# XI OVERALL ASSESSMENT

11.1 An efficient and sound banking system plays a vital role in promoting economic growth, intermediating financial flows, supporting the payment system and in the conduct of monetary policy. Banks are effective in dealing with information problems in lending and the incentive problems leading to moral hazard behaviour of borrowers. An efficient functioning of the banking sector results in enormous benefits in terms of more efficient allocation of resources. Banks have played an important role in the economic development of some developed countries such as Germany and Japan and most emerging market economies, including India. Apart from financing growth, the banking system is the conduit through which monetary policy impulses are transmitted to the rest of the financial system and ultimately the real economy. Banks are also the main participants in the payment and settlement systems. A secure, safe and efficient payment and settlement system is a major pre-requisite for the stability of the financial system. Banks are, thus, important from the point of view of economic growth and both price and financial stability.

11.2 An important role played by banks in economic development of emerging market economies stems from several factors such as savers' eagerness for assured income; liquidity and safety of funds because banking institutions enjoy either implicit or explicit guarantee of government; and inadequate capacity of savers to manage financial risks. Banks are special in emerging markets since they take a leading role in the development of other financial intermediaries and financial markets. Further, corporate and other segments have to increasingly depend on the banking sector to meet their financing requirements due to the absence of well developed equity and bond markets.

11.3 Over the years, the banking systems all over the world have witnessed a significant transformation underpinned by various factors such as deregulation, technological innovations and globalisation. These developments have resulted in increased competitive pressures. Banks, therefore, have been introducing innovative products, seeking newer sources of income, diversifying into non-traditional activities and economising on capital. All these developments have posed several regulatory and supervisory challenges.

11.4 The banking system in India has evolved over the years passing through various phases as discussed in the earlier chapters. Social control, nationalisation of banks, priority sector lending targets and the various initiatives taken by the Reserve Bank/ Government since the late 1960s led to a significant spread of branch network and extension of services in the rural areas. This helped spread the banking habits and large mobilisation of savings. Besides, the banking system in India also played a major role in widening the entrepreneurial base of the country. The diversification and development of the Indian economy were, *inter alia,* due to the active role that banks played in financing economic activities in different sectors. However, the health of the banking sector became fragile by the early 1990s as reflected in low profitability, large non-performing assets, low capital base and low operational efficiency. Comprehensive reforms in the banking sector were, therefore, introduced. A well calibrated and gradual approach to banking sector reforms led to the emergence of a strong and resilient banking system over the years.

11.5 The Indian banking system now faces several new challenges. Banks need to raise large resources to cater to the financing requirements of the growing economy. Banks also face the challenge of implementation of Basel II, which becomes fully operational from March 31, 2009. The changed operating environment has also necessitated the strengthening of the risk management practices. Banks also need to put in place adequate safeguards as the country progressively moves towards fuller capital account convertibility. The blurring of distinctions among banks and non-banks, emergence of financial conglomerates and introduction of several innovative financial products have also posed several regulatory and supervisory challenges. Another major challenge is to bring the hitherto financially excluded people within the banking fold. This concluding chapter summarises the main findings of the analysis contained in the previous chapters, covering both the progress made so far and the road ahead.

## Evolution of Banking in India

11.6 The beginning of commercial banking of a joint stock variety in India could be traced back to the early 18th century. Evolution of the co-operative

banking movement in India could be traced to the last decade of the 19th century. The first formal regulation for banks was the enactment of the Companies Act in 1850. The period leading up to independence was a difficult period for Indian banks. A large number of small banks sprang up with a low capital base. This period saw the two World Wars and the Great Depression of 1930s. Many banks failed during the period. Apart from global factors, several other factors were also at play. Partly to address the problem of bank failure, the Reserve Bank of India was set up in 1935.

11.7 At the time of independence, the entire banking sector was in the private sector. The banking scenario in the early independence phase raised three main concerns: (i) bank failures had raised concern regarding the soundness and stability of the banking sector; (ii) there was large concentration of resources in a few business families; and (iii) the share of agriculture in total bank credit was miniscule. The major development during this period was enactment of the Banking Regulation Act. Banks continued to fail even after independence although the number of banks that failed declined. The Banking Companies Act, 1949 was amended in the early 1960s empowering the Reserve Bank to cause compulsory amalgamation of banks. As a result, weak banks (most of which were non-scheduled) were weeded out through amalgamations/liquidations. The number of non-scheduled banks declined sharply from 474 in 1951 to 20 in 1967. The number of bank branches grew from 4,061 in 1952 to 6,985 in 1967. However, the pattern of bank branches in rural and urban areas remained broadly the same. The share of agriculture in total bank credit also remained broadly the same between 1951 and 1967. Thus, two of the three major issues at the time of independence continued to cause concern even after 20 years of independence.

11.8 The next phase of banking in India began with social control over banks in 1967, whereby 51 per cent members of the board of directors of a bank were to consist of persons who had special knowledge or practical experience in one or more of matters such as accountancy, agriculture and rural economy, banking co-operation, economics, financial and small scale industry. The social control experiment, however, did not yield the desired results. In 1969, 14 major banks were nationalised. Subsequently, six more banks were nationalised in 1980. This brought the major segment of Indian banking sector under the direct control of the Government. A massive expansion of branch network followed after nationalisation of banks in 1969. As a result, the average population per bank office declined from around 1,36,000 in 1951 to 65,000 in 1969 and further to 14,000 at end-December 1990. Most of the new branches were opened in rural areas. As a result, the share of rural branches in total branches reached around 58 per cent in December 1990 from about 18 per cent in June 1969. Apart from nationalisation of banks in 1969 and 1980, several other controls were also exercised such as priority sector lending and differential interest rates scheme. Norms relating to financing of working capital of corporates were also introduced. While persuing multiple objectives, the deposit and lending rate structure became quite complex. The CRR and SLR were also raised frequently to reach historically high levels. As a result of all these factors, banks' profitability declined, their asset quality deteriorated and their capital position became weak. Lack of adequate competition resulted in decline in efficiency and profitability. Realising the adverse impact of various measures on the performance of the banking sector, some efforts were made to liberalise the sector in the second half of the 1980s.

11.9 The main challenge in the next phase, that began in 1991-92, was to strengthen the banking sector. For this purpose, prudential norms were introduced in a phased manner. Efforts were also made to create competitive conditions by allowing entry of new private sector banks, increased presence of foreign banks and providing operational flexibility to public sector banks. In a liberalised environment, banks are faced with several risks. Efforts, therefore, were also made to strengthen the supervisory processes. At the end of the first sub-phase (up to 1997-98), profitability of the banking sector improved significantly. Capital adequacy ratio and asset quality of banks also improved. However, non-performing loans of banks were still far higher than the international standards. Although, on the whole, the capital adequacy ratio of the banking sector was above the stipulated norm, some banks could not meet the capital adequacy norms. Competition in this phase also remained muted. However, some banks developed risk aversion as a result of which credit growth slowed down significantly.

11.10 The second sub-phase began in 1998-99. In early 1998, the need was felt to strengthen prudential norms on the lines of international best practices. The East Asian crisis in the latter half of the 1990s had underlined the risk a weak banking sector could pose to the real economy. However, while strengthening the prudential norms, the need was to ensure that the problem of risk aversion did not aggravate. Appropriate institutional arrangements were, therefore, put in place to enable banks to recover their

past dues. These measures had a positive impact as banks were able to recover large funds locked up in non-performing assets. As the asset quality began to improve, banks began to expand their loan portfolio. Competition in this phase also intensified. Still, however, the profitability of the banking sector improved, which, among others, was on account of increased credit volumes, improvement in asset quality and diversification. The capital position of the banking sector also improved significantly. Thus, in this phase, financial health and soundness of banks improved significantly.

11.11 Another major challenge in this phase was to increase the flow of credit to the agriculture and the SME sectors, which had decelerated in the 1990s. Concerted efforts, therefore, were made to improve the flow of credit to agriculture and SMEs. Although the banking sector has made significant progress over the years, a large segment of the population is still seen to have inadequate access to banking and other financial services. Initiatives are, therefore, being taken to expand the outreach of the banking system to the unserved, in both the rural and urban areas.

11.12 Two major issues arose in the Indian context with regard to corporate governance practices in banks. These related to concentration of ownership and the quality of management controlling the bank. Guidelines for ownership and governance in private sector banks were issued in 2005. Appropriate measures were initiated to ensure that ownership was well-diversified and that the directors and owners of the banks adhered to the ‘fit and proper’ criteria.

11.13 Confidence in the urban co-operative banking sector in early 2000 was eroded due to a run on a multi-state co-operative bank. In order to restore the confidence in urban co-operative banks and overcome the problem of dual control, the Reserve Bank has now instituted a system for regular and systematic consultation with the State Governments. It has signed Memoranda of Understanding (MOU) with the State Governments for constituting Task Forces on Urban Co-operative Banks (TAFCUBs), which are expected to pro-actively address any issues arising in urban co-operative banks in their respective states. So far, 19 States have signed MOUs with the Reserve Bank paving the way for TAFCUBs. This has helped restore confidence in urban co-operative banks. The use of technology is also increasing significantly in this phase as reflected in computerisation of branches, increase in the number of ATMs and introduction of electronic modes of transfer of funds (real time gross settlement system and national electronic funds transfer).

### Managing Resource Mobilisation

11.14 Recognising the central role played by the banking system in supporting the growth process by stepping up the savings rate through deposit mobilisation from the household sector, the major surplus sector of the economy, the deposit growth of SCBs in the post-nationalisation period could be analysed broadly in four phases. In the first phase (1969-1984) beginning immediately after the nationalisation of banks in July 1969, deposit growth accelerated sharply as the rapid branch expansion that followed nationalisation enabled banks to tap savings from the rural areas. Reflecting large branch expansion, the population per office declined from 65,000 in 1969 to 16,000 in 1984. In the second phase (1985-1995), deposit growth decelerated as banks faced increased competition from alternative savings instruments, especially capital market instruments (shares/debentures/units of mutual funds) and non-banking financial companies. This was the phase of disintermediation as savings instead of being deployed in bank deposits, were increasingly deployed in alternative financial instruments. Deposit growth decelerated further during the third phase (1995-2005) in the wake of competition from post office deposits and other small savings instruments, which carried significantly higher tax-adjusted returns than bank deposits. Despite deceleration, bank deposits, however, maintained their share in the savings of the household sector. However, there was a significant change in both the ownership pattern and maturity pattern during this phase. The share of bank deposits held by the Government and corporate sectors increased significantly, while that of deposits held by the household sector declined significantly even as the share of bank deposits in the household sector financial savings remained broadly unchanged. The maturity profile of deposits also underwent a change as the share of time deposits in total deposits increased significantly. Within time deposits, the share of term deposits also increased. Further, within term deposits, a significant shortening of the maturity profile occurred in favour of short-term deposits. The shift in the maturity profile was largely on account of increase in the share of the Government and corporate sectors, and the concomitant decline in the share of the household sector in term deposits.

11.15 In the most recent phase (2005-2008), deposit growth accelerated significantly in response to vigorous resource mobilisation efforts by banks to meet the increased demand for credit. Deposit growth

was further facilitated by the extension of tax benefits available on post office deposits to bank deposits of more than five-year maturity. The accelerated growth of bank deposits was despite the sharp increase in resources mobilised by mutual funds and corporates through new capital issues. The growth of post office deposits and other small savings decelerated. As a result, the share of bank deposits and capital market instruments in the financial savings of the household sector increased sharply and that of claims on the Government declined significantly.

11.16 Banks have a major role to play in meeting the resource requirements of a growing economy. Although bank deposits have all along been the mainstay of the savings process in the Indian economy and banks have played an increasingly important role in stepping up the financial savings rate, physical savings, nevertheless, have tended to grow in tandem with the financial savings. A major challenge, thus, is to convert unproductive physical savings into financial savings. Also, in view of the shrinking share of the household sector deposits in total deposits, banks need to explore ways of broadening the depositors' base, especially in rural and semi-urban areas, by offering customised products and features suitable to individual risk-return requirements. Furthermore, the changing demographics and employment patterns have also provided opportunities for banks to reorient their role as financial intermediaries beyond the traditional confines of passive deposit mobilisation by providing new financial products demanded by the relatively young working population.

11.17 Banks need to continue to avoid excessive dependence on borrowings as they can expose themselves to serious risks as was observed in the case of Northern Rock bank in the UK. Finally, the substitution of funds from banks to non-bank instruments was observed in the recent past and such trends may also occur in future. This would call for greater care in the assessment and interpretation of monetary aggregates.

### Managing Capital and Risk

11.18 The importance of maintaining bank capital in line with the risks involved in the banking business has assumed greater significance in view of the need for maintaining the safety and soundness of the financial system. The Basel I framework was adopted in over 100 countries. However, over the years, several deficiencies of Basel I surfaced partly due to its inherent features and partly due to rapid financial innovations. The major limitation of Basel I was its 'one-size-fits-all' approach. The inadequacies of Basel I also became evident following the recent financial turmoil as it failed to capture off-balance sheet exposures. The Basel II framework, finalised in July 2006, attempts to align regulatory capital more closely with the inherent risks in banking by using enhanced risk measurement techniques and a more disciplined approach to risk management. In addition, Basel II has in place a variety of safeguards, which also have the benefit of reinforcing supervisors' objectives of strengthening risk management and market discipline.

11.19 In keeping with the international best practices, India also decided to implement Basel II. Foreign banks operating in India and Indian banks having operational presence outside India have already adopted the standardised approach (SA) for credit risk and the basic indicator approach (BIA) for operational risk for computing their capital requirements with effect from March 31, 2008. All other commercial banks (excluding local area banks and regional rural banks) are expected to adopt Basel II not later than March 31, 2009. The parallel runs for these banks are in progress. A significant improvement in risk management practices, asset-liability management and corporate governance in Indian banks under regulatory pressure to adopt Basel II framework has been observed.

11.20 As banks would have to maintain capital for operational risk, overall capital requirements are expected to go up, even if there is an expected decline in the capital required on account of credit risk. Since most of the banks in India are at present operating at capital adequacy ratios higher than the prescribed level, meeting the Basel II requirements is not an issue in the immediate future. In the medium to long-term, however, banks would need to raise capital resources to keep pace with the expansion of their business. An assessment made in the Report suggests that the total capital requirements in the five years 2007-08 to 2011-12, are projected to go up by about Rs.5,70,000 crore assuming that banks maintain CRAR at 12 per cent, while the total capital requirements by public sector banks are projected to go up by about Rs.3,70,000 crore. As regards the various options available to banks, more than 85 per cent of capital requirements in the past were met by banks through internally generated resources. Apart from internal resources, banks also have headroom available to raise Tier 1 capital under innovative perpetual debt instruments (IPDI) and perpetual non-cumulative preference shares (PNCPS). In addition, some public sector banks have some headroom

available to raise capital from the market and dilute the Government shareholding to 51 per cent.

11.21 While the Basel II framework, by making the capital requirements risk sensitive, would enhance the stability of the financial system, its implementation also raises several issues/challenges. India follows a three track approach with commercial banks, co-operative banks and regional rural banks having been placed at different levels of capital adequacy norms. The varying degree of stringency in capital regulation for different categories of banks raises the possibility of regulatory arbitrage. Non-Basel entities [RRBs and rural co-operatives banks such as state co-operative banks (StCBs) and district central co-operative banks (DCCBs)], therefore, need to be subjected to Basel norms. Subsequently, based on the experience of implementing Basel II framework in respect of commercial banks, a view could be taken on the application of Basel II norms for other banks. The role of credit agencies is crucial under the standardised approach for measuring credit risk. Banks would have to continuously and constantly upgrade their skills, technology and risk management practices in line with market developments. Apart from the adequate skills to be developed by the banks and by the Reserve Bank, the increased cost of adopting advanced approaches along with other incumbent risks and uncertainties require adequate safeguards to be put in place before these approaches are adopted. These, among others, could include prescribing the leverage ratio so that the capital held does not fall significantly. The problems relating to pro-cyclical lending behaviour, which is inherent in the Basel II framework, could be countered by banks by managing regulatory capital position in such a way that they remain adequately capitalised during economic downswings so that they are not required to raise capital. Supervisors could also prescribe additional capital under Pillar 2 during a phase of business cycle expansion. The implementation of Basel II norms is likely to create tensions on home-host co-ordination issues and it would be a challenge to mitigate such tensions.

### Lending and Investment Operations of Banks

11.22 Banks in India have traditionally been the main source of credit for various sectors of the economy and their lending operations have evolved in response to the changing needs of the economy. Credit extended by scheduled commercial banks witnessed three distinct phases from the early 1990s. Bank credit growth was erratic in the first phase (from 1990-91 to 1995-96). In the second phase (from 1996-97 to 2001-02), credit growth decelerated sharply and remained range-bound due to the industrial slowdown, high level of NPAs and tightening of prudential norms, which made banks risk averse. The third phase (from 2002-03 to 2006-07) was generally marked by high credit growth attributable to several factors, including pick-up in economic growth, sharp improvement in asset quality, moderation in inflation and inflation expectations, decline in real interest rates, rising income of households and increased competition with the entry of new private sector banks.

11.23 Economic reforms and the evolving economic structure had a profound impact on bank credit to the various sectors during the 1990s and the current decade. Institutional credit to agriculture has made considerable progress since the mid-1960s. Based on the All India Debt and Investment Surveys (AIDIS) by the National Sample Survey Organisation (NSSO), the share of borrowings of cultivator households from institutional sources increased from 7.3 per cent in 1951 to 66.3 per cent in 1991, but declined to 61.1 per cent in 2002. Between 1991 and 2002, borrowings by cultivator households increased sharply, especially from non-institutional sources. The increase in household indebtedness was largely on account of consumption and similar other expenditures. It is, therefore, possible that the increase in indebtedness of cultivator households to non-institutional sources was also partly on account of increase in consumption expenditures, which could not be easily financed from institutional sources. As a result, the share of non-institutional sources in the indebtedness of cultivator households increased between 1991 and 2002 even as indebtedness of cultivator households to institutional sources grew at a higher rate between 1991 and 2002 in comparison with 1981-91. Furthermore, credit growth by scheduled commercial banks to agriculture accelerated sharply after 2002 (the reference year for the latest NSSO survey). As a result, the share of credit to the agricultural sector in total credit by scheduled commercial banks and credit intensity of the agricultural sector improved significantly. However, some disquieting features have also been observed. First, the share of long-term loans in total credit to agriculture declined almost consistently between 1991 and 2006 – the share in 2006 was less than half of that in 1991. Second, the share of marginal farmers in direct finance to farmers in terms of amount disbursed and in total number of credit accounts held by them showed little perceptible improvement. Third, the share of small

borrowal accounts relating to agriculture (agricultural borrowal accounts with a credit limit up to Rs. 2 lakh) in total agricultural borrowal accounts declined in the current decade. However, this decline would partly be on account of loans moving to higher credit limit size classes on account of inflation, specifically in the case of small borrowal accounts with a credit limit size of less than Rs. 25,000.

11.24 Although the share of credit to industry in total bank credit declined, credit intensity of industry increased sharply. A cross-country survey suggests that the reliance of industry on the banking sector in India was higher than that in many other countries. Banks in India have increased exposure to the infrastructure sector in recent years. However, increased credit intensity of industry could not be explained by increased exposure to infrastructure alone. Credit growth to the SME sector, which slowed down significantly between 1996-97 and 2003-04, picked up sharply from 2004-05. However, the share of the SME sector in total non-food bank credit declined almost consistently from 15.1 per cent in 1990-91 to 6.5 per cent in 2006-07 and also in total priority sector advances from 43.6 per cent at end-March 1998 to 17.9 per cent at end-March 2006. It picked up marginally to 18.6 per cent at end-March 2007. This suggests that it is the large corporates that have increased their dependence on the banking sector. The major development that has taken place over the last decade is the diversification of credit in India towards retail credit. The share of retail credit comprising housing loans, credit to individuals, credit cards receivables and lending for consumer durables, in total bank credit increased from 6.4 per cent in 1990 to 22.3 per cent in 2007. On the whole, agriculture, large corporates and retail sector benefitted from credit expansion, while credit growth to the SME sector remained tepid until recently.

11.25 Banks' investment portfolio (other than that mandated by the minimum statutory requirement) was adjusted mainly in response to the requirement of the loan portfolio. Banks continued to remain invested in SLR securities at high levels between 1993-94 and 1997-98 when the SLR was brought down significantly. This was mainly because demand for bank credit slowed down and banks became risk averse due to impairment of their asset quality. However, banks liquidated the surplus stock of government securities during 2002-03 to 2006-07, when credit demand picked up and their asset quality improved. Non-SLR investments by banks were adjusted quickly in response to their requirement of SLR portfolio and credit demand.

11.26 Notwithstanding some pick-up in credit growth to the agriculture and SME sectors in recent years, there is need for more concerted efforts to increase the flow of credit to these sectors given their significance to the economy. Creating enabling conditions, *i.e.,* providing irrigation facilities, rural roads and other infrastructure in rural areas, is necessary to augment the credit absorptive capacity. In India, devising products to suit the specific needs of the farmers is critical. There is also a need for comprehensive public policy on risk management in agriculture. Computerisation of land records can go a long way in smoothening the flow of credit to agriculture.

11.27 Banking institutions need to improve their credit assessment capabilities to improve the flow of credit to SMEs. It is necessary to scientifically assess the small-scale enterprises and 'not to equate SSI with high risk' merely on perception. Use of cluster based lending has proved quite effective in many countries as also in India as revealed by a number of empirical studies. The need is to encourage the growth of such clusters. Small business credit scoring has proved its utility in many economies for expanding SMEs' access to formal credit. As credit information companies develop in India, better and more systematic credit information on SMEs should become available. Asset-based lending is very successful in the US and some other developed economies. Banks in India could also adopt this method for informationally-opaque SMEs.

11.28 In view of the increased exposure of banks to infrastructure, banks need to guard against asset-liability mismatches. There is a need to consider transferring of risk from the balance sheet of the banks to other players in the financial system. The industrial sector continues to rely heavily on the banking sector in contrast to many developed and emerging economies, where the reliance of industry on the banking sector has declined. Therefore, industry needs to gradually reduce its dependence on the banking sector to enable it to meet the growing requirements of agriculture, infrastructure and the SME sector, which are unable to tap funds from other sources.

### Financial Inclusion

11.29 Financial inclusion is widely recognised as a crucial element in ensuring equitable growth. Although there is extensive literature on the subject, there is no universally accepted definition of financial inclusion/exclusion. This has also hindered the measurement of financial inclusion/exclusion. In the Indian context, financial inclusion has been described

as the provision of affordable financial services, *viz.*, access to payments and remittance facilities, savings, loans and insurance services by the formal financial system to those who are excluded. Following a multi-pronged approach, several policy initiatives have been undertaken to promote financial inclusion in India from time to time, although the term 'financial inclusion' was not in vogue until 2005. An assessment of the progress in financial inclusion, however, is hampered by the lack of relevant data/information. Accordingly, an attempt has been made in this report on the basis of some proxy indicators and data/information available from various sources including NSSO surveys on household indebtedness and data from banks and other financial institutions. Various data sets/sources suggest different extent of financial inclusion due to methodological/definitional differences. There is, therefore, need to exercise utmost caution while drawing any firm conclusion about the extent of financial inclusion/exclusion based on any single source.

11.30 The available information suggests that financial inclusion improved considerably from the late 1960s to the early 1990s as reflected in the expansion of formal financial services. This trend continued in the 1990s. However, according to the 59th round of the All India Debt and Investment Survey of the NSSO, the share of number of households accessing credit from non-institutional sources increased sharply in 2002 in comparison with 1991 (the reference year of last survey). This increase was mainly due to increased indebtedness of households for consumption and similar other purposes for which finance could not be easily availed of from formal sources. As a result, household indebtedness to non-institutional sources increased between 1991 and 2002 even as institutional credit to households between 1991 and 2002 expanded broadly at the same rate as between 1981 and 1991. Within institutional sources, bank credit grew at a marginally lower rate between 1991 and 2002 compared with that between 1981 and 1991, which needs to be viewed in the context of banks' increased focus in the 1990s on the strengthening of their balance sheets on account of application/tightening of prudential norms. Marginal deceleration in household indebtedness to banks between 1991 and 2002 was in line with the deceleration in overall bank credit.

11.31 Once the financial health of banks improved, they began to expand their credit portfolio again. The Reserve Bank and the Government also initiated several measures to bring more and more people within the banking fold. An analysis of Basic Statistical Returns data beyond 2002 reveals that credit penetration (credit accounts per 100 persons) and credit flow to the rural and agriculture sector improved significantly between 2002 and 2007, that is, after the release of the NSSO data. Responding to the initiatives taken in recent years, the number of credit accounts with all organised financial institutions (commercial banks, regional rural banks, urban co-operative banks, PACS, MFIs and SHGs) per 100 adults improved from 18 in 2002 to 25 in 2007. The data also suggest a significant strengthening of the micro-finance movement. Apart from credit penetration, significant improvement is also observed in deposit penetration. The number of savings accounts in all formal institutions increased to 54 per 100 persons (82 per 100 adults) in 2007 from 51 per 100 persons (80 per 100 adults) in 1993. Around 22 per cent people in the country who are below the poverty line have little or no capacity to save. After excluding the people below the poverty line, there are a little over 100 savings accounts per 100 adults.

11.32 While there has been significant improvement in financial inclusion in recent years, going forward, several challenges remain which need to be addressed. First of all, a proper assessment of the problem of financial exclusion is necessary for initiating appropriate policy responses for promoting financial inclusion. At present, however, there is no single comprehensive source of such information. There is, therefore, a need to conduct specific survey for gathering information relating to financial inclusion/exclusion. Alternatively, the scope of the decadal census could be expanded to include information on financial inclusion/exclusion.

11.33 One of the major hindrances to financial inclusion is high operating cost as institutions have to reach out to far flung areas and deal in small transactions. The key to enhanced financial inclusion is, thus, reduction in transaction costs. Here, technology can play a major role. From the perspective of institutional development, RRBs and co-operative banks, which were established to expand the outreach of financial services in the unbanked sectors/segments, are expected to play a greater role in promoting financial inclusion in future. However, all these institutions and banks would need to design appropriate products tailor made to suit the requirements of the people with low income so that they are not driven to non-institutional sources. Financial literacy and credit counselling, by educating the poor people, can also go a long way in creating

the right conditions for financial inclusion. There is also the need to improve the absorptive capacity of financial services by providing basic infrastructure. Investment in human development such as health, water, sanitation and education, would, in particular, be helpful. In future, faster growth in income and increase in non-farm based activities in rural areas would lead to increase in demand for credit. Banks, therefore, would have to mobilise increasingly larger resources to meet the growing credit demand. Simultaneously, banks would also need to enhance the risk assessment and risk management capacities in order to maintain credit quality and sustain the credit growth.

### Competition and Consolidation

11.34 Mergers and acquisitions across the globe have taken place at an accelerated pace since the beginning of the 1990s, driven mainly by competitive pressures. As a result, the total number of banks operating all over the world have declined. Cross-country evidence shows that the consolidation process has been an outcome of market forces in some countries, while in some other cases, it was mainly led by the Government. There has been a significant increase in the number of bank amalgamations in India in the post-reform period. While amalgamations of banks in the pre-1999 period were primarily triggered by the weak financials of the banks being merged, in the post-1999 period, mergers occurred between healthy banks, driven by the business and commercial considerations.

11.35 Despite a number of bank mergers and acquisitions, the Indian banking system has become less concentrated during the post-reform period. In fact, the degree of concentration in the Indian banking system, based on concentration ratio and Hirschman-Herfindhal Index, was one of the lowest among the select countries studied for the year 2006. The level of competition declined somewhat in the initial years of reforms, but improved significantly thereafter. Based on the empirical evidence, Indian banking industry could be characterised as a monopolistic competitive structure, as is the case with most other advanced countries and EMEs. An empirical analysis also suggests that mergers and amalgamations had a positive impact on efficiency both in terms of increase in return on assets and reduction in cost, when the transferees were public sector banks.

11.36 A number of critical issues have emerged in the process of bank consolidation in India. These relate to the nature and extent of further consolidation; continued government ownership of public sector banks; further opening of the banking sector to foreign banks; and combining of banking and commerce. The consolidation process in the banking sector that is already underway could accelerate in future in view of several developments such as the planned review of the roadmap of foreign banks and implementation of Basel II. In the medium to long-term, the ownership pattern of public sector banks may also change. While some consolidation of the banking sector may be necessary, it would be appropriate to have a policy in place to ensure that the competition is not undermined any time in the future.

11.37 The issue of ownership in public sector banks needs to be viewed against the changed operating environment. The ownership of public sector banks is not an issue from the efficiency viewpoint as public sector banks in India now appear to be as efficient as new private and foreign banks, as revealed by the various measures. However, the operating environment for banks has been changing rapidly and banks need flexibility to respond to the evolving situation. Another issue that needs to be considered is the funding of capital requirements of public sector banks given the present floor of 51 per cent on Government equity in public sector banks. In the medium-term, this can become an issue hampering the growth of public sector banks, if the Government is not able to provide adequate capital for their expansion.

11.38 The roadmap of foreign banks is due for review in 2009. This would involve several issues. The increased presence of foreign banks, by intensifying competition, may accelerate the consolidation process that is underway. However, at the same time, this may also raise the risk of concentration if mergers/ amalgamations involve large banks. The experience of some other countries also suggests that the emergence of large banks due to consolidation has resulted in reduced lending to small enterprises significantly. All these issues would need to be carefully weighed at the time of review.

11.39 The policy relating to ownership of banks by commercial interests may have to take full account of international practices, given the issues relating to potential conflict of interests, increased potential of contagion effects and increased concentration.

### Efficiency, Productivity and Soundness of the Banking Sector in India

11.40 The efficiency and productivity of SCBs in India was analysed empirically, using both accounting

and economic measures. The accounting measures reveal that there has been an all-round improvement in the productivity/efficiency of the SCBs in the post-reform period. At the time of initiation of financial sector reforms, most of the efficiency ratios did not compare well with the most advanced countries and emerging market economies. The performance of banks, especially nationalised banks, worsened in the initial years of reforms as they took time to adjust to the new environment. However, a distinct improvement was discernable, especially beginning 2001-02. The efficiency/productivity parameters have moved closer to the global levels. The most significant improvement has occurred in the performance of public sector banks. The performance of public sector banks in terms of most of the parameters has converged with those of the foreign banks and new private sector banks.

11.41 Intermediation cost as also the net interest margin declined across bank groups. Despite this, however, profitability of the banking sector improved. Thus, it was not the higher interest rate spreads but the increased business volumes and improvement in efficiency that led to higher profitability. While competitive pressures led banks to finely price their products, increased volumes resulting from robust economic growth and large trading profits from treasury operations during 2002-03 to 2004-05 also enabled banks to sustain their profitability. Business per employee and per branch also increased significantly across bank groups. As a result of all these factors, return on assets and return on equity improved during the post-reform period.

11.42 The improvement of various accounting measures, however, varied across bank groups. In terms of cost ratios (operating cost to income), foreign banks were more efficient than domestic banks. Similarly, in terms of labour productivity, foreign and new private banks were ahead of their peer groups. Labour productivity reflected by business per employee in public sector banks was about one-half of that of industry's best performers, *viz.*, foreign banks and new private banks. The reason for this was the transaction size, which is significantly larger in the case of foreign and new private sector banks as they deal largely with premium corporates and high net worth individuals. In terms of net interest margins and intermediation cost, new private sector banks and public sector banks, respectively, were more efficient than the other bank groups. The cost of deposits of foreign banks was the lowest. However, this was not passed on to the borrowers, leading to higher net interest spread. An empirical exercise suggested that the operating cost was the main factor affecting the net interest margin. Non-interest income and asset quality were the other determinants of net interest margin.

11.43 Efficiency and productivity, measured by using non-parametric Data Envelopment Analysis (DEA) method, corroborated the findings of the accounting measures or financial ratios. Efficiency improved across all bank groups and most of these efficiency gains emanated a few years after the reforms, *i.e.*, from 1997-98 onwards. Technological innovations along with increased efficiency levels led to across the board rise in productivity of bank groups. While most of the domestic banks, including public sector and new private sector banks were able to catch up with enhanced output potential, some banks lagged in keeping pace with the technological innovations. The empirical analysis suggests that in the Indian context, there is no relationship between ownership and efficiency as most efficient banks relate to all the three segments, *i.e.,* public, private and foreign. In fact, the 28 least efficient banks belonged to the private and foreign bank segments. On the other hand, there exists a positive and significant relationship between size and efficiency as also between diversification and efficiency. This implies that large and diversified banks are more efficient. Various factors contributed to improved efficiency and productivity. These included technological advances, reduction in statutory pre-emptions, reduction in non-performing assets, shortening of maturity profile of deposits and lengthening of asset profile.

11.44 The soundness of the Indian banking sector improved both at the aggregate level and across bank groups as was reflected in the CRAR. Providing evidence for both bad luck and bad management hypotheses, the analysis reveals that macroeconomic factors as well as quality of management affect asset quality of banks.

11.45 Notwithstanding significant improvement, there are several areas which need to be addressed. The intermediation cost in India, driven largely by the high operating costs, is still high by global standards. There is, therefore, a need to bring down the operating cost. As competition intensifies, net interest margins of banks are likely to come under further pressure in the future. Banks, therefore, need to seek new non-interest sources of income to sustain their profitability. Although the cost of funds for foreign banks is significantly lower, the benefit of low cost of funds

was not passed on to the borrowers, as was reflected in the high net interest margin. Although overall efficiency and productivity improved, there was evidence to suggest that resources were not being utilised in the most efficient manner. In the case of public sector banks, one area of concern is the low business per employee, which is almost one half of that of new private sector banks. Public sector banks, therefore, have to strive further to improve labour productivity and bring it on par with the new private sector banks. Similarly, there is a need for increased absorption of enhanced technological capability (innovation) by several banks to further augment productivity of the banking sector through changes in processes and improvement in human resource skills. The challenge in future for the banking sector in India is to bring down the intermediation cost and at the same time maintain high profitability. This can be achieved only by improving efficiency and tapping non-interest sources of income.

### Regulatory and Supervisory Challenges in Banking

11.46 The financial landscape in the last few years has changed significantly which has posed new challenges for the regulators. The banking supervisors across the globe are facing the challenge of devising appropriate regulatory and supervisory structures for a financial industry that is constantly changing. Therefore, there has been re-thinking on several aspects of regulation and supervision. In some countries such as the UK, supervision has been hived off from the central bank to avoid conflict of interest with monetary policy. In response to blurring of distinctions among providers of financial services and emergence of financial conglomerates, a single regulator approach has been adopted in some countries. Some other countries (for instance, Australia) have adopted objective-based regulation. Increased emphasis is being placed on market discipline to economise on scarce supervisory resources. Greater attention is also being paid to disclosures, to allow markets and counterparties to better control excessive risk-taking by acting as disciplinary agents. Supervisors are also trying to assess all aspects of a financial firm's business and foresee the multiple sources of risk rather than merely ensuring compliance with regulatory parameters. The fast evolving financial sector and the ever expanding rule books of the regulatory bodies have made some countries such as the UK adopt principle-based supervision.

11.47 The recent events in global financial markets in the aftermath of the US sub-prime crisis have evoked re-thinking on several regulatory and supervisory aspects of the banking industry. First, an unresolved issue is how to cope with liquidity stresses under unusual circumstances. Second, it is also being debated whether 'pro-cyclicality' of capital requirements is one of the factors with inherent tendency that escalates the impact of booms and busts. Third, regulation of complex products and monitoring of derivatives is another issue. Fourth, the role of non-banks in the financial system is also being examined from a regulatory perspective. Fifth, it is being debated whether institutions should be allowed to become so big and so complex that their problems could have system-wide repercussions. The Reserve Bank has been keenly observing the latest trends in banking supervision across the globe with a view to judging their relevance for India.

11.48 The Reserve Bank, like other bank supervisors, has been proactively responding to the various changes in the financial system by bringing about necessary changes in the regulatory and supervisory framework. There has been a shift in the regulatory focus from micro regulation to macro management based on prudential elements, with a view to strengthening the banking sector and providing it with greater operational flexibility. Mechanisms have also been put in place to meet challenges arising out of globalisation and liberalisation, financial innovations and technological advancements, and growing financial conglomeration.

11.49 A major challenge in the years ahead would be to ensure that financial conglomerates are regulated adequately. The existing monitoring mechanism for financial conglomerates has some limitations, although an attempt is being made to take a group-wide perspective through inter-regulatory discussions and co-operation.The growing use of e-finance products poses certain risks for banks, which would require appropriate safeguards.

### Some Final Reflections

11.50 The Report has attempted to analyse the various aspects of Indian banking such as management of resource mobilisation; management of risk and capital, lending and investment operations of banks; financial inclusion; consolidation and competition; efficiency, productivity and soundness; and regulatory and supervisory challenges. This analysis was attempted against the backdrop of the evolution of the Indian banking sector beginning the

18th century with a focus on the post-independence period. The analysis suggests that the Indian banking sector has witnessed several structural changes from time to time. India now has a well developed banking infrastructure, conducive regulatory environment and sound supervisory system. Banks have become efficient and sound which make them comparable to the best in the world. Banks in India have benefitted from the robust growth in the last few years, which enabled them to produce strong financial performance. Banks responded to the increased competition by diversifying and expanding through inorganic (acquisitions) and organic growth of existing businesses. While some of the changes were triggered by endogenous factors, others were on account of exogenous factors or were part of global developments. Technological development was perhaps the single most important exogenous factor that affected the banking sector. On the other hand, endogenous changes were in the form of mergers and acquisitions, blurring of distinctions among providers of financial services and the emergence of financial conglomerates. While banks have been able to cope with the changed environment, the fast evolving financial landscape would continue to pose several challenges in future.

11.51 The end result of the rapidly changing financial landscape would be increased competition, both within the banking industry and with non-banks. A higher degree of competition may put pressure on margins, which in turn, would impinge on profitability of banks. Banks, therefore, need to restructure on the cost side. High operating cost and diversification of activities would be some of the aspects, which banks need to focus on in the years ahead to remain competitive and profitable. Banks also need to combine their inputs in a better way to increase productivity and efficiency. The increase in the technology intensity is crucial in order to reduce the operating cost and achieve higher productivity. Some critical factors, however, need to be addressed while dealing with IT, including appropriate security and integrity of the system, disaster recovery management and business continuity plans. Integrity of the data processed and stored in IT systems need to be ensured by the banks at all times and adequate back up, including real time replication, is required to be put in place. The broad outlines have already been provided in the “Financial Sector Technology Vision Document (2008-10)”. Though Indian banks have done exceedingly well in terms of containment of NPLs, maintaining asset quality would continue to pose a constant challenge for banks.

11.52 Banks are expected to face increased competition from the capital market. Changes in demographics that are underway would alter customers’ financial needs which would have implications for the products and the delivery channels. The dependency ratio in India is likely to decline in the next few years. With greater financial wealth and higher proportion of young popoulation, households will tend to shift their preference towards riskier assets and consequently there will be a shift away from holding of bank deposits to other high risk, high return products. Thus, in future, the disintermediation process may gain further momentum, whereby the borrowers will bypass banks and obtain finance directly from the capital markets. The challenge for the banking industry would be to provide competitive products and services and if they fail to do so, they will lose market share to other segments. The overall deposit mobilisation may not be affected as money would ultimately come back to the banking system from corporates/capital market intermediaries in the form of current/savings deposits as was observed in the recent past. This may also reduce the cost of borrowings as such deposits are less risk-sensitive and less expensive. However, banks would lose a stable source of funding and would expose themselves to a serious asset-liability mismatch, unless the asset side is also restructured.

11.53 The use of technology based services such as ATM, internet and mobile phone is likely to gain more prominence. This is also expected to intensify competition. Competition does not necessarily require the physical presence of banks but simply that they are able to handle the entire market freely. As banks grow in size and operate in multiple markets, they would have access to non-deposit liabilities. If the recent experience of Northern Rock is any guide, banks need to avoid excessive dependence on non-deposit liabilities. In case banks are forced to resort to such liabilities, it should be within the prudent limits and appropriate measures also need to be taken to manage the risk arising out of such borrowings.

11.54 The process of mergers and acquisitions in the Indian banking sector, which has gained momentum since 1999, is expected to accelerate further. It is important that mergers and acquisitions in the banking sector in future are market-led and based on commercial considerations, rather than prompted by the Government or the regulator, except perhaps where there is a systemic crisis (Reddy, 2004). Though consolidation in the public sector banking segment, which accounts for a major share

of total assets of the banking system, is still a work-in-progress, there are enabling legal provisions for the purpose in the respective statutes of public sector banks. The process of consolidation may also acquire cross-border dimension in future.

11.55 The recent trends also suggest that technological developments and financial innovations would increase the overall complexity and the risks to which the banking sector could be exposed in future. The focus, therefore, as in recent years, should continue to be on strengthening the safety and soundness of the banking sector so that the benefits of increased competition and greater efficiency can be fully realised. In other words, changes to improve competition and efficiency in the banking sector would need to be balanced by the enhanced safety and soundness of the system. It is the banks themselves, rather than the regulator or supervisor, that are mainly responsible for their performance as well as financial health. In view of growing complexity, risk measurement and risk management at the institutional level and governance practices in banks need to be on the top of the agenda. The major challenge would be to exploit the opportunities that would emerge, while managing the risks.

11.56 The Reserve Bank has always endeavoured to align regulation and supervision of banks in India with the global best practices, while tailoring them to meet country-specific requirements through a consultative process. This has worked well and needs to be pursued in future. However, going forward, the Reserve Bank would have to address some complex issues such as regulating the financial conglomerates adequately. The home-host issues arising from cross-border presence of international banks will also have to be addressed.

11.57 The recent global financial turmoil has revealed that in times of heightened stress, liquidity shortages may spill over to funding shortages, affecting the solvency of banks and financial institutions. Globally, central banks have addressed both these shortages through various initiatives. In the wake of turmoil in global financial markets, the supervisors are facing several issues such as strengthening prudential oversight, liquidity and risk management, enhancing transparency and valuation, changing the role and uses of credit ratings, strengthening the authorities' responsiveness to risk and implementing robust arrangements for dealing with stress in the financial system. Recent financial market developments also raise several issues and concerns. First, according to the IMF's assessment, experience from the past episodes may not provide much guidance for the current unprecedented situation as the twin engines of the financial system, *viz.*, the banking system and the securities market, are both faltering at the same time. Second, while the practice of increased use of innovative credit instruments and complex layering of risk diffusion have reduced information costs, they have also enabled the investor or risk taker to become progressively remote from the ultimate borrowers where the actual risks reside. In this situation, the identification and location of risks in the whole chain is becoming increasingly challenging. Third, the role of rating agencies has also come under scrutiny. Fourth, confidence is also falling in the strength of the insurers that guarantee payments on bonds. Fifth, the increased complexity of financial products and markets poses greater challenges to the regulators and supervisors to keep pace with the evolving risks to markets and institutions. Sixth, an important lesson emerging from the recent financial market developments is that the focus should not be on how the turmoil should be managed, but on what policies could be put in place to strengthen the financial system on a longer-term basis regardless of specific sources of disturbances. These issues point towards the challenges that lie ahead to preserve the safety and soundness of the financial system.

11.58 The banking and financial policies in the near term would need to place greater emphasis on strengthening the banking sector further without stifling the initiative for innovation. The continuous refinement and strengthening of the regulatory and supervisory framework in accordance with the evolving conditions would be imperative. Besides further strengthening of all categories of banks, improved credit delivery, conducive credit culture, customer service and financial inclusion would need to be placed prominently in the future policy agenda for the Indian banking sector.