IX OVERALL ASSESSMENT

9.1 Deep and liquid financial markets play a key role in allocating resources in an efficient manner among competing uses in an economy, thereby contributing to productivity gains and higher economic growth. Absence of well-developed domestic financial markets can lead to mispricing of risks, misallocation of resources and higher intermediation costs. This could, in turn, lead to a preference for physical assets over financial assets, preference for foreign currency denominated assets *vis-à-vis* domestic currency denominated assets, credit and investment booms, maturity mismatches, overdependence upon international financial markets, currency mismatches, and excessive external debt culminating in periodic crises. In view of the critical role played by the financial markets in financing the growing needs of various sectors of the economy, it is important that financial markets are fully developed and well-integrated.

9.2 Deep and liquid financial markets contribute to efficient price discovery in various segments of the financial market. Well-integrated markets improve efficacy of policy impulses by enabling quick transmission of changes in the central bank's short-term policy rate to the entire spectrum of market rates, both short and long-term, in the money, the credit and the bond markets. Market integration, through interest parity conditions, also links the foreign exchange market with other segments of the market. Thus, changes in the central banks' policy rates can, through variations in domestic money market interest rates, impact the exchange rates, which, in turn, impact the real economy. Similarly, movement in policy interest rates can influence other asset markets such as equity and property prices, further strengthening the monetary transmission. In case, markets are weakly integrated, the central bank's interest rate signals will not have the desired impact on other short and long-term interest rates, the exchange rate and other asset prices. In such a scenario, the central bank would need to act in various segments of the market to achieve the desired objectives. In brief, the greater the degree of integration across market segments, the stronger is the transmission of monetary policy to the spectrum of financial markets and on to the real economy. By enabling dispersion of shocks and risks to a particular segment across all markets, well-integrated markets can also contribute to financial stability. Given the key role of expectations, financial markets help in inter-temporal dispersal of risks through derivative markets. However, various benefits emanating from the working of the financial markets depend critically upon the resilience of various segments of the market to withstand shocks and the strength of the risk management systems in place.

9.3 In recognition of the critical role of the financial markets, the onset of the structural reforms in the early 1990s in India also encompassed a process of their phased and coordinated deregulation and liberalisation. Financial markets in India in the period before the early 1990s were marked by administered interest rates, quantitative ceilings, statutory pre-emptions, captive market for government securities, excessive reliance on central bank financing, pegged exchange rate, and current and capital account restrictions. The reforms have enabled the transition to a regime characterised by market-determined interest and exchange rates, price-based instruments of monetary policy, current account convertibility, substantial capital account liberalisation and vibrant government securities and capital markets. Various reform measures have improved the depth and liquidity of several segments, while also leading to their increased integration. Enhanced integration of financial markets allows risks to be shared more broadly and facilitates the flow of capital to the productive sectors. These developments have, in turn, facilitated the implementation of monetary policy while meeting the financing needs of the various sectors of the economy, and providing a conducive environment for undertaking foreign exchange transactions.

9.4 Deregulation, liberalisation and globalisation of financial markets pose several risks to financial stability. The East Asian crises of the 1990s as well as the developments in Turkey and Iceland during 2006 indicate that global financial markets can exacerbate domestic vulnerabilities. In view of these possible destabilising factors from cross-border developments, liberalisation of domestic financial markets in India has been accompanied with prudential safeguards. This approach to development and regulation of financial markets has imparted

resilience to the financial markets, vividly reflected in their ability to withstand exogenous shocks such as financial crises in Asia, Brazil and Russia, 9/11 terrorist attacks in the US, border tensions, sanctions imposed in the aftermath of nuclear tests, political uncertainties, and the current oil shock.

9.5 The earlier chapters in this Report have dwelt at length with the phased process of transformation of the various financial market segments, an assessment of the outcome, and the road ahead. As documented in the preceding chapters, the phased and the sequenced approach to reforms since the early 1990s has led to substantial improvement in depth, liquidity and integration of the various segments of the financial market. These developments have (i) improved price discovery and enabled the switch from direct, quantitative instruments to more efficient price-based indirect instruments of monetary policy; (ii) strengthened monetary transmission; and (iii) enhanced the capacity of the domestic financial markets to withstand exogenous shocks. Nonetheless, it is recognised that domestic financial markets need to develop further, especially in order to support the recent acceleration in the growth momentum of the Indian economy. Financial markets would also need to be developed and integrated further in the context of the envisaged move towards fuller capital account convertibility, developing a diversified financial system, and maximising gains and minimising costs of financial integration. This concluding chapter attempts to summarise the key findings of the analysis contained in the preceding chapters, noting both the progress made so far and the road ahead.

MONEY MARKET

9.6 The Reserve Bank has accorded prime attention to the development of the money market as it is the key link in the transmission mechanism of monetary policy to financial markets and finally, to the real economy. In the past, development of the money market was hindered by the system of administered interest rates, directed credit, and lack of proper accounting and risk management systems. With the onset of reforms and the transition to indirect, market-based instruments of monetary policy in the 1990s, the Reserve Bank made conscious efforts to develop an efficient, stable and liquid money market by creating favourable policy environment through appropriate institutional changes, instruments, technologies and market practices. These policy initiatives over time have led to the development of a relatively deep, liquid and vibrant money market in the country.

9.7 In line with the transition in the operating procedures of monetary policy, the liquidity management operations of the Reserve Bank have been fine-tuned to impart greater flexibility and enhance the signalling effectiveness of the monetary policy stance. Under the monetary targeting regime adopted between the mid-1980s and the second half of the 1990s, bank reserves became the operating target in the conduct of monetary policy. In this mechanism, reserve requirements played a dominant role in the liquidity management operations of the Reserve Bank. Subsequently, the introduction of financial sector reforms in the early 1990s placed greater emphasis on the market mechanism. This called for the dismantling of the administered interest rate structure and reactivation of the indirect instruments of monetary policy, which, in turn, necessitated the active development of the money market. Concomitantly, the increasing financial innovations in the wake of greater openness of the economy necessitated the transition from monetary targeting to a multiple indicator approach in 1998 with greater reliance on rate channels for monetary policy formulation. Accordingly, short-term interest rates have emerged as a key instrument of monetary policy.

9.8 Beginning June 2000, the liquidity adjustment facility (LAF), with daily repo and reverse repo operations, has emerged as the principal tool of liquidity management. However, in view of sustained and large capital flows, well in excess of the current account deficit, money markets have been mostly characterised by surplus liquidity conditions. In order to insulate domestic monetary conditions from the impact of large capital flows, the LAF window was augmented with the issuances under the market stabilisation scheme (MSS) in April 2004 to absorb liquidity of relatively more enduring nature along with the flexible use of the cash reserve ratio. Liquidity management has turned out to be more complex in the recent period on account of greater variation in market liquidity not only on account of pressures emanating from large external flows, but also due to large variations in cash balances of the Government. These developments in the liquidity conditions have necessitated a judicious use of various instruments by the Reserve Bank.

9.9 In line with the objective of widening and deepening the money market and imparting greater liquidity to the market for facilitating efficient price discovery, new instruments, such as collateralised

lending and borrowing obligation (CBLO), have been introduced. Money market instruments such as market repo and CBLO have provided avenues for non-banks to manage their short-term liquidity mismatches and facilitated the transformation of the call money market into a pure inter-bank market. Furthermore, issuance norms and maturity profiles of other money market instruments such as commercial paper (CP) and certificates of deposit (CDs) have been modified over time to encourage wider participation while strengthening the transmission of policy signals across the various market segments. The abolition of *ad hoc* Treasury Bills and introduction of auction Treasury Bills paved the way for the emergence of a risk free rate, which has become a benchmark for pricing other money market instruments. Concomitantly, with the increased market orientation of monetary policy along with greater global integration of domestic markets, the Reserve Bank's emphasis has been on setting prudential limits on borrowing and lending in the call money market, encouraging migration towards the collateralised segments and developing derivative instruments for hedging market risks. This has been complemented by the institutionalisation of the Clearing Corporation of India Limited (CCIL) as a central counterparty. The upgradation of payment system technologies has also enabled market participants to improve their asset liability management. Cumulatively, these measures have widened and deepened the money market in terms of instruments and participants, enhanced transparency and improved the signalling mechanism of monetary policy while ensuring financial stability.

9.10 In the emerging scenario of increasing integration of domestic and international markets, several issues have come to the fore. First, the absence of a developed term money market is one of the important gaps in the development of domestic financial markets. This is affecting the development of a money market yield curve, and, in turn, the development of the derivative market and the integration of the foreign exchange market and the domestic currency market. Accordingly, greater efforts would be required to expedite the development of the term money market in the country, given the critical role of this market in the development of other segments. Well-developed term money market would, *inter alia*, contribute to the emergence of deep and vibrant markets for interest rate derivatives and provide useful inputs of market expectations for the conduct of monetary policy.

9.11 Second, in view of the transformation of the call money market into a pure inter-bank market, there may be a need to provide greater flexibility to banks and PDs to borrow or lend in this market, depending upon the robustness of the risk management practices being followed by them. Prudential limits on borrowing and lending in the inter-bank market could be replaced, in stages, by a system where such limits are taken care of by the banks' own internal ALM framework. Third, in view of sustained credit demand in recent years, there has been some revival of interest in Inter-Bank Participation Certificates (IBPCs). IBPCs, by enabling banks to even out their short-term liquidity mismatches, provide greater degree of flexibility in banks' credit portfolios. Accordingly, the IBPC scheme needs a thorough review to improve asset liability management and liquidity management. This will also help in developing a market for credit risk transfer instruments.

9.12 Fourth, the Reserve Bank in its operations would have to progressively give somewhat more weightage than hitherto to international interest rates in view of increased capital mobility. Fifth, potentially destabilising large and sudden capital flows may call for more flexible and swift monetary policy responses. Sixth, open market operations (OMO), apart from being used for modulating liquidity conditions, could also be used to correct any serious distortions in the yield curve. Seventh, although the Reserve Bank has progressively de-emphasised reserve requirements as an instrument of monetary policy, given the present state of market development, it may be necessary to keep the option of flexible use of reserve requirements. Finally, as the banking system is moving to maintenance of SLR securities close to the prescribed minimum levels, liquidity provision would become more difficult unless the instrument set is widened to facilitate market participants to even out liquidity mismatches (Mohan, 2006a).

CREDIT MARKET

9.13 In India, credit markets have, historically, played a key role in allocating savings towards productive purposes. There has been a profound transformation of the credit market since the early 1990s. Prior to initiation of financial sector reforms, credit institutions operated under a regulatory framework characterised by barriers to entry, administered interest rates, pre-emption of resources through high statutory liquidity ratio (SLR) and cash reserve ratio (CRR), and allocation of resources through mechanisms such as maximum permissible

bank finance (MPBF) and selective credit controls. Credit institutions suffered from several inefficiencies such as high intermediation cost, low profitability and high non-performing assets (NPAs). Against this backdrop, financial sector reforms were initiated in the early 1990s in a phased manner to move away from a financially repressed regime to a liberalised regime through measures such as deregulation of interest rates, entry of new private sector banks, enhanced presence of foreign banks, reduction in statutory pre-emptions, introduction of prudential norms, strengthening of accounting standards and disclosure norms, and permitting banks to raise capital from the market. These measures have subjected the financial institutions to market discipline, enhanced competition, and provided productivity and efficiency gains. The reforms have also strengthened banks' risk assessment techniques, thereby increasing the role of interest rates in allocating resources while simultaneously enhancing the transmission of monetary impulses.

9.14 Although a wide range of credit institutions operate in the country, the relative significance of banks, already the predominant players in the credit market, has increased further due to conversion of two major development finance institutions (DFIs) into banks. In this context, it is noteworthy that, after witnessing some deceleration in the late 1990s, credit extended by banks has expanded rapidly beginning 2002-03. Robust macroeconomic performance, revival of investment demand, moderation in interest rates and decline in NPAs appear to have contributed to rapid credit expansion. A welcome development has been large credit expansion to the agriculture sector in the last few years, reflecting the impact of various policy measures. The trend of deceleration in credit to agriculture during the 1990s has, thus, been reversed. As a result, credit intensity of the agriculture sector (credit to agriculture as percentage of sectoral GDP) has increased in recent years. On the other hand, growth in credit to industry during the 1990s and the current decade so far has been somewhat lower than that in the 1980s. This could be attributed partly to alternative avenues of financing available to industry such as external commercial borrowings and domestic and international capital markets. Internal generation of funds, facilitated by strong corporate profitability, has also improved significantly in recent years. At the same time, there has been a sharp increase in medium and long-term bank credit to industry, which is largely for the project related activity. This suggests that banks are filling the gap created by conversion/merger of two DFIs into banks. Credit growth to the SSI sector, which decelerated sharply during 1999-2004, also picked up from 2004-05. Credit intensity of the industrial sector, on the whole, has increased in the current decade so far (up to 2005-06). A key factor underlying the rapid expansion of credit since 2002-03 has been the emergence of demand for housing and personal loans, facilitated by benign interest rate environment, fiscal benefits, increase in income levels and growing competition in the banking sector. Total household credit now constitutes almost one-fourth of total bank credit. In view of growing volume of retail credit, the interest rate channel of monetary policy is likely to have a greater influence on private consumption and economic activity in the country.

9.15 Cross-country experience shows that periods of rapid credit expansion can lead to future financial fragilities. Although the Indian banking sector is robust in view of high level of capital adequacy and low level of NPAs, the Reserve Bank, in the face of rapid credit growth, has consistently emphasised diligent monitoring of the health of loan portfolios of credit institutions. It has also pro-actively tightened risk weights and provisioning requirements, especially in the case of sectors that have witnessed high growth. Notwithstanding the current phase of high credit growth, credit penetration in India remains low even in comparision with several other EMEs. Viewed in a holistic perspective, it is difficult to arrive at a clear judgment as to what rate of credit growth is too high in relation to potential growth (Mohan, 2007a). The Reserve Bank has, therefore, re-emphasised the importance of credit quality for securing macroeconomic and, in particular, financial stability while simultaneously pursuing greater credit penetration and financial inclusion.

9.16 Notwithstanding some acceleration of growth in credit to the agricultural sector in recent years, inadequate access to credit in rural areas remains a cause of concern. In this context, reliable access to credit at reasonable rates is more important than the cost of credit. Revival of rural co-operative credit institutions through legal and institutional reforms will help in improving the flow of credit to the rural sector and increasing credit penetration. Extension of micro-finance in unbanked areas on a greater scale, the use of services of business facilitators/ correspondents and imparting financial education will also help in bringing a higher proportion of rural population within the fold of formal credit institutions.

9.17 With the ongoing liberalisation and deregulation of the financial system, large corporates

are able to draw upon several sources of funds such as external commercial borrowings, ADRs/GDRs and domestic capital markets, apart from bank credit, to fund their business requirements. In contrast, small and medium enterprises (SMEs) continue to depend heavily on the banking sector to meet their financing needs. However, given the role played by SMEs in generation of output and employment in the economy, banks need to upgrade their risk assessment techniques to meet the growing requirements of SMEs. Hitherto, the absence of credit history has been one of the major factors restricting the flow of credit to SMEs. The Credit Information Act, 2005 has been enacted and the rules and regulations thereunder have also been notified. This will facilitate the formation of credit information companies in the country. This, in turn, will improve the quality of credit, reduce the transaction cost and improve the flow of credit to the SME sector. Independent rating of borrowers will also help in minimising the asymmetries in information that restrict lending to the SME sector.

9.18 Although banks have been given the freedom to determine their lending rates, the principles followed by banks in fixing their Benchmark Prime Lending Rate (BPLR) are viewed as opaque. A predominant and growing proportion – over eighty per cent – of the commercial banks' loan portfolio is at sub-BPLR rates. Competition has turned the pricing of a significant proportion of loans far out of alignment with the BPLR and in a non-transparent manner (Mohan, 2007b). The BPLR has ceased to be a reference rate, thereby hindering an assessment of the efficacy of monetary transmission. There is a public perception that banks' risk assessment processes are less than appropriate and that there is underpricing of credit for corporates, while there could be overpricing of lending to agriculture and SSIs. Lending below the BPLR has several implications. In particular, the fixation of BPLR continues to be more arbitrary than rule-based. Therefore, the concept of arriving at the BPLR needs to be looked into with a view to making it more transparent.

9.19 In the current situation of high credit expansion, banks have been unwinding their surplus investments in SLR securities, over and above the prescribed minimum. This unwinding is approaching the prescribed minimum of 25 per cent. Deposit mobilisation would, thus, be critical, especially in view of growing credit needs that are likely to emanate from the ongoing financial deepening. Therefore, banks need to make sustained efforts for mobilising stable retail deposits by extending banking facilities and widening their deposit base to support the credit demand in a sustainable manner.

GOVERNMENT SECURITIES MARKET

9.20 The Reserve Bank has actively pursued the development of the government securities market since the early 1990s for a variety of reasons. First, with the Reserve Bank acting as the debt manager to the Government, a well-developed and liquid government securities market is essential to ensure the smooth passage of Government's market borrowings to finance its deficit. Second, the development of the government securities market is also necessary to facilitate the emergence of a risk free rupee yield curve to serve as a benchmark for pricing other debt instruments. Finally, the government securities market plays a key role in the effective transmission of monetary policy impulses in a deregulated environment.

9.21 In order to foster the development of the government securities market, primacy was accorded to migrate from a regime of administered interest rates to a market-oriented system. Accordingly, in the early 1990s, the Reserve Bank initiated several measures. First, it introduced the auction system for issuance of government securities. While initially only yield based multiple price auctions were conducted, uniform price based auctions were also employed during uncertain market conditions and while issuing new instruments. Second, as the captive investor base was viewed as constraining the development of the market, the statutory prescription for banks' investments in government and other approved securities was scaled down from the peak level in February 1992 to the statutory minimum level of 25 per cent by April 1997. As a result, the focus shifted towards the widening of the investor base. A network of intermediaries in the form of primary dealers was developed for this purpose. Retail participation has been promoted in the primary market (through a system of non-competitive bidding in the auctions) as well as in the secondary market (by allowing retail trading in stock exchanges). Simultaneously, the Reserve Bank also introduced new instruments with innovative features to cater to diverse market preferences, although the success in this regard has been limited.

9.22 Third, with the discontinuance of the process of unconstrained recourse by the Government from the Reserve Bank through automatic monetisation of deficit and conversion of non-marketable securities to marketable securities, the Reserve Bank gained

more operational freedom. Fourth, in an effort to increase liquidity, the Reserve Bank has, since the late 1990s, pursued a strategy of passive consolidation of debt by raising progressively higher share of market borrowings through re-issuances. This has resulted in critical mass in key maturities, and is facilitating the emergence of market benchmarks. Finally, the Reserve Bank is also undertaking measures to strengthen the technological infrastructure for trading and settlement. A screen-based anonymous trading and reporting platform has been introduced in the form of NDS-OM, which enables electronic bidding in primary auctions and disseminates trading information with a minimum time lag. Furthermore, with the setting up of CCIL, an efficient settlement mechanism has also been institutionalised, which has imparted considerable stability to the government securities market.

9.23 With the withdrawal from the primary market from April 2006 in accordance with the stipulations under the FRBM Act, the Reserve Bank introduced the necessary institutional changes in the form of revamping and widening of the coverage of the PD system to meet the emerging challenges. Other measures taken to deepen the market and promote liquidity include introduction of 'when issued' trading, 'short selling' of government securities and active consolidation of government debt through buybacks.

9.24 Various policy initiatives taken by the Reserve Bank over the years to widen and deepen the government securities market in terms of instruments as well as participants have enabled successful completion of market borrowing programmes of the Government under varied circumstances. In particular, a smooth transition to the post-FRBM phase has been ensured. Turnover in the secondary market for government securities has increased substantially indicating the effectiveness of various measures taken to improve liquidity in key maturities. The issuance of long-term securities has enabled the development of the yield curve across 30-year maturity, although it is not liquid and active at the longer end of the maturity. With the widening of investor base, the holding pattern of government debt has diversified. The government securities market is getting increasingly integrated with the domestic money market as well as international interest rates.

9.25 The evolving economic conditions and move towards fuller capital account convertibility, however, necessitate further fine-tuning of the operating framework so as to ensure smooth debt management operations. There are certain issues which need to be addressed for making the government securities market more vibrant and also to meet the debt management objectives in an efficient manner. In the absence of instruments to allow market participants to take a forward looking view on interest rates, turnover in the secondary market has been observed to rise during the falling interest rate cycle, but decline during the rising interest rate cycle. In this context, introduction of intra-day 'short selling', followed by the permision for short selling up to five trading days are steps in the right direction. Liquidity could be improved further through active consolidation of existing securities, phased increase in marked-to-market portfolio of banks and early introduction of STRIPS. In view of the restriction on the Reserve Bank's subscription to Central Government securities in the primary market under the FRBM Act, it is crucial to diversify the investor base further. The investor base also needs to be widened in view of the possibility of reduction in the captive investor base resulting from any scaling down of the SLR from the present level; the floor of SLR has been removed by the Banking Regulation (Amendment) Act, 2007 which is deemed to have come into force on January 23, 2007. Any decision in this regard will of course depend on overall macroeconomic and monetary conditions. State Government securities are relatively illiquid, which affects the cost of borrowing for the State Governments. Some of the measures taken for improving liquidity of Central Government securities may need to be considered for State Government securities as well.

FOREIGN EXCHANGE MARKET

9.26 The Indian foreign exchange market has witnessed far reaching changes since the early 1990s, following the phased transition from a pegged exchange rate regime to a market determined exchange rate regime in 1993 and the subsequent adoption of current account convertibility in 1994. Market participants have been provided with greater flexibility to undertake foreign exchange operations and manage their risks. This has been facilitated through simplification of procedures and availability of several new instruments. There has also been significant improvement in market infrastructure in terms of trading platform and settlement mechanisms. As a result, depth and liquidity of the market have improved significantly over the years. Efficiency in the foreign exchange market has also improved as is reflected in low bid-offer spreads. With the gradual opening up of the capital account, forward premia is getting increasingly aligned with the interest rate differential.

9.27 The foreign exchange market conditions have remained orderly in the post-1993 period, barring occasional periods of volatility. The Indian approach to exchange rate management has been to avoid excessive volatility. This has contributed to stability in the market. Intervention by the Reserve Bank in the foreign exchange market, though effective, has been relatively small compared to total turnover in the market. The EMEs' experience, in general, in the 1990s has highlighted the growing importance of capital flows in determining the exchange rate movements as against trade flows and economic growth in the 1980s and before. In the case of most developing countries, which specialise in labour-intensive and low and intermediate technology products, profit margins in the highly competitive markets are very thin and vulnerable to pricing power by large retail chains. Consequently, exchange rate volatility has significant employment, output and distributional consequences (Mohan, 2004). Managing exchange rate volatility would, thus, continue to require attention in EMEs such as India.

9.28 Capital flows received by India since 1993-94 have generally remained well above the current account deficit. The foreign exchange market has, therefore, been characterised by excess supply conditions during the most part of the post-reform period. Consistent with the policy framework with regard to exchange rate management and foreign exchange reserves, the Reserve Bank has purchased excess supplies from the market. The expansionary impact of such purchases on monetary aggregates and domestic economy has been neutralised, *inter alia*, through increased exchange rate flexibility, phased liberalisation of the policy framework in relation to current as well as capital accounts, flexibility to corporates to prepay external commercial borrowings, extension of foreign currency account facilities to residents, allowing banks to liberally invest abroad in high quality instruments, and liberalising surrender requirements for exporters (Reddy, 2007a). These measures have been supplemented with the sterilisation operations in the form of open market operations, repo operations under the LAF, modulation in the cash reserve ratio, and innovations such as market stabilisation scheme. This approach to management of capital flows has been successful so far in maintaining macroeconomic and financial stability while minimising the impact of volatility in capital flows and exchange rate on the domestic economy. The challenges to monetary and liquidity management are likely to intensify in the years ahead from the ongoing process of capital account liberalisation and the further integration of the Indian economy with the global economy. Global developments are expected to play an increasingly important role in determining the conduct of monetary and exchange rate policies, calling for hard choices in terms of goals and instruments.

9.29 Moving forward, further initiatives towards developing the Indian foreign exchange market need to be aligned with the external sector reforms, particularly the move towards further liberalisation of capital controls, for which a fresh roadmap has been provided by the Committee on Fuller Capital Account Convertibility (FCAC).The agenda for the future should, therefore, include introduction of more instruments, particularly derivative products, widening of participants base, commensurate regulations along with the entrenchment of modern risk management systems and improved customer service. Reforms in the foreign exchange market will also have to be harmonised with the evolving macroeconomic environment as well as the development of other segments of the financial market, particularly the money, the equity and the government securities markets. They will also have to be harmonised with the evolving needs of the real economy.

EQUITY AND CORPORATE DEBT MARKET

9.30 The Indian equity market has witnessed a significant improvement since the reform process began in the early 1990s and is now comparable with the best international markets. There has been a visible improvement in trading and settlement infrastructure, risk management systems, efficiency and levels of transparency in the equity market. The transaction cost has declined and volatility has also been contained. Nevertheless, the role of the Indian capital market, equity as well as debt, in domestic economic activity continues to be relatively less significant. Savings of the household sector in the form of shares and debentures and units of mutual funds remain at relatively low levels, reflecting households' preference for safe and contractual instruments as opposed to capital market based instruments. The size of the public issues segment has remained small as corporates have tended to prefer the international capital market and the private placement market, apart from relying on internal sources and bank credit. The corporate bond market, in particular, has remained underdeveloped, reflecting a variety of factors such as absence of a reliable and liquid yield curve, high cost of issuance and lack of liquidity in the secondary market.

9.31 A growing economy like India requires risk capital and long-term resources for enabling the corporates to choose an appropriate mix of debt and equity. Acceleration in economic growth has created large demand for funds by the corporate sector. Encouraging business outlook and congenial investment climate have encouraged companies to undertake capacity expansion. Long-term resources are particularly important for financing infrastructure projects. A well-functioning domestic capital market is also necessary to enable the banking sector to raise necessary capital from the market to sustain its growing operations. Furthermore, a well-functioning bond market can be an effective channel of monetary transmission in case the banking sector is impaired or in situations when banks adopt an oligopolistic pricing behaviour. On supply side too, rising income levels and savings would require alternative investment options, including equity and corporate debt. Therefore, in order to sustain India's high growth, the capital market would have to play a major role.

9.32 Prospective reforms in the equity market need to focus on developing strong domestic institutional investors, adherence to international best practices in corporate governance and reduction in time and cost for floating public issues. Promoters continue to hold a large portion of equity in the companies. Concentrated ownership prevents the broad distribution of gains from the equity market development, with implications for the functioning of the corporate governance framework and protection of rights of minority shareholders.

9.33 There is very little activity in the public issue segment of the private corporate debt market. Keeping in view the proposals made in the Union Budget, 2006-07 and the recommendations made by the High Level Expert Committee on Corporate Bonds and Securitisation, the SEBI has recently initiated steps to capture timely information relating to trading in corporate bonds by establishing trade reporting platforms at the BSE and the NSE. The next phase of development would involve the setting up of a corporate debt trading platform, which is expected to contribute to efficient price discovery and reliable clearing and settlement mechanism. The market development process for bonds in India is likely to be a gradual process as has been experienced in other countries. In this context, the experience gained from developing the government securities market should prove useful. The corporate debt market would require a large number of investors and large sized issues to function effectively. As in the case of government securities market, the problem of small size of issues will have to be addressed by bringing about more discipline in issuances and consolidation through re-issuances. The role played by market players such as primary dealers in developing the government securities market may need to be replicated through an appropriate institutional framework in the corporate bond market. Counterparty guarantee for settlement of trades to reduce counterparty and settlement risks would promote secondary market activity in corporate bonds. Macroeconomic stability would also aid the process of market development. Increased availability of structured financial products such as mortgage and asset-backed securities can also encourage the development of the corporate bond market by addressing its fundamental limitation, namely, the gap between the credit quality of bonds that investors would like to hold and the actual credit quality of potential borrowers.

9.34 An underdeveloped corporate bond market results in excessive reliance of the corporate sector on bank credit, which reduces supply of funds to small and medium enterprises, and also creates a gap in institutional finance for long-term financing requirements. Strong and deep domestic capital markets will be essential to sustain investment and growth that has been witnessed since 2003-04.

SUMMING UP

9.35 The Reserve Bank, like other central banks, has taken a keen interest in the development of the money, the credit, the government securities and the foreign exchange markets in view of their critical role in the transmission mechanism of monetary policy. The approach has been one of simultaneous movement on several fronts, graduated and calibrated, with an emphasis on institutional and infrastructural development and improvements in market microstructure. The pace of reforms was contingent upon putting in place appropriate systems and procedures, technologies and market practices. There has been close co-ordination between the Reserve Bank and the Government, as also with other regulators, which helped in orderly and smooth development of the various segments of the financial market in India. The Reserve Bank has also engaged in refining the operating procedures and instruments as also risk management systems, income recognition and provisioning, and disclosure and accounting standards in line with international best practices with a view to fostering the seamless integration of Indian financial markets with global markets (Mohan, 2007b).

9.36 Initiatives taken by the Reserve Bank and other regulatory authorities have brought about a significant transformation in the working of various segments of the financial market. Domestic financial markets have transited from a highly administered system – marked by administered interest rates, credit controls and exchange control – to a system dominated by market-determined interest rates and exchange rate and price-based instruments of monetary policy. These developments, by improving the depth and liquidity in the domestic financial markets, have contributed to better price discovery of interest rates and exchange rates, which, in turn, have led to greater efficiency in resource allocation in the economy. The increase in size and depth of financial markets has paved the way for flexible use of indirect instruments. Greater depth and liquidity and freedom to market participants have also increased integration of the various segments of the financial market. Increased integration not only leads to more efficient dispersal of risks across the spectrum but also increases the efficacy of monetary policy impulses. In a world of integrated financial markets, monetary policy operates not only through the conventional interest rate channel but also through the exchange rate and other asset prices channels, thereby strengthening the impact of monetary policy on the real economy and inflation. Evidence suggests that growing integration of various financial market segments in India has been accompanied by lower volatility of interest rates.

9.37 Development of financial markets is an ongoing process. Initiatives to further deepen and widen the various segments of the financial market will, therefore, need to be pursued in the period ahead. Financial markets will have to play an even more important role in future to sustain the current growth momentum being experienced by the Indian economy. Large investment needs of the growing economy will depend heavily upon the ability of the financial markets to raise resources from savers and allocate them efficiently for the most productive uses. Further development and integration of various segments is also important in the context of envisaged move towards fuller capital account convertibility. As the Report of the Committee on Fuller Capital Account Convertibility (2006) observed, any country intending to introduce fuller capital account convertibility needs to ensure that different market segments are not only well-developed but also well-integrated. Accordingly, development of the term money market, greater flexibility in the use of derivatives in the foreign exchange market, development of the corporate bond market and creation of secondary markets in several instruments such as certificates of deposit and commercial paper are some of the aspects of market development that would need to be given due attention for imparting more depth and liquidity to the domestic financial markets.

9.38 As a result of various policy initiatives, the financial sector in India is no longer a constraint on growth, though further improvements need to take place. However, without further development in terms of physical infrastructure and improvement in supply elasticities in the real sector, the financial sector can even misallocate resources, potentially generate bubbles and possibly amplify the risks. Hence, reforms in the financial sector have complementarity with the pace and process of reforms in the real sector in India (Reddy, 2007b).

9.39 Concomitantly, with growing liberalisation, deregulation and integration with global financial markets, policy initiatives have ensured that domestic financial markets and market participants are in a position to absorb unanticipated and large shocks that can emanate from global developments so that financial stability is maintained in the country while supporting the growth. The Indian experience demonstrates that development of markets is an arduous and time-consuming task that requires conscious policy actions and effective implementation. Financial markets have to be created, nurtured and monitored on a continuous basis, before they start functioning autonomously (Mohan, 2006c). To sustain the growth momentum witnessed since 2003-04, it is imperative that domestic savings rise further to meet the growing investment needs of the economy. The demand for funds, including long-term funds, is likely to remain high, particularly in view of relatively low credit penetration in the economy. Against this backdrop, calibrated policy initiatives to deepen and widen the various segments of the financial market would need to be pursued on an ongoing basis so that domestic financial markets can effectively mobilise domestic savings and allocate them among competing uses while also enhancing the transmission of monetary policy impulses to the rest of the economy.

9.40 Growing integration of domestic financial markets with international financial markets across the globe also poses the threat of contagion. In the recent past, financial markets, globally, have been marked by abundant liquidity conditions, elevated asset prices, and low long-term interest rates. The search for yield has resulted in large external flows into emerging market economies over the past few years leading, *inter alia*, to the problem of monetary

management. Risk spreads and measures of volatility have also declined to quite low levels. These developments in financial markets can be partly attributed to greater macroeconomic stability – stable output growth accompanied by low and stable inflation – since the 1990s compared with the 1970s and the 1980s. The decline in volatility in the international financial markets in the recent period, however, need not necessarily suggest absence of risk. While the financial system may have become more efficient in risk-bearing, it is taking more risks than before, which have the potential to expose the system to large systemic shocks (Rajan, 2005). Accordingly, the current conditions of financial market tranquillity in an environment of ample global liquidity and large and growing global macroeconomic imbalances have raised concerns as to whether financial markets are pricing in risk appropriately.

9.41 The re-pricing of risks can trigger massive adjustments in portfolio holdings of global investors and this can lead to sharp swings in capital flows out of riskier assets in emerging economies with implications for foreign exchange markets and other domestic financial segments, as was clearly evident during the recent global equity markets meltdown during May-June 2006 and again in February/March 2007. Thus, policymakers as well as financial market participants would have to contend with the swings in the financial markets on an even greater scale in future than hitherto. Against this backdrop, while focusing on improving the capacity of the financial system to withstand shocks, central banks would need to stand prepared to make appropriate monetary policy adjustments if changes in the financial conditions threaten the achievement of the goals of price stability and sustainable economic growth (Geithner, 2007).

9.42 Issues of financial stability are, thus, likely to assume even greater importance in future, especially for emerging economies. In India, large segments of economic agents may not have adequate resilience to withstand volatility in financial markets. The Reserve Bank's policies are, therefore, vigilant to any indications of volatility in currency and money markets (RBI, 2007). The policy initiatives to deepen and widen the financial markets further to reap efficiency gains will need to be pursued while ensuring macroeconomic and financial stability in the economy.