of monetary policy. Monetary management has now to contend with vicissitudes of capital flows and volatility in exchange rates. Due to large capital flows and, in recent years, surpluses in the current account, the overall balance of payments have recorded persistent growing surpluses since 1993-94 (excepting one year, 1995-96). Such large surpluses have been absorbed by the Reserve Bank in its foreign exchange reserves. Whereas the distinction between short term and long term flows is conceptually clear, in practice, however, it is not always easy to distinguish between the two for operational purposes. Moreover, at any given time, some flows could be of an enduring nature whereas others could be temporary and, hence, reversible. More importantly, what appears to be short-term, could tend to last longer and *vice versa*, imparting a dynamic dimension to judgment about their relative composition (RBI, 2003). In a scenario of uncertainty facing the authorities in determining temporary or permanent nature of inflows, it is prudent to presume that such flows are temporary till such time that they are firmly established to be of a permanent nature.

9.22 Large purchases of foreign exchange by the central bank from the market have an expansionary effect on domestic money supply and, therefore, pose challenges for monetary management. Monetary policy had to manage not only these persistent surpluses but also episodes of volatility in the foreign exchange market. Although capital flows have been largely stable, reflecting a cautious approach to capital account liberalisation, there have been nonetheless a few episodes of volatility in capital flows and exchange rates. As maintaining orderly conditions in the foreign exchange market is an important objective of monetary policy, monetary authorities have to face potential conflicts between the interest rate and exchange rate objectives. The bouts of volatility in exchange rate may necessitate that market conditions are rendered less liquid and interest rates are kept high. This policy has implications for promoting domestic growth but the larger objective of evading the likely potential disruption of domestic activities arising out of exchange rate crisis also needs to be kept in view. Given the imperfections in the foreign exchange market, the exchange rate objective may predominate due to emphasis on avoidance of undue volatility (Reddy, 1999).

9.23 Financial stability concerns arise also due to the move from a Government-dominated financial system to a market oriented one. In the past, the Government domination was imparting too much stability through rigidity and too little efficiency. In this context, enhancing efficiency while at the same time, avoiding instability in the system, has been the challenge for the regulators in India (Reddy, 2004b). Financial stability entails: (a) ensuring uninterrupted financial transactions; (b) maintenance of a level of confidence in the financial system amongst all the participants and stakeholders; and (c) absence of excess volatility that unduly and adversely affects real economic activity. Such financial stability has to be particularly ensured when the financial system is undergoing structural changes to promote efficiency.

9.24 In India, the vulnerability to real sector shocks has the potential to significantly affect financial stability. The major sources of shocks in India are very sharp increases in oil prices and extraordinary monsoon failures with consequent impact on the agricultural sector. Therefore, the weight to financial stability in India is higher than in many other countries (RBI, 2004b).

9.25 Financial integration and innovations have also necessitated refinements in the strategies and tactics of monetary policy in India. In order to meet challenges thrown by financial liberalisation and the growing complexities of monetary management, it was felt that monetary policy based exclusively on a money demand function could lack precision. Accordingly, the Reserve Bank switched from a monetary targeting framework to a multiple indicator approach. Short-term interest rates have emerged as signals of monetary policy stance. A significant shift is the move towards market-based instruments away from direct instruments of monetary management. A key step has been the introduction of a liquidity management framework in which market liquidity is now modulated through a mix of open market (including repo) operations and changes in reserve requirements and standing facilities, reinforced by changes in the policy rates. These arrangements have been quite effective in the recent years in managing liquidity in the system, especially in the context of persistent capital flows. The introduction of the Market Stabilisation Scheme has provided further flexibility to the Reserve Bank in its market operations. With the market orientation of monetary policy, the Reserve Bank, like most other central banks, has initiated several measures to strengthen the integrity of its balance sheet.

9.26 Over the past few years, the process of monetary policy formulation has become relatively more articulate, consultative and participative with external orientation, while the internal work processes have also been re-engineered to focus on technical

analysis, coordination, horizontal management, rapid responses and being market savvy. The stance of monetary policy and the rationale are communicated to the public in a variety of ways, the most important being the monetary policy statements. The communications strategy and provision of timely information at regular intervals have facilitated the conduct of policy in an increasingly market-oriented environment.

Monetary Policy in India: An Assessment

Price Stability

9.27 Looking at the inflation record in India, it has been much better than many developing economies. In the period since mid-1990s, inflation has seen a noticeable reduction from its average of around 8-9 per cent per annum during 1970-97 to less than five per cent in the subsequent period (1997-2004). Structural reforms since the early 1990s coupled with improved monetary-fiscal interface and reforms in the Government securities market enabled better monetary management from the second half of the 1990s onwards. The phasing out of *ad hocs* by March 1997 eliminated automatic monetisation of the fiscal deficit. Introduction of an auction system for Government borrowings at market rates of interest increased the appetite for the Government securities from the commercial banking system and this also reduced the pressure on the Reserve Bank to finance the Government.

9.28 In this context, it is noteworthy that inflation could be reduced even as the country received unprecedented level of capital flows. A multi-pronged approach has been followed to manage the persistent external flows in order to ensure macroeconomic and financial stability. The key features of the package of measures include: liberalisation of policies in regard to capital account outflows; encouraging pre-payment of external borrowings; alignment of interest rates on non-resident deposits; and greater flexibility in exchange rate. These measures have been supplemented with sterilisation operations to minimise the inflationary impact of capital flows and to ensure domestic financial stability. The expansionary effect emanating from massive capital flows to India was effectively sterilised through a variety of instruments including open market sales of Government bonds and operations under the Liquidity Adjustment Facility (LAF). Operations involving sterilisation are undertaken in the context of a policy response which has to be viewed as a package encompassing the Government's borrowing programme, exchange rate policy, level of reserves, interest rate policy along with considerations related to domestic liquidity, financial market conditions as a whole, and degree of openness of the economy. Notwithstanding the large scale of sterilisation operations, interest rates in India have softened across the spectrum.

9.29 Judicious use of innovations such as Market Stabilisation Scheme was resorted to manage liquidity conditions consistent with the objective of price stability. Thus, notwithstanding the unprecedented order of external capital flows, monetary management was effective in ensuring a reduction in inflation and keeping it broadly stable. Adequate foreign exchange reserves and stocks of foodgrains have provided increased comfort in meeting supply shocks and thereby stabilising inflation expectations. The degree of credibility that the Reserve Bank has earned over time is in itself likely to be an effective instrument of monetary policy in meeting the challenges of the future (Jadhav, 2003). The success with achieving and maintaining low inflation in India since mid-1990s has led to a number of positive developments (Reddy, 2004d). First, there is virtually a national consensus that high inflation is not good and that it should be brought down. Second, inflation expectations have come down and, consequently, inflation tolerance has also come down.

9.30 In the context of monetary management in an open economy, the Indian experience with exchange rates has highlighted the need for developing countries to allow greater flexibility in exchange rates but the authorities should also have the capacity to intervene in foreign exchange markets in view of herd behaviour in capital flows. With progressive opening of the emerging markets to financial flows, capital flows are playing an increased role in exchange rate determination and often reflected in higher exchange rate volatility. Against this background, India's exchange rate policy of focusing on managing volatility with no fixed rate target while allowing the underlying demand and supply conditions to determine the exchange rate movements over a period in an orderly way has stood the test of time. A key lesson of the Indian approach is that flexibility and pragmatism are required in the management of exchange rate in developing countries, rather than adherence to strict theoretical rules.

9.31 For the majority of developing countries which continue to depend on export performance as a key

to the health of the balance of payments, exchange rate volatility has had significant real effects in terms of fluctuations in employment and output and the distribution of activity between tradables and non-tradables. In the final analysis, the heightened exchange rate volatility of the era of capital flows has had adverse implications for all countries except the reserve currency economies. The latter have been experiencing exchange rate movements which are not in alignment with their macro imbalances and the danger of persisting currency misalignments looms large over all non-reserve currency economies (Mohan, 2004a). Of late, even for major reserve currency economies, the recent sharp swings in exchange rates have been considered "unwelcome" .

Credit Availability

9.32 Availability of credit for the productive sectors of the economy, as noted before, remains a key objective of monetary policy in India. Efforts by the Reserve Bank in this direction over the recent years to improve credit delivery mechanism have had a positive effect on credit flow to various sectors of the economy. Credit flow to the agricultural sector has recovered sharply in the last 3-4 years and outstanding credit to agriculture in relation to its sectoral GDP has also indicated an upward trend. Micro-finance has emerged as an important source of channelling credit to the weakest sections of the society. Credit flow to industrial sector by banks has also been maintained. The increase in disbursement of housing finance is heartening as housing construction has strong backward and forward linkages.

9.33 Along with efforts to improve the quantum of credit, the Reserve Bank has taken initiatives to impart a greater degree of flexibility and transparency to the interest rate structure in the economy. Although rigidities in the financial system have blunted the pass-through from short-term policy rates to the lending rates of the banks, there is some evidence of an improvement in the pass-through in recent years. A series of initiatives such as encouraging banks to offer flexible interest rates on deposits and the introduction of Benchmark Prime Lending Rates have imparted greater transparency to the interest structure and has also led to a reduction in their lending rates. Initiatives in the past few years to improve recovery of loans have led to a significant reduction in non-performing loans (NPLs) of banks. Lower NPLs have also been one factor that enabled banks to reduce their lending rates. Concomitantly, this has enabled a moderation in real lending rates for borrowers over time. This is expected to have a positive effect on investment demand in the economy.

9.34 The flow of credit to the various sectors of the economy could be improved further if banks can contain their operating costs and further improve the loan recovery. Operating costs of banks in India remain higher than major economies (Reddy, 2004e). Indian banks have done a remarkable job in containment of NPLs considering the overhang issues and overall difficult environment. It is noteworthy that NPLs have come down, despite a shift to 90-days norm. These efforts need to be pursued further. This will help banks to reduce their lending rates which will provide a further impetus to investment demand in the economy.

9.35 A number of issues would need to be addressed in order to further improve credit flow to the various sectors so as to finance productive activities. A key challenge is to design a market-oriented framework of affirmative action in channelling credit to the relatively disadvantaged sections of the society. With regard to the agricultural sector, there is a need for legal and institutional changes relating to governance, regulation and functioning of rural cooperative structure and Regional Rural Banks (RRBs). The changes warranted in cooperatives as well as RRBs involve deep commitment of State Governments and have significant bearing on political economy. Second, in view of overhang problems of non-performing loans and erosion of deposits in both cooperatives and RRBs, restructuring and recapitalisation by the Government becomes important. The current acceleration in credit-delivery can be sustained in the medium term, if such fiscal support from States and Centre is firmly put in place soon to revive or reorganise rural cooperative structure and RRBs. Third, there is a need to foster an appropriate credit culture to make enhanced rural credit a lasting phenomenon. Fourth, a comprehensive public policy on risk-management in agriculture is required as not only a means of relief for distressed farmers but as an ingredient for more efficient commercialised agriculture (Reddy, 2004f). Furthermore, banks in India - so far geared to financing of traditional crops like cereals - will have to be prepared to meet the changing requirements of commercialising agriculture (Mohan, 2004e).

9.36 Turning to financing of the industrial sector, the ability of commercial banks to meet the long-term fund requirements is hampered on two grounds: first, the relatively shorter maturity of their deposits and

second, banks already hold large volumes of Government paper, usually of long tenors, which may not be very liquid (Mohan, 2004b). The envisaged reduction of fiscal deficits under the Fiscal Responsibility and Budget Management (FRBM) Act, 2003 is expected to provide banks greater manoeuvrability in extending additional long-term credit to the industry. An active corporate bond market in the country will also meet the long-term financing requirements. Although several pre-conditions for the evolution of a successful corporate debt market are now in place, other requirements such as an enhanced public disclosure and effective bankruptcy laws are still awaited. Funding from equity markets hinges upon the continued expansion of the mutual fund industry and channelling of a part of contractual savings to equity markets.

9.37 As regards flow of credit to small-scale industry, banking institutions need to improve their credit assessment capabilities so that they can distinguish adequately between good and bad credit. Small-scale must not be equated with high risk (Mohan, 2002). Recent initiatives such as developing a system of proper credit records would reduce information and transaction costs. Empirical evidence shows that wider availability of credit histories greatly expands the flow of credit as potential borrowers are no longer tied to their local lenders. With mechanisms such as credit histories in place, financiers can also move away from lending only against collateral or on the basis of prior contacts. This permits a greater degree of financing without collaterals (Rajan and Zingales, 2003).

9.38 Finally, structural reforms during the 1990s, *inter alia*, attempted to enhance the credit flow to the private sector through reductions in statutory pre-emptions. However, despite this reduction, banks continued to prefer to invest in Government securities for a variety of reasons like weak demand, excess capital flows and risk aversion. The large holdings of Government securities by banks in the face of comfortable liquidity yielded certain benefits. First, the large trading profits emanating from the rally in Government securities enabled them to boost their profits and make higher provisions. Second, excessive lending in a lacklustre industrial climate might have engendered 'adverse selection' of borrowers. A heartening development in this respect is the significant increase in non-food credit by banks during the current fiscal year. Nonetheless, scheduled commercial banks' investments in SLR securities remain well-above the stipulated 25 per cent. Furthermore, with the upturn of the interest rate cycle, there could be an adverse impact on banks' profitability. There is, therefore, a need by banks to undertake appropriate risk assessments and trade-offs while allocating resources between credit to the commercial sector and investments in Government securities.

Financial Stability

9.39 A noteworthy achievement has been the maintenance of financial stability in the country, even as the economy has been progressively liberalised from the early 1990s. This can be attributed to success achieved in ensuring reasonable price stability in the economy on the one hand and prudent policies in regard to financial and external sector management on the other hand. Prudential norms have been gradually brought on par with international standards and best practices, including graduating towards Basel II, with suitable country specific adaptations. India's approach to financial sector reforms has served the country well, in terms of aiding growth, avoiding crises, enhancing efficiency and imparting resilience to the system. The development of financial markets has been, by and large, healthy. The basic features of the Indian approach are gradualism; co-ordination with other economic policies; pragmatism rather than ideology; giving due weight to contextual relevance; consultative processes; dynamism and good sequencing so as to be able to meet the emerging domestic and international challenges. In the banking system, diversified ownership of public sector banks has been promoted over the years and the performance of their listed stocks in the face of intense competition indicates improvements in the system. Since the initiation of reforms, financial health as well as efficiency of the banking sector has improved (Reddy, 2004c). From the vantage point of 2004, one of the successes of the Indian financial sector reform has been the maintenance of financial stability and avoidance of any major financial crisis during the reform period - a period that has been turbulent for the financial sector in most emerging market countries (Mohan, 2004c).

9.40 At the same time, several challenges such as encouraging ratings of issuers, assessing the level of additional capital requirement by banks, capital requirement for operational risk and addressing the systemic risk posed by large conglomerates would all need to be satisfactorily addressed before the transition to Basel II can occur (Udeshi, 2004). There also remains scope for improvements in the

operational efficiency of the banking sector. Moreover, despite the decline in the stock of NPLs in the banking system, these remain high compared to international standards. The improved institutional and legal arrangements accompanied by concomitant strengthening of risk management practices by banks are likely to keep incremental NPLs low. Enforcement of creditors rights will need continuous strengthening. The legal provisions and practice in bankruptcy of the real sector are still inadequate and need further reform (Mohan, 2004c).

9.41 The cost of funds of the banking sector would be a key determinant of its sustained profitability in the years ahead. Diversification into fee-based activities coupled with prudent asset liability management holds the key to future profitability. Governance issues in private banks have lately received considerable attention, more so in view of the recent draft guidelines issued in this regard by the Reserve Bank. The issues of size and governance are extremely important from the viewpoint of financial stability. The draft policy is in consonance of treating banks as special with the objective of setting upfront a roadmap in a transparent manner for existing investors to align their policies and potential investors to make informed decisions. The intention of the draft policy is to ensure adequate capital and consolidation in the banking industry with the regulator being aware of the intention of existing and potential shareholders (Mohan, 2004d).

9.42 Although the housing sector provides a relatively safe destination for bank credit on account of relatively low default rates, banks need to be on alert against an unbridled growth of housing finance and should take due precaution in the matter of interest rates, margin, reset period and documentation. Moreover, during periods of sharp increases in housing and other retail credit, risk containment measures are desirable. Illustratively, as a temporary countercyclical measure, the Reserve Bank, in October 2004, increased the risk weight from 50 per cent to 75 per cent in the case of housing loans and from 100 per cent to 125 per cent in the case of consumer credit.

9.43 Risk management of banks has gained credence in recent times. It is important for banks to look ahead at the expansion of the credit portfolio in a healthy way, particularly in the background of higher industrial growth, new plans of corporate expansion and higher levels of infrastructure financing. In this context, adopting an integrated risk management approach based on risk models suited to their risk appetite, business philosophy and expansion strategy is a *sine qua non* for the banking sector (Udeshi, 2004).

9.44 As the financial sector matures and becomes more complex, the process of deregulation would need to continue, but in such a manner that all types of financial institutions are strengthened and financial stability of the overall system is safeguarded. As deregulation gathers force, the emphasis on regulatory practice has to shift from micro-management to macro-regulation. In order to achieve these regulatory objectives, corporate governance within financial institutions would need to be strengthened, and internal systems would need to be developed to ensure this shift in regulatory practice (RBI, 2004a).

Concluding Observations

9.45 To conclude, structural reforms initiated in the Indian economy in the early 1990s had a significant impact on the conduct of monetary policy in terms of its objectives, strategies and tactics. Financial as well as external liberalisation has increased integration of the Indian economy with the rest of the world. This has benefits for the economy but also throws challenges for policy authorities. External demand conditions, sharp swings in capital flows and volatile exchange rates have to be factored in the process of monetary policy formulation. As it is, monetary policy operates in an uncertain environment. These uncertainties are exacerbated in an environment of greater trade and financial integration, warranting close monitoring. First, apart from price stability and credit availability, financial stability has gradually emerged as a key consideration in the conduct of monetary policy. Second, the instruments and operating procedures of monetary policy had to be constantly refined to meet the challenges thrown up by the vicissitudes of capital flows and a market-determined exchange rate.

9.46 In order to meet their price and financial stability objectives, central banks are constantly required to operate in various segments of financial markets to ensure orderly conditions. While in the long-run these objectives reinforce each other, monetary policy is faced with various trade-offs in the short-run. Given the random nature of the shocks impacting the economy, central banks are increasingly acting as shock absorbers. In order to manage these shocks effectively, a constant innovation is required by central banks in terms of instruments and operating

procedures while strengthening their balance sheets. Illustratively, in India, existing arrangements to modulate liquidity had to be supplemented with innovations such as Market Stabilisation Scheme.

9.47 Unlike in the case of trade integration where benefits to all countries are demonstrable, in case of financial integration, a “threshold” is important for a country to get full benefits. A judgmental view needs to be taken whether and when a country has reached the “threshold” and the financial integration should be approached cautiously with a plausible road map by answering questions in a country-specific context and institutional features. India has been adhering to a cautious and calibrated approach in reforms so far and there is merit in adopting a ‘road map approach’ building on the strengths that have already been developed (Reddy, 2004c).

9.48 An assessment of monetary management since early 1990s shows that monetary policy has been reasonably successful in meeting its key objectives. Price stability through low and stable inflation has been maintained since the second half of the 1990s. More importantly, this regime of low and stable inflation has, in turn, stabilised inflation expectations and inflation tolerance in the economy has come down. It is, therefore, critical that inflation expectations are kept low. Second, flow of credit to productive sectors has been maintained in the last 3-4 years. Recent efforts to reduce information and transaction costs as well as to impart greater flexibility to the interest rate structure of the banks are expected to further improve availability of credit to the various sectors. Third, financial stability has been ensured in contrast to the experience of many developing and emerging economies.

9.49 While assessing the conduct of monetary policy in recent years, one needs to take cognisance of the fact that the Indian economy witnessed a large number of shocks, both global and domestic. These shocks included a series of financial crises in Asia, Brazil and Russia besides September 11 terrorist attacks in the US, border tensions, sanctions imposed in the aftermath of nuclear tests, political uncertainties and changes in the Government. Monetary policy in India had to be fine tuned to manage all these shocks. Viewed in this light, the success in maintaining price and financial stability is all the more credible.

9.50 It needs to be noted that financial stability is also subject to interest rate cycles. Accordingly, the Reserve Bank has been sensitising the market participants for these turns in cycles and they have also been advised to hedge their exposures. Market participants are also being encouraged to gradually gain means of coping with market-orientation. Market infrastructure, technology and institutions have been promoted and strengthened. These measures have added to the effectiveness of monetary policy.

9.51 In the context of price stability objective, an issue of debate is as to whether it should be the sole overriding objective of monetary policy in India. A number of factors such as intermittent supply shocks, absence of fully integrated financial markets and dominance of fiscal policy constrain the adoption of price stability as the sole objective. To overcome issues posed by supply shocks, core measures of inflation are often recommended as a target of inflation. In developing countries, a measure of core inflation excluding food items – which can account for more than half of the weight in the index – may not be very meaningful (Jalan, 2002), although from the viewpoint of formulation of monetary policy, it is the underlying inflation or core inflation that is important. While there is a growing consensus on the acceptable rate of inflation, this needs to be better articulated, formalised, and perhaps converted in due course into a mandate from the Government to the Reserve Bank and, in the process to all economic agents (Reddy, 1999). An explicit numerical target is good for anchoring inflation but it comes at a cost. If the explicit inflation target cannot be achieved it weakens the credibility of the central bank. Thus it may not be appropriate to formulate monetary policy based on a simplistic inflation target or a single point inflexible point target as argued by many. Rules can only be viewed as thoughtful adjuncts of policy but cannot be a substitute for risk paradigms. Ultimately, a central bank has to judge the outcome of the policy choices it makes and also take account of and anticipate market expectations, which have become increasingly important for the attainment of desirable outcomes (Mohan, 2004a).

9.52 As the international experience indicates, a prudent fiscal policy remains the single largest pre-requisite for monetary stability. Reforms in the monetary-fiscal interface during the 1990s have been a key factor that imparted greater flexibility to monetary policy. These reforms have taken a significant step forward with the enactment of the Fiscal Responsibility and Budget Management Act, 2003. Strict adherence to these fiscal rules in letter and spirit will help to stabilise inflation expectations and, in turn, keep inflation low and stable in the country while gradually providing increasing flexibility to the Reserve Bank.

9.53 Fiscal discipline creates enabling conditions for monetary and financial stability. Monetary policy will have, however, still to grapple with uncertainty in the environment it operates. Incoming economic data - crucial for the conduct of monetary policy - provide, at best, incomplete coverage of economic activity; are subject to substantial sampling errors; become available with only a lag; and, are subject to substantial revisions (Bernanke, 2004). Despite substantial empirical research, there is still no unanimity on the channels through which monetary policy affects output and prices. Lags with which monetary policy works remain uncertain and can vary from one business cycle to another. Therefore, policymakers are unable to predict with great confidence how - and how quickly - their own actions are likely to affect the economy. Divergent movements in alternative indicators of inflation in the short-run - for instance, between wholesale and consumer prices in India, as at the present juncture - pose further challenges for the monetary authority in gauging underlying inflationary conditions in the economy. In addition to these uncertainties, short-term risks to monetary management emerge from global macroeconomic imbalances and the associated possibility of disruptive currency adjustments. In the medium to long-term, evolving demographic patterns and the electronic money revolution will add to uncertainties of the transmission mechanism. In the context of these uncertainties, a risk-management approach involving a judgement about the probabilities, costs and benefits of the various possible outcomes has been recommended for the conduct of monetary policy (Greenspan, 2004).

9.54 Uncertainty about how economies operate and about monetary policy itself is, however, no excuse for not pursuing price stability. While year-to-year inflation may vary depending upon the intensity of supply shocks, monetary policy can stabilise inflation expectations at low levels. An environment of sustained low and stable inflation is conducive for financial savings, with beneficial impact on investment in the economy and for sustained growth and employment. Price stability is all the more important for an economy like India, with a large proportion of poor population that has no hedges against inflation.