capital market in India, financial intermediaries or institutions have traditionally played a predominant role in meeting the fund requirements of various sectors in the form of credit and investment. The major institutional purveyors of credit in India are banks (commercial banks and cooperative banks), DFIs and NBFCs. Traditionally, banks and NBFCs predominantly extended short-term credit and DFIs mainly provided medium and long-term loans. Insurance companies and mutual funds provided medium to long-term funds mainly in the form of investments. This distinction has got somewhat blurred in recent years. While financial intermediaries play an important role in the growth process by encouraging saving and investment and by improving the allocative efficiency of resources, this role is performed well only when financial intermediaries are sound, stable and efficient.

6.11 The key objective of reforms in the financial sector in India has been to enhance the stability and efficiency of financial institutions. To achieve this objective, various reform measures were initiated that could be categorised broadly into three main groups: enabling measures, strengthening measures and institutional measures. The enabling measures were designed to create an environment where financial intermediaries could respond optimally to market signals on the basis of commercial considerations. Salient among these included reduction in statutory pre-emptions so as to release greater funds for commercial lending, interest rate deregulation to enable price discovery, granting of operational autonomy to banks and liberalisation of the entry norms for financial intermediaries. The strengthening measures aimed at reducing the vulnerability of financial institutions in the face of fluctuations in the economic environment. These included, *inter alia*, capital adequacy, income recognition, asset classification and provisioning norms, exposure norms, improved levels of transparency, and disclosure standards. Institutional measures were aimed at creating an appropriate institutional framework conducive to development of markets and functioning of financial institutions. Salient among these included reforms in the legal framework pertaining to banks and creation of new institutions.

6.12 Although there was a broad commonality in the objectives and instruments of reforms for all types of financial intermediaries, the pace and sequencing in each segment of the financial sector was determined keeping in view the state of development of the segment, its systemic implications and certain segment-specific characteristics. In view of their overwhelming dominance in the financial system and their systemic importance, reform measures were first introduced for commercial banks and subsequently extended to other financial intermediaries such as DFIs, NBFCs (especially public deposit-taking NBFCs) and co-operative banks, and insurance sector.

**Commercial Banks**

6.13 Reforms in the commercial banking sector had two distinct phases. The first phase of reforms, introduced subsequent to the release of the Report of the Committee on Financial System, 1992 (Chairman: Shri M. Narasimham) focussed mainly on enabling and strengthening measures. The second phase of reforms, introduced subsequent to the recommendations of the Committee on Banking Sector Reforms, 1998 (Chairman: Shri M. Narasimham) placed greater emphasis on structural measures and improvement in standards of disclosure and levels of transparency in order to align the Indian standards with international best practices. Reforms have brought about considerable improvements as reflected in various parameters relating to capital adequacy, asset quality, profitability and operational efficiency.

*Stability Parameters (Capital Adequacy and Asset Quality)*

6.14 Since banks are highly leveraged and exposed to risks, the capital adequacy requirements provide them with the financial cushion to cope with adverse effects on their portfolio. With the introduction of capital to risk-weighted asset ratio (CRAR) norms in 1992, significant improvement was noticed in the capital position of banks operating in India. While in 1995-96, 75 out of 92 banks had a CRAR of above eight per cent, as on March 31, 2002, 92 out of 97 banks operating in India had CRAR above the statutory minimum level of nine per cent (Table 6.2).

**Table 6.2: Distribution of Scheduled Commercial Banks by CRAR**

(No. of banks)

| Year | Public Sector Banks | | Private Sector Banks | | Foreign Banks | SCBs |
|---|---|---|---|---|---|---|
| | SBI Group | Natio-nalised | Old | New | | |
| | 1 | 2 | 3 | 4 | 5 | 6 |
| **1995-96** | | | | | | |
| Below 8 per cent | – | 8 | 6 | – | 3 | 17 |
| 8 per cent and above | 8 | 11 | 19 | 9 | 28 | 75 |
| **1996-97** | | | | | | |
| Below 8 per cent | – | 2 | 4 | – | – | 6 |
| 8 per cent and above | 8 | 17 | 21 | 9 | 39 | 94 |
| **1997-98** | | | | | | |
| Below 8 per cent | – | 1 | 4 | – | – | 5 |
| 8 per cent and above | 8 | 18 | 21 | 9 | 42 | 98 |
| **1998-99** | | | | | | |
| Below 8 per cent | – | 1 | 5 | 1 | – | 7 |
| 8 per cent and above | 8 | 18 | 20 | 8 | 43 | 97 |
| **1999-2000** | | | | | | |
| Below 9 per cent | – | 1 | 4 | – | – | 5 |
| 9 per cent and above | 8 | 18 | 20 | 8 | 42 | 96 |
| **2000-2001** | | | | | | |
| Below 9 per cent | – | 2 | 3 | – | – | 5 |
| 9 per cent and above | 8 | 17 | 20 | 8 | 42 | 95 |
| **2001-2002** | | | | | | |
| Below 9 per cent | – | 2 | 1 | 1 | 1 | 5 |
| 9 per cent and above | 8 | 17 | 21 | 7 | 39 | 92 |

**Note :** SCBs had to comply with a minimum CRAR of 8 per cent up to end-March 1999 and 9 per cent from the year ended March 31, 2000 onwards.

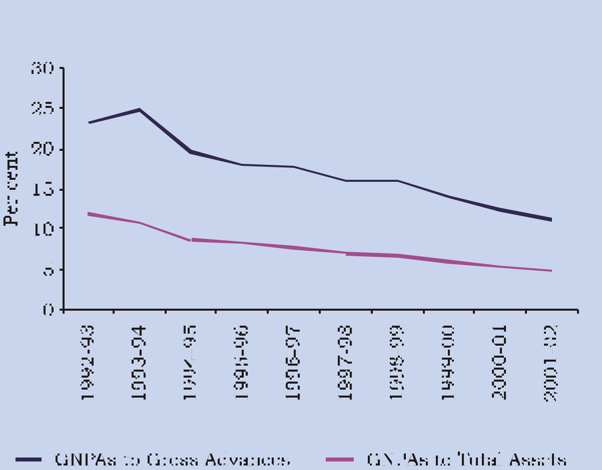
6.15 There has been an improvement in overall capital adequacy of banks after the introduction of CRAR norms. However, as some banks in the public sector were not able to comply with the CRAR norms, there was a need to recapitalise them to augment their capital base. After the introduction of banking sector reforms in 1992, an amount of Rs.17,746 crore was infused as recapitalisation support to nationalised banks till March 31, 2002. At the same time, the Government's share in the capital of public sector banks (PSBs) is being diluted gradually with several banks making public offerings of their equity shares. Between 1993-94 and 2001-02, 12 public sector banks mobilised equity capital of Rs.6,501 crore through this route, including a premia of Rs.5,252 crore. However, available data suggest that some improvement in CRAR was also due to internal generation of funds.

6.16 Consequent upon the introduction of prudential norms relating to asset classification, income recognition and provisioning, the most visible structural change in the banking sector was an improvement in their asset quality. The share of NPAs, in gross as well as net terms, declined significantly during the reform period. The ratio of gross NPAs to gross advances of scheduled commercial banks (SCBs) declined from 15.7 per cent as at end-March 1997 to 10.4 per cent as at end-March 2002. For PSBs, in particular, the ratio of gross NPAs to gross advances witnessed a perceptible decline from 23.2 per cent as at end-March 1993 to 11.1 per cent as at end-March 2002.

6.17 Incremental NPAs generally tend to be higher in economic downturns as during such phases, there is increased possibility of default by borrowers. In India, the average GDP growth rate, which was 6.8 per cent during the period 1992-93 to 1996-97, decelerated to 5.4 per cent during the next five-year period. Despite this slowdown, gross NPAs of PSBs as a proportion of gross advances, on an average, declined from 20.7 per cent to 13.9 per cent. Factors contributing to this decline related *inter alia* to improvements in credit appraisal and monitoring and recovery of past NPAs.

6.18 The difference between gross and net NPAs of PSBs (the latter typically equals about one-half of the former) reflects both obligatory provisions made against NPAs and the limited write-offs of NPAs undertaken by these banks (Chart VI.1).

**Chart VI.1: Gross NPAs of Public Sector Banks**




6.19 The information on distribution of SCBs in terms of the ratio of net NPAs to net advances is set out in Table 6.3. The number of domestic banks with net NPAs above 10 per cent of net advances declined between 1996 and 2002. The reduction in the number of banks with high net NPAs was particularly noticeable for public sector banks. The number of foreign banks with net NPAs above 10 per cent, however, increased in recent years, on account of the impaired asset position of some small foreign banks.

**Table 6.3: Distribution of Scheduled Commercial Banks by Net NPAs to Net Advances**

(Number of banks)

| | As at end-March | | | | | | |
|---|---|---|---|---|---|---|---|
| Bank Group | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **Public Sector Banks** | | | | | | | |
| Up to 10 per cent | 19 | 17 | 17 | 18 | 22 | 22 | 24 |
| Above 10 and up to 20 per cent | 6 | 9 | 9 | 8 | 5 | 5 | 3 |
| Above 20 per cent | 2 | 1 | 1 | 1 | – | – | – |
| **Old Private Sector Banks** | | | | | | | |
| Up to 10 per cent | 22 | 22 | 21 | 17 | 18 | 16 | 17 |
| Above 10 and up to 20 per cent | – | 3 | 4 | 5 | 5 | 4 | 3 |
| Above 20 per cent | – | – | – | 3 | 1 | 3 | 2 |
| **New Private Sector Banks** | | | | | | | |
| Up to 10 per cent | 9 | 9 | 9 | 9 | 8 | 8 | 8 |
| Above 10 and up to 20 per cent | – | – | – | – | – | – | – |
| Above 20 per cent | – | – | – | – | – | – | – |
| **Foreign Banks** | | | | | | | |
| Up to 10 per cent | 30 | 36 | 34 | 27 | 31 | 31 | 26 |
| Above 10 and up to 20 per cent | 1 | 1 | 6 | 11 | 7 | 6 | 5 |
| Above 20 per cent | – | 2 | 2 | 3 | 4 | 5 | 9 |

6.20 NPAs – both gross and net – as a proportion of advances/assets have declined since the early 1990s. In absolute terms, however, the stock of NPAs has been increasing. This is mainly due to the NPAs accumulated in the past on which interest due keeps on adding to the stock of NPAs every year. Doubtful assets form as much as 60 per cent of the NPAs, while sub-standard assets (which are of more recent origin) account for about 30 per cent. Furthermore, while there has been a decline in sub-standard assets in absolute terms since the late 1990s, the amount of doubtful assets increased. It is important to note, however, that incremental NPAs as a proportion of gross NPAs remained low and varied between 3-5 per cent during the period 1998-99 to 2001-02.

6.21 Net NPAs (*i.e.*, that portion of NPAs, which is not provided for) raise a major concern for the solvency of a bank. Although net NPAs as percentage of net advances in PSBs declined gradually from 10.7 per cent in 1994-95 to 5.8 per cent in 2001-02, they are still sizeable. There was also a wide divergence between gross NPAs to total assets (4.6 per cent) and net NPAs to total assets (2.3 per cent) for SCBs as at end of March 2002, reflecting mainly the extent of provisioning made.

6.22 Various reform measures introduced to recover past NPAs have met with limited success. For instance, in terms of the guidelines issued in May 1999 to PSBs for one-time non-discretionary and non-discriminatory settlement of NPAs of small loans (operative up to September 30, 2002), a meagre amount of Rs.668 crore was recovered by PSBs. Likewise, under the modified guidelines for recovery of the stock of NPAs of Rs.5 crore and less as on March 31, 1997 (valid up to June 30, 2001), an amount of Rs.2,600 crore was recovered by PSBs by September 2001. Debt Recovery Tribunals (DRTs) could decide only 9,814 cases involving Rs.6,264 crore pertaining to PSBs till September 30, 2001. The amount recovered in respect of such cases amounted to Rs.1,864 crore. As many as 3,049 cases involving Rs.42,989 crore were pending with DRTs as on September 30, 2001.

6.23 In the more recent period, the Reserve Bank and the Government of India have undertaken several more measures to contain the NPA problem. In order to strengthen the institutional set up for debt recovery, *Lok Adalats* and Settlement Advisory Committees were established. For improving the information sharing among the financial intermediaries, the Credit Information Bureau of India Ltd. (CIBIL) was set up. The Reserve Bank also put in place a system for periodic circulation of details of wilful defaults by borrowers. The Corporate Debt Restructuring (CDR) mechanism was institutionalised to provide a timely and transparent system for restructuring of the corporate debt of Rs.20 crore and above. The Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act was enacted in 2002. All these measures are expected to provide a fresh impetus to the recovery efforts by banks.

*Parameters Relating to Competition and Efficiency*

6.24 Improvement in the efficiency of financial intermediaries has been at the core of the reform process. In order to provide greater choice to customers and promote competition, the Reserve Bank permitted the entry of new private banks and more liberal entry of foreign banks. Consequently, nine new banks were set up in the private sector and the number of foreign banks increased significantly from 26 as at end-March 1996 to 44 as at end-March 1999. 'In-principle' approval was granted to two more new banks in the private sector in February 2002. There was, however, some consolidation in the banking industry, particularly in the new private and foreign bank segment. As at end-March 2002, there were 8 new private sector banks and 40 foreign banks.

6.25 An increase in the number of players in the banking sector led to increased competition as is reflected in the bank concentration ratio, measured in terms of the share of top 5 banks in assets, deposits or profits. The share of top 5 banks in total assets declined from 51.7 per cent in 1991-92 to 43.5 per cent by 2001-02. Similar trends were evident in deposits and profits as well (Table 6.4).

**Table 6.4: Share of Top Five Banks - Assets, Deposits and Profits**

(Per cent)

| Parameter | 1991-92 | 1995-96 | 1998-99 | 2000-01 | 2001-02 |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| Assets | 51.7 | 45.9 | 44.7 | 43.9 | 43.5 |
| Deposits | 49.0 | 45.0 | 44.4 | 43.9 | 43.3 |
| Profits | 54.5 | 190.7* | 49.1 | 44.8 | 41.4 |

* Owing to presence of loss-making banks.

6.26 The positive impact of increased competition in the banking industry was also evident from the net interest income or spread, measured as the difference between interest income and interest expenditure as a proportion of assets. Initially, the deregulation of lending rates led to an increase in interest spread . However, as competition intensified, spread tended to narrow. The gradual lowering of the Bank Rate and its effect in lowering banks' prime lending rates (PLR) resulted in further narrowing of spread . It is significant to note that the decline in spread took place across all categories of banks with the decline being more pronounced in the case of new private sector banks (Table 6.5). Spread in the case of foreign banks were relatively higher than those of public and private sector banks. These trends are in line with international experience (Claessens, Demirgüc-Kunt and Huizinga, 1998).

**Table 6.5: Net Interest Income (Spread) to Total Assets**

(Per cent)

| **Bank Group** | **1992-95 (average)** | **1996-97** | **1997-98** | **1998-99** | **1999-200** | **2000-01** | **2001-02** |
|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Public Sector Banks | 2.72 | 3.16 | 2.91 | 2.80 | 2.70 | 2.86 | 2.73 |
| Old Private Sector Banks | 3.24 | 2.93 | 2.57 | 2.15 | 2.33 | 2.51 | 2.39 |
| New Private Sector Banks | 1.17* | 2.88 | 2.23 | 1.98 | 1.95 | 2.14 | 1.15 |
| Foreign Banks in India | 3.98 | 4.13 | 3.93 | 3.47 | 3.92 | 3.63 | 3.25 |
| Scheduled Commercial Banks | 2.84 | 3.22 | 2.95 | 2.78 | 2.73 | 2.85 | 2.57 |

* Data for New Private Sector Banks are available from 1994-95 onwards.

6.27 Significant variations observed in spread across bank groups were mainly on account of large differences in their non-fund based activities. For instance, the technology-intensive new private and foreign banks have been generating substantial income from fee-based activities arising from off-balance sheet-based business, enabling them to afford a larger decline in their spread . On the other hand, PSBs tend to rely more heavily on interest income, reflecting lack of sufficient diversification into fee-based activities. An important challenge for PSBs, thus, would be to diversify their activities to augment their non-interest income.

6.28 Despite the fact that banks were required to follow income recognition and provisioning norms and that there was intensification of competition, all major bank-groups in India remained profitable. There was also an increase in the number of profit-making PSBs over the reform period (Table 6.6). Since the mid-1990s, profitability of SCBs, as measured by Return on Assets (RoA) has not showed a definite trend and has hovered in the range of 0.5-0.8 per cent (Table 6.7 and Chart VI.2). The ratios in respect of new private sector banks, however, declined during the same period. Foreign banks remained the most profitable amongst all the major bank groups. The ratio of other income to total assets also did not show a definite trend for the SCBs as a group, but the share of such income was high in the case of foreign banks. Cross-country evidence suggests that profitability of banks in India is on the lower side as compared to most developing countries, which is generally in excess of one per cent. On the other hand, in the industrialised countries, profitability is lower at around 0.5 per cent (Claessens, Demirgüc-Kunt and Huizinga, 1998).

**Table 6.6: Number of Profit and Loss-making Banks**

| Year | Public Sector Banks | Old Private Sector Banks | New Private Sector Banks | Foreign Banks in India |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| **1995-96** | | | | |

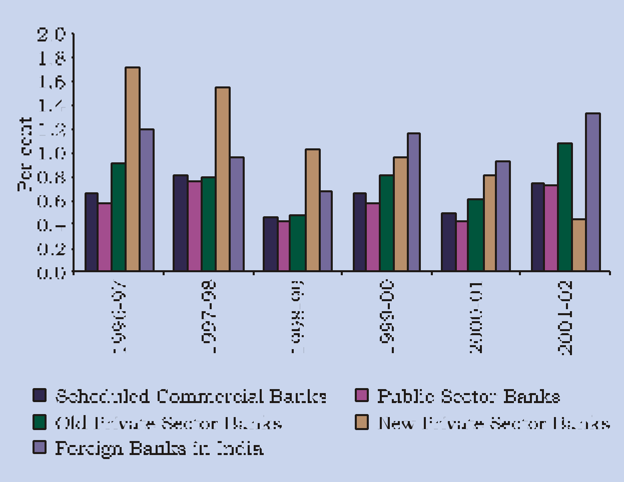
| | | | | |
|---|---|---|---|---|
| Profit-making | 19 | 22 | 8 | 27 |
| Loss-making | 8 | 1 | – | 5 |
| **1996-97** | | | | |
| Profit-making | 24 | 22 | 8 | 31 |
| Loss-making | 3 | – | – | 5 |
| **1997-98** | | | | |
| Profit-making | 25 | 21 | 8 | 29 |
| Loss-making | 2 | 1 | – | 9 |
| **1998-99** | | | | |
| Profit-making | 25 | 21 | 8 | 30 |
| Loss-making | 2 | 1 | – | 10 |
| **1999-2000** | | | | |
| Profit-making | 26 | 22 | 8 | 31 |
| Loss-making | 1 | – | – | 9 |
| **2000-01** | | | | |
| Profit-making | 25 | 19 | 8 | 30 |
| Loss-making | 2 | 3 | – | 10 |
| **2001-02** | | | | |
| Profit-making | 27 | 22 | 7 | 29 |
| Loss-making | – | – | 1 | 11 |

## Table 6.7: Important Financial Parameters – Bank Group-wise

(Per cent to total assets)

| Bank Group | 1996-97 | 1997-98 | 1998-99 | 1999-200 | 2000-01 | 2001-02 |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| **Operating Profit/Total Assets** | | | | | | |
| Scheduled Commercial Banks | 1.82 | 1.84 | 1.45 | 1.66 | 1.52 | 1.94 |
| Public Sector Banks | 1.60 | 1.58 | 1.37 | 1.46 | 1.34 | 1.88 |
| Old Private Sector Banks | 1.89 | 1.96 | 1.21 | 1.82 | 1.75 | 2.70 |
| New Private Sector Banks | 2.98 | 2.84 | 1.78 | 2.11 | 1.74 | 1.21 |
| Foreign Banks in India | 3.62 | 3.90 | 2.32 | 3.24 | 3.05 | 3.13 |
| **Net Profit/Total Assets** | | | | | | |
| Scheduled Commercial Banks | 0.67 | 0.82 | 0.47 | 0.66 | 0.50 | 0.75 |
| Public Sector Banks | 0.57 | 0.77 | 0.42 | 0.57 | 0.42 | 0.72 |
| Old Private Sector Banks | 0.91 | 0.80 | 0.48 | 0.81 | 0.62 | 1.08 |
| New Private Sector Banks | 1.73 | 1.55 | 1.03 | 0.97 | 0.81 | 0.44 |
| Foreign Banks in India | 1.19 | 0.96 | 0.69 | 1.17 | 0.93 | 1.33 |
| **Other Income/Total Assets** | | | | | | |
| Scheduled Commercial Banks | 1.45 | 1.52 | 1.34 | 1.42 | 1.32 | 1.57 |
| Public Sector Banks | 1.32 | 1.33 | 1.22 | 1.29 | 1.22 | 1.43 |
| Old Private Sector Banks | 1.48 | 1.71 | 1.33 | 1.66 | 1.23 | 2.38 |
| New Private Sector Banks | 2.03 | 2.42 | 1.53 | 1.58 | 1.35 | 1.18 |
| Foreign Banks in India | 2.49 | 2.93 | 2.43 | 2.54 | 2.47 | 2.91 |
| **Provisions & Contingencies/ Total Assets** | | | | | | |
| Scheduled Commercial Banks | 1.15 | 1.02 | 0.98 | 1.00 | 1.03 | 1.19 |
| Public Sector Banks | 1.03 | 0.81 | 0.95 | 0.89 | 0.92 | 1.16 |
| Old Private Sector Banks | 0.98 | 1.16 | 0.73 | 1.01 | 1.15 | 1.62 |
| New Private Sector Banks | 1.24 | 1.32 | 0.75 | 1.14 | 0.93 | 0.77 |
| Foreign Banks in India | 2.44 | 2.94 | 1.63 | 2.08 | 2.12 | 1.80 |

**Chart VI.2: Net Profit to Total Assets - Bank Group-wise**




6.29 Improvement in efficiency was also evident from the intermediation cost. Between 1996-97 and 2001-02, the cost of intermediation for SCBs declined from 2.85 per cent to 2.19 per cent (Table 6.8). The intermediation cost declined in respect of all categories of banks barring foreign banks. In the case of foreign banks, the intermediation cost increased between 1996 and 1999 due to addition of a significant number of foreign banks, which had to begin their operations with initial high start-up cost. Although the intermediation cost declined thereafter, it was still significantly higher in comparison with 1996 and other bank groups. The decline in intermediation cost was more pronounced in respect of private bank groups. This was possible due largely to their technology-driven operations, especially new private banks, all of which are 100 per cent computerised. The decline in intermediation cost in general, could be ascribed to growing competition in respect of business, enhanced application of information technology and improvements in payment and settlement system. While intermediation cost in general of PSBs increased in 2000-01 because of the rise in wages consequent upon the wage settlement, there was a significant lowering of intermediation cost in 2001-02 due to the decline in staff costs, subsequent to the voluntary retirement scheme (VRS).

**Table 6.8: Intermediation Cost to Total Assets**

(Per cent)

| Bank Group | 1996-97 | 1997-98 | 1998-99 | 1999-2000 | 2000-01 | 2001-02 |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| Public Sector Banks | 2.88 | 2.66 | 2.66 | 2.53 | 2.72 | 2.29 |
| Old Private Sector Banks | 2.52 | 2.31 | 2.26 | 2.17 | 1.99 | 2.08 |
| New Private Sector Banks | 1.94 | 1.76 | 1.74 | 1.42 | 1.75 | 1.12 |
| Foreign Banks in India | 3.00 | 2.97 | 3.59 | 3.22 | 3.05 | 3.03 |
| Scheduled Commercial Banks | 2.85 | 2.63 | 2.67 | 2.50 | 2.64 | 2.19 |

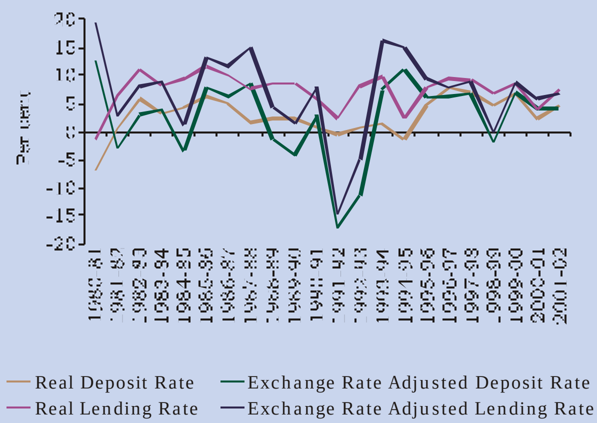
6.30 Another test of improvement in efficiency could be the trend in real interest rates. Cross-country experience suggests that positive and stable real interest rates play an important role in efficient allocation of financial resources (Goyal and McKinnon, 2003). Real interest rates in India remained generally positive in the 1980s. In the post-reform period, real lending rates remained positive for all the years. Real deposit rates also remained positive barring one year, *i.e.*, 1994-95 when they turned negative. While real lending rates generally declined during the 1990s as compared with the 1980s, real deposit rates increased during the same period. As a result, the gap between the lending rate and the deposit rate, in real terms, narrowed significantly in the second half of the 1990s (Table 6.9 and Chart VI.3). This was reflective, to an extent, of the increased competitiveness and efficiency of the Indian commercial banks.

**Table 6.9 Real and Exchange Rate Adjusted Interest Rates**

(Per cent per annum)

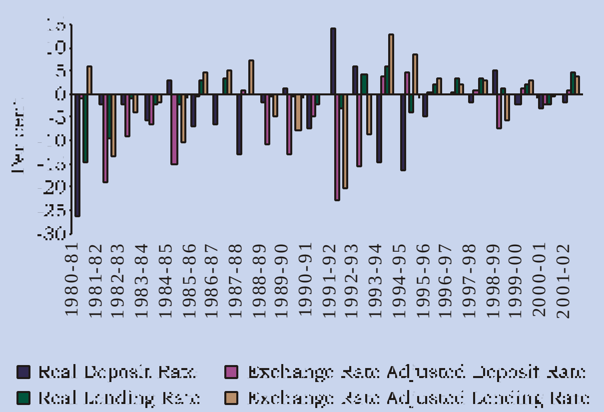
| Year | Real Deposit Rate | Real Lending Rate | Exchange Rate Adjusted Deposit Rate | Exchange Rate Adjusted Lending Rate |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| 1980-81 | -7.0 | -1.5 | 12.6 | 19.3 |
| 1981-82 | 0.6 | 6.6 | -3.0 | 2.7 |
| 1982-83 | 5.8 | 11.1 | 3.0 | 8.1 |
| 1983-84 | 3.2 | 8.3 | 3.8 | 8.9 |
| 1984-85 | 4.3 | 9.4 | -3.5 | 1.3 |
| 1985-86 | 6.3 | 11.6 | 7.9 | 13.2 |
| 1986-87 | 4.9 | 10.1 | 6.3 | 11.5 |
| 1987-88 | 1.7 | 7.7 | 8.4 | 14.8 |
| 1988-89 | 2.4 | 8.4 | -1.5 | 4.3 |
| 1989-90 | 2.4 | 8.4 | -4.3 | 1.3 |
| 1990-91 | 0.7 | 5.7 | 3.0 | 8.1 |
| 1991-92 | -0.6 | 2.4 | -17.2 | -14.6 |
| 1992-93 | 0.9 | 8.1 | -11.4 | -5.0 |
| 1993-94 | 1.5 | 9.8 | 7.5 | 16.3 |
| 1994-95 | -1.3 | 2.2 | 10.9 | 14.9 |
| 1995-96 | 4.5 | 7.8 | 6.1 | 9.4 |
| 1996-97 | 7.8 | 9.5 | 6.2 | 7.9 |
| 1997-98 | 7.0 | 9.2 | 6.7 | 8.9 |
| 1998-99 | 4.8 | 6.7 | -1.9 | -0.2 |
| 1999-2000 | 6.8 | 8.5 | 7.0 | 8.7 |
| 2000-01 | 2.4 | 4.1 | 4.1 | 5.8 |
| 2001-02 | 4.9 | 7.6 | 4.1 | 6.8 |

**Chart VI.3: Real and Exchange Rate Adjusted Interest Rates**




6.31 Another aspect of efficiency could be the difference between domestic and international benchmark rates. There has been a noticeable decline in the difference between real interest rates in India and international benchmark rates (LIBOR 1 year) since the mid-1990s (Chart VI.4). After deregulation of interest rates, India’s real domestic interest rates (deflated for movements in exchange rates) have got better aligned with international benchmark rates, notwithstanding the adverse impact of the East Asian crisis during the latter half of the 1990s. This suggests increased integration of the banking sector with the rest of the world.

**Chart VI.4: Diversion of Real and Exchange Rate Adjusted Interest Rates from International Benchmark Rates**




*A Comparison with Other Countries*

6.32 The financial performance of the Indian banking sector has been evaluated *vis-à-vis* select East Asian and developed economies. In this regard, Table 6.10 brings out a number of interesting aspects.

**Table 6.10: Banking Sector Performance**

(Per cent to total assets)

| Variable India | India | | East Asia[4] | | Latin America[5] | | G3[6] | |
|---|---|---|---|---|---|---|---|---|
| | 1992-97[1] | 1999 | 1992-97 | 1999 | 1992-97 | 1999 | 1992-97 | 1999 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Spread | 2.9 | 2.8 | 2.6 | 2.2 | 5.2 | 5.4 | 2.0 | 2.0 |
| Other Income | 1.4 | 1.3 | 0.7 | 0.8 | 2.3 | 2.0 | 0.7 | 1.0 |
| Operating Cost | 2.7 | 2.7 | 1.6 | 2.3 | 5.5 | 5.7 | 1.7 | 1.8 |
| Loan Losses [2] | 1.6 | 0.9 | 0.6 | 1.8 | 1.2 | 1.7 | 0.2 | 0.3 |
| Pre-tax Profit[3] | 1.6 | 1.5 | 0.8 | -0.7 | 1.4 | 2.4 | 0.7 | 0.8 |

**Note :** Figures for India pertain to Scheduled Commercial Banks.

1. Simple average over the period.
2. For India, refers to provisions and contingencies.
3. For India, pre-tax profit refers to gross profits.
4. Simple average of Indonesia, Korea, Malaysia, Philippines and Thailand.
5. Simple average of Argentina, Brazil, Chile, Colombia, Mexico and Peru.
6. Simple average of Germany, Japan and US.

**Source :** Hawkins and Turner (1999), Hawkins and Mihaljek(2001).

(i) Spreads in India were marginally higher than those in East Asian countries and major developed economies.

(ii) Profitability in India was found to be significantly higher than East Asian and advanced countries. Pre-tax profit of banks in East Asia turned negative in 1999 due to large losses as a result of the financial crisis. Profitability of banks in India remained stable at around 1.5-1.6 per cent during 1992-99. Although operating costs in India were higher than East Asian countries, to an extent, it was made up by other income, which was found to be higher than both groups of countries. Although in terms of all parameters (other than pre-tax profits) the Indian banks were better placed than their counterparts in Latin America, the comparison needs to be viewed with caution. High operating costs (and high spread ) in Latin American countries were, to a large extent, the legacy of the high-inflation period of the 1980s and the early 1990s, when there was little pressure on banks to cut costs. Secondly, "other income" seems to constitute a high proportion of earnings in Latin America. This was on account of their large holdings of Government bonds, which were included in "other income" rather than in interest income.

(iii) The level of competition, as measured by concentration ratio, in India compared favourably with several Asian and Latin American countries. The overall CRAR of the Indian banking system, although much above the prescribed level, was significantly lower than that of several countries in Asia and Latin America.

(iv) Finally, overall asset impairment in India was also at a much higher level in comparison with several other countries (Table 6.11).

**Table 6.11: Summary of Banking Systems: 1998**

| Country | Number of Large And Medium Domestic Banks[1] | Concentration[2] | CRAR (per cent) | Non-performing Loans (NPLs) as percentage of Loans |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |

| | | | | |
|---|---|---|---|---|
| *Asia* | | | | |
| India | 11 | 42 | 11.5[a] | 14.7[b] (15.9[a]) |
| Hong Kong | 21 | 29 | 19.0 | 5 |
| Singapore | 5 | 39 | 20.0 | 8 |
| Korea | 14 | 50 | 10.8 | 7 |
| Philippines | 14 | 60 | 17.5 | 11 |
| Thailand | 9 | 62 | 12.4 | 48 |
| *Latin America* | | | | |
| Argentina | 8 | 38 | 14.0 | 9 |
| Brazil | 22 | 52 | 15.8 | 11 |
| Chile | 7 | 47 | 13.5 | 1 |
| Mexico | 6 | 68 | 16.0 | 11 |

1. Number of banks in top 1000, as provided by *The Banker, 1999*.
2. Five largest banks' assets as percentage of total assets.

a: Public Sector Banks; b: Scheduled Commercial Banks.

**Source :** Hawkins and Turner (1999), Hawkins and Mihaljek (2001).

6.33 It may, thus, be noted that financial performance of the Indian banks has not been out of line with banks in other countries. While the capital position of the Indian banks remained comfortable, the asset quality, however, remains a cause of concern. Notwithstanding this, however, the positive impact of competitive pressures created by financial sector reforms in the early 1990s is becoming gradually discernible.

*Relationship between Stability and Efficiency*

6.34 After the East Asian crisis, the stability of the financial system has assumed an added importance and many countries have initiated measures to strengthen their financial systems. However, the impact of the instruments used for achieving financial stability on efficiency is often not obvious. For instance, although the stipulation of minimum level of capital adequacy is expected to inculcate prudent behaviour on the part of banks and thereby enhance stability, its impact on efficiency of the banking system is not always apparent. This is because higher capital requirements may lead banks to assume higher risk or alternatively, make them lower their risk exposure. Thus, the relationship between capital and risk can be bi-directional depending on the risk appetite of the manager. While a risk-loving manager looking for high profits may assume higher risk, the behaviour would be opposite in the case of risk-averse manager. Credit risk also impinges on efficiency. Risks may be costly to manage in the sense that a high-risk firm may require additional capital and labour inputs to produce the same level of output. If it is more costly to run a risky firm, credit risk is expected to have a negative effect on efficiency. However, active risk-taking, which is expected to be rewarded by higher expected return, could have a positive effect on efficiency. There is also a relationship between capital and efficiency. Well-capitalised banks often tend to be better run, suggesting that the relationship between capital and efficiency is likely to be positive. On the other hand, efficiently run banks are able to generate higher profits, enabling them to plough back a part of their earnings into capital and thereby improve their capital position. Thus, capital, credit risk and efficiency are related to one another and the exact nature of the relationship depends on the behaviour of the financial entity. The literature in this context, drawing upon international experiences, shows how the exact nature of the relationship varies across countries (Box VI.2).

**Box VI.2**

### Credit Risk, Capitalisation, Ownership and Bank Efficiency: International Experience

The macroeconomic consequences of financial sector fragility, in general, and banking sector weaknesses, in particular, have attracted the attention of policy makers. This can be attributed to several factors. The first has been the worldwide trend towards deregulation of the financial sector and the growing number and severity of financial crises. The second has been the globalisation of banking operations in an increasingly market-led environment driven by rapid advances in information technology and communications networking. An important strand in the literature examines the interrelationships among capital, credit risk and efficiency in this context.

While the theoretical evidence is not unambiguous regarding the nature of the relationship between capital and risk, available empirical finding for the US banking industry suggests that, in general, management tends to offset increases in capital with increases in risk (Shrieves and Dahl, 1992). For example, a study of US banks for the period 1986-1995 suggests that inefficiency not only has a positive effect on credit risk, it also impacts bank capitalisation (Kwan and Eisenbis, 1997).

A possible explanation in this regard is the role of managers as agents of stockholders. Managers, especially if they are risk averse, seek to maximise their own compensation at the expense of shareholders. Since managerial compensation is linked to firm growth, management may be tempted to increase firm growth beyond the efficient size. This might lead to a lowering of efficiency, and expose the banking firm to more risks, which can affect asset quality.

As regards the linkage between ownership and performance, international evidence suggests that ownership has limited impact on economic efficiency. In case of the Belgian banking sector, for instance, it was found that public bank branches are relatively more efficient than those of the private bank (Tulkens, 1993). Recent work in this context for the German banking industry finds little evidence to suggest that privately owned banks are more efficient than public sector counterparts (Altunbas 2002). For emerging economies, some evidence for the Turkish banking industry covering both the pre- and post-liberalisation period for 1970-94 suggests the lack of difference in efficiency between the state-owned and privately owned banks (Denizer *et al,* 2000). It is, therefore, by no means guaranteed that privately owned firms would necessarily outperform state-owned firms. On the other hand a study on 92 countries for the 10 largest commercial and development banks, shows that greater state ownership of banks in 1970 was associated with less financial sector development, lower growth and productivity over the period 1970-1995 (La Porta *et al,* 2002).

In the Indian case, for 1993-94 and 1994-95, it was observed that, in so far as profitability is concerned, foreign banks outperformed domestic banks and there was no discernible difference between unlisted domestic private and state-owned banks (Sarkar *et al*, 1998). It is possible that since the process of deregulation of the banking sector commenced in 1992, the impact of competitive pressures was felt much later. Recent research however, has observed that differences in profitability and cost efficiency between foreign and private banks and state-owned counterparts have diminished as the latter have improved their profitability (Shirai, 2002).

6.35 Enhancing efficiency and stability of the banking sector have been the key objectives of reforms in the financial sector in India. It is, therefore, important to understand not only the impact of various reforms measures on the stability and efficiency of the banking system as has already been done, but also the impact of stability measures, if any, on the efficiency of the system. In the Indian context, where public sector banks account for majority of the banking assets, the interrelationship among credit risk, capital and efficiency acquires an additional dimension. A related issue in the Indian context has been whether the public sector character of the banking system has impinged on its efficiency, although international evidence suggests that privately owned banks do not necessarily outperform the state-owned banks. Dilution of Government stake, it has been argued, could provide greater operational freedom to banks, which could have a positive impact on their efficiency. As these aspects are of crucial importance, an attempt is made to examine in the Indian context the following two issues: (i) whether there is a relationship between ownership and efficiency, and (ii) what is the exact nature of relationship among credit risk, capital and efficiency.

*Ownership and Efficiency*

6.36 To examine the relationship between ownership (public and private) and efficiency, an attempt is made to compare the performance of banks based on select parameters at two levels: (a) comparison of a representative sample of five PSBs which divested their Government holding early in the reform process with a representative sample of five wholly government-owned banks, (b) comparison of the aforesaid two categories with old private sector banks as a group. The parameters used are operating expenses, spread, net profit, asset quality and capital adequacy. The relevant data are set out in Table 6.12(A) and 6.12(B) and the main points emerging from the analysis are set out below.

**Table 6.12(A): Important Parameters of Select Bank-Groups**

(Per cent)

| Bank Group | 1995-96 | 1996-97 | 1997-98 | 1998-99 | 1999-2000 | 2000-01 | 2001-02 |
|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **Operating Expenses/Total Assets** | | | | | | | |
| Scheduled Commercial Banks | 2.94 | 2.85 | 2.63 | 2.67 | 2.50 | 2.64 | 2.19 |
| Public Sector Banks | 2.99 | 2.88 | 2.66 | 2.66 | 2.53 | 2.72 | 2.29 |
| All Old Private Sector Banks | 2.60 | 2.52 | 2.31 | 2.26 | 2.17 | 1.99 | 2.08 |
| All New Private Sector Banks | 1.89 | 1.94 | 1.76 | 1.74 | 1.42 | 1.75 | 1.12 |
| **Spread/Total Assets** | | | | | | | |
| Scheduled Commercial Banks | 3.13 | 3.22 | 2.95 | 2.78 | 2.73 | 2.85 | 2.57 |
| Public Sector Banks | 3.08 | 3.16 | 2.91 | 2.80 | 2.70 | 2.86 | 2.73 |
| All Old Private Sector Banks | 3.14 | 2.93 | 2.57 | 2.15 | 2.33 | 2.51 | 2.39 |
| All New Private Sector Banks | 2.84 | 2.88 | 2.23 | 1.98 | 1.95 | 2.14 | 1.15 |
| **Net Profit/Total Assets** | | | | | | | |
| Scheduled Commercial Banks | 0.16 | 0.67 | 0.82 | 0.47 | 0.66 | 0.49 | 0.75 |
| Public Sector Banks | -0.07 | 0.57 | 0.77 | 0.42 | 0.57 | 0.42 | 0.72 |
| All Old Private Sector Banks | 1.06 | 0.91 | 0.81 | 0.48 | 0.81 | 0.59 | 1.08 |
| All New Private Sector Banks | 1.85 | 1.73 | 1.55 | 1.03 | 0.97 | 0.81 | 0.44 |
| **Gross NPAs to Gross Advances** | | | | | | | |
| Scheduled Commercial Banks | N.A. | 15.70 | 14.40 | 14.70 | 12.70 | 11.40 | 10.40 |
| Public Sector Banks | 18.00 | 17.80 | 16.00 | 15.90 | 14.00 | 12.40 | 11.10 |
| All Old Private Sector Banks | N.A. | 10.70 | 10.90 | 13.10 | 10.80 | 10.90 | 11.00 |
| All New Private Sector Banks | N.A. | 2.60 | 3.50 | 6.20 | 4.10 | 5.10 | 8.90 |
| **Net NPAs to Net Advances** | | | | | | | |
| Scheduled Commercial Banks | N.A. | 8.10 | 7.30 | 7.60 | 6.80 | 6.20 | 5.50 |
| Public Sector Banks | 8.90 | 9.20 | 8.20 | 8.10 | 7.40 | 6.70 | 5.80 |
| All Old Private Sector Banks | N.A. | 6.60 | 6.50 | 9.00 | 7.10 | 7.30 | 7.10 |
| All New Private Sector Banks | N.A. | 2.00 | 2.60 | 4.50 | 2.90 | 3.10 | 4.90 |
| **CRAR** | | | | | | | |
| Scheduled Commercial Banks | N.A. | 10.40 | 11.51 | 11.27 | 11.10 | 11.39 | 11.90 |
| Public Sector Banks | 8.72 | 10.00 | 11.53 | 11.20 | 10.66 | 11.20 | 11.80 |
| All Old Private Sector Banks | 10.68 | 11.70 | 12.30 | 12.07 | 12.35 | 11.93 | 12.52 |
| All New Private Sector Banks | N.A. | 15.33 | 13.19 | 11.76 | 13.44 | 11.51 | 11.60 |

N.A. Not available.

**Table 6.12(B): Important Parameters of Select Bank-Groups**

(Per cent)

| Bank Group | 1995-96 | 1996-97 | 1997-98 | 1998-99 | 1999-2000 | 2000-01 | 2001-02 |
|---|---|---|---|---|---|---|---|

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| **Operating Expenses to Total Assets** | | | | | | | |
| Government-owned PSBs* | 3.16 | 3.17 | 2.93 | 2.79 | 2.75 | 2.81 | 2.81 |
| Divested PSBs** | 2.79 | 2.65 | 2.56 | 2.51 | 2.35 | 2.62 | 2.13 |
| Old Private Sector Banks | 2.60 | 2.52 | 2.31 | 2.26 | 2.17 | 1.99 | 2.08 |
| **Spread to Total Assets** | | | | | | | |
| Government-owned PSBs* | 2.38 | 2.58 | 2.79 | 2.59 | 2.57 | 2.64 | 2.61 |
| Divested PSBs** | 3.43 | 3.37 | 3.15 | 2.93 | 2.75 | 2.94 | 2.81 |
| Old Private Sector Banks | 3.14 | 2.93 | 2.57 | 2.15 | 2.33 | 2.51 | 2.39 |
| **Net Profit to Total Assets** | | | | | | | |
| Government-owned PSBs* | -1.04 | -0.30 | 0.27 | 0.26 | 0.37 | 0.18 | 0.40 |
| Divested PSBs** | 0.81 | 0.92 | 1.06 | 0.75 | 0.81 | 0.57 | 0.85 |
| Old Private Sector Banks | 1.06 | 0.91 | 0.81 | 0.48 | 0.81 | 0.59 | 1.08 |
| **Gross NPAs to Gross Advances** | | | | | | | |
| Government-owned PSBs* | 26.06 | 27.97 | 25.34 | 22.88 | 18.35 | 16.12 | 14.09 |
| Divested PSBs** | 12.95 | 13.23 | 11.64 | 13.17 | 12.72 | 11.08 | 10.03 |
| Old Private Sector Banks | N.A. | 10.70 | 10.90 | 13.10 | 10.80 | 10.90 | 11.00 |
| **Net NPAs to Net Advances** | | | | | | | |
| Government-owned PSBs* | 13.22 | 13.62 | 11.83 | 11.46 | 9.55 | 9.26 | 8.16 |
| Divested PSBs** | 6.29 | 7.07 | 6.33 | 7.42 | 7.14 | 6.19 | 5.26 |
| Old Private Sector Banks | N.A. | 6.60 | 6.50 | 9.00 | 7.10 | 7.30 | 7.10 |
| **CRAR** | | | | | | | |
| Government-owned PSBs* | 6.77 | 6.46 | 9.83 | 10.07 | 10.77 | 10.54 | 10.71 |
| Divested PSBs** | 11.51 | 12.12 | 12.33 | 12.54 | 11.85 | 12.40 | 11.95 |
| Old Private Sector Banks | 10.68 | 11.70 | 12.30 | 12.07 | 12.35 | 11.93 | 12.52 |

N.A. Not available.

* 'Government-owned PSBs' are the set of select PSBs, which were fully Government-owned at end-March 2002. These included: Bank of Maharashtra, Central Bank of India, Punjab and Sind Bank, UCO Bank and United Bank of India.

** 'Divested PSBs' are the set of select PSBs, which have accessed the capital market and consequently, lowered the Government holding in them. These included: State Bank of India (December 1993 and October 1996), Oriental Bank of Commerce (October 1994), Bank of Baroda (December 1996), Bank of India (February 1997) and State Bank of Bikaner and Jaipur (November 1997).

Figures in brackets in the aforementioned sentence indicate the month and the year of divestment.

**Note :** Figures under the heads 'Government-owned PSBs' and 'Divested PSBs' are the averages of five representative banks in that year.

- During each year of the sample period ( *i.e.*, from 1995-96 to 2001-02), 100 per cent Government-owned banks had higher ratio of operating expenses to total assets in comparison with those PSBs, which have divested their equity as well as old private sector banks. While the ratio for 100 per cent Government-owned PSBs was higher than the industry level, the ratio in respect of both old private sector banks and those banks which divested their equity was lower than the industry. The sudden fall in the operating expenses to total assets of PSBs in 2001-02 [Table 6.12(A)] was on account of reduction in wage costs (of the order of Rs.1,884 crore) consequent upon the introduction of voluntary retirement scheme (VRS) in 2000-01. The operating expenses, as percentage of total assets, for divested PSBs witnessed a sharp rise in 2000-01 [Table 6.12(B)]. It, however, was due mainly to large outgo on account of VRS-related expenditure incurred by these banks. This led to a reduction in the wage bill in the subsequent year, which, in turn, led to a marked decline in the operating expenses in 2001-02. The operating expense ratio for these banks is now lower than the earlier years, reflecting clear gains from the policy of labour force restructuring adopted by these banks.

- Interest spread (net interest income to total assets) provides a mixed picture. Interest spread of 100 per cent government-owned PSBs were lower in comparison with divested PSBs during each of the seven years due to their lower efficiency of raising resources, but were generally higher than those of old private sector banks.

- Profitability (ratio of net profit to total assets), on an average, of both old private sector banks and the Government-owned banks which divested their equity was, more or less, at the same level. Profitability of both the aforementioned bank groups was higher than those of fully Government-owned PSBs. The gap narrowed down significantly from 1998-99 onwards. The sharp rise in profits across most bank groups during 2001-02 was on account of capital gains on Government securities resulting from softening of interest rates and the containment in operating expenses.

- Asset impairment (ratio of gross NPAs to gross advances) during each of the years under reference in respect of 100 per cent Government-owned banks was much higher in comparison with PSBs, which divested their equity and old private sector banks. It is, however, significant to note that the gap, which was very wide during 1995-96 to 1996-97 (at about 14 per cent in respect of those banks that divested their equity and 15-18 per cent in respect of old private sector banks) narrowed down considerably by 2001-02 (at about 4 per cent in respect of banks which divested their equity and 5 per cent in respect of old private sector banks). The gap narrows down further if one takes into account net NPAs (after adjusting for provisioning and part payments received) of these banks. It also needs to be noted that net NPAs of partially Government-owned PSBs as at end-March 2002 stood lower than those of old private sector banks.

- Capital adequacy ratio (CRAR), on an average, in fully Government-owned PSBs was lower than those PSBs which divested their equity as well as old private banks. It needs to be noted that CRAR of fully Government-owned banks which, on an average, was roughly half as compared with old private banks and PSBs with reduced Government ownership, improved significantly over the last few years.

- In terms of all the above mentioned parameters, new private sector banks outperformed all other bank groups. While there was an increase in the divergence in terms of most financial parameters, the capital adequacy and NPA position of new private sector banks witnessed a convergence towards industry averages in recent times. For 2001-02, the data relating to new private banks reflect the impact of mergers, and are, therefore, not strictly comparable with those of the earlier years.

6.37 Where do these stylised facts lead? In terms of financial parameters, old private banks performed better than partially Government-owned PSBs, which, in turn, performed better than the wholly Government-owned PSBs. However, fully Government-owned PSBs showed a significant improvement in respect of almost all parameters from 1997-98 onwards and their financial performance tended to converge with partially Government-owned PSBs and old private banks. Although fully Government-owned PSBs also exhibited significant improvement in their credit risk management, as was evident in the decline in their NPAs in the last few years, NPAs level as such remained high as compared with old private banks and the partially Government-owned PSBs. In terms of capital position (CRAR) also, fully Government-owned PSBs witnessed a significant improvement, but the levels remained consistently below the PSBs with reduced Government ownership and private sector banks.

6.38 It is also significant to note that there has been a convergence in the financial performance of the partially Government-owned PSBs with old private banks in recent years. Asset quality of divested PSBs as at end-March 2002 stood significantly higher than that of old private banks. However, capital adequacy, which was slightly higher for divested banks in 1995-96 than old private sector banks stood slightly lower as at end-March 2002.

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1 Banks within each size class in alphabetical order are: 'large' (Bank of Baroda, Bank of India, Canara Bank, Central Bank of India, Indian Overseas Bank, Punjab National Bank, State Bank of India, Syndicate Bank and Union Bank of India); 'medium' (Allahabad Bank, Andhra Bank, Bank of Maharashtra, Dena Bank, Indian Bank, State Bank of Hyderabad, State Bank of Patiala, United Bank of India and UCO Bank); and 'small' (Corporation Bank, Oriental Bank of Commerce, Punjab and Sind Bank, State Bank of Bikaner and Jaipur, State Bank of Indore, State Bank of Mysore, State Bank of Saurashtra, State Bank of Travancore and Vijaya Bank).

2 A caveat, which needs to be considered, is that the period of study is one characterised by transition, with several public sector banks being recapitalised over the sample period. As a consequence, the results would need to be interpreted with caution. A different sample period, for instance, the five years immediately following the inception of reforms might engender different results. Data limitations would, however, be a constraint in taking this into consideration.