Rakesh Mohan: Financial sector reforms and monetary policy - the Indian experience

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I. Introduction

Since the initiation of reforms in the early 1990s, the Indian economy has achieved high growth in an environment of macroeconomic and financial stability. The period has been marked by broad based economic reform that has touched every segment of the economy. These reforms were designed essentially to promote greater efficiency in the economy through promotion of greater competition. 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. As a result of the growing openness, India was not insulated from exogenous shocks since the second half of the 1990s. These shocks, global as well as domestic, included a series of financial crises in Asia, Brazil and Russia, 9/11 terrorist attacks in the US, border tensions, sanctions imposed in the aftermath of nuclear tests, political uncertainties, changes in the Government, and the current oil shock. Nonetheless, stability could be maintained in financial markets. Indeed, inflation has been contained since the mid-1990s to an average of around five per cent, distinctly lower than that of around eight per cent per annum over the previous four decades. Simultaneously, the health of the financial sector has recorded very significant improvement.

India's path of reforms has been different from most other emerging market economies: it has been a measured, gradual, cautious, and steady process, devoid of many flourishes that could be observed in other countries. I shall argue in this paper that reforms in the financial sector and monetary policy framework have been a key component of the overall reforms that provided the foundation of an increased price and financial stability. Reforms in these sectors have been well-sequenced, taking into account the state of the markets in the various segments.

The main objective of the financial sector reforms in India initiated in the early 1990s was to create an efficient, competitive and stable financial sector that could then contribute in greater measure to stimulate growth. Concomitantly, the monetary policy framework made a phased shift from direct instruments of monetary management to an increasing reliance on indirect instruments. However, as appropriate monetary transmission cannot take place without efficient price discovery of interest rates and exchange rates in the overall functioning of financial markets, the corresponding development of the money market, Government securities market and the foreign exchange market became necessary. Reforms in the various segments, therefore, had to be coordinated. In this process, growing integration of the Indian economy with the rest of the world also had to be recognised and provided for.

Against this backdrop, the coverage of this paper is threefold. First, I will give a synoptic account of the reforms in financial sector and monetary policy. Second, this is followed by an assessment of these reforms in terms of outcomes and the health of the financial sector. Finally, lessons emerging from the Indian experience for issues of topical relevance for monetary authorities are considered in the final Section.

II. Financial sector and monetary policy: objectives and reforms

Till the early 1990s the Indian financial sector could be described as a classic example of "financial repression" *a la* McKinnon and Shaw. Monetary policy was subservient to the fisc. The financial system was characterised by extensive regulations such as administered interest rates, directed credit programmes, weak banking structure, lack of proper accounting and risk management systems and lack of transparency in operations of major financial market participants (Mohan, 2004b). Such a system hindered efficient allocation of resources. Financial sector reforms initiated in the early 1990s have attempted to overcome these weaknesses in order to enhance efficiency of resource allocation in the economy.

Simultaneously, the Reserve Bank took a keen interest in the development of financial markets, especially the money, government securities and forex markets in view of their critical role in the transmission mechanism of monetary policy. As for other central banks, the money market is the focal point for intervention by the Reserve Bank to equilibrate short-term liquidity flows on account of its linkages with the foreign exchange market. Similarly, the Government securities market is important for the entire debt market as it serves as a benchmark for pricing other debt market instruments, thereby aiding the monetary transmission process across the yield curve. The Reserve Bank had, in fact, been making efforts since 1986 to develop institutions and infrastructure for these markets to facilitate price discovery. These efforts by the Reserve Bank to develop efficient, stable and healthy financial markets accelerated after 1991. There has been close co-ordination between the Central Government and the Reserve Bank, as also between different regulators, which helped in orderly and smooth development of the financial markets in India.

What have been the major contours of the financial sector reforms in India? For the sake of completeness, it is useful to have a quick run-down of these:

- Removal of the erstwhile existing financial repression
- Creation of an efficient, productive and profitable financial sector
- Enabling the process of price discovery by the market determination of interest rates that improves allocative efficiency of resources
- Providing operational and functional autonomy to institutions
- Preparing the financial system for increasing international competition
- Opening the external sector in a calibrated manner; and
- Promoting financial stability in the wake of domestic and external shocks.

The financial sector reforms since the early 1990s could be analytically classified into two phases.[1] The first phase - or the first generation of reforms - was aimed at creating an efficient, productive and profitable financial sector which would function in an environment of operational flexibility and functional autonomy. In the second phase, or the second generation reforms, which started in the mid-1990s, the emphasis of reforms has been on strengthening the financial system and introducing structural improvements. Against this brief overview of the philosophy of financial sector reforms, let me briefly touch upon reforms in various sectors and segments of the financial sector.

Banking sector

The main objective of banking sector reforms was to promote a diversified, efficient and competitive financial system with the ultimate goal of improving the allocative efficiency of resources through operational flexibility, improved financial viability and institutional strengthening. The reforms have focussed on removing financial repression through reductions in statutory pre-emptions, while stepping up prudential regulations at the same time. Furthermore, interest rates on both deposits and lending of banks have been progressively deregulated (Box I).

[1] Reddy (2002) noted that the approach towards financial sector reforms in India has been based on five principles: (i) cautious and appropriate sequencing of reform measures; (ii) introduction of mutually reinforcing norms; (iii) introduction of complementary reforms across monetary, fiscal and external sectors; (iv) development of financial institutions; and (v) development of financial markets.

Box I
Reforms in the Banking Sector

A. Competition Enhancing Measures

- Granting of operational autonomy to public sector banks, reduction of public ownership in public sector banks by allowing them to raise capital from equity market up to 49 per cent of paid-up capital.
- Transparent norms for entry of Indian private sector, foreign and joint-venture banks and insurance companies, permission for foreign investment in the financial sector in the form of Foreign Direct Investment (FDI) as well as portfolio investment, permission to banks to diversify product portfolio and business activities.
- Roadmap for presence of foreign banks and guidelines for mergers and amalgamation of private sector banks and banks and NBFCs.
- Guidelines on ownership and governance in private sector banks.

B. Measures Enhancing Role of Market Forces

- Sharp reduction in pre-emption through reserve requirement, market determined pricing for government securities, disbanding of administered interest rates with a few exceptions and enhanced transparency and disclosure norms to facilitate market discipline.
- Introduction of pure inter-bank call money market, auction-based repos-reverse repos for short-term liquidity management, facilitation of improved payments and settlement mechanism.
- Significant advancement in dematerialisation and markets for securitised assets are being developed.

C. Prudential Measures

- Introduction and phased implementation of international best practices and norms on risk-weighted capital adequacy requirement, accounting, income recognition, provisioning and exposure.
- Measures to strengthen risk management through recognition of different components of risk, assignment of risk-weights to various asset classes, norms on connected lending, risk concentration, application of marked-to-market principle for investment portfolio and limits on deployment of fund in sensitive activities.
- 'Know Your Customer' and 'Anti Money Laundering' guidelines, roadmap for Basel II, introduction of capital charge for market risk, higher graded provisioning for NPAs, guidelines for ownership and governance, securitisation and debt restructuring mechanisms norms, *etc.*

D. Institutional and Legal Measures

- Setting up of Lok *Adalats* (people's courts), debt recovery tribunals, asset reconstruction companies, settlement advisory committees, corporate debt restructuring mechanism, *etc.* for quicker recovery/ restructuring.
- Promulgation of Securitisation and Reconstruction of Financial Assets and Enforcement of Securities Interest (SARFAESI) Act, 2002 and its subsequent amendment to ensure creditor rights.
- Setting up of Credit Information Bureau of India Limited (CIBIL) for information sharing on defaulters as also other borrowers.
- Setting up of Clearing Corporation of India Limited (CCIL) to act as central counter party for facilitating payments and settlement system relating to fixed income securities and money market instruments.

E. Supervisory Measures

- Establishment of the Board for Financial Supervision as the apex supervisory authority for commercial banks, financial institutions and non-banking financial companies.
- Introduction of CAMELS supervisory rating system, move towards risk-based supervision, consolidated supervision of financial conglomerates, strengthening of off-site surveillance through control returns.
- Recasting of the role of statutory auditors, increased internal control through strengthening of internal audit.
- Strengthening corporate governance, enhanced due diligence on important shareholders, fit and proper tests for directors.

F. Technology Related Measures

- Setting up of INFINET as the communication backbone for the financial sector, introduction of Negotiated Dealing System (NDS) for screen-based trading in government securities and Real Time Gross Settlement (RTGS) System.

As the Indian banking system had become predominantly government owned by the early 1990s, banking sector reforms essentially took a two pronged approach. First, the level of competition was gradually increased within the banking system while simultaneously introducing international best practices in prudential regulation and supervision tailored to Indian requirements. In particular, special emphasis was placed on building up the risk management capabilities of Indian banks while measures were initiated to ensure flexibility, operational autonomy and competition in the banking sector. Second, active steps were taken to improve the institutional arrangements including the legal framework and technological system. The supervisory system was revamped in view of the crucial role of supervision in the creation of an efficient banking system.

Measures to improve the health of the banking system have included (i) restoration of public sector banks' net worth through recapitalisation where needed; (ii) streamlining of the supervision process with combination of on-site and off-site surveillance along with external auditing; (iii) introduction of risk based supervision; (iv) introduction of the process of structured and discretionary intervention for problem banks through a prompt corrective action (PCA) mechanism; (v) institutionalisation of a mechanism facilitating greater coordination for regulation and supervision of financial conglomerates; (vi) strengthening creditor rights (still in process); and (vii) increased emphasis on corporate governance.

Consistent with the policy approach to benchmark the banking system to the best international standards with emphasis on gradual harmonisation, all commercial banks in India are expected to start implementing Basel II with effect from March 31, 2007 – though a marginal stretching beyond this date should not be ruled out in view of the latest indications on the state of preparedness (Reddy, 2006a). 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.

Reforms in the monetary policy framework

The basic emphasis of monetary policy since the initiation of reforms has been to reduce market segmentation in the financial sector through increased interlinkages between various segments of the financial market including money, government security and forex market. The key policy development that has enabled a more independent monetary policy environment as well as the development of Government securities market 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. In order to meet the challenges thrown by financial liberalisation and the growing complexities of monetary management, the Reserve Bank switched from a monetary targeting framework to a multiple indicator approach from 1998-99. Short-term interest rates have emerged as the key indicators of the monetary policy stance. A significant shift is the move towards market-based instruments away from direct instruments of monetary management. In line with international trends, the Reserve Bank has put in place a liquidity management framework in which market liquidity is managed through a mix of open market (including repo) operations (OMOs), changes in reserve requirements and standing facilities, reinforced by changes in the policy rates, including the Bank Rate and the short term (overnight) policy rate. In order to carry out these market operations effectively, the Reserve Bank has initiated several measures to strengthen the health of its balance sheet.

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. A recent notable step in this direction is the constitution of a Technical Advisory Committee on Monetary Policy comprising external experts to advise the Reserve Bank on the stance of monetary policy (Box II).

BOX II

Reforms in the Monetary Policy Framework

Objectives

- Twin objectives of "maintaining price stability" and "ensuring availability of adequate credit to productive sectors of the economy to support growth" continue to govern the stance of monetary policy, though the relative emphasis on these objectives has varied depending on the importance of maintaining an appropriate balance.
- Reflecting the increasing development of financial market and greater liberalisation, use of broad money as an intermediate target has been de-emphasised and a multiple indicator approach has been adopted.
- Emphasis has been put on development of multiple instruments to transmit liquidity and interest rate signals in the short-term in a flexible and bi-directional manner.
- Increase of the interlinkage between various segments of the financial market including money, government security and forex markets.

Instruments

- Move from direct instruments (such as, administered interest rates, reserve requirements, selective credit control) to indirect instruments (such as, open market operations, purchase and repurchase of government securities) for the conduct of monetary policy.
- Introduction of Liquidity Adjustment Facility (LAF), which operates through repo and reverse repo auctions, effectively provide a corridor for short-term interest rate. LAF has emerged as the tool for both liquidity management and also as a signalling devise for interest rate in the overnight market.
- Use of open market operations to deal with overall market liquidity situation especially those emanating from capital flows.
- Introduction of Market Stabilisation Scheme (MSS) as an additional instrument to deal with enduring capital inflows without affecting short-term liquidity management role of LAF.

Developmental Measures

- Discontinuation of automatic monetisation through an agreement between the Government and the Reserve Bank. Rationalisation of Treasury Bill market. Introduction of delivery versus payment system and deepening of inter-bank repo market.
- Introduction of Primary Dealers in the government securities market to play the role of market maker.
- Amendment of Securities Contracts Regulation Act (SCRA), to create the regulatory framework.
- Deepening of government securities market by making the interest rates on such securities market related. Introduction of auction of government securities. Development of a risk-free credible yield curve in the government securities market as a benchmark for related markets.
- Development of pure inter-bank call money market. Non-bank participants to participate in other money market instruments.
- Introduction of automated screen-based trading in government securities through Negotiated Dealing System (NDS). Setting up of risk-free payments and system in government securities through Clearing Corporation of India Limited (CCIL). Phased introduction of Real Time Gross Settlement (RTGS) System.
- Deepening of forex market and increased autonomy of Authorised Dealers.

Institutional Measures

- Setting up of Technical Advisory Committee on Monetary Policy with outside experts to review macroeconomic and monetary developments and advise the Reserve Bank on the stance of monetary policy.
- Creation of a separate Financial Market Department within the RBI.

Following the reforms, the financial markets have now grown in size, depth and activity paving the way for flexible use of indirect instruments by the Reserve Bank to pursue its objectives. It is recognised that stability in financial markets is critical for efficient price discovery. Excessive volatility in exchange rates and interest rates masks the underlying value of these variables and gives rise to confusing signals. Since both the exchange rate and interest rate are the key prices reflecting the cost of money, it is particularly important for the efficient functioning of the economy that they be market determined and be easily observed. The Reserve Bank has, therefore, put in place a liquidity management framework in the form of a liquidity adjustment facility (LAF) for the facilitation of forex and money market transactions that result in price discovery sans excessive volatility. The LAF coupled with OMOs and the Market Stabilisation Scheme (MSS) has provided the Reserve Bank greater flexibility to manage market liquidity in consonance with its policy stance. The introduction of LAF had several advantages (Mohan, 2006b).

- First and foremost, it helped the transition from direct instruments of monetary control to indirect and, in the process, certain dead weight loss for the system was saved.
- Second, it has provided monetary authorities with greater flexibility in determining both the quantum of adjustment as well as the rates by responding to the needs of the system on a daily basis.
- Third, it enabled the Reserve Bank to modulate the supply of funds on a daily basis to meet day-to-day liquidity mismatches.
- Fourth, it enabled the Reserve Bank to affect demand for funds through policy rate changes.
- Fifth and most important, it helped stabilise short-term money market rates.

LAF has now emerged as the principal operating instrument of monetary policy. Although there is no formal targeting of a point overnight interest rate, the LAF is designed to nudge overnight interest rates within a specified corridor, the difference between the fixed repo and reverse repo rates currently being 100 basis points. The evidence suggests that this effort has been largely successful with the overnight interest rate moving out of this corridor for only a few brief periods. The LAF has enabled the Reserve Bank to de-emphasise targeting of bank reserves and focus increasingly on interest rates. This has helped in reducing the cash reserve ratio (CRR) without loss of monetary control.

Given the growing role played by expectations, the stance of monetary policy and its rationale are communicated to the public in a variety of ways. The 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. The development of the monetary policy framework has also involved a great deal of institutional initiatives to enable efficient functioning of the money market: development of appropriate trading, payments and settlement systems along with technological infrastructure.

Financial markets

The success of a framework that relies on indirect instruments of monetary management such as interest rates, is contingent upon the extent and speed with which changes in the central bank's policy rate are transmitted to the spectrum of market interest rates and exchange rate in the economy and onward to the real sector. Given the critical role played by financial markets in this transmission mechanism, the Reserve Bank has taken a number of initiatives to develop a pure inter-bank money market. A noteworthy and desirable development has been the substantial migration of money market activity from the uncollateralised call money segment to the collateralised market repo and collateralised borrowing and lending obligations (CBLO) markets. The shift of activity from uncollateralised to collateralised segments of the market has largely resulted from measures relating to limiting the call market transactions to banks and primary dealers only. This policy-induced shift is in the interest of financial stability and is yielding results.

Concomitantly, efforts have been made to broaden and deepen the Government securities market and foreign exchange market so as to enable the process of efficient price discovery in respect of interest rates and the exchange rate (Boxes III and IV).

It is pertinent to note that the phased approach to development of financial markets has enabled RBI's withdrawal from the primary market since April 1, 2006. This step completes the transition to a fully

market based system in the G-sec market. Looking ahead, as per the recommendations of the Twelfth Finance Commission, the Central Government would cease to raise resources on behalf of State Governments, who, henceforth, have to access the market directly. Thus, State Governments' capability in raising resources will be market determined and based on their own financial health. In order to ensure a smooth transition to the new regime, restructuring of current institutional processes has already been initiated (Mohan, 2006c). These steps are helping to achieve the desired integration in the conduct of monetary operations.

Box III
Reforms in the Government Securities Market

Institutional Measures

- Administered interest rates on government securities were replaced by an auction system for price discovery.
- Automatic monetisation of fiscal deficit through the issue of *ad hoc* Treasury Bills was phased out.
- Primary Dealers (PD) were introduced as market makers in the government securities market.
- For ensuring transparency in the trading of government securities, Delivery *versus* Payment (D*v*P) settlement system was introduced.
- Repurchase agreement (repo) was introduced as a tool of short-term liquidity adjustment. Subsequently, the Liquidity Adjustment Facility (LAF) was introduced.
- LAF operates through repo and reverse repo auctions and provide a corridor for short-term interest rate. LAF has emerged as the tool for both liquidity management and also signalling device for interest rates in the overnight market. The Second LAF (SLAF) was introduced in November 2005.
- Market Stabilisation Scheme (MSS) has been introduced, which has expanded the instruments available to the Reserve Bank for managing the enduring surplus liquidity in the system.
- Effective April 1, 2006, RBI has withdrawn from participating in primary market auctions of Government paper.
- Banks have been permitted to undertake primary dealer business while primary dealers are being allowed to diversify their business.
- Short sales in Government securities is being permitted in a calibrated manner while guidelines for ‘when issued’ market have been issued recently.

Increase in Instruments in the Government Securities Market

- 91-day Treasury bill was introduced for managing liquidity and benchmarking. Zero Coupon Bonds, Floating Rate Bonds, Capital Indexed Bonds were issued and exchange traded interest rate futures were introduced. OTC interest rate derivatives like IRS/ FRAs were introduced.
- Outright sale of Central Government dated security that are not owned have been permitted, subject to the same being covered by outright purchase from the secondary market within the same trading day subject to certain conditions.
- Repo status has been granted to State Government securities in order to improve secondary market liquidity.

Enabling Measures

- Foreign Institutional Investors (FIIs) were allowed to invest in government securities subject to certain limits.
- Introduction of automated screen-based trading in government securities through Negotiated Dealing System (NDS).
- Setting up of risk-free payments and settlement system in government securities through Clearing Corporation of India Limited (CCIL).
- Phased introduction of Real Time Gross Settlement System (RTGS).
- Introduction of trading in government securities on stock exchanges for promoting retailing in such securities, permitting non-banks to participate in repo market.
- Recent measures include introduction of NDS-OM and T+1 settlement norms.

As regards the foreign exchange market, reforms focused on market development with inbuilt prudential safeguards so that the market would not be destabilised in the process (Reddy, 2002). The move towards a market-based exchange rate regime in 1993 and the subsequent adoption of current account convertibility were the key measures in reforming the Indian foreign exchange market. Banks are increasingly being given greater autonomy to undertake foreign exchange operations. In order to deepen the foreign exchange market, a large number of products have been introduced and entry of new players has been allowed in the market (Box IV).

Summing up, reforms were designed to enable the process of efficient price discovery and induce greater internal efficiency in resource allocation within the banking system. While the policy measures in the pre-1990s period were essentially devoted to financial deepening, the focus of reforms in the last decade and a half has been engendering greater efficiency and productivity in the banking system. Reforms in the monetary policy framework were aimed at providing operational flexibility to the Reserve Bank in its conduct of monetary policy by relaxing the constraint imposed by passive monetisation of the fisc.

Box IV

REFORMS IN THE FOREIGN EXCHANGE MARKET

Exchange Rate Regime

- Evolution of exchange rate regime from a single-currency fixed-exchange rate system to fixing the value of rupee against a basket of currencies and further to market-determined floating exchange rate regime.
- Adoption of convertibility of rupee for current account transactions with acceptance of Article VIII of the Articles of Agreement of the IMF. *De facto* full capital account convertibility for non residents and calibrated liberalisation of transactions undertaken for capital account purposes in the case of residents.

Institutional Framework

- Replacement of the earlier Foreign Exchange Regulation Act (FERA), 1973 by the market friendly Foreign Exchange Management Act, 1999. Delegation of considerable powers by RBI to Authorised Dealers to release foreign exchange for a variety of purposes.

Increase in Instruments in the Foreign Exchange Market

- Development of rupee-foreign currency swap market.
- Introduction of additional hedging instruments, such as, foreign currency-rupee options. Authorised dealers permitted to use innovative products like cross-currency options, interest rate swaps (IRS) and currency swaps, caps/collars and forward rate agreements (FRAs) in the international forex market.

Liberalisation Measures

- Authorised dealers permitted to initiate trading positions, borrow and invest in overseas market subject to certain specifications and ratification by respective Banks' Boards. Banks are also permitted to fix interest rates on non-resident deposits, subject to certain specifications, use derivative products for asset-liability management and fix overnight open position limits and gap limits in the foreign exchange market, subject to ratification by RBI.
- Permission to various participants in the foreign exchange market, including exporters, Indians investing abroad, FIIs, to avail forward cover and enter into swap transactions without any limit subject to genuine underlying exposure.
- FIIs and NRIs permitted to trade in exchange-traded derivative contracts subject to certain conditions.
- Foreign exchange earners permitted to maintain foreign currency accounts. Residents are permitted to open such accounts within the general limit of US $ 25, 000 per year.

III. Financial sector and monetary policy reforms: an assessment

Banking sector

An assessment of the banking sector shows that banks have experienced strong balance sheet growth in the post-reform period in an environment of operational flexibility. Improvement in the financial health of banks, reflected in significant improvement in capital adequacy and improved asset quality, is distinctly visible. It is noteworthy that this progress has been achieved despite the adoption of international best practices in prudential norms. Competitiveness and productivity gains have also been enabled by proactive technological deepening and flexible human resource management. These significant gains have been achieved even while renewing our goals of social banking *viz.*, maintaining the wide reach of the banking system and directing credit towards important but disadvantaged sectors of society. A brief discussion on the performance of the banking sector under the reform process is given below.

Spread of banking

The banking system's wide reach, judged in terms of expansion of branches and the growth of credit and deposits indicates continued financial deepening (Table 1). The population per bank branch has not changed much since the 1980s, and has remained at around 16,000.

Table 1: Progress of Commercial Banking in India

		1969	1980	1991	1995	2000	2005
	1	2	3	4	5	6	9
1	No. of Commercial Banks	73	154	272	284	298	288
2	No. of Bank Offices	8,262	34,594	60,570	64,234	67,868	68,339
	Of which						
	Rural and semi-urban bank offices	5,172	23,227	46,550	46,602	47,693	47491
3	Population per Office ('000s)	64	16	14	15	15	16
4	Per capita Deposit (Rs.)	88	738	2,368	4,242	8,542	16,699
5	Per capita Credit (Rs.)	68	457	1,434	2,320	4,555	10,135
6	Priority Sector Advances@ (per cent)	15	37	39	34	35	40
7	Deposits (per cent of National Income)	16	36	48	48	54	65

Source: Reserve Bank of India

In the post-reform period, banks have consistently maintained high rates of growth in their assets and liabilities. On the liability side, deposits continue to account for about 80 per cent of the total liabilities. On the asset side, the shares of loans and advances on the one hand and investments on the other hand have seen marked cycles, reflecting banks' portfolio preferences as well as growth cycles in the economy. The share of loans and advances declined in the second half of 1990s responding to slowdown in investment demand as well as tightening of prudential norms. With investment demand again picking up in the past 3-4 years, banks' credit portfolio has witnessed sharp growth. Banks' investment in gilts have accordingly seen a significant decline in the past one year, although it still remains above the minimum statutory requirement. Thus, while in the 1990s, greater investments and aversion to credit risk exposure may have deterred banks from undertaking their 'core function' of financial intermediation *viz.*, accepting deposits and extending credit, they seem to have struck a greater balance in recent years between investments and loans and advances. The improved atmosphere for recovery created in the recent years seems to have induced banks to put greater efforts in extending loans.

Capital position and asset quality

Since the beginning of reforms, a set of micro-prudential measures have been stipulated aimed at imparting strength to the banking system as well as ensuring safety. With regard to prudential requirements, income recognition and asset classification (IRAC) norms have been strengthened to approach international best practice. Initially, while it was deemed to attain a CRAR of 8 per cent in a phased manner, it was subsequently raised to 9 per cent with effect from 1999-2000.

The overall capital position of commercial banks has witnessed a marked improvement during the reform period (Table 2). Illustratively, as at end-March 2005, 86 out of the 88 commercial banks operating in India maintained CRAR at or above 9 per cent. The corresponding figure for 1995-96 was 54 out of 92 banks. Improved capitalisation of public sector banks was initially brought through substantial infusion of funds by government to recapitalise these banks. Subsequently, in order to mitigate the budgetary impact and to introduce market discipline, public sector banks were allowed to raise funds from the market through equity issuance subject to the maintenance of 51 per cent public ownership. Ownership in public sector banks is now well diversified. As at end-March 2005, the holding by the general public in six banks ranged between 40 and 49 per cent and in 12 banks between 30 and 49 per cent. It was only in four banks that the Government holding was more than 90 per cent.

Table 2: Distribution of Commercial Banks According to Risk-weighted Capital Adequacy

(Number of banks)

Year	**Below 4 per cent**	**Between 4-9 per cent***	**Between 9-10 per cent@**	**Above 10 per cent**	**Total**
1	2	3	4	5	6
1995-96	8	9	33	42	92
2000-01	3	2	11	84	100
2004-05	1	1	8	78	88

* : Relates to 4-8 per cent before 1999-2000,
@: Relates to 8-10 per cent before 1999-2000.
Source: Reserve Bank of India.

Table 3: Non-Performing Loans (NPL) of Scheduled Commercial Banks

(Per cent)

	Gross NPL/ advances	**Gross NPL/ Assets**	**Net NPL/ advances**	**Net NPL/ Assets**
1	2	3	4	5
1996-97	15.7	7	8.1	3.3
1997-98	14.4	6.4	7.3	3.0
1998-99	14.7	6.2	7.6	2.9
1999-00	12.7	5.5	6.8	2.7
2000-01	11.4	4.9	6.2	2.5
2001-02	10.4	4.6	5.5	2.3
2002-03	8.8	4	4.4	1.9
2003-04	7.2	3.3	2.9	1.2
2004-05	5.2	2.6	2	0.9

Source Reserve Bank of India.

Despite tightening norms, there has been considerable improvement in the asset quality of banks. India transited to a 90-day NPL recognition norm (from 180-day norm) in 2004. Nonetheless, non-performing loans (NPLs), as ratios of both total advances and assets, have declined substantially and consistently since the mid-1990s (Table 3). Improvement in the credit appraisal process, upturn of the business cycle, new initiatives for resolution of NPLs (including promulgation of the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act), and greater provisioning and write-off of NPLs enabled by greater profitability, have kept incremental NPLs low.

Competition and efficiency

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 three-fourths 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). Shares of Indian private sector banks, especially new private sector banks established in the 1990s, in the total income and assets of the banking system have improved considerably since the mid-1990s (Table 4). The reduction in the asset share of foreign banks, however, is partially due to their increased focus on off-balance sheet non-fund based business.

Table 4: Bank Group-wise Shares: Select Indicators

(Per cent)

	1995-96	2000-01	2004-05
1	2	3	6
Public Sector Banks			
Income	82.5	78.4	75.6
Expenditure	84.2	78.9	75.8
Total Assets	84.4	79.5	74.4
Net Profit	-39.1	67.4	73.3
Gross Profit	74.3	69.9	75.9
New Private Sector Banks			
Income	1.5	5.7	11.8
Expenditure	1.3	5.5	11.4
Total Assets	1.5	6.1	12.9
Net Profit	17.8	10.0	15.0
Gross Profit	2.5	6.9	10.7
Foreign Banks			
Income	9.4	9.1	7.0
Expenditure	8.3	8.8	6.6
Total Assets	7.9	7.9	6.8
Net Profit	79.8	14.8	9.7
Gross Profit	15.6	15.7	9.0

Source: Reserve Bank of India.

Efficiency gains are also reflected in containment of the operating expenditure as a proportion of total assets (Table 5). This has been achieved in spite of large expenditures incurred by Indian banks in installation and upgradation of information technology and, in the case of public sector banks, large expenditures under voluntary pre-mature retirement of nearly 12 per cent of their total staff strength.

Table 5: Earnings and Expenses of Scheduled Commercial Banks

(Rs. billion)

Year	Total Assets	Total Earnings	Interest Earnings	Total Expenses	Interest Expenses	Establishment Expenses	Net Interest Earning
1	2	3	4	5	7	8	9
1969	68	4	4	4	2	1	2
		(6.2)	(5.3)	(5.5)	(2.8)	(2.1)	(2.5)
1980	582	42	38	42	27	10	10
		(7.3)	(6.4)	(7.2)	(4.7)	(1.7)	(1.8)
1991	3,275	304	275	297	190	76	86
		(9.3)	(8.4)	(9.1)	(5.8)	(2.3)	(2.6)
2000	11,055	1,149	992	1,077	690	276	301
		(10.4)	(9.0)	(9.7)	(6.2)	(2.5)	(2.7)
2005	22,746	1,867	1,531	1,660	866	491	665
		(8.2)	(6.7)	(7.3)	(3.8)	(2.2)	(2.9)

Note: Figures in brackets are ratios to total assets.
Source: Reserve Bank of India.

Table 6: Intermediation Cost[*] of Scheduled Commercial Banks: 1996-2005

(as percentage to total asset)

Year (end-March)	Public Sector Banks	New Private Banks	Foreign Banks	All Scheduled Commercial Banks
1	2	3	4	5
1996	2.99	1.82	2.78	2.94
1997	2.88	1.94	3.04	2.85
1998	2.66	1.76	2.99	2.63
1999	2.65	1.74	3.40	2.65
2000	2.52	1.42	3.12	2.48
2001	2.72	1.75	3.05	2.64
2002	2.29	1.12	3.03	2.19
2003	2.25	1.95	2.79	2.24
2004	2.20	2.02	2.76	2.20
2005	2.03	2.06	2.85	2.09

[*] Intermediation cost = operating expenses.
Source: Computed from *Statistical Tables relating to Banks* in India, RBI, various years

Improvements in efficiency of the banking system are also reflected, *inter alia*, in costs of intermediation. which, defined as the ratio of operating expense to total assets, witnessed a gradual reduction in the post reform period across various bank groups barring foreign banks (Table 6). However, intermediation costs of banks in India still tend to be higher than those in developed countries. Similarly, the cost income-ratio (defined as the ratio of operating expenses to total income less interest expense) of Indian banks has shown a declining trend during the post reform period. For example, Indian banks paid roughly 45 per cent of their net income towards managing labour and

physical capital in 2004 as against nearly 72 per cent in 1993 (Mohan, 2006a). Indian banks thus recorded a net cost saving of nearly 27 per cent of their net income during the post reform period.

Productivity

What is most encouraging is the very significant improvement in the productivity of the Indian banking system, in terms of various productivity indicators. The business per employee of Indian banks increased over three-fold in real terms from Rs.5.4 million in 1992 to Rs.17.3 million in 2005, exhibiting an annual compound growth rate of more than 9 per cent (Table 7). The profit per employee increased from Rs.20,000 to Rs. 130,000 over the same period, implying a compound growth of around 15.5 per cent. Branch productivity also recorded concomitant improvements. These improvements could be driven by two factors: *technological improvement*, which expands the range of production possibilities and a *catching up effect*, as peer pressure amongst banks compels them to raise productivity levels. Here, the role of new business practices, new approaches and expansion of the business that was introduced by the new private banks has been of the utmost importance.

Table 7: Select Productivity Indicators of Scheduled Commercial Banks

(Rs. million at 1993-94 prices)

Year	Business per employee	Profit per employee	Business per branch
1	2	3	4
1992	5.4	0.02	109.9
1996	6.0	0.01	119.6
2000	9.7	0.05	179.4
2005	17.3	0.13	267.0

Source: *Statistical Tables relating to Banks* in India.

Monetary policy

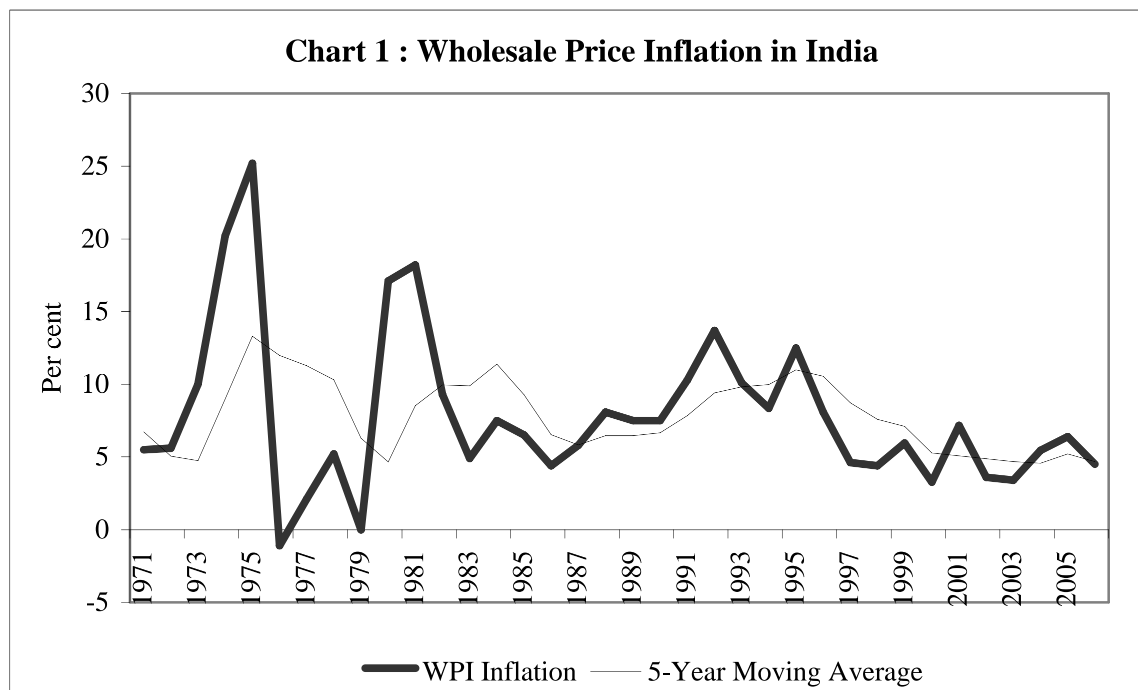
What has been the impact of the monetary policy? From the innumerable dimensions of impact of monetary policy, let me focus on some select elements.

Inflation

Turning to an assessment of monetary policy, it would be reasonable to assert that monetary policy has been largely successful in meeting its key objectives in the post-reforms period. Just as the late 1990s witnessed a fall in inflation worldwide, so too has India. Inflation has averaged close to five per cent per annum in the decade gone by, notably lower than that of eight per cent in the previous four decades (Chart 1). 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. More importantly, the regime of low and stable inflation has, in turn, stabilised inflation expectations and inflation tolerance in the economy has come down. It is encouraging to note that despite record high international crude oil prices, inflation remains low and inflation expectations also remain stable. Since inflation expectations are a key determinant of the actual inflation outcome, and given the lags in monetary transmission, we have been taking pre-emptive measures to keep inflation expectations stable.[2] As discussed further below, a number of instruments, both existing as well as new, were employed to modulate liquidity conditions to achieve the desired objectives. A number of other factors such as increased competition, productivity gains

2 The Reserve Bank has raised its key policy rate – the reverse repo rate in phases – by 100 basis points since October 2004.

and strong corporate balance sheets have also contributed to this low and stable inflation environment, but it appears that calibrated monetary measures had a substantial role to play as well.



Challenges posed by large capital inflows

It is pertinent to note that inflation could be contained since the mid-1990s, despite challenges posed by large capital flows. Following the reforms in the external sector, foreign investment flows have been encouraged. 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$ 17,496 million in 2005-06 (April-February). 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. Despite such large accretion to reserves, inflation could be contained reflecting appropriate policy responses by the Reserve Bank and the Government.

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. The exchange rate flexibility practiced since 1992-93 has been an important part of the policy response needed to manage capital flows.

The composition of India's balance of payments has undergone significant change since the mid 1990s. In the current account, the growth of software exports and, more recently, of business process outsourcing, has increased the share of service exports on a continuing basis. Even more significant is the growth in remittances from non-resident Indians (NRIs), now amounting to about 3 per cent of GDP. The latter exhibit a great deal of stability. The remittances appear to consist mainly of maintenance flows that do not seem to be affected by exchange rate, inflation, or growth rate changes. Thus, the Indian current account exhibits only a small deficit, or a surplus, despite the existence of merchandise trade deficit that has grown from 3.2 per cent of GDP in the mid 1990s to 5.3 per cent in 2004-05. On the capital account, unlike other emerging markets, portfolio flows have far exceeded foreign direct investment in India in recent years. Coupled with other capital flows consisting of official and commercial debt, NRI deposits, and other banking capital, net capital flows now amount to about 4.4 per cent of GDP.

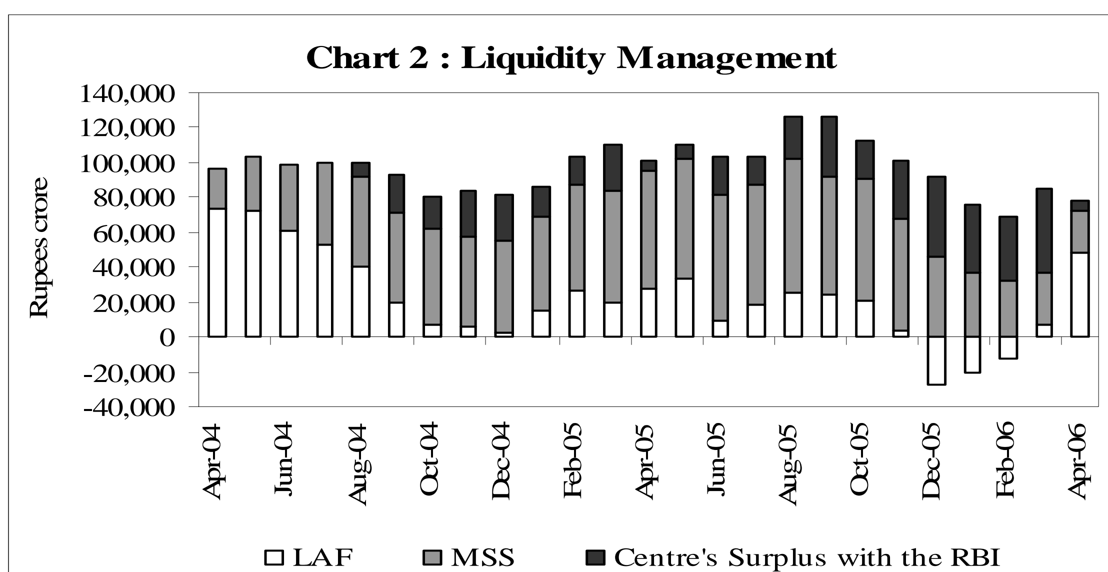
The downturn in the Indian business cycle during the early part of this decade led to the emergence of a current account surplus, particularly because the existence of the relative exchange rate insensitive remittance flows. Consequently, foreign exchange reserves grew by more than US $ 120 billion between April 2000 and April 2006.

The management of these flows involved a mix of policy responses that had to keep an eye on the level of reserves, monetary policy objectives related to the interest rate, liquidity management, and maintenance of healthy financial market conditions with financial stability. Decisions to do with sterilisation involve judgements on the character of the excess forex flows: are they durable, semi-durable or transitory. This judgement itself depends on assessments about both the real economy and of financial sector developments. Moreover, at any given time, some flows could be of an enduring nature whereas others could be of short term, and hence reversible.

On an operational basis, sterilisation operations through open market operations (OMOs) should take care of durable flows, whereas transitory flows can be managed through the normal daily operations of the LAF.

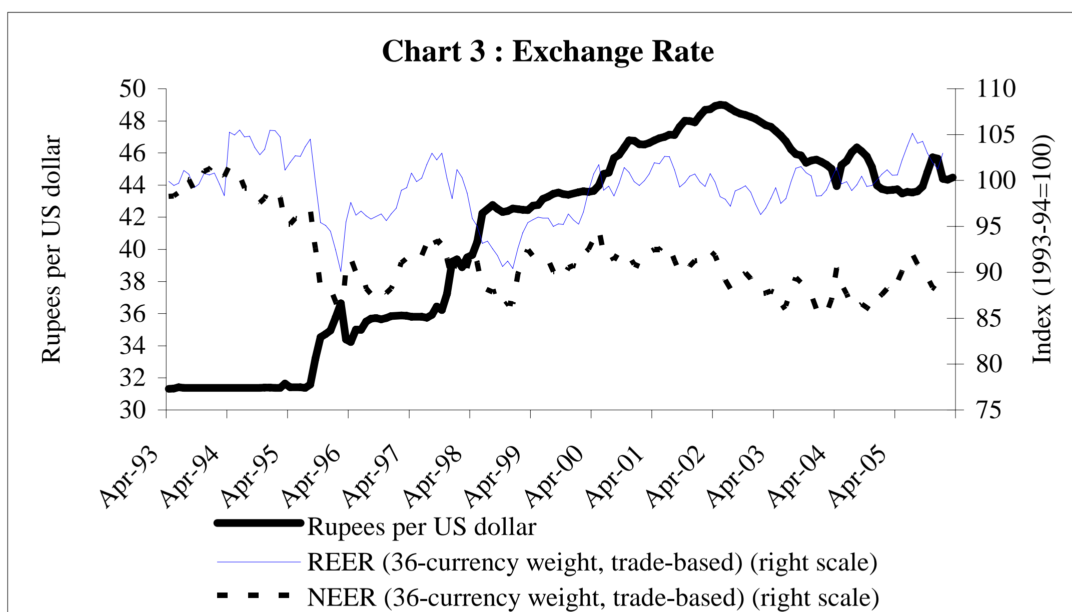
By 2003-04, sterilisation operations, however, started appearing to be constrained by the finite stock of Government securities held by the Reserve Bank. The legal restrictions on the Reserve Bank on issuing its own paper also placed constraints on future sterilisation operations. Accordingly, an innovative scheme in the form of Market Stabilisation Scheme (MSS) was introduced in April 2004 wherein Government of India dated securities/Treasury Bills are being issued to absorb enduring surplus liquidity. These dated securities/Treasury Bills are the same as those issued for normal market borrowings and this avoids segmentation of the market. Moreover, the MSS scheme brings transparency in regard to costs associated with sterilisation operations. Hitherto, the costs of sterilisation were fully borne by the Reserve Bank in the first instance and its impact was transmitted to the Government in the form of lower profit transfers. With the introduction of the MSS, the cost in terms of interest payments would be borne by the Government itself in a transparent manner.

It is relevant to note that the MSS has provided the Reserve Bank the flexibility to not only absorb liquidity but also to inject liquidity in case of need. This was evident during the second half of 2005-06 when liquidity conditions became tight in view of strong credit demand, increase in Government's surplus with the Reserve Bank and outflows on account of bullet redemption of India Millennium Deposits (about US $ 7 billion). In view of these circumstances, fresh issuances under the MSS were suspended between November 2005 and April 2006. Redemptions of securities/Treasury Bills issued earlier – along with active management of liquidity through repo/reverse repo operations under Liquidity Adjustment Facility - provided liquidity to the market and imparted stability to financial markets (Chart 2). With liquidity conditions improving, it was decided to again start issuing securities under the MSS from May 2006 onwards. The issuance of securities under the MSS has thus enabled the Reserve Bank to improve liquidity management in the system, to maintain stability in the foreign exchange market and to conduct monetary policy in accordance with the stated objectives.



The Indian experience highlights the need for emerging market economies to allow greater flexibility in exchange rates but the authorities can also benefit from having the capacity to intervene in foreign exchange markets in view of the volatility observed in international capital flows. A key lesson is that flexibility and pragmatism are required in the management of the exchange rate and monetary policy in developing countries, rather than adherence to strict theoretical rules.

Three overarching features marked the transition of India to an open economy. First, the administered exchange rate became market determined and ensuring orderly conditions in the foreign exchange market became an objective of exchange rate management. Second, as already indicated, vicissitudes in capital flows came to influence the conduct of monetary policy. Third, lessons of the balance of payments crisis highlighted the need to maintain an adequate level of foreign exchange reserves and this in turn both enabled and constrained the conduct of monetary policy. From hindsight, it appears that the strategy paid off with the exchange rate exhibiting reasonable two-way movement (Chart 3).



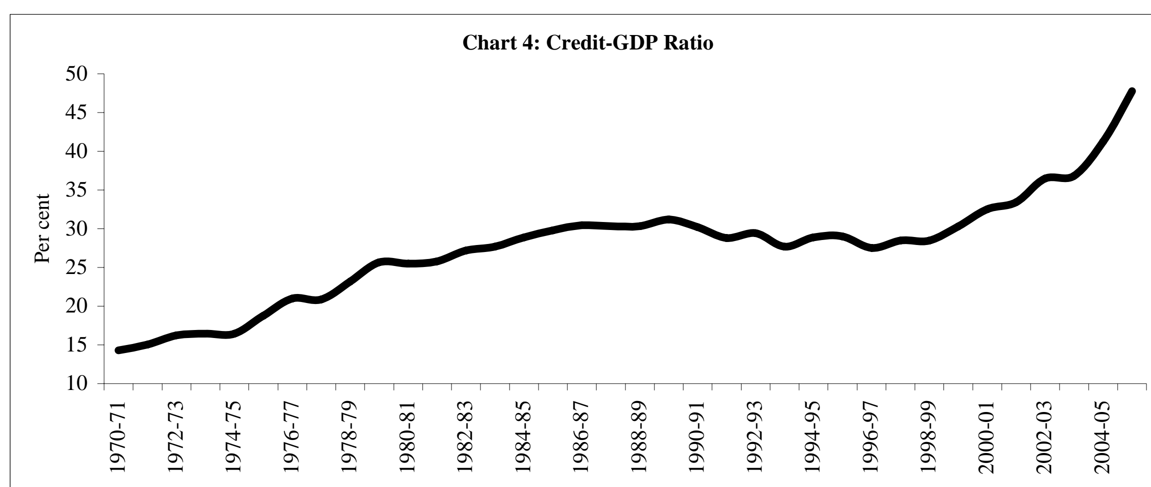
Credit delivery

Given that the Indian financial system is still predominantly bank based, bank credit continues to be of great importance for funding different sectors of the economy. Consequent to deregulation of interest rates and substantial reduction in statutory pre-emptions, there was an expectation that credit flow would be correspondingly enhanced. In the event, banks continued to show a marked preference for investments in government securities with no reduction in the proportion of their assets being held in investments in government securities, until recently, when credit growth picked up in 2003-04. With the shift in approach from micro management of credit through various regulations, credit allocation targets, and administered interest rates, to a risk based system of lending and market determined interest rates, banks have to develop appropriate credit risk assessment techniques. Apart from promoting healthy credit growth, this is also critical for the efficiency of monetary management in view of the move to use of indirect instruments in monetary management.

The stagnation in credit flow observed during the late 1990s, in retrospect, was partly caused by reduction in demand on account of increase in real interest rates, turn down in the business cycle, and the significant business restructuring that occurred during that period. A sharp recovery has now taken place.

The stagnation during the 1990s has seen a sharp recovery in the past few years. The credit-GDP ratio, after moving in a narrow range of around 30 per cent between the mid-1980s and late 1990s, started increasing from 2000-01 onwards (Chart 4). It increased from 30 per cent during 1999-00 to 41 per cent during 2004-05 and further to 48 per cent during 2005-06. However, sharp growth of credit in

the past couple of years has also led to some areas of policy concern and dilemmas, as discussed later.



How did the monetary policy support the growth momentum in the economy? As inflation, along with inflation expectations, fell during the earlier period of this decade, policy interest rates were also brought down. Consequently, both nominal and real interest rates fell. The growth rate in interest expenses of the corporates declined consistently since 1995-96, from 25.0 per cent to a negative of 11.5 per cent in 2003-04 (Table 8). Such decline in interest costs has significant implications for the improvement in bottom lines of the corporates. Various indicators pertaining to interest costs, which can throw light on the impact of interest costs on corporate sector profits have turned positive in recent years.

Table 8: Monetary Policy and Corporate Performance:

Interest Rate Related Indicators

Year	Growth Rate in Interest Expenses (%)	Debt Service to Total uses of Funds	Interest Coverage Ratio (ICR) #
1990-91	16.2	22.4	2.8
1991-92	28.7	28.3	2.7
1992-93	21.6	24.4	2.4
1993-94	3.1	20.9	2.9
1994-95	8.1	27.2	3.5
1995-96	25.0	21.5	3.6
1996-97	25.7	18.7	2.9
1997-98	12.5	8.1	2.8
1998-99	11.1	17.6	2.6
1999-00	6.7	17.6	2.8
2000-01	7.1	14.0	2.8
2001-02	-2.7	19.4	2.7
2002-03	-11.2	8.9	3.7
2003-04	-11.5	14.1	4.9

Note: This is based on a sample of non-government non-financial public limited companied collected by the RBI.

ICR is defined as earnings before interest, taxes and depreciation (EBITD) over interest expenses.

IV. Some emerging issues

This review of financial sector reforms and monetary policy has documented the calibrated and coordinated reforms that have been undertaken in India since the 1990s. In terms of outcomes, this strategy has achieved the broad objectives of price stability along with reduced medium and long term inflation expectations; the installation of an institutional framework and policy reform promoting relatively efficient price discovery of interest rates and the exchange rate; phased introduction of competition in banking along with corresponding improvements in regulation and supervision approaching international best practice, which has led to notable improvement in banking performance and financials. The implementation of these reforms has also involved the setting up or improvement of key financial infrastructure such as payment and settlement systems, and clearing and settlement systems for debt and forex market functioning. All of this financial development has been achieved with the maintenance of a great degree of financial stability, along with overall movement of the economy towards a higher growth path.

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 performance record, we now need to focus on the new issues that need to be addressed for the next phase of financial development.

That current annual GDP growth of around 8 per cent can be achieved in India at an about 30 per cent rate of gross domestic investment suggests that the economy is functioning quite efficiently. 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.

Growth challenges for the financial sector

Higher sustained growth is contributing to the movement of large numbers of households into ever higher income categories, and hence higher consumption categories, along with enhanced demand for financial savings opportunities. In rural areas in particular, there also appears to be increasing diversification of productive opportunities. Thus, the banking system has to extend itself and innovate to respond to these new demands for both consumption and production purposes. This is particularly important since banking penetration is still low in India: there are only about 10-12 ATMs in India per million population, as compared with over 50 in China, 170 in Thailand, and 500 in Korea. Moreover, the deposit to GDP ratio or the loans/GDP ratio is also low compared to other Asian countries (McKinsey & Co., 2005).

On the production side, industrial expansion has accelerated; merchandise trade growth is high; and there are vast demands for infrastructure investment, from the public sector, private sector and through public private partnerships. Furthermore, it is the service sector that has exhibited consistently high growth rates: the hospitality industry, shopping malls, entertainment industry, medical facilities, and the like, are all expanding fast. Thus a great degree of diversification is taking place in the economy and the banking system has to respond adequately to these new challenges, opportunities and risks.

In dealing with these new consumer demands and production demands of rural enterprises and of SME's in urban areas, banks have to innovate and look for new delivery mechanisms that economise on transaction costs and provide better access to the currently under-served. Innovative channels for credit delivery for serving these new rural credit needs, encompassing full supply chain financing, covering storage, warehousing, processing, and transportation from farm to market will have to be found. The budding expansion of non-agriculture service enterprises in rural areas will have to be financed to generate new income and employment opportunities. Greater efforts will need to be made on information technology for record keeping, service delivery, reduction in transactions costs, risk

assessment and risk management. Banks will have to invest in new skills through new recruitment and through intensive training of existing personnel.

It is the public sector banks that have the large and widespread reach, and hence have the potential for contributing effectively to achieve financial inclusion. 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. Given the current age composition of employees in these banks, they will also face new recruitment challenges in the face of adverse compensation structures in comparison with the freer private sector. Meanwhile, the new private sector banks will themselves have to innovate and accelerate their reach into the emerging low income and rural market segments. They have the independence and flexibility to find the new business models necessary for serving these segments.

A number of policy initiatives are underway to aid this overall process of financial inclusion and increase in banking penetration. The Parliament has passed the Credit Information Bureau Act that will enable the setting up of credit information bureaus through the mandatory sharing of information by banks. The Reserve Bank is in the process of issuing guidelines for the formation of these bureaus. As this process gathers force, it should contribute greatly in reducing the costs of credit quality assessment. Second, considerable work is in process for promoting micro-finance in the country, including the consideration of possible legislation for regulation of micro-finance institutions. Third, the Reserve Bank has issued guidelines to banks enabling the outsourcing of certain functions including the use of agencies such as post offices for achieving better outreach. These are all efforts in the right direction, but much more needs to be done to really achieve financial inclusion in India.

The challenges that are emerging are right across the size spectrum of business activities. On the one hand, the largest firms are attaining economic sizes such that they are reaching the prudential exposure limits of banks, even though they are still small relative to the large global MNCs. On the other hand, with changes in technology, there is new activity at the small and medium level in all spheres of activity. To cope with the former, the largest Indian banks have to be encouraged to expand fast, both through organic growth and through consolidation; and the corporate debt market has to be developed to enable further direct recourse to financial markets for the largest firms. For serving and contributing to the growth of firms at the lower end, banks have to strengthen their risk assessment systems, along with better risk management. Funding new entrepreneurs and activities is a fundamentally risky business because of the lack of a previous record and inadequate availability of collateral, but it is the job of banks to take such risk, but in a measured fashion. Given the history of public sector banks outlined earlier, such a change in approach requires a change in mind set, but also focused training in risk assessment, risk management, and marketing.

Various policy measures are in process to help this transition along. The Reserve Bank issued new guidelines in 2004 on "Ownership and Governance in Private Sector Banks". These guidelines have increased the minimum capital for private sector banks to Rs.3 billion; provided enhanced guidance on the fit and proper nature of owners, board members and top management of these banks; and placed limitations on the extent of dominant shareholdings. These measures are designed to promote the healthy growth of private sector banks and along with better corporate governance as they assume greater weight in the economy. An issue of relevance here is that of financial stability. To a certain extent, the predominance of government owned banks has contributed to financial stability in the country. Experience has shown that even the deterioration in bank financials does not lead to erosion of consumer confidence in such banks. This kind of consumer confidence does not extend to private sector banks. Hence, as they gain in size and share, capital enhancement and sound corporate governance become essential for financial stability. Second, the lending ability of banks has been potentially constrained by the existing provisions for statutory pre-emption of funds for investment in government securities. A bill has been introduced in Parliament to amend the existing Banking Regulation Act to eliminate the minimum 25 per cent limit of investment in government securities. As the fiscal situation improves consistent with the FRBM Act, it will then be possible to reduce the statutory pre-emption, enabling greater fund flow to the private sector for growth. Third, the bill also provides for raising of capital through BASEL II consistent innovative instruments, enabling the capital expansion of banks needed for their growth.

Greater capital market openness: some issues

An important feature of the Indian financial reform process has been the calibrated opening of the capital account along with current account convertibility. The Government and the Reserve Bank have already appointed a Committee to advise on a roadmap for fuller capital account convertibility. Decisions on further steps will be taken after that committee submits its report in a couple of months. Meanwhile, we can note some of the issues that will need attention as we achieve fuller capital account openness.

A key component of Indian capital account management has been the management of volatility in the forex market, and of its consequential impact on the money market and hence on monetary operations guided by the extant monetary policy objectives. This has been done, as outlined, through a combination of forex market intervention, domestic liquidity management, and administrative instructions on regulating external debt in different forms. Correspondingly, progress has been made on the functioning of the government securities market, forex market and money market and their progressive integration. Particular attention has been given to the exposure of financial intermediaries to foreign exchange liabilities, and of the government in their borrowing programme. So far, some degree of success has been achieved in that the exchange rate responds to the supply demand conditions in the market and exhibits two way flexibility; the interest rate is similarly flexible and market determined; healthy growth has taken place in trade in both goods and services; and inward capital flows have been healthy.

We have to recognise that fuller capital account openness will lead to a confrontation with the impossible trinity of simultaneous attainment of independent monetary policy, open capital account, and managed exchange rate. At best, only two out of the three would be feasible. With a more open capital account as a `given' and if a choice is made of an `anchor' role for monetary policy, exchange rate management will be affected. A freely floating exchange rate should, in fact, engender the independence of monetary policy. It needs to be recognised, however, that the impact of exchange rate changes on the real sector is significantly different for reserve currency countries and for developing countries like India. For the former which specialise in technology intensive products the degree of exchange rate pass through is low, enabling exporters and importers to ignore temporary shocks and set stable product prices to maintain monopolistic positions, despite large currency fluctuations. Moreover, mature and well developed financial markets in these countries, have absorbed the risk associated with exchange rate fluctuations with negligible spillover on the real activity. On the other hand, for the majority of developing countries which specialise in labour-intensive and low and intermediate technology products, profit margins in the intensely competitive markets for these products are very thin and vulnerable to pricing power by large retail chains. Consequently, exchange rate volatility has significant employment, output and distributional consequences (Mohan, 2004a; 2005). In this context, managing exchange rate volatility would continue to be an issue requiring attention.

A further challenge for policy in the context of fuller capital account opennes will be to preserve the financial stability of different markets as greater deregulation is done on capital outflows and on debt inflows. The vulnerability of financial intermediaries can perhaps be addressed through prudential regulations and their supervision; risk management of non-financial entities will have to be through further developments in both the corporate debt market and the forex market, which enable them to manage their risks through the use of newer market instruments. 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. Given the volatility of capital flows, it remains to be seen whether financial market development in a country like India can be such that this volatility does not result in unacceptable disruption in exchange rate determination with inevitable real sector consequences, and in domestic monetary conditions. If not, what will be the kind of market interventions that will continue to be needed and how effective will they be?

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, almost double 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 organized 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.

As the country's financial system faces each of these challenges in the coming years, we will also need to adapt monetary policy to the imperatives brought by higher growth and greater openness of the economy.

High credit growth and monetary policy

High and sustained growth of the economy in conjunction with low inflation is the central concern of monetary policy in India. As noted above, we have been reasonably successful in meeting these objectives. In this context, one issue still remains: whether monetary policy should have only price stability as its sole objective, as suggested by proponents of inflation targeting. Several central banks, such as, Bank of Canada, Bank of England, and the Reserve Bank of New Zealand, have adopted explicit inflation targets. Others, whose credibility in fighting inflation is long established (notably, the US Federal Reserve), do not set explicit annual inflation targets. Central banks are thus clearly divided on the advisability of setting explicit inflation targets. In view of the difficulties encountered with monetary targeting and exchange rate pegged regimes, a number of central banks including some in emerging economies have adopted inflation targeting frameworks.[3]

The simple principle of inflation targeting thus is also not so simple and poses problems for monetary policy making in developing countries. Moreover, concentrating only on numerical inflation objectives may reduce the flexibility of monetary policy, especially with respect to other policy goals, particularly that of growth.

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

[3] Although these inflation targeting countries were able to reduce inflation or maintain low inflation during the 1990s, stylised evidence shows that even non-IT countries were successful in this endeavour.

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 which is 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.

A contemporary issue in central banking is the appropriate response of monetary policy to sharp asset price movements, that may accompany high corporate growth. In an era of price stability and well-anchored inflation expectations, imbalances in the economy need not show up immediately in overt inflation. Increased central bank credibility is a double-edged sword as it makes it more likely that unsustainable booms could take longer to show up in overt inflation. For instance, unsustainable asset prices artificially boost accounting profits of corporates and thereby mitigate the need for price increases; similarly, large financial gains by employees can partly substitute for higher wage claims. In an upturn of the business cycle, self-reinforcing processes develop, characterised by rising asset prices and loosening external financial constraints. 'Irrational exuberance' can drive asset prices to unrealistic levels, even as the prices of currently traded goods and services exhibit few signs of inflation (Crockett, 2001). These forces operate in reverse in the contraction phase. In the upswing of the business cycle, financial imbalances, therefore, get built-up. There is, thus, a 'paradox of credibility' (Borio and White, 2003). In view of these developments, it is felt that credit and monetary aggregates – which are being ignored by many central banks in view of the perceived instability of money demand - need to be monitored closely since sharp growth in these aggregates is a useful indicator of future instability.

In India, like other countries, we have also seen large rallies in asset prices. Concomitantly, credit to the private sector has exhibited sharp growth in the past two years – averaging almost 30 per cent per annum. While the credit growth has been broad-based, credit to the retail sector is emerging as a new avenue of deployment for the banking sector led by individual housing loans. To illustrate, the share of housing in incremental bank credit has increased from 2.9 per cent in 1995-96 to 11.1 per cent in 2004-05, while the share of industry went down from 64.9 per cent in 1995-96 to 25.6 per cent in 2004-05.[4] Data for retail credit is not available prior to 1998-99; its share too has increased from 19.4 per cent in 1998-99 to 24.3 per cent in 2004-05.

Nonetheless, in the light of high credit growth, there is a need to ensure that asset quality is maintained. Since growth in credit was relatively higher in a few sectors such as retail credit and real commercial estate, monetary policy faces a dilemma in terms of instruments. An increase in policy rate across the board could adversely affect even the productive sectors of the economy such as industry and agriculture. While policy rates have indeed been raised, they have been mainly aimed at reining in inflation expectations in view of continuing pressures from high and volatile crude oil prices. Therefore, while ensuring that credit demand for the productive sectors of the economy is met, the Reserve Bank has resorted to prudential measures in order to engineer a 'calibrated' deceleration in the overall growth of credit to the commercial sector. Accordingly, the Reserve Bank has raised risk weights on loans to these sectors. It also more than doubled provisioning requirements on standard loans for the specific sectors from 0.4 per cent to 1.0 per cent. Thus, the basic objective has been to ensure that the growth process is facilitated while ensuring price and financial stability in the economy.

It is in this context, and consistent with the multiple indicator approach adopted by the Reserve Bank, that monetary policy in India has consistently emphasised the need to be watchful about indications of rising aggregate demand embedded in consumer and business confidence, asset prices, corporate performance, the sizeable growth of reserve money and money supply, the rising trade and current account deficits and, in particular, the quality of credit growth. In retrospect, this risk sensitive

[4] This is exclusive of small housing loans provided within the priority sector lending.

approach has served us well in containing aggregate demand pressures and second round effects to an extent. It has also ensured that constant vigil is maintained on threats to financial stability through a period when inflation was on the upturn and asset prices, especially in housing and real estate, are emerging as a challenge to monetary authorities worldwide. Significantly, it has also reinforced the growth momentum in the economy. It is noteworthy that the cyclical expansion in bank credit has extended over an unprecedented 30 months without encountering any destabilising volatility but this situation warrants enhanced vigilance.

V. Concluding observations

To conclude, 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. Concomitantly, effective monetary management has enabled price stability while ensuring availability of credit to support investment demand and growth in the economy. Finally, the multi-pronged approach towards managing capital account in conjunction with prudential and cautious approach to financial liberalisation has ensured financial stability in contrast to the experience of many developing and emerging economies. This is despite the fact that we faced a large number of shocks, both global and domestic. Monetary policy and financial sector reforms in India had to be fine tuned to meet the challenges emanating from all these shocks. Viewed in this light, the success in maintaining price and financial stability is all the more creditworthy.

As the economy ascends a higher growth path, and as it is subjected to greater opening and financial integration with the rest of the world, the financial sector in all its aspects will need further considerable development, along with corresponding measures to continue regulatory modernization and strengthening. The overall objective of maintaining price stability in the context of economic growth and financial stability will remain.