Chapter I

Perspectives on the Indian Banking Sector

Headwinds from international and domestic economic developments posed challenges to the banking sector during the year 2011-12. While banks maintained their profitability, their asset quality was impaired. As things stand, several initiatives are under way to strengthen the regulatory and accounting frameworks aimed at increasing the resilience of the institutions. However, higher capital standards, stricter liquidity and leverage ratios and a more cautious approach to risk is likely to raise the funding costs of banks. Compliance with Basel III stipulations along with the credit needs of a growing economy will require banks to tap various avenues to raise capital. Broad estimates suggest that for public sector banks, the incremental equity requirement due to implementation of Basel III norms by March 2018 is expected to be approximately `750-800 billion. Meeting these capital requirements will entail the use of innovative and attractive market based funding channels by the banks. The convergence with the International Financial Reporting Standards (IFRS) may also place additional demands on the banks' technical as well as human resources. Considering the granularity of data required for effective supervisory review, efforts should be to automate data flow from reporting entities through the adoption of straight-through processing systems. With regard to financial inclusion, quantitative coverage has improved, but meaningful financial inclusion through the evolution of sustainable business and delivery models needs to be achieved. Notwithstanding the multitude of challenges, the regulatory responses and the inherent strengths underlying the Indian economy should ensure that the banking system continues to play a positive role in supporting the financing needs of our growing economy.

1. Introduction

1.1 The global economy showed deeper signs of stress during the past year. With the deteriorating macroeconomic situation in the euro area interacting with a loss of growth momentum in the US and in emerging and developing economies (EDEs), the risks of potentially large negative spillovers have increased. Domestically, the macroeconomic situation continues to raise concerns. Even as growth has slowed significantly, inflation remains well beyond the comfort level of the Reserve Bank.

1.2 The headwinds from domestic and international economic developments posed challenges to the banking sector during the year 2011-12. Though asset impairment increased, the resilience of the Indian banking sector was manifested in an improvement in the capital base and maintenance of profitability. A series of stress tests conducted by the Reserve Bank in respect of credit, liquidity and interest rate risks showed that banks remained reasonably resilient. However, under extreme shocks, some banks could face moderate liquidity problems and their profitability could be affected.

1.3 While global banking developments are covered in Chapter II, some perspectives on the factors that are likely to shape the banking *milieu* in the period ahead and the challenges facing the banks are outlined here.

2. Forces Shaping the Environment

1.4 The multi-pronged regulatory initiatives undertaken in the area of prudential and capital requirements of banks along with a move towards greater convergence in banking regulation globally are likely to have a major impact on the functioning of banks in the period ahead.

Move towards greater global convergence in the banking regulation

1.5 The recent financial crisis has redefined the broad contours of regulation of the banking sector globally. The need for convergence in banking regulation stems from the fact that while banking has become global, banking regulation is national. Therefore, addressing the issue of regulatory arbitrage is at the centre-stage of policy concern. The international standard-setting bodies have been attempting to achieve convergence by issuing broad principles that should shape national regulatory frameworks.

1.6 In the post-crisis period, the Financial Stability Board (FSB) has emerged as the most important international body to address the vulnerabilities in the global financial system and to guide the development and implementation of strong regulatory, supervisory and other policies in the interest of financial stability. Besides implementation of Basel III capital requirements, the FSB is addressing the issue of Systemically Important Financial Institutions (SIFIs), which involves determination of global SIFIs and their loss absorbency; resolution tools and regimes for them; and supervisory intensity and effectiveness for such SIFIs with the aim of reducing both the probability and impact of the failure of a SIFI.

1.7 The broader endeavour of global convergence in the banking regulation will, however, have to account for country-specific circumstances to enable customised adoption of guidance of international standard-setting bodies as already recognised in many cases by the Basel Committee on Banking Supervision (BCBS). To the extent that the systemically important jurisdictions harmonise and converge to agreed international best practices, there are positive externalities from India's stand-point. In particular, the BCBS guidance on the conduct of the countercyclical capital buffer for India may require some changes, as the recommended metric of credit-to-GDP ratio could potentially impact the structural drivers underlying credit growth in India. Thus, there may be a need for some adjustments to capital buffer guidance. The issue is being examined by an internal group in the Reserve Bank.

International capital standards for effective risk management

1.8 In response to the need to implement Basel III to strengthen the resilience of the Indian banking sector, the Reserve Bank has announced the final guidelines on Basel III capital regulations. These would be effective from January 1, 2013 in a phased manner with the Basel III capital ratios to be fully implemented by end-March 2018. Regarding the implementation of Basel III, one issue had been why an emerging economy like India, should adopt onerous regulation such as Basel III norms which could, potentially, have a negative impact on output growth. The rationale for adopting these standards is two-fold. One, India cannot remain non-compliant with international standards, especially when Indian banks are venturing abroad and the markets are opened up for international participants. Two, even while the financial system is much simpler and does not have many of the features that led to the crisis, the country is vulnerable to contagion from the global economy and the higher defences built under Basel III will provide the financial system with the much-needed resilience.

1.9 The objectives of Basel III are to improve the banking sector's ability to absorb shocks arising from financial and economic stress, thus reducing the risk of spillover from the financial sector to the real economy. Towards this end, Basel III has some micro-prudential elements along with a macro-prudential overlay that will take care of issues relating to systemic risk.

1.10 Basel III guidelines stipulate a stringent definition of regulatory capital and higher requirement of common equity than Basel II.

Under Basel III, common equity capital will be the predominant form of regulatory capital and innovative features such as step-up or other incentives to redeem in non-equity capital instruments are no longer acceptable. In addition, Basel III has introduced two new liquidity standards, *viz*., Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR) to improve the resilience of banks to liquidity shocks.

Need to further leverage technology in the banking sector

1.11 Banks have adopted core banking solutions (CBS) that effectively address the transactional requirements of the banks. With the implementation of CBS, the banking system is now seamlessly integrated. With the basic technology adoption being complete in banks, there is, therefore, a need to move from a transaction processing system to an information processing system. In its IT Vision Document 2011-17, the Reserve Bank of India has highlighted the need for banks to move forward and leverage IT in areas like Management Information Systems (MIS), overall risk management, financial inclusion, customer relationship management (CRM) and enhancing automated data flow within the banks and to the Reserve Bank without manual intervention. Banks need to augment their innovation capabilities in terms of new products, services and strategies which would enable them to maximise their efficiency gains (Box I.1).

1.12 With the computerisation and adoption of CBS in banks almost reaching the final stage of completion, the focus has now shifted to adoption of more advanced technologies in banking which would enhance their CRM by using appropriate tools, improving internal effectiveness including MIS and managing risks arising out of IT implementation.

3. Operational and Strategic Responses

1.13 The strategic and operational responses during the year pertained to policy initiatives with regard to enhancing co-ordination among regulators and positioning of banks to meet the needs of inclusive growth, besides a review of the regulatory framework for the micro-finance sector.

Steps initiated towards improved cross-border supervision and co-operation

1.14 The recent financial crisis has necessitated a re-examination of the tools used by supervisors to oversee financial institutions, particularly systemically important institutions with cross-border operations. One major flaw in this regard has been the ineffective supervisory co-operation among national bank supervisors. As a result, need has been felt for the use of supervisory colleges to supervise global financial institutions, in particular, the systemically important financial institutions. The overarching objective of a supervisory college is to help its members develop a better understanding of the risk profile of the banking group. Moreover, information exchange and co-operation between supervisors can help strengthen the supervision of the individual components of a banking group. Colleges can also complement wider peer review processes by promoting a coherent approach across different jurisdictions to the consistent and effective implementation of macro- and micro-prudential policy tools.

1.15 The growing global activities of some large Indian banks have necessitated putting in place a formal mechanism of supervisory co-operation and information exchange with host supervisors for effective cross-border consolidated supervision. In India, at present no supervisory colleges have been set up. However, the Reserve Bank has been attending the supervisory colleges of some of the major foreign banks operating in India. The High-Level Steering Committee on the Review of Supervisory Processes for Commercial Banks (Chairman: Dr. K.C. Chakrabarty) has recommended setting up supervisory colleges for large globally active Indian banks with a significant (around 15 per cent) share of assets from foreign operations as a percentage of total assets. Accordingly as an initial step, supervisory colleges of SBI and ICICI Bank are being planned.

Box I.1 :
Technological Innovations and Efficiency Gains in the Banking Sector

With the advent of the process of liberalisation in the early 'nineties, the demands on banks' resources and capabilities increased as banks had to match the challenges of being financial service providers in a globalised, competitive environment. This posed a dual challenge for the banking industry. The first challenge was to manage the growing needs of their existing customer segments and business locations for better and more efficient services, and the second was, how to expand the reach of their services and business beyond the traditional services and locations, which had large socio-economic implications because large parts of the population did not have access to even basic banking services. At this juncture, banks in India were looking at huge potential in business growth as well as several constraints, such as inadequacy of infrastructure and human resources, geographical, topographical and distance limitations, communication inefficiencies, cost implications and delivery, as well as the processing capability to manage more business information and larger accounts.

Increased use of information technology emerged as the key to meeting these challenges. Several measures were mooted at the level of the Government, the Reserve Bank and industry, which provided an impetus to adoption of technology in the banking sector. CBS implementation has made customer account maintenance seamless and enhanced data storage and retrieval capabilities tremendously. It has also enhanced the banks' capacity to develop and market new products, as technology has increased information availability and the capacity for analysis and communication manifold. Such capabilities and efficiencies are poised to rise further with the advent and adoption of evolving technologies like cloud computing and virtualisation, which have the potential to significantly bring down financial and management costs.

Economic theory supported by empirical evidence suggests that, in general, increases in technology investment will raise productivity, lower costs, and allow firms to operate more efficiently. Information technologies and the innovations they enable are strategic tools, since they reduce the costs of financial transactions, improve the allocation of financial resources and increase the competitiveness and efficiency of financial institutions. Technological innovation not only enables a broader reach for consumer banking and financial services, but also enhances its capacity for continued and inclusive growth (Subbarao, 2009).

Globally, the effect of IT on the banking industry has been positive. In general, studies have concluded two positive effects regarding the relation between IT and banks' performance. First, IT can reduce banks' operational costs (the cost advantage). Second, IT can facilitate transactions among customers within the same network (the network effect). Eyadat and Kozak (2005) examined the impact of the progress in IT on the profit and cost efficiencies of the US banking sector during the period 1992-2003. The research showed a positive correlation between the level of implemented IT and both profitability and cost savings. Berger (2003) also showed improvements in bank performance and consolidation of the banking industry in the US during the deployment of new technologies.

In the Indian context, technological innovation and investment in IT during the period 2005-06 to 2009-10 led to efficiency gains for the scheduled commercial banks (Rajput and Gupta, 2011). Technology is encompassing the entire set of business processes in the banking industry and technological innovations are enabling banks to cope with burgeoning customer requirements, social and developmental expectations, strategic and competitive business needs, internal control and risk management needs, governance and regulatory reporting requirements.

However, going forward, banks need to innovate appropriately in terms of products, services and strategies and will also need to align their IT and business perspectives to fully leverage the benefits of technology. Predictive analytics can bring in competitive advantage in banking and help banks move from product-centric to customer-centric operations.

References :

Rajput, N. and Gupta, M. (2011), 'Impact of IT on Indian Commercial Banking Industry: DEA Analysis', *Global Journal of Enterprise Information System*, Volume 3 Issue I.

Subbarao D. (2009), 'Information Technology and Banking – A Continuing Agenda' Keynote Address delivered at the Institute for Development & Research in Banking Technology, Hyderabad.

Eyadat M. and Kozak, S. (2005), 'The Role of Information Technology in the Profit and Cost Efficiency Improvements of the Banking Sector', *Journal of Academy of Business and Economics*.

Berger, A.N. (2003), 'The Economic Effects of Technological Progress: Evidence from the Banking Industry', *Journal of Money, Credit and Banking*, Volume 35.

1.16 In this context, Reserve Bank has initiated the process of setting up of a cross-border supervision and supervisory co-operation mechanism, which allows for signing Memorandum of Understanding (MoU) with overseas regulators on supervisory co-operation and exchange of information with them (Box I.2).

Strategic role for banks in ensuring inclusive growth

1.17 Banks play a dominant role in India's financial system and are, therefore, expected to play a key role in furthering the agenda of financial inclusion with a view to achieving inclusive growth and development. Accordingly, a bank-led model

Box I.2 :
Bilateral Memorandum of Understanding (MoU) with Reserve Bank's Overseas Counterparts for Improved Cross-Border Supervision and Co-operation

Genesis

The concept of supervisory co-operation on cross-border supervision dates back to the report released by the Committee on Banking Regulations and Supervisory Practices in 1975. However, the seminal idea of having a form of MoU first found mention in the report titled "The Supervision of Cross-Border Banking" (October, 1996) by a working group which comprised members of the BCBS. The Group recommended that the understandings between the supervisors might take the form of bilateral MoUs or exchange of letters which may formulate what each party expects from the relationship. Taking forward the concept, the BCBS released a document titled "Essential Elements of a Statement of Co-operation Between Banking Supervisors" in May 2001, listing key elements that could form part of a statement of co-operation or MoU between "Home" and "Host" country supervisors.

Need for MoU - Indian Scenario

Until recently, cross-border supervision of the overseas operations of Indian banks has been carried out through a combination of need-based on-site inspection, an off-site reporting framework and informal exchange of supervisory information with overseas regulators/supervisors. However, during the past few years the cross-border operations of Indian banks have expanded significantly. Some banks have set up banking and other financial services subsidiaries abroad. Against this backdrop, a need was felt to enter into MoUs with bank regulators, and an Internal Working Group (IWG) was constituted to lay down the road-map for adopting a suitable framework. Based on the recommendations of the IWG, a policy framework was put in place. The policy provides, *inter alia*, for establishing legally non-binding formal arrangements for supervisory co-operation with overseas supervisors through an MoU, in accordance with the various BCBS Principles as well as in consonance with the various laws/statutes of the land.

Establishment of MOUs with Overseas Supervisory Authorities

To start with, 16 countries were identified. These were primarily countries whose bank regulators had evinced interest in having such an arrangement with the Reserve Bank and also those jurisdictions where an MoU between the Reserve Bank and the host country regulator was a prerequisite for Indian banks. The Reserve Bank has also started adopting the principle of mutual banking presence to initiate a dialogue on an MoU with overseas regulators and supervisory jurisdictions with such a mutual banking footprint. In the process, the list of identified countries was expanded to 38.

Current Status on Signing of MOUs with Overseas Supervisors

So far, the Reserve Bank has executed MoUs with ten overseas supervisors. In addition, proposals for MoUs with 28 overseas supervisors are in various stages of finalisation.

Going forward, while the current objective of the Reserve Bank is to establish MoUs with the supervisors of those jurisdictions where Indian banks have substantial operations or are planning to scale up their operations, the longer-term goal of the Reserve Bank is to first stabilise the mechanism of the MoU through frequent interactions with the host country supervisors and then to leverage on the supervisory co-operation with these domains and benefit from the knowledge and views of the host country supervisors for better oversight of Indian banking entities.

of financial inclusion has been adopted in the country. Based on the experience of countries like Kenya, and the massive growth and expansion of mobile phones in the country, there have been demands for experimenting with a model of mobile-led banking for financial inclusion. However, it has been argued that mobile-led banking takes care of only remittance products as against a bouquet of products, such as a variable recurring deposit product, an overdraft and an emergency credit product in the form of Kisan Credit Card (KCC)/General Credit Card (GCC). Second, banks are prudently regulated and this helps address the concerns about KYC/AML as also customer service. With respect to mobile payment companies, the Reserve Bank does not have similar regulatory authority. Third, entry into the banking space has to be on open, transparent and contestable criteria. Thus, it may not be prudent to allow mobile operators privileged access into commercial banking through the mobile route. However, efforts have been made to leverage the reach of mobile network companies by allowing banks to appoint corporates to act as Business Correspondents (BCs), but it is still early days and the success of these arrangements between banks and the companies will be analysed in the coming years.

National Strategy on financial literacy aims to further the financial inclusion process

1.18 Financial literacy is a prerequisite for achieving the objectives set out under financial inclusion, as it enables the common man to understand the need and benefits of the products and services offered by formal financial institutions. Financial education plays a vital role in making the demand side respond to the initiatives of supply-side interventions. Increased emphasis is now being given towards creating awareness and spreading financial literacy as an important demand-side push towards achieving the goal of financial inclusion. Since a large number of stakeholders are involved in spreading financial literacy, a broad national strategy is a prerequisite to ensure that they work in tandem with the strategy. Towards this objective, a draft National Strategy prepared under the *aegis* of the Sub-Committee of the Financial Stability and Development Council (FSDC) has been simultaneously released by all financial sector regulators including the Reserve Bank. With this move, India has joined countries like the Netherlands, New Zealand, Spain, the UK and the Czech Republic, which have already implemented a national strategy for financial education.

Regulatory framework for the micro-finance sector to ensure customer protection and financial health

1.19 The micro-finance sector comprising the Self-Help Group (SHG)-Bank linkage programme, for-profit Non-Banking Finance Companies-Micro-Finance Institutions (NBFC-MFIs) registered with the Reserve Bank and all other small not-for-profit MFIs registered as trusts, societies, *etc.*, plays an important role in extending credit as part of financial inclusion efforts in India. While the SHG-Bank linkage programme was sought to be strengthened by NABARD through fresh guidelines, the focus firmly remained on the NBFC-MFIs. It may be recalled that the State of Andhra Pradesh had issued an Ordinance in October 2010, which was later enacted into a law, making registration of MFIs functioning in the State compulsory with a view to regulate their functioning. The Reserve Bank had then set up a Sub-Committee of its Central Board of Directors (Chairman: Shri Y.H.Malegam) to study the issues and concerns, *inter-alia*, with regard to interest rates, lending and recovery practices in the micro-finance sector. Based on the recommendations of the Malegam Committee, a separate category of NBFC-MFIs has been created. The proposed regulatory framework puts in place restrictions and safeguards with regard to minimum standards of governance, management and customer protection as well as the financial health of MFIs. A fair and adequate regulation of NBFCs will encourage the growth of this sector, while adequately protecting the interests of borrowers. A Micro Finance Institutions (Development and Regulation) Bill, 2012 proposing to exempt MFIs registered with and regulated by the Reserve Bank from State money-lending acts, under which NBFC-MFIs were regulated by the Andhra Pradesh Government, is pending in Parliament. In the long run, MFIs will benefit from such a regulatory framework, as it enables orderly growth and reduces uncertainty.

4. Challenges

1.20 Going forward, a move towards higher capital requirements and the need for meaningful financial inclusion are the primary challenges before banks. The convergence to International Financial Reporting Standards (IFRS) is also likely to pose demands on banks' resources. The slippage in asset quality needs to be contained and the risks posed by global factors need to be addressed carefully.

Move towards Basel III to entail capital infusion

1.21 Effective implementation of Basel III is needed for developing the resilience of the banking sector to future shocks. The challenges in implementing Basel III should not be underestimated. In general, Basel III will increase the capital requirements on Indian banks. The current capital adequacy levels for the Indian banking system are comfortable. However, the capital requirements, including equity, would be substantial to support the high GDP growth; further the credit to GDP ratio, which is currently quite modest at about 55 per cent, is bound to increase substantially due to structural changes in the economy.

1.22 Broad estimates suggest that in order to achieve full Basel III implementation by end-March 2018, public sector banks (PSBs) would require common equity of ₹1.4-1.5 trillion on top of internal accruals, in addition to ₹2.65-2.75 trillion in the form of non-equity capital. Banks would have continued to require additional capital to meet Basel II capital ratios had Basel III capital ratios not been implemented. Therefore, in case of PSBs, the incremental equity requirement due to enhanced Basel III capital ratios is expected to be ₹750-800 billion. Similarly, major private sector banks would require common equity of ₹200-250 billion on top of internal accruals, in addition to ₹500-600 billion in the form of non-equity capital. These projections are based on the conservative assumption of uniform growth in Risk-Weighted Assets of 20 per cent per annum individually for all banks and individual bank's assessment of internal accruals (in the range of 1.0-1.2 per cent of Risk-Weighted Assets).

1.23 For every bank, it is critical to work out the most cost-effective model for implementing Basel III. Banks will have to issue fresh capital particularly towards the later years of implementation. Although Indian banks have the advantage of a strong starting base in the form of a higher capital to risk-weighted assets ratio (CRAR) with a larger component of core equity capital, the large equity needs, though over an extended time-frame, could put downward pressure on the banks' Return on Equity (RoE). In the long term, the higher capital requirements would bring down risks in the banking sector inducing investors to accept a lower RoE. In the short term, though, the only solution is to raise productivity. The Government of India being the owner of public sector banks will have to play a proactive role in this process.

Issues in convergence with International Financial Reporting Standards (IFRS)

1.24 The Ministry of Corporate Affairs (MCA), Government of India, released a road map in January 2010 which entailed IFRS convergence in a phased manner commencing from April 1, 2011 onwards, with commercial banks in India scheduled to converge with effect from April 1, 2013. India's path to convergence with IFRS has however, become difficult due to several issues, both domestic and international. The convergence of certain categories of corporates that was scheduled for April 1, 2011 has not happened. Currently lack of clarity exists regarding the convergence schedule in India.

1.25 At the global level, the International Accounting Standards Board (IASB) has embarked on a project to replace the existing standard on financial instruments (IAS 39: Financial Instruments: Recognition and Measurement) with the new standard IFRS 9: Financial Instruments. This project has not progressed as per schedule since IASB could not finalise certain critical proposals relating to impairment and hedge accounting. In view of the developments at the international level, it appears unlikely that IFRS 9 would be ready in its entirety before mid-2013. The biggest challenge to the banking sector in India which is of equal concern to regulators is the lack of clarity and uncertainty regarding the finalisation of IFRS 9 and its convergence with US Generally Accepted Accounting Principles (GAAP), besides of course the major technical and human resources issues arising for Indian banks in the course of convergence.

Need for improvement in the asset quality of banks

1.26 The asset quality of banks is an important indicator of their financial health, and also reflects the efficacy of banks' credit risk management and the recovery environment. The asset quality of the banking system has deteriorated significantly during the year 2011-12 after a period of sustained improvement. Inadequate credit appraisal during the boom period of 2003-07 coupled with the adverse economic situation in the domestic as well as the external front resulted in the current increase in NPAs. To further strengthen the NPA management framework of the Indian banks, in terms of the Monetary Policy Statement for the year 2012-13, banks were advised to put in place a robust mechanism for early detection of signs of distress, and measures to preserve the economic value of assets. Banks were also advised to have proper system-generated segment-wise data on their NPA accounts, write-offs, compromise settlements, recovery and restructured accounts.

Financial system remains robust though global factors pose elevated risks

1.27 The financial system of the country remains robust. Risks to stability are, however, elevated due to global factors and domestic macroeconomic factors. Domestic growth has slowed. Savings and investment rates are also lower. Although inflation has moderated, it is still above the level conducive for sustained growth. Risks are also posed by the high levels of current account and fiscal deficits. Risks from global developments, *viz*., growth slowdown, continuing instability in the euro area, uncertain capital flows and the impact of deleveraging by banks, could be accentuated by domestic macroeconomic risks. Notwithstanding these, the intrinsic strength of the domestic economy remains intact. The findings of the periodic Systemic Risk Surveys conducted by the Reserve Bank reveal that financial system stakeholders retained their confidence in the stability of the system. However, distress dependencies among banks have risen, warranting closer monitoring.

Data integrity is a prerequisite for effective supervisory review

1.28 The need for granular data for policy decisions has increased. It is, therefore, important to further improve the database of the banking infrastructure in the country. In keeping with the Reserve Bank's IT Vision, the efforts should be to automate data flow from the reporting entities through the adoption of appropriate straight-through-processing systems. The use of data warehousing for processing should be strengthened to improve the quality, integrity and delivery of data. Second, there is a need for close co-ordination between statisticians and bank supervisors, both in the commercial and co-operative banking space, to identify and mitigate data gaps in the supervisory review process and to facilitate appropriate risk assessment for the banking system. Third, the data reporting system needs to be geared towards automated data capture from the source systems. An improved and granular database of the banking infrastructure in the country is essential to gauge the extent of financial inclusion and to assess the efficacy of various policy actions taken in this regard. To ensure faster and more accurate transmission of uniform data for quick decision-making, data should be captured at the base-level entity. This can be facilitated by a move away from the existing return-based reporting system to a data-based reporting system.

Financial inclusion: need for meaningful inclusion

1.29 Universal financial inclusion is both a national commitment and a policy priority. The Reserve Bank and the Government of India have taken several initiatives in this direction. The provision of BCs in several villages has created a sense of awareness among villagers about banking. However, major challenges remain as about 40 per cent of our population lacks access to even the simplest kind of formal financial services. In order to ensure that the financial inclusion initiatives fructify, there is a need to enlarge the number and value of transactions in no-frills accounts.

1.30 Banks should endeavour to have a BC touch-point in every village. However, to make it a self-sustaining business model, banks should, over a period of time, ensure that all banking services, *viz*., remittances, recurring deposits, entrepreneurial credit in the form of KCC and GCC, insurance (life and non-life) and other banking services are available to all residents of the village through a mix of brick-and-mortar branches and a BC network.

Enhanced usage of technology requires improved risk management tools

1.31 Due to the operational risks associated with the use of technology, information security is an area that is gaining importance. The issues related to information security, data integrity and storage as also communication channels have acquired challenging dimensions in the electronic environment. The IT management systems in the banks have to be robust enough to meet these new challenges effectively, on a continuing basis.

5. The Way Forward

1.32 Going forward, banks will need to move towards the mandated higher capital standards, stricter liquidity and leverage ratios and a more cautious approach to risk. This implies that Indian banks will need to improve efficiency even as their costs of doing business go up. They will need to refine their risk management skills for enterprise-wide risk management. In addition, banks need to have in place a fair and differentiated risk pricing of products and services since capital comes at a cost. This involves costing, a quantitative assessment of revenue streams from each product and service and an efficient transfer-pricing mechanism that would determine capital allocation.

1.33 During the year 2011-12, the NPA stock has risen. The slippage ratio of the banking system, which showed a declining trend during 2005-08, increased during 2008-12. Banks need to, not only utilise effectively, the various measures put in place by the Reserve Bank and the Government of India for the resolution and recovery of bad loans, but also have to strengthen their due diligence, credit appraisal and post-sanction loan monitoring systems to minimise and mitigate the problem of increasing NPAs.

1.34 Going ahead, banks need to tap into untapped business opportunities for resources to power the growth engine. This requires harnessing resources and fortune at the bottom of the pyramid. Small customers are an important key to big business opportunities waiting to be tapped. The challenge before banks is to make the best use of technology and innovation to bring down intermediation costs while protecting their bottom lines. The recent regulatory initiatives like the deregulation of savings bank deposit interest rates and opening up government business to more banks, imminent steps, such as licensing of new banks and subsidiarisation of the foreign bank branches, on the one hand, and the changing profile and simultaneously rising aspirations and expectations of customers on the other, should make the turf more competitive and increasingly, a buyers' market. As the Indian banking sector is propelled forward to a higher orbit, banks would have to strive to remain relevant in the changed economic environment by reworking their business strategy, designing products with the customer in mind and focussing on improving the efficiency of their services. The challenge for Indian banks is to reduce costs and pass on the benefits to both depositors and lenders.

1.35 Notwithstanding the multitude of challenges to be braved by the Indian banking sector against the backdrop of a difficult domestic and global macroeconomic environment, the regulatory responses and the inherent strengths underlying the Indian economy would ensure that the banking system withstands the transitory difficult phase and plays a positive intermediation role in supporting the financing needs of our growing economy.