

Capital Account Liberalisation and Conduct of Monetary Policy: The Indian Experience

Rakesh Mohan

Deputy Governor
Reserve Bank of India

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I. Overall Approach

The distinguishing feature of our overall reform process initiated in the early 1990s has been the accomplishment of high economic growth in an environment of macro economic and financial stability. In fact, we have achieved acceleration in growth while maintaining price and financial stability.

During this period, apart from all the other reforms, we have achieved current account convertibility, and also opened the capital account to a substantial extent. With this growing openness, we have not been insulated from exogenous shocks. These shocks, global as well as domestic, included a series of financial crises in Asia, Brazil, Russia and Mexico, in the 1990s and other events such as 9/11 terrorist attacks in the US, border tensions, sanctions imposed in the aftermath of nuclear tests, political uncertainties, changes in the Government, and the current oil shock. Nonetheless, stability could be maintained in financial markets. Indeed, inflation has been contained since the late-1990s to an average of around five per cent, distinctly lower than that of around seven to eight per cent per annum over the previous four decades. Simultaneously, the health of the financial sector has recorded very significant improvement.

The story of Indian reforms is by now well-documented (e.g., Ahluwalia, 2002); nevertheless, what is less appreciated is that India achieved this acceleration in growth while maintaining price and financial stability. With increased deregulation of financial markets and increased integration of the global economy, the 1990s were turbulent for global financial markets: 63 countries suffered from systemic banking crises in that decade, much higher than 45 in the 1980s. Among countries that experienced such crises, the direct cost of reconstructing the financial system was typically very high: for example, recapitalisation of banks had cost 55 per cent of GDP in Argentina, 42 per cent in Thailand, 35 per cent in Korea and 10 per cent in Turkey. There were high indirect costs of lost opportunities and slow economic growth in addition (McKinsey & Co., 2005). It is therefore particularly noteworthy that India could pursue its process of financial deregulation and opening of the economy without suffering financial crises during this turbulent period in world financial markets. The cost of recapitalisation of public sector banks at less than 1 per cent of GDP is therefore low in comparison. Whereas we can be legitimately gratified with this record, we now need to focus on the new issues that need to be addressed for the next phase of financial development, particularly in the context of fuller capital account convertibility and increasing integration of financial markets.

That the current annual GDP growth of around 8.5 to 9 per cent can be achieved in India with a level of gross domestic investment in the range of 30 to 33 per cent over the past 4 years suggests that the economy is functioning quite efficiently. Thus our policy of gradual and sequenced reform cannot be said to have been at the cost of growth or efficiency. We need to ensure that we maintain this level of efficiency and attempt to improve on it further. As the Indian economy continues on such a growth path and attempts to accelerate it, new demands are being placed on the financial system.

In examining the conduct of monetary policy in India in the presence of continuing and gradual capital account liberalisation, a key lesson is that this process has to be viewed in the context of the overall reform process. As an economy undergoes the transition from a closed to an open economy, first on the current account and then on the capital account, the interest of financial stability is served by simultaneous action on a number of different fronts. The framework of monetary policy itself has to undergo a change from the previous direct methods of control of monetary aggregates to indirect methods imparting signals through the market. For such a change to be effective the monetary policy transmission process has to be strengthened through development of all financial markets, and the building of market micro-infrastructure. On the external front, the transition from a fixed or pegged exchange rate to a market determined one itself needs careful assessment of the efficiency of the foreign exchange market, the capabilities of market players and evaluation of effects of exchange rate volatility. The operation of financial markets and the degree of vulnerability that an economy becomes exposed to with greater opening is itself influenced significantly by fiscal conditions. Hence the efficacy of monetary policy, efficiency of financial markets, and external vulnerability are closely linked to the practice of prudent fiscal policy. Finally, for efficient monetary policy transmission, and depth, liquidity and efficiency of financial markets, financial intermediaries themselves have to be strengthened. It is in view of all these

inter-linkages that I have chosen to provide a brief overview of developments in each of these areas as they have evolved over the past decade and a half in India.

II. Process of Setting out Monetary Policy Objectives

General Objectives

Traditionally, central banks pursue the twin objectives of price stability and growth or employment. In pursuing the basic objectives, central banks also need to keep in view considerations of orderly financial markets and financial stability. Needless to say, the objectives of monetary policy are interrelated and have trade-offs as well. The preamble to the Reserve Bank of India Act, 1934 sets out the Bank's objectives as "to regulate the issue of Bank notes and the keeping of reserves with a view to securing monetary stability in India and generally to operate the currency and credit system of the country to its advantage". Although there is no explicit mandate for price stability, as is the current trend in many countries, the objectives of monetary policy in India have evolved as those of maintaining price stability and ensuring adequate flow of credit to the productive sectors of the economy. In essence, monetary policy aims to maintain a judicious balance between price stability and economic growth. The relative emphasis between price stability and economic growth is governed by the prevailing circumstances at a particular time and is spelt out from time to time in the policy announcements of the Reserve Bank.

Considerations of financial stability have assumed greater importance in recent years in view of the increasing openness of the Indian economy, financial integration and the possibility of cross border contagion. As we observed the severe costs of financial instability elsewhere, financial stability has ascended the hierarchy of monetary policy objectives since the second half of the 1990s. Strong synergies and complementarities are observed between price stability and financial stability in India. Accordingly, we believe that regulation, supervision and development of the financial system remain within the legitimate ambit of monetary policy broadly interpreted.

Framework

Till 1997-98, monetary policy in India used to be conducted with broad money (M3) as an intermediate target. The aim was to regulate money supply consistent with the expected growth of the economy and the projected level of inflation. The targeted monetary expansion used to be set on the basis of estimates of these two crucial parameters. In practice, the monetary targeting framework was used in a flexible manner with feedback from developments in the real sector.

In the wake of financial sector reforms and opening up of the economy in the 1990s, appropriateness of the monetary targeting framework was questioned with the changing inter-relationship between money, output and prices. Accordingly, the Reserve Bank switched over in 1998-99 to a multiple indicator approach. With this approach, interest rates or rates of return in different markets (money, capital and government securities markets), along with data on currency, credit extended by banks and financial institutions, fiscal position, trade flows, capital flows, inflation rate, exchange rate, refinancing and transactions in foreign exchange available on high-frequency basis, are all examined along with output in framing monetary policy.

The specific features of the Indian economy, including its socio-economic characteristics predicate the investing of the monetary authority with multiple objectives for some time to come. While it could be desirable in the interest of clarity and transparency to stack up the objectives in a hierarchy, the jury is still out on the merits of public announcement of the policy weights assigned to each objective. Flexibility in the setting of monetary policy should override consideration of transparency so that public indication of weighting patterns associated with objectives should not solidify into a binding rule. Moreover, continuous monitoring of the underlying macro economic and financial conditions for monetary policy purposes will necessitate a continuous re-balancing of weights assigned to various objectives. In a pragmatic sense, therefore, it should suffice for the monetary authority to indicate the main objectives and an ordinal ranking, at best, to reflect the reading of underlying developments.

A single objective for monetary policy, as is usually advocated, particularly in an inflation targeting framework, is a luxury that India cannot afford, at least over the medium term. The cause of monetary policy is not lost, however; analytically, it can be shown that even if one of the multiple objectives is nominal among others that may be real, it can serve as the quintessential nominal anchor and enable

monetary policy to work. This view is supported by a pragmatic and influential strand in the literature which questions the recent proliferation of inflation targeting as a monetary policy framework (Friedman, 2000; McCallum, 1981). As regards inflation targeting, as the monetary policy regime fulfilling the single mandate advocacy, the jury is still out. Even though there has been an increase in the number of central banks adopting inflation targeting since the early 1990s, a number of central banks, notably the Federal Reserve, retain multiple objectives. I am not a monetary scholar, but I do feel that, given the current domestic and international complexities, we need to continue with a flexible framework for monetary policy. The least we need in the current circumstances is a less simplistic approach.

"In India, we have not favoured the adoption of inflation targeting, while keeping the attainment of low inflation as a central objective of monetary policy, along with that of high and sustained growth that is so important for a developing economy. Apart from the legitimate concern regarding growth as a key objective, there are other factors that suggest that inflation targeting may not be appropriate for India. First, unlike many other developing countries we have had a record of moderate inflation, with double digit inflation being the exception, and largely socially unacceptable. Second, adoption of inflation targeting requires the existence of an efficient monetary transmission mechanism through the operation of efficient financial markets and absence of interest rate distortions. In India, although the money market, government debt and forex market have indeed developed in recent years, they still have some way to go, whereas the corporate debt market is still to develop. Though interest rate deregulation has largely been accomplished, some administered interest rates still persist. Third, inflationary pressures still often emanate from significant supply shocks related to the effect of the monsoon on agriculture, where monetary policy action may have little role. Finally, in an economy as large as that of India, with various regional differences, and continued existence of market imperfections in factor and product markets between regions, the choice of a universally acceptable measure of inflation is also difficult" (Mohan, 2006b).

It is important to recognise the reality of multiple objectives of monetary policy in India. Nonetheless, it needs to be appreciated that relative to the past, we need to communicate better on the objective of price stability and as firmly as possible, *albeit* without necessarily a precise numerical objective. Indeed, why should a monetary policy invested with multiple objectives choose to quantify only one – the inflation rate? Indeed, setting such a precise numerical objective for inflation runs the risk of loss of central bank credibility in the context of the dominance of supply side shocks emanating from sources such as monsoon failure and administered pricing of various agricultural commodities and petroleum products. Whereas the share of agriculture in GDP has been declining and is now less than 20 per cent, the sector continues to be extremely important since the majority of the population remains dependent on agriculture. Therefore, setting precise numerical targets for inflation is fraught with the risk of loss of reputation across a large constituency.

Nevertheless, as the Indian economy becomes increasingly open with fuller capital account convertibility, the objective of progressively bringing inflation down to near international levels and maintaining price stability assumes greater importance. The experience of successfully bringing down inflation from persistent higher levels since the late 1990s to around 5 per cent in recent years has already brought down inflation expectations significantly.

As we place greater emphasis on low inflation and price stability, we also need to improve communication with respect to the understanding of inflation. At present, headline inflation in India is indicated by the weekly release of the All India Wholesale Price Index (WPI). Most countries use the Consumer Price Index (CPI) instead. The CPI is difficult to use in India because of the existence of 4 indexes of CPI, each reflecting the consumption basket of different sets of consumers in urban and rural areas.

An appropriate inflation indicator should (i) reflect price changes of constituent items accurately and (ii) provide some understanding of headline inflation. Whereas it is feasible to construct an economy wide consumer price index on the lines of the harmonized consumer price index (HICP) adopted in the UK and the Euro Area, it is not clear how useful it would be as an indicator of the general price level, given the widely differing consumption baskets as between rich and poor, between rural and urban areas and even between regions in India. In fact, a measure of producer prices to which the wholesale price index (WPI) is akin, is likely to be more representative and familiar across the country, since these prices are more likely to be uniform across the country. Accordingly, the commodity/services based price index should be seen as useful more as an indicator/information variable than as defining the inflation objective.

Moreover, the WPI is available on a weekly basis, with a two week lag, whereas the CPI indices are only available on monthly basis, and with a 2 month lag.

Monetary policy should be more explicitly associated with managing inflation expectations rather than current inflation. Accordingly, the guiding criterion for inclusion of a variable in the inflation indicators panel should be the information content on future inflation. An important sub-set would be real sector indicators of future inflation such as variability of output around trend/potential, capacity utilisation, inventory, corporate performance, industrial/ investment expectations and other indicators of aggregate demand. We have initiated greater quantitative technical work in these areas over the last couple of years to better inform our monetary policy making with a forward looking approach.

The Reserve Bank has also initiated inflation expectation surveys so that we can have some direct indicators of changing inflation expectations of the public. These quarterly surveys are still in the pilot testing stage so their results are not yet in the public domain. But the initial results look promising.

The more complex is the mandate for the central bank, the more is the necessity of communication (Mohan, 2005). The Reserve Bank of India clearly has complex objectives. Apart from pursuing monetary policy, financial stability is one of the overriding concerns of the RBI. Within the objective of monetary policy, both control of inflation and providing adequate credit to the productive sectors of the economy so as to foster growth are equally important. This apart, the Reserve Bank acts as a banking regulator, public debt manager, government debt market regulator and currency issuer. Faced with such multiple tasks and complex mandate, there is an utmost necessity of clearer communication on the part of the Reserve Bank.

A significant step towards transparency of monetary policy implementation is formation of various Technical Advisory Committees (TACs) in the Reserve Bank with representatives from market participants, other regulators and experts. In line with the international best practices and with a view to further strengthening the consultative process in monetary policy, the Reserve Bank, in July 2005, set up a Technical Advisory Committee on Monetary Policy (TACMP) with external experts in the areas of monetary economics, central banking, financial markets and public finance. The Committee meets at least once in a quarter, reviews macroeconomic and monetary developments and advises the Reserve Bank on the stance of monetary policy. The Committee has contributed to enriching the inputs and processes of monetary policy setting in India. Whether any further institutional changes are necessary, however, remains an open question.

III. Development of Monetary Policy Instruments and Transmission Process

Consistent with the structural changes in the monetary policy framework, improvements in the channels of transmission emerged early on as a concurrent objective in order to enhance policy effectiveness. Monetary policy clearly cannot work without adequate monetary transmission and the appropriate monetary transmission cannot take place without efficient price discovery of interest rates and exchange rates in the overall functioning of financial markets and their integration. Therefore, the corresponding development of the money market, Government securities market and the foreign exchange market became necessary. Accordingly, from the 1990s, the RBI simultaneously undertook the development of the domestic financial market spectrum, sequenced into the process of deregulation of interest rates, the withdrawal of statutory pre-emptions, the qualitative improvement in monetary-fiscal coordination and the progressive liberalisation of the exchange and payments regime, including the institution of a market oriented exchange rate policy. The development of financial markets in India encompassed the introduction of new market segments, new instruments and a sharper focus on regulatory oversight.

We have made a carefully calibrated transition from an administered interest rate regime to one of market determined interest rates over a period of time, while minimising disruption and preserving financial stability. This approach also provided market participants adequate time to adjust to the new regime.

The growing market orientation of monetary policy has tilted the choice of instruments decisively from direct to more indirect and market-based monetary policy measures. Until the early 1990s, statutory pre-emptions in the form of cash reserve ratio (CRR) and statutory liquidity ratio (SLR) requirements locked away nearly 65 per cent of bank deposits, severely eroding the profitability of the financial system and effectiveness of monetary policy. The SLR was brought down from 38.5 per cent of net demand and time liabilities (NDTL) in early 1992 to 25 per cent in October-1997. The CRR had been reduced progressively

from 15 per cent in 1991 to 4.5 per cent in 2003, before it had to be increased again in steps to 6.5 per cent in the current monetary tightening phase. Monetary maneuverability has now been strengthened further with removal of the erstwhile floor of 3 per cent and ceiling of 20 per cent in CRR through a statutory amendment. The statutory minimum SLR of 25 per cent has also been removed to provide for greater flexibility in the RBI's monetary policy operations.

The key policy development that has enabled a more independent monetary policy environment was the discontinuation of automatic monetisation of the government's fiscal deficit since April 1997 through an agreement between the Government and the Reserve Bank of India in September 1994, marking a unique milestone in monetary-fiscal coordination. Another important institutional change was the freeing of the RBI's balance sheet from the burden of exchange guarantees accumulated in the pre-reform era. Subsequently, enactment of the Fiscal Responsibility and Budget Management Act, 2003 has strengthened the institutional mechanism further: from April 2006 onwards, the Reserve Bank is no longer permitted to subscribe to government securities in the primary market. This step completes the transition to a fully market based system for Government securities. Looking ahead, consequent to the recommendations of the Twelfth Finance Commission, the Central Government has now ceased to raise resources on behalf of State Governments, which now have to access the market directly. Thus, State Governments' capability in raising resources will be market determined and based on their own financial health. For ensuring a smooth transition, institutional processes are being revamped towards greater integration in monetary operations.

Given the pivotal role of the money market in transmission, efforts initiated in the late 1980s were intensified over the full spectrum. Following the withdrawal of the ceiling on inter-bank money market rates in 1989, several financial innovations in terms of money market instruments such as certificate of deposits, commercial paper and money market mutual funds were introduced in phases. Barriers to entry were gradually eased by increasing the number of players and relaxing the issuance and subscription norms in respect of money market instruments, thus fostering better price discovery. In order to improve monetary transmission as also on prudential considerations, steps were initiated in 1999 to turn the call money market into a pure inter-bank market and, simultaneously, to develop a repo market outside the official window for providing a stable collateralised funding alternative, particularly to non-banks who were phased out of the call segment, and banks. The Collateralised Borrowing and Lending Obligation (CBLO), a repo instrument developed by the Clearing Corporation of India Limited (CCIL) for its members, with the CCIL acting as a central counter-party for borrowers and lenders, was permitted as a money market instrument in 2002. With the development of market repo and CBLO segments, the call money market has been transformed into a pure inter-bank market, including primary dealers, from August 2005. A recent noteworthy development is the substantial migration of money market activity from the uncollateralised call money segment to the collateralised market repo and CBLO markets. Thus, uncollateralised overnight transactions are now limited to banks and primary dealers in the interest of financial stability. Technological upgradation has accompanied the development of the money market. Efforts are currently underway to introduce screen-based negotiated quote-driven dealings in call/notice and term money markets. Information on overnight rates and volumes would be disseminated by the RBI in order to enable market participants to assess the liquidity conditions in an efficient and transparent manner.

The government securities market was moved to an auction-based system in 1992 to obtain better price discovery and to impart greater transparency in operations. This was a major institutional change, which, along with the freeing of the money and foreign exchange market and the phasing out of automatic monetisation of fiscal deficits, created a conducive environment for the progressive deregulation that was to follow. The setting up of well capitalised Primary Dealers (PDs) for dealing in Government securities followed in 1995, backed up by the introduction of Delivery *versus* Payment (DvP) for Government securities, adoption of new techniques of floatation, introduction of new instruments, particularly Treasury Bills of varying maturities and repos on all Central Government dated securities and Treasury Bills of all maturities by April 1997.

Since April 1992, the entire Central Government borrowing programme in dated securities has been conducted through auctions. In 2005, the Reserve Bank put in place an anonymous order matching system to improve price discovery, and settlement procedures for mitigating risks. To further activate trading and improve the depth of the securities market, the introduction of a "when issued" market has also been announced recently. All these measures have brought about significant changes and a new treasury culture is developing, contributing to the formation of the term structure of interest rates. The

demand for government securities is now driven more by considerations of effective management of liquidity rather than by statutory liquidity requirements.

The Indian foreign exchange market has been widened and deepened with the transition to a market-determined exchange rate system in March 1993 and the subsequent liberalisation of restrictions on various external transactions leading up to current account convertibility under Article VIII of the Articles of Agreement of the International Monetary Fund in 1994. Since the mid-1990s, banks and other authorised entities have been accorded significant freedom to operate in the market. Banks have been allowed freedom to fix their trading limits and to borrow and invest funds in the overseas markets up to specified limits. They have been allowed to use derivative products for hedging risks and asset-liability management purposes. Similarly, corporates have been given flexibility to book forward cover based on past turnover and are allowed to use a variety of instruments like interest rates and currency swaps, caps/collars and forward rate agreements. The swap market for hedging longer-term exposure has developed substantially in recent years. A number of steps have also been taken to liberalise the capital account covering foreign direct investment, portfolio investment, outward investment including direct investment as well as depository receipt and convertible bonds, opening of Indian corporate offices abroad and the like. In recent years, the Reserve Bank has delegated exchange control procedures to banks and authorised dealers to such an extent that there is hardly any need to approach the Reserve Bank for any approval. These reforms are being reflected in vibrancy in activity in various segments of the foreign exchange market with the daily turnover over US \$ 28 billion (as at the end of April 2007).

A key area of emphasis in the development of financial markets in India is the provision of the appropriate technological infrastructure for trading, clearing, payment and settlement. Since the late 1990s, the establishment of a modern, robust payments and settlement system consistent with international best practices has emerged as an important objective of the RBI. A three-pronged strategy of consolidation, development and integration has been pursued in this regard. Consolidation revolves around strengthening the existing payment system by providing the latest levels of technology. The developmental dimension includes real time gross settlement, centralised funds management, securities settlement and structured electronic financial messaging. Other key elements in the technological content of market development are electronic clearing (introduced in 1994), electronic funds transfer (1996), quick funds transfers with centralised settlement in Mumbai (2003), negotiated dealing system (NDS), screen based order matching system (2002) for electronic reporting of trades and online dissemination system and submission of bids for primary issuance of government securities and a Clearing Corporation of India Ltd. (CCIL), promoted by banks, financial institutions and primary dealers for clearing and settlement of trades in foreign exchange, government securities and other debt instruments, commenced operations in April 2001. The CCIL acts as a central counterparty (CCP) to all transactions and guarantees settlement of trades executed through its rules and regulations eliminating counterparty risks in adherence to international best practices. Oversight over the payments and settlement system is vested in a National Payments Council, and Board for Payment and Settlement Systems established within the RBI.

As may be seen from this brief description of the various measures that had to be taken to develop the market and institutional framework for efficient monetary policy transmission, development of markets is an arduous and time consuming activity that requires conscious policy making and implementation. Markets do not develop and function overnight: they have to be created, nurtured and monitored on a continuous basis before they start functioning autonomously. Efficient transmission of monetary impulses clearly needs integration of markets.

Issues

Interest rate deregulation is essential to smoothen the transmission channels of monetary policy and to enhance the signaling effects of policy changes. Whereas considerable progress has been made in this direction, full deregulation is constrained by the need for various policy interventions in the context of a still developing economy. The Government had nationalised most of the banking system in 1969 in order to ensure the spread of banking throughout the country. Whereas new private sector banks have now been introduced since the mid 1990s, public sector banks still account for 70 per cent of banking assets. These banks need to continue to perform various public policy activities, particularly in the area of agriculture, small and medium enterprises, and the cause of overall financial inclusion. This can also include certain degree of credit allocation and interest rate directions. Hence, monetary transmission can get muted at the margin.

The Government also fixes certain administered interest rates on a number of small saving schemes and on provident funds, along with providing certain tax incentives, in the absence of well developed social security systems. As banks have to compete for funds with small saving schemes, the rates offered on long-term deposits mobilised by banks sometimes have to be set at levels higher than would have obtained under competitive market conditions. In fact, this has been observed to be a factor contributing to downward stickiness of lending rates, which has some implications for the effectiveness of monetary policy. This is a reality that we have to appreciate and live with given the absence of social security coverage and adequate safety nets in the country. These small savings schemes administered by the government through the wide reach of post offices, and some through commercial banks, provide small savers access to tax savings instruments that are seen as safe and stable. Whereas they do have some impact in terms of blunting monetary transmission mechanisms, they can perhaps be seen as contributing to overall financial stability. Benchmarking these administered interest rates to market determined rates has been proposed from time to time. Whereas some rationalisation in schemes has indeed been done, more progress will depend on the emergence of better social security and pension systems, and perhaps easier access to marketable sovereign instruments.

While the government securities market is fairly well developed now, the corporate debt market remains to be developed for facilitating monetary signaling across various market segments. We understand, however, that it has been difficult to develop the corporate bond market in most countries. Almost half the world's corporate bond market is in the US, and another 15 per cent in Japan. Among other countries, while the UK has a long standing bond market, the European bond market has only began to really develop after European monetary integration and introduction of the Euro. Among developing countries, it is perhaps only South Korea that has a reasonably well developed bond market.

In the absence of a well developed corporate debt market, the demand for debt instruments has largely concentrated on government securities with the attendant implications for the yield curve and, in turn, for monetary transmission. The secondary market for corporate debt has suffered from lack of market making resulting in poor liquidity. Corporates continue to prefer private placements to public issues for raising resources in view of ease of procedures and lower costs.

There is a need for development of mortgage-backed securities, credit default swaps, bond insurance institutions for credit enhancement, abridgment of disclosure requirements for listed companies, credit information bureaus, rating requirements for unlisted companies, real time reporting of primary and secondary trading, and eventual retail access to the bond market by non-profit institutions and small corporates. A concerted effort is now being made to set up the institutional and technological structure that would enable the corporate debt market to operate. Furthermore, the on-going reforms in the area of social security coupled with the emergence of pension and provident funds are expected to increase the demand for long-term debt instruments. In the process, the investor base for government securities would be broadened, extending the monetary transmission across new players and participants.

For monetary policy to be more effective, the monetary transmission process has to be improved on a continuous basis so that price discovery is better. In this endeavour, we need to keep developing the various financial markets, increase their connection with credit markets, remove distortions in the market and reverse current tendency to move back to administered interest rates.

IV. Development of Financial Markets

There has been a great deal of progress in developing the money market, government securities market and forex market. With greater capital account openness, we need to develop them further to enable market participants to absorb greater volatility and shocks. Each of these markets needs to be deeper. In the context of progress towards further capital account convertibility, the market participants are going to be faced with increased risks on multiple accounts: volatility in capital flows, volatility in asset prices, increased contagion and state of ability of legacy institutions in managing risks.

Money Market

The money market remains fragmented with different segments giving rise to different overnight rates. The call money market, which remains an uncollateralised market has now become a pure inter-bank

market amongst banks and primary dealers with the withdrawal of non-banks. Alongside, primarily for non-bank participants at the shorter end, there is the market repo outside the repo market under the liquidity adjustment facility. This is a collateralised segment of money market. The collateralised borrowing and lending obligation (CBLO) market, operated by the CCIL amongst its members is yet another collateralised money market instrument. With the decision to move gradually towards a pure inter-bank call/term money market, there is a need to remove the operational/regulatory constraints in the repo market. One of the perceived hurdles in the development of the repo market is the inability to rollover contracts. To enable continuous access to funds from the repo market, rollover of repos has been allowed with migration to DvP III.

The issue remains what further developments are needed in terms of eligible collaterals, membership, etc to integrate the different segments of the money market so that the money market as a whole is enabled to cope better with market fluctuations in the run-up to fuller capital account convertibility. An important gap in developing the money market is that term money market is still to emerge and hence, the evolution of yield curve remains inadequate. We need to explore what is to be done to build this market with further opening of capital account.

Interest Rate Derivatives

The need for a well developed interest rate derivatives market cannot be overemphasised in providing effective hedging tools for interest rate risks present in the balance sheet and in facilitating trading based on two-way view on interest rates, which is not possible in the underlying cash market in the absence of short selling. Deregulation of interest rates, which helped in making financial market operations efficient and cost effective, has brought to the fore a wide array of risks faced by market participants. To manage and control these risks, several instruments such as Forward Rate Agreements (FRA) and Interest Rate Swaps (IRS) were introduced in July 1999, which could provide effective hedges against interest rate risks. Further, in June 2003, the Reserve Bank of India had issued guidelines to banks/primary dealers/FIs for transacting in exchange traded interest rate futures, which were introduced on the exchanges. There has also been a sharp increase in the volume of transactions in the OTC products. Though there has been a significant increase in the number and amount of contracts, participation in the markets continues to remain limited mainly to select foreign and private sector banks and PDs. In fact, PDs are expected to be market makers in this segment. Since some difficulties have been experienced in the operation of the exchange traded interest rate futures market, we are now in the process of reviewing the structure so that it can become an active market for interest rate discovery and hedging.

Despite the growing volumes in the OTC derivatives market, as is the case globally, there had been some apprehensions regarding the appropriate legal backing for these instruments. This issue has now been addressed with an appropriate amendment to the Reserve Bank of India Act. OTC derivatives are now clearly legally valid, even if they are not traded on any recognised stock exchange. Exchange traded derivatives have their own role to play in the debt market - but by their very nature they have to be standardised products. OTC derivatives, on the other hand can be customised to the requirements of the trading entities. Thus, both OTC and exchange traded derivatives are essential for market development.

A central counter party based clearing arrangement for OTC derivatives would reduce counterparty risk and extend the benefits of netting. Accordingly, in order to strengthen the OTC derivatives market and to mitigate the risks involved, a clearing arrangement for the OTC interest rate derivatives also need to be considered. This measure would strengthen the OTC interest rate derivatives market, and provide greater transparency as need through adequate reporting requirements.

While everywhere in the world, most trading is in the OTC segment, there is no reason why we cannot innovate and have electronic based, order matched trading to have a wider reach and also thereby enhance liquidity in the market. Work is now afoot to provide for an exchange traded system for corporate bonds.

As we make arrangements for the operation of better markets for interest rate discovery, trading and hedging instruments, I would like to stress the need and importance of sound and adequate risk management practices by market participants in the derivatives market. International experience teaches us the need for greater care in handling these instruments. I would expect that the market players not only put in place an appropriate risk management policy and procedures for these products, but would also give equal importance to the skills development of their human resources to handle these instruments and to appreciate the underlying risks. As interest rate derivatives grow, an area which requires attention relate to accounting and disclosures. The relevant standards need to be comprehensive and benchmarked to international standards.

Government Securities Market

Following the enactment of the Fiscal Responsibility and Budget Management Act, 2003, from April 2006 onwards, the Reserve Bank is no longer permitted to subscribe to government securities in the primary market. In order to ensure a smooth transition to the new regime, restructuring of current institutional processes has already been initiated (Mohan, 2006a). These steps are helping to achieve the desired integration in the conduct of monetary operations.

In the new milieu, the Reserve Bank may need to carry out greater open market operations (OMO) in the secondary market. Such operations could be qualitatively different from its LAF or MSS operations, which are guided by considerations of liquidity management primarily at the shorter end. The issue is what should be the determining factor for such secondary market operations. Generally, by controlling the short-term interest rate while letting markets determine the rest of the yield curve, the central bank attempts to transmit monetary policy impulses across the yield curve. The sovereign yield curve in turn influences the lending and deposit rates in the economy. Once bank lending gets affected, interest rates impact real variables such as consumption and investment, which in turn impact output and inflation levels. However, the government securities market is yet to emerge fully as a deep and liquid market across different maturities. Given such a state, in the interest of monetary transmission, there is a case for secondary market operation across the yield and maturity spectrum in the government securities market and more so, in the context of RBI's withdrawal from the primary market.

Efforts are being made to improve the retail holding of government securities since the Government securities market still lacks in depth and is dominated by banks and financial institutions often exhibiting uni-directional perceptions about liquidity. To attract retail participation in government securities market, one of the foremost tasks ahead is to create an environment that provides a safe and secure investment avenue for small investors with adequate returns and liquidity. In this context, the RBI is emphasising the provision of demat holding facility for non-institutional retail/small investors for risk mitigation in scrip losses or settlement of deals in the secondary market. Non-competitive bidding has also been introduced since January 2002 for direct access to the primary issues for non-sophisticated investors.

As part of its constant endeavour to improve the facilities for trading and settlement in the Government securities market, the Reserve Bank had formally launched, on August 1, 2005, an electronic Order Matching trading module for Government securities on its Negotiated Dealing System (NDS-OM in short). The NDS-OM is an additional facility available to the participants and the participants continue to have the option of using the current reporting and trading platform of the NDS. While the NDS-OM now accounts for a significant share of the total traded volume in government securities, the countrywide, anonymous, screen based, order driven system for trading in government securities introduced in the stock exchanges (NSE, BSE and OTCEI) in January 2003 has continued to suffer from very poor trading volumes, which need to be looked into for revival.

Corporate Debt Market

In order to activate the corporate debt market, the government had appointed an expert committee (Chairman: R.H. Patil) to provide directions on how this is to be done (Government of India, 2005). A key point that I would like to emphasise is that learning from the experience of developing the Government securities market, we need to proceed in a measured manner with well thought out appropriate sequencing for developing the corporate debt market. Financial market development involves action on a number of fronts with the key objective, obviously, being to enable the most efficient allocation of resources to the most productive uses and efficient intermediation from savers to investors. In other

words, banking development, equity market development, debt market development all go hand in hand. And within the debt market, an efficient Government securities market is essential for price discovery and for providing reliable benchmarks to price corporate bonds off the credit risk free yield curve.

The key problem is that for a corporate bond market to function, we need a large number of issuers, a large number of investors and issues of a large size. It may be noted that each of the problems mentioned in respect of corporate bonds has been addressed in the context of development of G-securities market. That goes to show that the problems are not insurmountable but only that it takes some time to resolve. But we have just begun and work is now in progress. It is true that the Government securities market took a long time to develop, despite being much simpler. The corporate debt market being much more complex, would require some extra effort to move ahead. In short, we have a long way to go but we have to make a determined effort.

V. Exchange Rate Policy

Our exchange rate policy in recent years has been guided by the broad principles of careful monitoring and management of exchange rates with flexibility, without a fixed target or a pre-announced target or a band, coupled with the ability to intervene if and when necessary, while allowing the underlying demand and supply conditions to determine the exchange rate movements over a period in an orderly way. Subject to this predominant objective, the exchange rate policy is guided by the need to reduce excess volatility, prevent the emergence of destabilising speculative activities, help maintain adequate level of reserves, and develop an orderly foreign exchange market.

The Indian market, like other developing countries markets, is not yet very deep and broad, and can sometimes be characterised by uneven flow of demand and supply over different periods. In this situation, the Reserve Bank of India has been prepared to make sales and purchases of foreign currency in order to even out lumpy demand and supply in the relatively thin forex market and to smoothen jerky movements. However, such intervention is not governed by a predetermined target or band around the exchange rate. As the foreign exchange exposure of the Indian economy expands, the role of such uneven demands can be seen to reduce.

With this approach, we have achieved flexibility along with stability in the external sector. Increased earnings from exports of services and remittances coupled with enhanced foreign investment inflows have provided strength to the external sector. Reflecting the strong growth prospects of the Indian economy, the country has received large investment inflows, both direct and portfolio, since 1993-94 as compared with negligible levels till the early 1990s. Total foreign investment flows (direct and portfolio) increased from US\$ 111 million in 1990-91 to US\$ 24,748 million in 2006-07. Over the same period, current account deficits remained modest – averaging one per cent of GDP since 1991-92 and in fact recorded small surpluses during 2001-04. With capital flows remaining in excess of the current financing requirements, the overall balance of payments recorded persistent surpluses leading to an increase in reserves, which have now reached US\$ 1,99,179 million at end-March 2007. The emergence of foreign exchange surplus lending to continuing and large accretion to reserves since the mid 1990s has been a novel experience for India after experiencing chronic balance of payment problems for almost four decades. These surpluses began to arise after the opening of the current account, reduction in trade protection, and partial opening of the capital account from the early to mid 1990s.

India's integration with the world economy is also getting stronger, with implications for the conduct of exchange rate policies in the future. Trade in goods (i.e., exports *plus* imports) as a proportion of GDP increased from 14.6 per cent in 1990-91 to 32.5 per cent in 2005-06; while gross current account receipts and payments as percentage of GDP increased from 19.4 per cent to 50.2 per cent over the same period, reflecting the buoyant growth in Indian trade in services. The trade deficit is also as high as 6.4 per cent of GDP. Correspondingly, in the capital account, gross flows (total inflows *plus* outflows) have more than doubled as a proportion of GDP: from 12.1 per cent in 1990-91 to 32.4 per cent (US\$ 260 billion) in 2005-06. Thus, the Indian economy is today substantially exposed to the international economy and arguably more open than even the United States in terms of these metrics.

Issues

Dutch Disease

In recent years, the growth in current payments has been accompanied by healthy growth in current receipts - in both goods and services, thus providing for some confidence in the sustainability of current trade patterns and financial stability. Current receipts pay for up to about 90 per cent of current payments. Within current receipts, merchandise exports are being rapidly exceeded in terms of growth rates by software earnings, currently at 2.9 per cent of GDP. Besides, private transfer receipts, comprising mainly remittances from Indians working abroad, seemed to have acquired a permanent character and have risen steadily to constitute around 3 per cent of GDP in recent years, impervious to exchange rate movements. These factors have strengthened the capability of the Indian economy to sustain higher current account deficits (CADs) than in the past. Net capital flows have thus regularly exceeded the CAD requirements by a fair measure, enabling large accretions to the reserves.

The large inflow of remittances and major and sustained spurt in software exports coupled with capital inflows have the potential for possible overvaluation of the currency and the resultant erosion of long-term competitiveness of other traditional and goods sectors – popularly known as the Dutch disease. Given the fact that more people are in the goods sector, the human aspects of the exchange rate management should not be lost sight of. Therefore, the Dutch Disease syndrome has so far been managed by way of reserves build-up and sterilisation, the former preventing excessive nominal appreciation and the latter preventing higher inflation. However, the issue remains how long and to what extent such an exchange rate management strategy would work given the fact that we are faced with large and continuing capital flows apart from strengthening current receipts on account of remittances and software exports. This issue has assumed increased importance over the last year with increased capital flows arising from the higher sustained growth performance of the economy and significant enhancement of international confidence in the Indian economy.

Liquidity Management

Volatility in capital flows and hence in liquidity has marked the period during 2001-07 and posed considerable problems in liquidity and exchange rate management. Sharp shifts in capital flows can be explained as partly frictional and arising from seasonal and transient factors, partly cyclical and associated with the pick up in growth momentum and the induced demand for bank credit, and partly led by growth expectation. Moreover, the absorption of external savings is also dependent on the stage of a business cycle that a country may be going through. Further, the stage of business cycle and the timing of capital flows may not coincide. The early years of this decade were characterised by low industrial growth and hence the absorptive capacity of the country was constrained. As we have entered an expansionary phase, the current account has widened and the potential for some greater absorption has manifested itself.

The volatile capital flows have warranted appropriate monetary operations to obviate wide fluctuations in market rates and ensure reasonable stability consistent with the monetary policy stance. In fact, the Indian experience illustrates the tight link between external sector management and domestic monetary management. What may be small movements in capital flows for the rest of the world can translate into large domestic liquidity movements distorting market exchange and interest rates in a developing country. Just as foreign exchange reserves can act as a shock absorber, on the external front, we had to look for a parallel liquidity shock absorber for domestic monetary management.

In this context, a new instrument, named as the Market Stabilisation Scheme (MSS) has evolved as a useful instrument of monetary policy to sustain open market operations. The MSS was made operational from April 2004. Under this scheme, which is meant exclusively for liquidity management, the Reserve Bank has been empowered to issue Government Treasury Bills and medium duration dated securities for the purpose of liquidity absorption. The scheme works by impounding the proceeds of auctions of Treasury bill and Government securities in a separate identifiable MSS cash account maintained and operated by the RBI. The amounts credited into the MSS cash account are appropriated only for the purpose of redemption and / or buy back of the Treasury Bills and / or dated securities issued under the MSS. MSS securities are indistinguishable from normal Treasury Bills and Government dated securities in the hands of the lender. The payments for interest and discount on MSS securities are not made from

the MSS Account, but shown in the Union budget and other related documents transparently as distinct components under separate sub-heads. The introduction of MSS has succeeded, in principle, in restoring LAF to its intended function of daily liquidity management. Since its introduction in April 2004, the MSS has served as a very useful instrument for medium term monetary and liquidity management. It has been unwound in times of low capital flows and greater liquidity needs and built up when excess capital flows could lead to excess domestic liquidity. In principle, the MSS is designed to sterilise excess capital flows that are deemed to be durable or semi-durable. In practice this is difficult to discern *ex-ante*: hence the range of MSS instruments in terms of their duration can effectively modulate the sterilisation on an *ex-post* basis.

Our strategy of introducing this new MSS instrument to manage excess capital flows and reduce volatility in the exchange rate reflects the overall issue of global capital flows that many developing countries are facing, particularly in Asia. Net private flows (equity + debt) have increased from an average of about US\$ 180 billion over the five year period 1998 to 2002, to about US\$ 650 billion in 2006, amounting to about 5 per cent of their GDP (World Bank, 2007). Absorption of such a volume of flows would imply a corresponding current account deficit of about 5 per cent of GDP. What should be the approach to exchange rate determination in such circumstances? To what extent is the current account balance a good guide to evaluation of the appropriate level of an exchange rate? To what extent should the capital account influence the exchange rate? What are the implications of large current account deficits for the real economy? Are they sustainable and, if not, what are the implications for financial stability in developing countries? In India's case, as mentioned, we have almost always had a modest current account deficit though, because of remittances and service exports, the trade deficit has widened significantly in recent years. These are the issues that we have to deal with as we negotiate fuller capital account convertibility, but I believe these are wider questions that are engaging most countries in Asia.

Going forward, there will be a continuous need to adapt the strategy of liquidity management as well as exchange rate management for effective monetary management and short-term interest rate smoothening. The key questions we continue to face with are what should be the instruments and modes of management of liquidity in the interest of growth and financial stability and how much should capital flows affect exchange rate. These issues become even more relevant under a freer regime of capital flows. Global developments are expected to have an increasing role in determining the conduct of monetary and exchange rate policies in our countries. In an environment of global convergence, retaining independence of monetary policy may become increasingly difficult, calling for hard choices in terms of goals and instruments.

VI. Fiscal Situation and Fiscal Responsibility and Budget Management Act

Some Progress

Public finances have exhibited a mixed trend in the reforms period. After witnessing some correction till 1996-97, public finances underwent deterioration, reflecting a variety of factors such as the decline in tax revenues (as per cent to GDP) in consonance with the cyclical downturn of economic activity, as well as the effects of the 5th Pay Commission award. Indeed, the combined fiscal deficit of the Centre and States was higher in 2001-02 than that in 1990-91. Since 2002-03 onwards, public finances have witnessed a significant improvement, reflecting both policy efforts at fiscal consolidation as well as the upturn in economic activity (Table 1). A noteworthy development at the federal level is the transformation of state level sales taxes into the Value Added Tax (VAT), which has introduced a large measure of rationality and uniformity in the state tax system. The state sales tax system had also suffered from great complexity in terms of multiplicity of rates and special provisions. A vital feature of this tax reform has been the consultative process among all the states as mediated by the central government, which then resulted in this consensus for massive reform.

Table 1: Combined Deficit Indicators: Centre and States

Year	(As per cent of GDP)		
	Fiscal Deficit	Revenue Deficit	Primary Deficit
2001-02	10.0	7.0	3.7
2002-03	9.6	6.6	3.1
2003-04	8.5	5.8	2.1
2004-05	7.5	3.7	1.4
2005-06	7.4	3.1	1.6
2006-07	6.4	2.2	0.8

Source: Reserve Bank of India

Issues

Notwithstanding the recent correction, combined public debt remains high (almost 79 per cent of GDP at end March 2006). The latest most significant measure taken is the introduction of the Fiscal Responsibility and Budget Management Act (FRBM) in 2004, which enjoins the government to eliminate its revenue deficit and reduce its fiscal deficit to 3 per cent of GDP by 2009. Similar acts have been passed by most state governments (25 states so far). So fiscal responsibility has now become part of our legislative commitments. Together, they, however, amount to a total deficit of about six per cent of GDP, which is considered high by global standards.

After the award of the 5th Pay Commission in 1997, public finances had come under strain and hence public savings had become negative. Now the growth process has clearly recovered and we seem to be on a sustainable path of annual GDP growth in excess of 8.5 per cent. The 8.5 per cent plus growth would itself place in demand for higher government wages and the 6th Pay Commission has to come, complicating the fiscal consolidation process.

Achieving the FRBM target of zero revenue deficit by 2008-09 requires continued focus on containing expenditures, increase in tax revenues and reduction in tax exemptions. Revenue augmentation would critically depend upon improvement in tax/GDP ratio as non-tax revenue is set to decline in the coming years. In this context, the reversal of the declining trend in tax-GDP ratio is welcome. This increasing trend needs to be maintained through further widening of the tax base and curtailment in tax exemptions. It is in this context that the erosion of tax base on account of various exemptions poses a cause for concern.

With the attainment of a sustainable higher growth path in excess of 8.5 per cent annual real GDP growth, the prospects for continued fiscal consolidation have improved. Tax revenues have become buoyant with continuing healthy growth in corporate profits and personal incomes. Furthermore, the introduction of the value added tax (VAT) system at the state level provides further ground for optimism. What we will need to guard against are the usual demands for exemptions that contribute to erosion of the tax base.

An important point to note in relation to the Indian fiscal situation is that, despite the long term persistence of high fiscal deficits by any standards, India has not been subject to banking or financial market turbulence. Our fiscal parameters have not been too different from some of the countries that have experienced the most turbulence, such as Turkey and Argentina. In fact, it is because of our inadequate fiscal performance that India did not have investment grade rating until earlier this year. The main reasons why India has been able to maintain financial stability in the presence of such fiscal stress is that almost all the sovereign debt has been domestic, except for bilateral and multilateral external borrowing, which itself has been small proportionately. India has eschewed sovereign borrowing in external markets, thereby insulating ourselves from external volatility in exchange rates and interest rates. The move to increased market borrowing has also been useful in providing market signals on the cost of borrowing. Finally, coordination between monetary policy, domestic debt management, and financial sector policies in the Reserve Bank and the Government has also helped in this regard.

VII. Strengthening of Financial Sector/Banks

The financial system in India, through a measured, gradual, cautious, and steady process, has undergone substantial transformation. It has been transformed into a reasonably sophisticated, diverse and resilient system through well-sequenced and coordinated policy measures aimed at making the Indian financial sector more competitive, efficient, and stable. The overall capital adequacy ratio of the banking sector as a whole has increased from 10.4 per cent at end-March 1997 to 12.3 per cent at end-March 2007.¹ The asset quality of the banking sector has recorded a significant improvement: the ratio of net non-performing assets to net advances has declined from 8.1 per cent at end-March 1997 to 2.0 per cent at end-March 2007 despite tightening of NPA classification norms. The profitability of banks as defined by the return on assets increased from 0.7 per cent in 1996-97 to 0.9 per cent in 2006-07. Intermediation cost of banks has declined from 2.9 per cent in 1995-96 to around 2 per cent by 2006-07. The financial system is now robust and resilient, and is enabling accelerated economic growth in an environment of stability.

Consistent with the policy approach to benchmark the banking system to the best international standards with emphasis on gradual harmonisation, in a phased manner, all foreign banks operating in India and all Indian commercial banks having foreign operations are required to start implementing Basel II with effect from March 31, 2008, while other commercial banks are required to implement Basel II by March 31, 2009.² Recognising the differences in degrees of sophistication and development of the banking system, it has been decided that the banks will initially adopt the Standardised Approach for credit risk and the Basic Indicator Approach for operational risk. After adequate skills are developed, both by the banks and also by the supervisors, some of the banks may be allowed to migrate to the Internal Rating Based (IRB) Approach. Although implementation of Basel II will require more capital for banks in India, the cushion available in the system - at present, the Capital to Risk Assets Ratio (CRAR) is over 12 per cent - provides some comfort. In order to provide banks greater flexibility and avenues for meeting the capital requirements, the Reserve Bank has issued policy guidelines enabling issuance of several instruments by the banks viz., innovative perpetual debt instruments, perpetual non-cumulative preference shares, redeemable cumulative preference shares and hybrid debt instruments.

The Reserve Bank founded the Board for Financial Supervision (BFS) in 1994 to upgrade its practice of financial supervision of banks. In course of time, development financial institutions, specialised term-lending institutions, non-banking financial companies (NBFCs), urban co-operative banks and primary dealers (PDs) have all been brought under the supervision of the BFS. A set of prudential norms for the commercial banking sector had been instituted as early as 1994 with regard to capital adequacy, income recognition and asset classification, provisioning, exposure norms and more recently, in respect of their investment portfolio. With the aim of regulatory convergence for entities involved in similar activities, prudential regulation and supervision norms were also introduced in phases for DFIs, NBFCs, co-operative banks and PDs.

In tandem with the gradual opening up of the economy, the regulatory and supervisory framework was spruced up comprising of a three-pronged strategy of regular on-site inspections, technology-driven off-site surveillance and extensive use of external auditors. As a result of improvements in the regulatory and supervisory framework, the degree of compliance with the Basel Core Principles has gradually improved. The supervisory framework has been further upgraded with the institution of a framework of Risk-based Supervision (RBS) for intensified monitoring of vulnerabilities. A scheme of Prompt Corrective Action (PCA) was effected in December 2002 to undertake mandatory and discretionary intervention against troubled banks based on well-defined financial/prudential parameters. In view of the growing emergence of financial conglomerates and the possibility of systemic risks arising therefrom, a system of consolidated accounting has been instituted. A half-yearly review based on financial soundness indicators is being undertaken to assess the health of individual institutions and macro-prudential indicators associated with financial system soundness. The findings arising thereof are disseminated to the public through its various Reports.

¹ Data for 2006-07 are unaudited and provisional.

² They have, however, the option of implementing Basel II with effect from March 31, 2008 as well.

The bankruptcy procedures for containing the level of NPAs have been strengthened over the years. Debt Recovery Tribunals (DRTs) were established consequent to the passing of Recovery of Debts Due to Banks and Financial Institutions Act, 1993. With a view to putting in place a mechanism for timely and transparent restructuring of corporate debts of viable entities facing problems, a Scheme of Corporate Debt Restructuring (CDR) was started in 2001 outside the purview of BIFR (i.e., Board for Industrial and Financial Reconstruction), DRT and other legal proceedings. Similar guidelines on debt restructuring of viable or potentially viable SME units were issued in September 2005. To provide a significant impetus to banks to ensure sustained recovery, the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act was passed in 2002 and was subsequently amended to ensure creditor rights. With a view to increasing the options available to banks for dealing with NPAs, guidelines were also issued on sale/ purchase of NPAs in July 2005. Subsequently, a few Asset Reconstruction Companies have been registered. Thus, the bankruptcy procedures for recovery of bad debts have been streamlined over the years even though the Sick Industrial Companies Act (SICA) continues to be in vogue.

A further challenge for policy in the context of fuller capital account openness will be to preserve the financial stability of the system as greater deregulation is done on capital outflows and on debt inflows. This will require market development, enhancement of regulatory capacity in these areas, as well as human resource development in both financial intermediaries and non-financial entities. In consonance with the objective of enhancing efficiency and productivity of banks through greater competition - from new private sector banks and entry and expansion of several foreign banks - there has been a consistent decline in the share of public sector banks in total assets of commercial banks. Notwithstanding such transformation, the public sector banks still account for nearly 70 per cent of assets and income. Public sector banks have also responded to the new challenges of competition, as reflected in their increased share in the overall profit of the banking sector. This suggests that, with operational flexibility, public sector banks are competing relatively effectively with private sector and foreign banks. Public sector bank managements are now probably more attuned to the market consequences of their activities (Mohan, 2006a). But it is also they who face the most difficult challenges in human resource development. They will have to invest very heavily in skill enhancement at all levels: at the top level for new strategic goal setting; at the middle level for implementing these goals; and at the cutting edge lower levels for delivering the new service modes. Wide disparities exist within the banking sector as far as technological capabilities are concerned: the percentage of 'computer literate' employees as percentage of total staff in 2000 was around 20 per cent in public sector banks compared with 100 per cent in new private and around 90 per cent in foreign banks (Reserve Bank of India, 2002). Data reported by the RBI suggests that nearly 71 per cent of branches of public sector banks are fully computerised. However, computerisation needs to go beyond the mere 'arithmetics', to borrow a term from the Report of the Committee on Banking Sector Reforms (Government of India, 1998), and instead, needs to be leveraged optimally to achieve and maintain high service and efficiency standards. Given the average age of 45 years *plus* for employees in the public sector banks, they will also face new recruitment challenges in the face of adverse compensation structures in comparison with the freer private sector.

The issue of mixed ownership as an institutional structure where government has controlling interest is a salient feature of bank governance in India. Such aspects of corporate governance in public sector banks is important, not only because public sector banks dominate the banking industry, but also because, it is likely that they would continue to remain in banking business. To the extent there is public ownership of public sector banks, the multiple objectives of the government as owner and the complex principal-agent relationships needs to be taken on board. Over the reform period, more and more public sector banks have begun to get listed on the stock exchange, which, in its wake, has led to greater market discipline and concomitantly, to an improvement in their governance aspects as well. The broadbased and diversified ownership of public sector banks has brought about a qualitative difference in their functioning, since there is induction of private shareholding as well as attendant issues of shareholder's value, as reflected by the market capitalisation, board representation and interests of minority shareholders. Given the increased technical complexity of most business activities including banking and the rapid pace of change in financial markets and practices, public sector banks would need to devise imaginative ways of responding to the evolving challenges within the context of mixed ownership.

Another aspect of greater capital market openness concerns the presence of foreign banks in India. The Government and Reserve Bank outlined a roadmap on foreign investment in banks in India in February 2005, which provides guidelines on the extent of their presence until 2009. This roadmap is consistent with the overall guidelines issued simultaneously on ownership and governance in private sector banks in

India. The presence of foreign banks in the country has been very useful in bringing greater competition in certain segments in the market. They are significant participants in investment banking and in development of the forex market. With the changes that have taken place in the United States and other countries, where the traditional barriers between banking, insurance and securities companies have been removed, the size of the largest financial conglomerates has become extremely large. Between 1995 and 2004, the size of the largest bank in the world has grown three-fold by asset size, from about US \$ 0.5 trillion to US \$ 1.5 trillion, about one and a half times the size of Indian GDP. This has happened through a great degree of merger activity: for example, J.P.Morgan Chase is the result of mergers among 550 banks and financial institutions. The ten biggest commercial banks in the US now control almost half of that country's banking assets, up from 29 per cent just 10 years ago (Economist, 2006). Hence, with fuller capital account convertibility and greater presence of foreign banks over time, a number of issues will arise. First, if these large global banks have emerged as a result of real economies of scale and scope, how will smaller national banks compete in countries like India, and will they themselves need to generate a larger international presence? Second, there is considerable discussion today on overlaps and potential conflicts between home country regulators of foreign banks and host country regulators: how will these be addressed and resolved in the years to come? Third, given that operations in one country such as India are typically small relative to the global operations of these large banks, the attention of top management devoted to any particular country is typically low. Consequently, any market or regulatory transgressions committed in one country by such a bank, which may have a significant impact on banking or financial market of that country, is likely to have negligible impact on the bank's global operations. It has been seen in recent years that even relatively strong regulatory action taken by regulators against such global banks has had negligible market or reputational impact on them in terms of their stock price or similar metrics. Thus, there is loss of regulatory effectiveness as a result of the presence of such financial conglomerates. Hence, there is inevitable tension between the benefits that such global conglomerates bring and some regulatory and market structure and competition issues that may arise.

Along with the emergence of international financial conglomerates we are also witnessing similar growth of Indian conglomerates. As in most countries, the banking, insurance and securities companies each come under the jurisdiction of their respective regulators. A beginning has been made in organised cooperation between the regulators on the regulation of such conglomerates, with agreement on who would be the lead regulator in each case. In the United States, it is a financial holding company that is at the core of each conglomerate, with each company being its subsidiary. There is, as yet, no commonality in the financial structure of each conglomerate in India: in some the parent company is the banking company; whereas in others there is a mix of structure. For Indian conglomerates to be competitive, and for them to grow to a semblance of international size, they will need continued improvement in clarity in regulatory approach.

VIII. Concluding Remarks

I have described at length the evolution of India's macroeconomic and monetary management over the last decade and a half to demonstrate the complexity of such management in the context of a developing economy that manages its opening up to the rest of the world in a gradual manner. Monetary policy and exchange rate regimes have necessarily to be operated as fuzzy or intermediate regimes not obeying the almost received wisdom of purist approaches. The judgement on the legitimacy of such a regime must be based on their efficacy as revealed by the outcomes. On this count, I believe that India's macroeconomic, monetary and financial managers can justifiably claim a reasonable degree of success: economic growth is high and accelerating; inflation has shifted to lower sustainable levels; savings and investments are growing; financial markets have been growing and developing in an orderly manner; the health of the banking system has improved continuously and is approaching best practice standards; the external account is healthy in the presence of robust trade growth in both goods and services; and increasing capital flows indicate growing international confidence in the Indian economy; and the Indian exchange rate has been flexible in both directions providing for reasonable market determination, in the presence of central bank forex interventions.

These are the achievements of the past. As we ascend to a higher growth path, and as we have fuller capital account convertibility, we will face newer challenges and will have to continue to adapt. The key point is that with greater capital account openness, we have to develop markets such that market participants, financial and non financial, are enabled to cope better with market fluctuations. As we do this, we need to be cognizant of the vast range of capabilities of different market participants in as diverse a country as India: from subsistent farmers to the most sophisticated financial market practitioners.

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