Financial Sector Reforms in India: Policies and Performance Analysis*

RAKESH MOHAN

I. Introduction

As the economy grows and becomes more sophisticated, the banking sector has to develop *pari pasu* in a manner that it supports and stimulates such growth. With increasing global integration, the Indian banking system and financial system has as a whole had to be strengthened so as to be able to compete. India has had more than a decade of financial sector reforms during which there has been substantial transformation and liberalisation of the whole financial system. It is, therefore, an appropriate time to take stock and assess the efficacy of our approach. It is useful to evaluate how the financial system has performed in an objective quantitative manner. This is important because 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.

Until the beginning of the 1990s, the state of the financial sector in India could be described as a classic example of "financial repression" *a la* MacKinnon and Shaw. The sector was characterised, *inter alia*, by administered interest rates, large pre-emption of resources by the authorities and extensive micro-regulations directing the major portion of the flow of funds to and from financial intermediaries. While the true health of financial intermediaries, most of them public sector entities, was masked by relatively opaque accounting norms and limited disclosure, there were general concerns about their viability. Insurance companies – both life and non-life - were all publicly owned and offered very little product choice. In the securities market, new equity issues were governed by a plethora of complex regulations and extensive restrictions. There was very little transparency and depth in the secondary market trading of such securities. Interest rates on government securities, the predominant segment of fixed-income securities, were decided through administered fiat. The market for such securities was a captive one where the players were mainly financial intermediaries, who had to invest in government securities to fulfill high statutory reserve requirements. There was little depth in the foreign exchange market as most such transactions were governed by inflexible and low limits and also prior approval requirements.

Compartmentalisation of activities of different types of financial intermediaries eliminated the scope for competition among existing financial intermediaries. In addition, strong entry barriers thwarted competition from new entrants. The end result was low levels of competition, efficiency and productivity in the financial sector, on the one hand, and severe credit constraints for the productive entities, on the other, especially for those in the private sector. The other major drawback of this regime was the scant attention that was placed on the financial health of the intermediaries. Their capitalisation levels were low. The lack of commercial considerations in credit planning and weak recovery culture resulted in large accumulation of non-performing loans. This had no impact on the confidence of depositors, however, because of government ownership of banks and financial intermediaries.

The predominance of Government securities in the fixed-income securities market of India mainly reflects the captive nature of this market as most financial intermediaries need to invest a sizeable portion of funds mobilised by them in such securities. While such norms were originally devised as a prudential measure, during certain periods, such statutory norms pre-empted increasing proportions of financial resources from intermediaries to finance high Government borrowings.

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The interest rate on Government debt was administered and the rate of interest charged by the Reserve Bank of India (RBI) for financing Government deficit was concessional. On top of this, there were limited external capital flows. Such a closed-economy set-up kept debt markets underdeveloped and devoid of any competitive forces. In addition, there was hardly any secondary market for Government securities, and such transactions were highly opaque and operated through over-the-telephone deals. The provision of fiscal accommodation through *ad hoc* treasury bills led to high levels of monetisation of fiscal deficit during the major part of the 1980s.

The phase of nationalisation and 'social control' of financial intermediaries, however, was not without considerable positive implications as well. The sharp increase in rural branches of banks increased deposit and savings growth considerably. There was a marked rise in credit flow towards economically important but hitherto neglected activities, most notably agriculture and small-scale industries. The urban-bias and marked preference of banks to lend to the industrial sector, especially large industrial houses, was contained. The implicit guarantee emanating from public ownership created an impression of infallibility of these institutions and the expectation was self-fulfilling – there was no major episode of failure of financial intermediaries in this period.

Starting from such a position, it is widely recognised that the Indian financial sector over the last decade has been transformed into a reasonably sophisticated, diverse and resilient system. However, this transformation has been the culmination of extensive, well-sequenced and coordinated policy measures aimed at making the Indian financial sector efficient, competitive and stable.

The main objectives, therefore, of the financial sector reform process in India initiated in the early 1990s have been to :

- Remove financial repression that existed earlier;
- Create an efficient, productive and profitable financial sector industry;
- Enable price discovery, particularly, by the market determination of interest rates that then helps in efficient allocation of resources;
- Provide operational and functional autonomy to institutions;
- Prepare the financial system for increasing international competition;
- Open the external sector in a calibrated fashion;
- Promote the maintenance of financial stability even in the face of domestic and external shocks.

Since there is a rich array of literature analysing the anthology of the reform process *per se*, the story of policy reforms in the India financial sector since the early 1990s is quite well known.[1] What is less probed, however, is the outcome. In fact, 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. The domain of analysis of the paper is, however, somewhat limited. Specifically, this paper limits itself to the impact analysis of financial sector reforms in the areas where the Reserve Bank of India has had a dominant role. These include the banking sector, foreign exchange and government securities markets and also the conduct of monetary policy.

The rest of the paper is organised as follows. Section II provides the rationale of financial sector reforms in India. While policy reforms in the financial sector are dealt with in section III, section IV is devoted to reforms in the monetary policy framework. Against this brief chronicle of the financial sector reforms process, I shall look into the outcomes of the financial sector reform process in section V in some detail. Instead of presenting any concluding observations, I shall raise some issues in the last section.

II. Financial Sector Reforms: The Approach

The initiation of financial reforms in the country during the early 1990s was to a large extent conditioned by the analysis and recommendations of various Committees/Working Groups set-up to address specific issues. The process has been marked by 'gradualism' with measures being undertaken after extensive consultations with experts and market participants. From the beginning of financial reforms, India has resolved to attain standards of international best

[1] See, for example, Hanson and Kathuria (1999) and Reddy (2002a).

practices but to fine tune the process keeping in view the underlying institutional and operational considerations (Reddy, 2002 a). Reform measures introduced across sectors as well as within each sector were planned in such a way so as to reinforce each other. Attempts were made to simultaneously strengthen the institutional framework while enhancing the scope for commercial decision making and market forces in an increasingly competitive framework. At the same time, the process did not lose sight of the social responsibilities of the financial sector. However, for fulfilling such objectives, rather than using administrative fiat or coercion, attempts were made to provide operational flexibility and incentives so that the desired ends are attended through broad interplay of market forces.

The major aim of the reforms in the early phase of reforms, known as first generation of reforms, was to create an efficient, productive and profitable financial service industry operating within the environment of operating flexibility and functional autonomy. While these reforms were being implemented, the world economy also witnessed significant changes, 'coinciding with the movement towards global integration of financial services' [Government of India (GoI), 1998]. The focus of the second phase of financial sector reforms starting from the second-half of the 1990s, therefore, has been the strengthening of the financial system and introduction of structural improvements.

Two brief points need to be mentioned here. *First*, financial reforms in the early 1990s were preceded by measures aimed at lessening the extent of financial repression. However, unlike in the latter period, the earlier efforts were not part of a well-thought out and comprehensive agenda for extensive reforms. *Second*, financial sector reform in India was an important component of the comprehensive economic reform process initiated in the early 1990s. Whereas economic reforms in India were also initiated following an external sector crisis, unlike many other emerging market economies where economic reforms were driven by crisis followed by a boom-bust pattern of policy liberalisation, in India, reforms followed a consensus driven pattern of sequenced liberalisation across the sectors (Ahluwalia, 2002). That is why despite several changes in government there has not been any reversal of direction in the financial sector reform process over the last 15 years.

As pointed out by Governor Reddy (Reddy, 2002 a), the approach towards financial sector reforms in India is based on *panchasutra* or five principles:

1. Cautious and appropriate sequencing of reform measures.
2. Introduction of norms that are mutually reinforcing.
3. Introduction of complementary reforms across sectors (most importantly, monetary, fiscal and external sector).
4. Development of financial institutions.
5. Development of financial markets.

An important salient feature of the move towards globalisation of the Indian financial system has been the intent of the authorities to more towards international best practices. This is illustrated by the appointment of several advisory groups designed to benchmark Indian practices with international standards in several crucial areas of importance like monetary policy, banking supervision, data dissemination, corporate governance and the like. Towards this end, a Standing Committee on International Financial Standards and Codes (Chairman: Dr. Y. V. Reddy) was constituted and the recommendations contained therein have either been implemented or are in the process of implementation.

Having delineated the broad philosophy, let me now turn to specifics of reform. I will paint the story of Indian reform with a broad brush so as to provide a context of the impact analysis that follows.

III. Policy Reforms in the Financial Sector

Banking Reforms

Commercial banking constitutes the largest segment of the Indian financial system. Despite the general approach of the financial sector reform process to establish regulatory convergence among institutions involved in broadly similar activities, given the large systemic implications of the commercial banks, many of the regulatory and supervisory norms were initiated first for commercial banks and were later extended to other types of financial intermediaries.

After the nationalisation of major banks in two waves, starting in 1969, the Indian banking system became predominantly government owned by the early 1990s. Banking sector reform essentially consisted of a two

pronged approach. While nudging the Indian banking system to better health through the introduction of international best practices in prudential regulation and supervision early in the reform cycle, the idea was to increase competition in the system gradually. The implementation periods for such norms were, however, chosen to suit the Indian situation. Special emphasis was placed on building up the risk management capabilities of the Indian banks. Measures were also initiated to ensure flexibility, operational autonomy and competition in the banking sector. Active steps have been taken to improve the institutional arrangements including the legal framework and technological system within which the financial institutions and markets operate. Keeping in view the crucial role of effective supervision in the creation of an efficient and stable banking system, the supervisory system has been revamped. Stylised features of the banking sector reforms have been given in Box I.

Unlike in other emerging market countries, many of which had the presence of government owned banks and financial institutions, banking reform has not involved large scale privatisation of such banks. The approach,

Box I: Reforms in the Banking Sector

A. 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.

B. 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.

C. 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.

D. Institutional and Legal Measures

- Settling 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 and its subsequent amendment to ensure creditor rights.
- Setting up of Credit Information Bureau 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.

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.

instead, first involved recapitalisation of banks from government resources to bring them up to appropriate capitalisation standards. In the second phase, instead of privatisation, increase in capitalisation has been done through diversification of ownership to private investors up to a limit of 49 per cent, thereby keeping majority ownership and control with the government. With such widening of ownership most of these banks have been publicly listed; this was designed to introduce greater market discipline in bank management, and greater transparency through enhanced disclosure norms. The phased introduction of new private sector banks, and expansion in the number of foreign bank branches, provided for new competition. Meanwhile, increasingly tight capital adequacy, prudential and supervision norms were applied equally to all banks, regardless of ownership.

Debt Market Reforms

Major reforms have been carried out in the government securities (G-Sec) debt market. In fact, it is probably correct to say that a functioning G-Sec debt market was really initiated in the 1990s. The system had to essentially move from a strategy of pre-emption of resources from banks at administered interest rates and through monetisation to a more market oriented system. Prescription of a "statutory liquidity ratio" (SLR), *i.e.*, the ratio at which banks are required to invest in approved securities, though originally devised as a prudential measure, was used as the main instrument of pre-emption of bank resources in the pre-reform period. The high SLR requirement created a captive market for government securities, which were issued at low administered interest rates. After the initiation of reforms, this ratio has been reduced in phases to the statutory minimum level of 25 per cent. Over the past few years numerous steps have been taken to broaden and deepen the Government securities market and to raise the levels of transparency. Automatic monetisation of the Government's deficit has been phased out and the market borrowings of the Central Government are presently undertaken through a system of auctions at market-related rates. Major facets of the reforms in the government securities are provided in Box II.

Box II: 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 to set up 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.
- Market Stabilisation Scheme (MSS) has been introduced, which has expanded the instruments available to the Reserve Bank for managing the surplus liquidity in the system.

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.

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 of government securities on stock exchanges for promoting retailing in such securities, permitting non-banks to participate in repo market.

The key lesson learned through this debt market reform process is that setting up such a market is not easy and needs a great deal of proactive work by the relevant authorities. An appropriate institutional framework has to be created for such a market to be built and operated in a sustained manner. Legislative provisions, technology development, market infrastructure such as settlement systems, trading systems, and the like have all to be developed.

Foreign Exchange Market Reforms

The Indian forex exchange market had been heavily controlled since the 1950s, along with increasing trade controls designed to foster import substitution. Consequently, both the current and capital accounts were closed and foreign exchange was made available by the Reserve Bank of India through a complex licensing system. The task facing India in the early 1990s was therefore to gradually move from total control to a functioning foreign exchange market. 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. Reforms in the foreign exchange market focused on market development with prudential safeguards without destabilising the market (Reddy, 2002 a). Authorised Dealers of foreign exchange have been allowed to carry on a large range of activities. Banks have been given large 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 newer players has been allowed in the market. Highlights of reforms in the foreign exchange market have been given in Box III.

The Indian approach to opening the external sector and developing the foreign exchange market in a phased manner from current account convertibility to the ongoing process of capital account opening is perhaps the most striking success relative to other emerging market economies. There have been no accidents in this process, the exchange rate has been market determined and flexible and the process has been carefully

Box III: 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 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.

calibrated. The capital account is effectively convertible for non-residents, but has some way to go for residents. The Indian approach has perhaps gained greater international respectability after the enthusiasm for rapid capital account opening has been dimmed since the Asian crisis.

Reforms in Other Segments of the Financial Sector

Measures aimed at establishing prudential regulation and supervision and also competition and efficiency enhancing measures have also been introduced for non-bank financial intermediaries as well. Towards this end, non-banking financial companies (NBFCs), especially those involved in public deposit taking activities, have been brought under the regulation of RBI. Development Finance Institutions (DFIs), specialised term-lending institutions, NBFCs, Urban Cooperative Banks and Primary Dealers have all been brought under the supervision of the Board for Financial Supervision (BFS). With the aim of regulatory convergence for entities involved in similar activities, prudential regulation and supervision norms were also introduced in phases for DFIs, NBFCs and cooperative banks.

The insurance business remained within the confines of public ownership until the late 1990s. Subsequent to the passage of the Insurance Regulation and Development Act in 1999, several changes were initiated, including allowing newer players/joint ventures to undertake insurance business on risk-sharing/commission basis. The Insurance Regulatory and Development Agency (IRDA) has been established to regulate and supervise the insurance sector.

With the objective of improving market efficiency, increasing transparency, integration of national markets and prevention of unfair practices regarding trading, a package of reforms comprising measures to liberalise, regulate and develop capital market was introduced. An important step has been the establishment of the Securities and Exchange Board of India (SEBI) as the regulator for equity markets. Since 1992, reform measures in the equity market have focused mainly on regulatory effectiveness, enhancing competitive conditions, reducing information asymmetries, developing modern technological infrastructure, mitigating transaction costs and controlling of speculation in the securities market. Another important development under the reform process has been the opening up of mutual funds to the private sector in 1992, which ended the monopoly of Unit Trust of India (UTI), a public sector entity. These steps have been buttressed by measures to promote market integrity.

The Indian capital market was opened up for foreign institutional investors (FIIs) in 1992. The Indian corporate sector has been allowed to tap international capital markets through American Depository Receipts (ADRs), Global Depository Receipts (GDRs), Foreign Currency Convertible Bonds (FCCBs) and External Commercial Borrowings (ECBs). Similarly, Overseas Corporate Bodies (OCBs) and non-resident Indians (NRIs) have been allowed to invest in Indian companies. FIIs have been permitted in all types of securities including Government securities and they enjoy full capital convertibility. Mutual funds have been allowed to open offshore funds to invest in equities abroad.

IV. Reform in the Monetary Policy Framework

What has been the change in monetary policy in the wake of these changes in different market segments as well as sectors? The transition of economic policies in general, and financial sector policies in particular, from a control oriented regime to a liberalised but regulated regime has also been reflected in changes in the nature of monetary management. While the basic objectives of monetary policy, namely price stability and ensuring adequate credit flow to support growth, have remained unchanged, the underlying operating environment for monetary policy has undergone a significant transformation. An increasing concern is the maintenance of financial stability. The basic emphasis of monetary policy since the initiation of reforms has been to reduce market segmentation in the financial sector through increase in the linkage between various segments of the financial market including money, government securities and forex market. Major features of the reforms in the monetary policy framework have been provided in Box IV.

The key policy development that has enabled a more independent monetary policy environment was the discontinuation of automatic monetisation of the government's fiscal deficit through an agreement between the Government and the Reserve Bank of India in 1997. The enactment of the Fiscal Responsibility and Budget Management Act has strengthened this further :

Box IV: 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 development of financial market and 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 linkage 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 to set up 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 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 Central 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 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.

from 2006, the Reserve Bank will no longer be 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.

Against this discussion of what has been done, let me now turn to what the process has led to in the Indian financial sector.

V. Performance of the Financial Sector Under the Reform Process

Banking Sector

Banking sector reform has established a competitive system driven by market forces. The process, however, has not resulted in disregard of social objectives such as maintenance of the wide reach of the banking system or channelisation of credit towards disadvantaged but socially important sectors. At the same time, the reform period experienced strong balance sheet growth of the banks in

an environment of operational flexibility. A key achievement of the banking sector reform has been the sharp improvement in the financial health of banks, reflected in significant improvement in capital adequacy and improved asset quality. This has been achieved despite convergence of the prudential norms with the international best practices.[2] There have also been substantial improvements in the competitiveness of the Indian banking sector reflected in the changing composition of assets and liabilities of the banking sector across bank groups. In line with increased competitiveness, there has been improvement in efficiency of the banking system reflected *inter alia* in the reduction in interest spread, operating expenditure and cost of intermediation in general. Contemporaneously there have been improvements in other areas as well including technological deepening and flexible human resource management. A more detailed discussion on the performance analysis of the banking sector under the reform process is given below.

Social Objectives and Balance Sheet Management

The Indian banking system has acquired a wide reach, judged in terms of expansion of branches and the growth of credit and deposits (Tables 1 and 2). The expansion of branch network peaked in the phase of social banking during the 1970s and 1980s. Despite the slowdown in branch expansion since the 1990s, the population per bank branch, however, has not changed much since the 1980s, and has remained at around 15,000. It is often asserted that the Indian banking sector is saddled with too many branches, adding to its high intermediation costs. In fact, at about 8-10,000, the population per branch in developed countries is lower than that in India. Therefore, the reform process has maintained the gains in terms of the outreach of bank branches achieved in the phase of social banking.

Table 2: Select Balance Sheet Indicators of Commercial Banks Operating in India

(Per cent)

	As a Ratio of Total Assets/Liabilities			
	Deposits	Total Investments	Non-SLR Investment	Loans and Advances
1991-92	77.7 (17.1)	28.9 (28.4)	.. ..	46.8 (13.7)
1992-93	78.4 (13.9)	30.5 (19.0)	.. ..	45.0 (8.6)
1993-94	80.3 (15.5)	35.4 (31.1)	5.0 ..	38.7 -(3.0)
1994-95	78.9 (16.3)	33.6 (12.2)	4.6 (9.4)	40.5 (24.0)
1995-96	76.4 (12.7)	31.0 (7.4)	3.5 -(11.7)	42.1 (20.9)
1996-97	79.9 (17.5)	33.3 (20.6)	5.0 (60.2)	41.0 (9.2)
1997-98	81.0 (19.8)	34.2 (21.5)	7.1 (69.3)	40.8 (17.6)
1998-99	81.1 (19.7)	35.7 (24.9)	8.6 (45.3)	38.8 (13.9)
1999-00	81.1 (16.3)	37.3 (21.3)	9.1 (22.4)	40.2 (20.3)
2000-01	81.5 (17.7)	38.0 (19.3)	8.9 (14.2)	40.6 (18.5)
2001-02	78.5 (14.3)	38.2 (19.4)	8.7 (16.5)	42.0 (22.7)
2002-03	79.8 (12.4)	40.8 (18.1)	8.1 (3.3)	43.6 (14.7)
2003-04*	80.5 (17.5)	41.7 (19.7)	7.2 (2.9)	45.0 (15.3)

*: Based on supervisory returns, ..: Not available, SLR: Statutory Liquidity Ratio.

Note: Figures in brackets are annual growth rates.

Source: Reserve Bank of India.

Table 1: Progress of Commercial Banking in India

Indicators	June 1969	June 1980	March 1991	March 1995	March 2000	March 2003
1. No. of Commercial Banks	73	154	272	284	298	292
2. No. of Bank Offices	8,262	34,594	60,570	64,234	67,868	68,561
Of which						
Rural and semi-urban bank offices	5,172	23,227	46,550	46,602	47,693	47,496
3. Population per Office ('000s)	64	16	14	15	15	16
4. Per capita Deposit (Rs.)	88	738	2,368	4,242	8,542	12,253
5. Per capita Credit (Rs.)	68	457	1,434	2,320	4,555	7,275
6. Priority Sector Advances@ (per cent)	15.0	37.0	39.2	33.7	35.4	33.7 *
7. Deposits (per cent of National Income)	15.5	36.0	48.1	48.0	53.5	51.8

@: Share of Priority Sector Advances in Total Non-Food Credit of Scheduled Commercial Bank, ***:** As at end-March 2002.

Source: Reserve Bank of India.

[2] In fact, in some cases, prudential norms in India have surpassed the international best practices and many of the proposals of Basel II are already under the process of phased implementation.

Despite a decline, direct lending to disadvantaged segments of the economy under the priority sector advances remained high during the reform period. The decline in priority sector lending since the initiation of reforms in fact reflects greater flexibility provided to banks to meet such targets. Currently, in the event a bank fails to meet the priority sector lending target through direct lending, the bank can invest the shortfall amount with the apex organisations dealing with flow of funds towards agriculture and small-scale industries. While adherence of banks to the norms on direct lending towards the priority sector still remains desirable, the current arrangement reflects how the reform process has provided operational flexibility to banks even while meeting social objectives.

The discernible increase in the proportion of bank deposits to national income is reflective of the enhanced deepening of the Indian financial system during the period. Simultaneously, there have been considerable increases in per capita deposits and credit. This also implies an increase in the average business per bank branch, which is likely to have improved the viability of individual bank branches including those in the rural and semi-urban centres.

In the post-reform period, banks have consistently maintained high rates of growth in their assets and liabilities. This is particularly credible given the low inflationary situation that prevailed in this period compared to the earlier periods, most notably in the 1980s. On the liability side, there has not been much compositional change since the initiation of reforms whereby deposits continue to account for about 80 per cent of the total liabilities. On the asset side, however, there is a definite increase in the share of investments. While the share of loans and advances did decline in the 1990s, it has recovered in recent years.

Despite the large decline in SLR in the 1990s,[3] the sharp increase in investments by banks is reflective of their attempt to evolve treasury operations into profit centres. The reduction in cash reserve ratio and improved inter-office adjustments in a substantially computerised and networked environment, *inter alia*, did free up substantial amounts of bank resources, which enabled banks to concentrate on investment operations with greater vigour.

Interestingly, despite the reduced regulatory requirement to invest in government and other securities approved for SLR investment, the major increase in investment operations by Indian banks since the mid 1990s has been on account of their investment in government securities. This reflects the sustenance of high fiscal deficits of both central and state governments, particularly after the Pay Commission award leading to increase in the government salary bill in 1997. Furthermore, subdued industrial growth since 1997 also led to lower credit demand, providing banks further incentive to place their resources in risk-free government securities. It is also possible that, in a declining interest rate scenario in the presence of a developing debt market, this was a rational profit maximising strategy. Banks' investment in non-SLR securities as a proportion of total assets has in fact declined since 1999-2000. While in the 1990s, greater orientation towards investment activities and aversion to credit risk exposure may have deterred banks from undertaking their 'core function' of providing loans and advances, banks seem to have struck a greater balance between investment and loans and advances in recent years. Improved atmosphere for recovery created in the recent years coupled with greater awareness about market risks associated with large holding of securities portfolio seem to have induced banks to put greater efforts in extending loans.

Capital Position and Asset Quality

A set of micro-prudential measures have been stipulated since the onset of reforms aimed at imparting strength to the banking system as well as ensuring safety and soundness in order to fix 'the true position of bank's balance sheet and…to arrest its deterioration' (Rangarajan, 1998). With regard to prudential requirements, norms for income recognition and asset classification (IRAC), introduced in 1992, have been strengthened over the years in line with international best practices. A strategy to attain CRAR of 8 per cent in a phased manner was put in place and subsequently the level was raised to 9 per cent with effect from 1999-2000.

The overall capital position of commercial sector banks has witnessed a marked improvement during the reform period (Table 3). Illustratively, as at end-March 2003, 91 out of the 93 commercial banks operating in

[3] In the early 1990s through the use of SLR and cash reserve ratio (CRR) as much as 63.5 per cent of the bank resources were pre-empted. Since the introduction of financial sector reforms these rates have been cut considerably in a sequenced manner. SLR has been reduced to the statutory minimum of 25 per cent, while CRR is currently at 5.0 per cent.

Table 3: 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
1995-96	8	9	33	42	92
1996-97	5	1	30	64	100
1997-98	3	2	27	71	103
1998-99	4	2	23	76	105
1999-00	3	2	12	84	101
2000-01	3	2	11	84	100
2001-02	1	2	7	81	91
2002-03	2	0	4	87	93

* : Relates to 4-8 per cent before 1999-2000, @: Relates to 8-10 per cent before 1999-2000.

Note : According to supervisory returns, only 2 banks failed to maintain statutory minimum CRAR of 9 per cent as at end-March 2004. Out of these two, one is scheduled to achieve the minimum CRAR level by September 2004 and other has since been placed under moratorium and merged with another bank.

Source : Reserve Bank of India.

India maintained CRAR at or above 9 per cent. The corresponding figure for 1995-96 was 54 out of 92 banks.[4]

Improved capitalisation of public sector banks was initially brought through substantial infusion of funds by government to recapitalise these banks. On a cumulative basis, infusion of funds by government into the public sector banks since the initiation of reforms for the purpose of recapitalisation amounted to less than 1 per cent of India's GDP, a figure much lower than that for some other countries. Subsequently, in order to reduce pressure on the budget and to introduce market discipline, public sector banks have been allowed to raise funds through issue of equity in the market subject to the maintenance of 51 per cent public ownership. 20 out of the 27 public sector banks have raised capital from the market (Table 4). In order to improve their price-earning ratios, many public sector banks have also returned part of government's equity subscription. Another important factor in the improvement in capital position of banks operating in India stemmed from deployment of retained earnings out of increased profits.

The reform period also witnessed considerable improvements in the asset quality of banks. Non-performing loans (NPLs) as ratios of both total advances and assets declined substantially and consistently since the mid-1990s. Moreover, for the first time since the

Table 4: Ownership Structure of Public Sector Banks

(as at end-March 2004, Per cent)

	Government/ RBI Share	Share of Others
Nationalised Banks		
Vijaya Bank	53.9	46.1
Corporation Bank	57.2	42.8
Union Bank of India	60.9	39.2
Indian Overseas Bank	61.2	38.8
Andhra Bank	62.5	37.5
Oriental Bank of Commerce	66.5	33.5
Bank of Baroda	66.8	33.2
Bank of India	69.5	30.5
Dena Bank	71.0	29.0
Allahabad Bank	71.2	28.8
Canara Bank	73.2	26.8
Syndicate Bank	73.5	26.5
UCO Bank	75.0	25.0
Bank of Maharashtra	76.8	23.2
Punjab National Bank	80.0	20.0
Central Bank of India	100.0	0.0
Indian Bank	100.0	0.0
Punjab & Sind Bank	100.0	0.0
United Bank of India	100.0	0.0
State Bank Group		
State Bank of India	59.7	40.3
State Bank of Bikaner & Jaipur	75.0	25.0
State Bank of Travancore	75.0	25.0
State Bank of Mysore	92.3	7.7
State Bank of Indore	98.1	2.0
State Bank of Hyderabad	100.0	0.0
State Bank of Patiala	100.0	0.0
State Bank of Saurashtra	100.0	0.0

Source: Reserve Bank of India.

initiation of reforms, in 2002-03, the absolute amount of NPLs in both gross and net terms witnessed declines (Table 5). This improved recovery performance raises a few interesting issues. First, from the pattern of NPLs over the years, it can be argued that to a large extent the NPL problems faced by Indian banks are legacy problems emanating from credit decisions taken before the full implementation of the banking sector reforms. Second, there has been a distinct improvement in the credit appraisal process in the Indian banking system under the reform process whereby incremental NPLs have been low despite the fact that Indian industry has gone through a relatively low-growth phase since the mid-1990s. Finally, in recent years, the recovery performance of public sector banks has been better than private sector banks – both old and new – in terms of net NPL (*i.e.* net of provisioning). Foreign banks, however, exhibited the best recovery performance and lowest NPL levels among the

[4] Distribution of banks according to CRAR for 1995-96 given in Table 3 follows a slightly different classification where by banks have been grouped in terms of CRAR into groups of 4 to 8 per cent and 8 to 10 per cent.

Table 5: NPL of Scheduled Commercial Banks

(Per cent)

	Gross NPL/ advances	Gross NPL/ Assets	Net NPL/ advances	Net NPL/ Assets
Scheduled commercial banks				
1996-97	15.7	7.0	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	4.0	4.4	1.9
2003-04*	7.3	..	3.0	..
Public sector banks				
1996-97	17.8	7.8	9.2	3.6
1997-98	16.0	7.0	8.2	3.3
1998-99	15.9	6.7	8.1	3.1
1999-00	14.0	6.0	7.4	2.9
2000-01	12.4	5.3	6.7	2.7
2001-02	11.1	4.9	5.8	2.4
2002-03	9.4	4.2	4.5	1.9
Old private sector banks				
1996-97	10.7	5.2	6.6	3.1
1997-98	10.9	5.1	6.5	2.9
1998-99	13.1	5.8	9.0	3.6
1999-00	10.8	5.2	7.1	3.3
2000-01	10.9	5.1	7.3	3.3
2001-02	11.0	5.2	7.1	3.2
2002-03	8.9	4.3	5.5	2.6
New private sector banks				
1996-97	2.6	1.3	2.0	1.0
1997-98	3.5	1.5	2.6	1.1
1998-99	6.2	2.3	4.5	1.6
1999-00	4.1	1.6	2.9	1.1
2000-01	5.1	2.1	3.1	1.2
2001-02	8.9	3.9	4.9	2.1
2002-03	7.6	3.8	4.6	2.2
Foreign banks in India				
1996-97	4.3	2.1	1.9	0.9
1997-98	6.4	3.0	2.2	1.0
1998-99	7.6	3.1	2.9	1.1
1999-00	7.0	3.2	2.4	1.0
2000-01	6.8	3.0	1.8	0.8
2001-02	5.4	2.4	1.9	0.8
2002-03	5.2	2.4	1.8	0.8

NPL: Non-performing loans, *: Based on supervisory returns, ..: not available.

Note : Bank group specific details for 2003-04 are not available.

Source : Reserve Bank of India.

all bank-groups. This raises a question mark on the applicability of the argument that links performance of banks with ownership pattern in the context of Indian banking.

Another interesting point that merits mention is that despite India's transition to a 90-day NPL recognition norm (from 180-day norm) since 2004, both gross and net NPLs as a percentage of total advances declined between end-March 2003 and end-March 2004. This reflects the success of new initiatives for resolution of NPLs including promulgation of the SARFAESI[5] Act in containing NPLs. Greater provisioning and write-off of NPLs in the face of greater profitability also helped keeping the NPLs low during 2003-04.

Competition and Efficiency

One of the major objectives of banking sector reforms has been to enhance efficiency and productivity through enhanced competition. Such policies have led to considerable and consistent reduction in the shares of public sector banks in the total income, expenditure and assets of the commercial banking system (Table 6). 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. A number of new private sector banks have emerged as dynamic components of the Indian banking system, reducing not only the market share of public sector banks but also those of foreign banks. 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.

Notwithstanding such transformation, the position of public sector banks in the Indian banking system continues to be predominant as these banks account for

Table 6: Bank Group-wise Shares: Select Indicators

(Per cent)

	1995-96	2000-01	2002-03
Public Sector Banks			
Income	82.5	78.4	74.5
Expenditure	84.2	78.9	74.8
Total Assets	84.4	79.5	75.7
Net Profit	-39.1	67.4	64.8
Gross Profit	74.3	69.9	76.6
Private Sector Banks			
Income	8.2	12.6	18.5
Expenditure	7.4	12.3	18.6
Total Assets	7.7	12.6	17.5
Net Profit	59.3	17.8	15.6
Gross Profit	10.1	14.4	18.7
Foreign Banks			
Income	9.4	9.1	7.0
Expenditure	8.3	8.8	6.6
Total Assets	7.9	7.9	6.9
Net Profit	79.8	14.8	19.6
Gross Profit	15.6	15.7	4.7

Source : Reserve Bank of India.

[5] Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002.

nearly three-fourths of assets and income. It is important to note that public sector banks have responded to the new challenges of competition, which is reflected in the increase in share of these banks in the overall profit of the banking sector. From the position of net loss in the mid-1990s, in recent years the share of public sector banks in the profit of the commercial banking system has become broadly commensurate with their share of assets, indicating a broad convergence of profitability across various bank groups. This is yet another example that, with operational flexibility, public sector banks are competing effectively with private sector and foreign banks. The market discipline imposed by the listing of most public sector banks has also probably contributed to this improved performance. Public sector bank managements are now probably more attuned to the market consequences of their activities.

Since the mid-1990s, profitability levels of commercial banks have hovered in the range of 0.7-0.8 per cent, except during certain exceptional years (Table 7). Clearly this is an improvement over the profitability prior to the initiation of the reform process. Moreover, there is a general improvement in the profitability situation in the recent years across bank groups. Since the mid-1990s, consistent with soft interest rate policies, both interest income and interest expenditure of banks as proportions of total assets have declined. However, interest expenditure declined faster than interest income, resulting in an increase in net interest income (Table 7).

Reflecting the greater emphasis on income and expenditure management, there has been a general reduction in the operating expenditure as a proportion of total assets (Table 7). This is also reflective of efficiency gain of the Indian banking under the reform process. This has been achieved in spite of large expenditures incurred by Indian banks in installation and upgradation of information technology. Moreover, in order to address manpower redundancies, public sector banks also incurred large expenditures under voluntary pre-mature retirement of nearly 12 per cent of their total staff strength. The process, however, resulted in reduced operating expenditure in the medium-term.

Another reflection of greater competition and efficiency of the Indian banking system can be captured from the considerable reduction in interest spread over the reform period. Once again, this reduction has been across the bank-groups. In fact, the spread is the highest for foreign banks and lowest for new private sector banks (Table 8).

A major impact of the reform process on the Indian banking has been in terms of change in business strategy of the banks. When banking sector reforms were introduced, over 90 per cent of the income of commercial banks in India was in the form of interest income, this proportion has gone down substantially to about 80 per cent in recent years. This reflects greater diversification of banks into non-fund based business and also emergence of treasury and foreign exchange business as profit centres for Indian banks.

Table 7: 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
1951	12	1	0	0	0	0	0
		(3.8)	(3.1)	(2.6)	(0.9)	(1.3)	(2.2)
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)
2002	15,355	1,510	1,270	1,395	875	337	395
		(9.8)	(8.3)	(9.1)	(5.7)	(2.2)	(2.6)
2003	16,989	1,724	1,407	1,553	936	3,809	471
		(10.2)	(8.3)	(9.1)	(5.5)	(2.2)	(2.8)

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

Table 8: Important Parameters for Indian Banking Sector

(Per cent)

Bank Group	1996-97	2001-02	2002-03
Operating Expenses/Total Assets			
Scheduled Commercial Banks	2.9	2.2	2.2
Public Sector Banks	2.9	2.3	2.3
Old Private Sector Banks	2.5	2.1	2.0
New Private Sector Banks	1.9	1.1	2.0
Foreign Banks	3.0	3.0	2.8
Spread/Total Assets			
Scheduled Commercial Banks	3.2	2.6	2.8
Public Sector Banks	3.2	2.7	2.9
Old Private Sector Banks	2.9	2.4	2.5
New Private Sector Banks	2.9	1.2	1.7
Foreign Banks	4.1	3.2	3.4
Net Profit/Total Assets			
Scheduled Commercial Banks	0.7	0.8	1.0
Public Sector Banks	0.6	0.7	1.0
Old Private Sector Banks	0.9	1.1	1.2
New Private Sector Banks	1.7	0.4	0.9
Foreign Banks	1.2	1.3	1.6

Note : Spread = interest income-interest expenditure.
Source : Reserve Bank of India.

Inflexibility of the Indian labour market is often identified as one of the weak points of the Indian reform process. It is, however, important to note that as a part of financial sector reforms, 26 out of the 27 public sector financial intermediaries have been successful in restructuring their workforce, which involved downsizing of the labour force by 12 per cent. Such steps have resulted in decline in staff cost and increase in business per employee.

This brief quantitative review of the performance of the Indian banking sector documents the very significant improvements that have occurred over the decade of reforms. The performance parameters of Indian banks are now approaching international standards and they are among the better performers in the emerging market group (Table 9). As both domestic and international competition intensifies, it will be essential for Indian banks to further improve their efficiency and also deploy better their resources as fiscal dominance declines.

Debt Market

In nominal terms, fiscal deficit of the central government has increased substantially since the early

Table 9: Cross-Country Performance Analysis of Banks

(Per cent)

	Country	2001	2002	2003	Latest
	Gross Non-Performing Loans to Total Loans				
Latin America	Argentina [1]	13.2	17.5	22.7	November
	Brazil	5.7	5.3	5.7	June
	Mexico	5.1	4.6	3.7	September
Asia	China	29.8	25.5	22.0	June
	India	***11.4***	***10.4***	***8.8***	***March***
	Indonesia	11.9	5.8	..	
	Malaysia	17.8	15.9	14.8	June
	Philippines	16.9	15.4	15.2	September
	Singapore	3.6	3.4	3.5	September
	Thailand	10.5	15.8	15.5	August
Memo	US [3]	1.4	1.6	1.3	September
	UK	2.6	2.6	2.2	June
	Japan	6.6	8.9	7.2	September
	Profitability of Major Banks				
Latin America	Argentina	-0.2	-9.7	-2.5	August
	Brazil	0.2	1.9	1.9	June
	Mexico	0.8	-1.1	1.6	September
Asia	China	0.1	0.1	..	
	India	***0.5***	***0.8***	***1.0***	***March***
	Indonesia	0.8	1.3	..	
	Malaysia	1.0	1.3	..	
	Philippines	0.4	0.8	1.0	September
	Singapore	0.8	0.8	0.8	September
	Thailand	-0.1	0.4	1.1	August
Memo	US [1]	1.1	1.4	1.4	September
	UK [2,3]	0.5	0.9	0.5	June
	Japan [2]	0.1	0.0	..	September

.. Not available.
1. With asset exceeding US $ 1 billion,
2. Before tax,
3. Includes mortgage banks
Source : *Global Financial Stability Report*, April 2004.

Table 10: Outstanding Stock of Central and State Government Securities

(Amounts in Rs. Billion, Ratios in Per cent)

	1992	1995	2000	2003	2004
Centre	769 (10.3)	1,375 (11.6)	3,819 (18.1)	6,739 (27.3)	8,243 (29.7)
States	190 (2.5)	312 (2.6)	739 (3.5)	1,331 (5.4)	1,795 (6.5)

Note : Figures in bracket are outstanding debt as a ratio of GDP at current market prices.
Source : Reserve Bank of India.

1990s and as a proportion of GDP it has hovered around 6 per cent. However, more importantly, the dependence of government on market borrowings has increased sharply in this period. The outstanding stocks of both Centre and State Government debt each increased by about 10 times since the initiation of reforms (Table 10). From around 20 per cent in the early 1990s, share of net market borrowing in financing fiscal deficit of the central government has increased to 80 per cent in recent years (Table 11).

Despite such rapid increase in market borrowing and continued dominance of financial intermediaries, especially banks, in the government securities market, there has been substantial reduction in the yield as well as cost of borrowing of the Government (Tables 12 and 13). While a major part of such reductions are in line with the high liquidity phase of the global financial market witnessed in the past few years, the reduction in yield and interest rate started much earlier, indicating efficiency gains in the government securities market.

Between the mid- and late-1990s, there has been a substantial widening of maturity profile of government securities, which has reduced the roll-over risk of government debt. Apart from reduction in yield, the dispersion of yield rate on different types of government securities has also declined considerably. These positive developments, to a large extent, reflect the improved market structure for the government securities since the initiation of reforms. Reflecting the buoyancy of the fixed-income securities market in India, despite almost secular decline in yield rate across the maturity spectrum, the turnover in the market has increased over ten-times between 1998-99 and 2003-04 (Table 14) (Mohan, 2004).

Table 11: Share of Market Borrowing in Financing of Fiscal Deficit of Central Government

(Per cent)

	Market Borrowing	Other Sources
1991-92	20.7	79.3
1992-93	9.2	90.8
1993-94	48.0	52.0
1994-95	35.2	64.8
1995-96	54.9	45.1
1996-97	30.0	70.0
1997-98	36.5	63.5
1998-99	60.9	39.1
1999-2000	67.1	32.9
2000-01	61.4	38.6
2001-02	62.2	37.8
2002-03	79.3	20.7
2003-04	67.2	32.8

Source : Reserve Bank of India.

Table 12: Range of Yield by Maturity of Primary Issues

(Per cent)

	Under 5 years	5-10 years	Over 10 years
1995-96	13.25-13.73	13.25-14.00	-
1996-97	13.40-13.72	13.55-13.85	-
1997-98	10.85-12.14	11.15-13.05	-
1998-99	11.40-11.68	11.10-12.25	12.25-12.60
1999-00	-	10.73-11.99	10.77-12.45
2000-01	9.47-10.95	9.88-11.69	10.47-11.70
2001-02	-	6.98-9.81	7.18-11.00
2002-03	-	6.65-8.14	6.84-8.62
2003-04	4.69	4.62-5.73	5.18-6.35

Source : Reserve Bank of India.

Table 13: Weighted Average Yield and Maturity of Outstanding Stock

(Maturity in years and Yield in Per cent)

Years	Weighted Average Yield	Range of Maturity of New Loans	Weighted Average Maturity	Weighted average maturity of outstanding stock
1995-96	13.75	2--10	5.7	N.A.
1996-97	13.69	2--10	5.5	N.A.
1997-98	12.01	3--10	6.6	6.5
1998-99	11.86	2--20	7.7	6.3
1999-00	11.77	5.26--19.61	12.6	7.1
2000-01	10.95	2.89--20	10.6	7.5
2001-02	9.44	5--25	14.26	8.2
2002-03	7.34	7--30	13.83	8.86
2003-04	5.74	4--30	14.94	9.78

N.A. : Not available.
Source : Reserve Bank of India.

Table 14: Turnover in Government Securities Market

(Rs. billion)

	Outstanding	Repos	Total
1995-96	176	928	1,272
1996-97	599	254	1,229
1997-98	1,185	208	1,857
1998-99	1,431	381	2,272
1999-00	4,053	757	5,393
2000-01	5,091	1,091	6,981
2001-02	11,385	3,359	14,744
2002-03	13,781	5,635	19,416
2003-04	16,852	9,547	26,399

N.A. : Not available.
Source : Reserve Bank of India.

Foreign Exchange Market

The reforms measures in the foreign exchange market have resulted in significant deepening of the market in terms of both instruments and variety of players. Despite certain fluctuations, daily average turnover in the Indian foreign exchange market has shown a general increase. A survey by the Bank for International Settlements on the foreign exchange market turnover during 2001 in which 43 countries including India participated reveals that while foreign exchange market turnover declined the world over considerably as compared to 1998, it increased in India. The turnover has increased particularly in recent years (Table 15).

In recent years, the turnover in the foreign exchange market has been nearly 6 times higher than the aggregate size of India's balance of payments. While inter-bank transactions accounted for about 80 per cent of the turnover in the foreign exchange market, merchant transactions registered high growth rates in recent years. The increased turnover can be taken as an indicator of the extent of liberalisation of the Indian foreign exchange market and the consequent deepening of the foreign exchange market. Full convertibility on the current account and extensive liberalisation of the capital account transactions have facilitated not only transactions in foreign currency, these have enabled the corporates to hedge various types of risks associated with foreign currency transactions.

Authorised Dealers (ADs) are the leading agencies in the transmission of the liberalisation measures in the context of foreign exchange market as well as widening and deepening of such markets. ADs also facilitate corporates in hedging foreign currency risk exposures. With the deepening of foreign exchange market and increased turnover, income of commercial banks through such transactions increased considerably. In recent years, profit from foreign exchange transactions accounted for 20-30 per cent of the total profit of the public sector banks.

Table 15: Turnover in Indian Foreign Exchange Market

(US $ billion)

Year	Average Daily Turnover
1998	5.22
1999	5.31
2000	4.74
2001	5.74
2002	5.95
2003	6.34

Source : Reserve Bank of India.

Despite liberalisation of the capital account and introduction of a market determined exchange rate, the foreign exchange market in India remained stable barring a few episodes of mild volatility (Table 16). Therefore, India's current exchange rate policy of managing volatility without fixed target levels has yielded satisfactory results. It is, however, important to point out that RBI intervention in the foreign exchange market has been relatively small in terms of volume. During 2002-03, a year considered to be characterised by considerable intervention by the Reserve Bank, gross intervention by the Reserve Bank of India accounted for less than 3 per cent of the turnover in the foreign exchange market. This shows the predominant role of market forces in determination of the external value of the rupee.

Reflecting the resilience of the Indian economy, in particular the financial sector, there has been a large inflow of funds towards the country in recent years. This has reflected in large accumulation of foreign exchange reserves (Table 17). An analysis of the sources of reserve accretion indicates that buoyancy in services exports, large unilateral private transfers reflecting mainly remittance from Diaspora, and various types of non-debt creating capital inflows have been the major source for the accumulation of foreign exchange reserves. It is interesting to note that while financial sector reforms started at the backdrop of external sector crisis, India's foreign exchange reserves reached historical peaks when the country has substantially liberalised norms governing

Table 16: Trends in External Value of the Rupee

(Per cent)

	Export-Based Weights				Trade-Based Weights			
	REER	%Variation	NEER	%Variation	REER	%Variation	NEER	%Variation
1990-91	73.3	-5.2	66.2	-7.6	75.6	-3.6	67.2	-6.9
1991-92	61.4	-16.3	51.1	-22.8	64.2	-15.1	52.5	-21.9
1992-93	54.4	-11.3	42.3	-17.3	57.1	-11.1	43.5	-17.2
1993-94	59.1	8.6	43.5	2.8	61.6	7.9	44.7	2.8
1994-95	63.3	7.1	42.2	-2.9	66.0	7.2	43.4	-2.9
1995-96	60.9	-3.7	38.7	-8.2	63.6	-3.7	39.7	-8.4
1996-97	61.1	0.3	38.1	-1.7	63.8	0.3	39.0	-1.9
1997-98	63.8	4.3	38.9	2.2	67.0	5.0	40.0	2.7
1998-99	60.1	-5.7	35.3	-9.3	63.4	-5.3	36.3	-9.2
1999-00	59.7	-0.7	34.3	-2.9	63.3	-0.2	35.5	-2.4
2000-01	62.5	4.6	34.2	-0.2	66.5	5.1	35.5	0.2
2001-02	64.4	3.0	34.5	0.9	68.4	2.8	35.8	0.7
2002-03	67.9	5.5	35.4	2.5	72.8	6.3	37.1	3.6
2003-04	69.7	2.6	34.9	-1.5	74.1	1.9	36.3	-2.2

REER : Real effective exchange rate. NEER : Nominal effective exchange rate.

Note : Both REER and NEER are based on 36 country bilateral weight-based index.

Source : Reserve Bank of India.

flows of foreign exchange. Accumulation of foreign exchange reserves also reflects monetary policy response in face of large capital inflows. The process has been successful in maintaining price stability. Available indicators of reserve adequacy suggest that India's current level of foreign exchange reserves can be considered adequate as a cushion against potential disruptions to trade and current transactions as well as external debt servicing obligations. In the absence of an international lender of last resort, the reserves also provide the country a level of self-insurance against destabilising and costly financial crisis.

Table 17: India's Foreign Exchange Reserves

(US $ million)

Year	Gold	SDRs	Foreign Currency Position	Total	Reserve Position in the Fund	Outstanding Use of IMF Credit
Mar-93	3,380	18	6,434	9,832	296	4,799
Mar-94	4,078	108	15,068	19,254	299	5,040
Mar-95	4,370	7	20,809	25,186	331	4,300
Mar-96	4,561	82	17,044	21,687	310	2,374
Mar-97	4,054	2	22,367	26,423	291	1,313
Mar-98	3,391	1	25,975	29,367	283	664
Mar-99	2,960	8	29,522	32,490	663	287
Mar-00	2,974	4	35,058	38,036	658	26
Mar-01	2,725	2	39,554	42,281	616	0
Mar-02	3,047	10	51,049	54,106	610	0
Mar-03	3,534	4	71,890	75,428	672	0
Mar-04	4,198	2	107,448	112,959	1,311	0
Sept. 17, 2004	4,140	1	112,919	118,359	1,299	0

Source: Reserve Bank of India.

Other Financial Intermediaries

In line with banks, there has been an almost across-the-board improvement in the financial health of other financial intermediaries as well in terms of improvements in capital position and reduction in NPLs. Among the cooperative banks, there have been improvements in capital position, reduction in spread and operating expenses. Despite the decline in NPLs as a proportion of total assets for a majority of the cooperative banks, the ratio for some of the large cooperative banks increased significantly, mainly on account of inappropriate risk-management and corporate governance practices. Measures have been put in place to guard against repetition of such episodes, but this remains a burden.

Capital adequacy levels of most of the major DFIs have improved while NPL levels declined since the mid-1990s. Moreover, reflecting the adaptability of DFIs to changed business environment under the reform process, the share of para-banking activities such as underwriting, direct subscription and guarantees has increased from 10 per cent in the early-1990s to over 30 per cent in recent years. Some of the DFIs, however, have not been able to adjust as well as the others in the new environment mainly because of their past investment behaviours. Moreover, a few of the large DFIs felt that they could perform better as banks under the new environment. ICICI has already transformed itself into a bank and similar moves are underway for the Industrial Development Bank of India (IDBI). There has also been a large transformation in the NBFC sector, whereby a large number of NBFCs have discontinued their public deposit taking activities.

Under the strategy of sequenced reform, such measures in the insurance sector were introduced later than the banking sector. Despite this relatively late start, the insurance sector has witnessed considerable changes over the past few years. A large number of private insurance companies, generally with foreign capital participation, have entered the sector. The current profile of the Indian insurance industry reflects that, notwithstanding the entry of private sector players, in terms of both assets and liabilities, insurance companies from the public sector continue to dominate the industry. Despite this, given the fast pace of growth in the insurance industry, private players have been able to market their products (IRDA, 2002).

Perhaps more importantly, liberalisation of entry norms in insurance segment has brought about a sea change in product composition. While in the past, tax incentives were the major driving force of the insurance industry, particularly life insurance industry, in the emerging situation the normal driving force of an insurance industry is taking important roles (IRDA, 2002). Driven by competitive forces and also the emerging socio-economic changes including increased wealth, education and awareness about insurance products have resulted in introduction of various novel products in the Indian market. Along with the changing product profile, there have also been salutary improvements in consumer service in recent years, driven largely by the impact of new technology usage, better technical know-how consequent upon foreign collaboration and focused product targeting, dovetailed to specific segments of the populace as well as cross-selling of products through bancassurance. Insurance companies are also taking active steps to venture into innovative distribution channels for their products over and above creating strong agency network.

Equity Market

The 1990s have been good for the Indian equity market. The market has grown exponentially in terms of resource mobilisation, number of stock exchanges, number of listed stocks, market capitalisation, trading volumes, turnover and investors' base (Table 18). Along with this growth, the profile of the investors, issuers and intermediaries has changed significantly. The market has witnessed a fundamental institutional change resulting in drastic reduction in transaction costs and significant improvement in efficiency, transparency and safety (NSE, 2003). In the 1990s, reform measures initiated by SEBI such as, market determined allocation of resources, rolling settlement, sophisticated risk management and derivatives trading have greatly improved the framework and efficiency of trading and settlement. Almost all equity settlements take place at the depository. As a result, the Indian capital market has become qualitatively comparable to many developed and emerging markets.

The liberalisation and consequent reform measures have drawn the attention of foreign investors leading to a rise in portfolio investment in the Indian capital market. During the first half of the 1990s, India accounted for a larger volume of international equity issues than any other emerging market (IMF, 1995). Over the recent years, India has emerged as a major recipient of portfolio investment among the emerging market economies. Apart from such large inflows, reflecting the confidence of cross-border

Table 18: Select Stock Market Indicators in India

(Per cent)

Year (end-March)	1961*	1971*	1980*	1991	2000	2002	2003
Number of stock exchanges	7	8	9	22	23	23	23
Number of listed companies	1,203	1,599	2,265	6,229	9,871	9,644	9,413
Market capitalisation (Rs. Billion)	12	27	68	1,103	11,926	7,493	6,319

* End-December, the Stock Exchange, Mumbai only.

Source : The Stock Exchange (BSE), Mumbai and National Stock Exchange (NSE).

investors on the prospects of Indian securities market, since 1993, when entry of FII was permitted for the first time, except for one year, India received positive portfolio inflows in each year. The stability of portfolio flows towards India is in contrast with large volatility of portfolio flows in most emerging market economies.

VI. Issues

As the foregoing analysis suggests, there has been a structural transformation in almost all segments of the Indian financial sector since the initiation of reforms. The reform process has strengthened the health of financial intermediaries, deepened financial markets and enhanced the instruments available in the financial system. At the level of individual institutions as well as at the systemic level, there has been considerable reinforcement of the framework for stability. There have also been discernible improvements in the competitiveness, efficiency and productivity of the Indian financial system. What then are important issues facing the Indian financial system now?

Even after one and a half decades of financial sector reforms, continued predominant public sector entities in the sector has often been a topic of debate. India's experience in this respect is different from many other emerging market economies, especially the transition countries, where financial sector reforms resulted in privatisation of erstwhile public sector financial intermediaries. In the late 1990s, India too proposed legislative change to enable reduction in government ownership up to 33 per cent in the public sector banks. It was proposed that notwithstanding such ownership pattern change, these banks "would retain their public sector character". The proposal, however, failed to meet parliamentary approval, indicating a lack of political acceptability on privatisation so far. Meanwhile public sector banks continue to raise capital from market and in nine public sector banks, including the State Bank of India, the largest Indian bank, private ownerships have become close to 40 per cent. It is also important to recall that this paper has shown that since the initiation of reforms, financial health as well as efficiency of the public sector banks closely matched and some times surpassed those of the private sector including foreign banks. Therefore, there is no definite observed link between efficiency and ownership in the contemporary Indian banking system. The competition induced by the new private sector banks has clearly re-energised the Indian banking sector as a whole: new technology is now the norm, new products are being introduced continuously, and new business practices have become common place.

India's approach towards treatment of insolvent banks is yet another interesting issue. Rather than closing them down, policymakers in India have shown a preference to merge such banks with healthy public sector banks. It has been felt in certain circles that such an approach may give rise to a moral hazard problem. However, two issues need consideration in this context. First, commercial banks are the most dominant and systemically important segment of the financial system. Second, over 70 per cent of the bank depositors in India are small depositors. Therefore, systemic concerns coupled with the necessity to safeguard the interest of small depositors have been paramount in the minds of policy makers while dealing with insolvent banks. This issue had not received much attention in the context of a predominantly government owned banking system. As the weight of private banks increases further thinking will need to be done on this subject, both in terms of prevention of insolvency through advance regulatory supervision and action, and post insolvency measures that discourage moral hazard and eventual fiscal cost.

Certain banking sector and related indicators on select emerging market economies (EMEs) have been presented in Annex I. Some broad points can be drawn from these data. First, while almost all EMEs have been successful in reducing domestic inflation rates since the 1990s, most of them experienced occasional inflationary spikes in this

period. Reversing the situation, in the new millennium, countries such as China and Singapore experienced deflationary situations. Along with sustained reduction in inflation during the reform period, India has been able to avoid both the extreme situations. This can be taken as an indicator of the quality of financial sector reforms and monetary management in the country. Second, though lower than most of the East Asian EMEs, India maintained reasonably high and generally rising savings and investment rates since the 1990s. Stability in the financial market under the reform process has facilitated this process. Third, compared to most other EMEs, India maintained a stable real interest rate situation under the reform process. The generally increasing trend of the real rate, however, is an issue that needs greater attention of the authorities. Various steps have already been initiated in this context. Fourth, while banks in India needed to keep high proportions of their assets as liquid assets at the start of reform process, such requirements have been relaxed in a sequenced manner. Currently, these requirements in India are on the lower side among the EMEs. Lastly, despite substantial deepening of the Indian financial system as measured by the domestic bank credit to GDP ratio and domestic credit to private sector to GDP ratio, such processes are yet to catch-up the levels of the East Asian EMEs. This is yet another area where the Indian financial sector needs to make significant strides in the coming years.

Judged by the conventional measures such as share of foreign holdings in the Indian financial market, the extent of globalisation of Indian financial sector may look quite limited as compared to many other EMEs. Moreover, association of the authorities in the financial system either in the form of government ownership of financial intermediaries or intervention in the financial market may appear to be high. The conduct of the Indian financial sector in the face of various uncertainties and crises in various parts of the world, however, drives home the point that “On balance, there appears to be a great advantage in well-managed and appropriate integration into the global process … markets do not and cannot exist in a vacuum, i.e., without some externally imposed rules and such order is a result of public policy” (Reddy, 2003). Similar views have been expressed in the influential work of Prasad and others (Prasad *et al*, 2003), “The empirical evidence has not established a definitive proof that financial integration has enhanced growth for developing countries. Furthermore, it may be associated with higher consumption volatility. … (I)mproving governance, in addition to sound macroeconomic frameworks and the development of domestic financial markets, should be an important element of such strategies”. It is important to point out that despite the earlier apprehensions about the outcome of India’s approach of sequenced implementation of international best practices in the financial sector and gradual opening up of the sector to international competition, such measures have enabled the country to avoid major financial sector crisis experienced by many emerging market economies since the 1990s. A list of such crises is given in the Annex II and the country experiences show that premature globalisation financial market and lack of prudential framework for financial regulation and supervision have been two major reasons for financial crises in emerging market economies. Indian policy makers have been conscious of the fact that international financial market acts in a strongly pro-cyclical manner in the case of EMEs. At the same time, these countries, especially disadvantaged strata within these economies, are seriously constrained in managing the impact of such volatility. Therefore, maintenance of stability becomes a part of public policy in the emerging market countries (Reddy, 2003). Accordingly, concern for stability has been a major plank of the financial sector reforms in India. Available indicators reinforce India’s resolve for the continuance of this approach.

Despite the considerable progress in terms of both efficiency and stability of the financial sector under the reform process, it needs to be reiterated that India has miles to go in deepening the process. Despite considerable improvements, the current level of efficiency of the Indian financial sector is far from satisfactory. Reduction in transaction costs and improving the credit delivery mechanism are two areas, which require focused attention at the current stage of reforms. There are needs for the consolidation of the banking system in India and at present there are still various institutional and legal reforms that still need attention.

Effective implementation of corporate governance practices in financial intermediaries has been a long-standing concern of the regulators and supervisors across the world. In India too, instances of inadequacies in the implementation of corporate governance norms and disregard to prudential practices on internal control have come to light. Such instances have seriously compromised

the financial health of a few private sector commercial banks and cooperative banks. Prompt corrective actions including criminal proceedings against the errant individuals have been initiated by the authorities in such cases. In order to guard against recurrence of such practices the Reserve Bank has taken various measures including implementation of important facets of international best practices in corporate governance and internal control, strengthening of the role of statutory auditors, recasting of the supervisory framework and increased disclosure to strengthen the role of market discipline. In the cooperative banking sector, continuation of multiple regulators has been identified as a major challenge before the authorities in effective regulation and supervision including implementation of corporate governance and internal control norms. The Reserve Bank has suggested jurisdiction of a single regulator to deal with this banking segment.

Despite decline, continuation of considerable stock of NPLs in the banking system continues to be a cause for concern. Improved institutional and legal arrangements and strengthening of risk management practices by banks is likely to keep incremental NPLs low. Initiatives such as setting up of Asset Reconstruction Companies and greater emphasis on compromise settlements are likely to deal with the stock problem for NPLs. Banks may need to adopt a more pro-active approach in dealing with these issues.

Enforcement of creditors rights will need continuous strengthening. The implementation of recent legislation will progressively be subject to judicial testing as it gets more accepted and as problems occur in its application. The legal provisions and practice in bankruptcy of the real sector are still inadequate and need further reform.

Another area of concern relates to the decline in direct bank credit towards disadvantaged but socially important sectors such as agriculture and small-scale industries. It is felt that in the past inadequate risk management practices constrained banks to more vigorously pursue financing of such sectors. With improved risk management, it is likely that banks would deploy larger portions of their funds in these sectors. As this assessment and risk management practices improve, banks should be able to distinguish the risk quality of individual borrowers, rather than treating borrowers of a particular class as equally risky. The introduction of credit information bureau is in its infancy: the large scale availability of credit histories of borrowers at low cost is essential for better credit delivery, particularly for smaller borrowers.

Debt Market

The Indian debt market ranks third in Asia, after Japan and South Korea, in terms of issued amount. Outstanding size of the debt floatation as a proportion of GDP, however, is not very high in India. Moreover, although in terms of the primary issues Indian debt market is quite large, the Government continues to be the large borrower, unlike in South Korea where the private sector is the main borrower. The corporate debt market in the country is still at a nascent stage. Factors such as lack of good quality issuers, institutional investors, supporting infrastructure and high cost of issuance, market fragmentation, etc. have been identified as the reason for lack of depth of the corporate debt market in India (Mohan, 2004). However, to place India on a high and sustained growth trajectory and particularly to meet the huge financing needs of the infrastructure projects, it is necessary to develop the corporate bond market.

As the debt market becomes larger, both for government securities and for corporate debt, its efficient functioning will depend a great deal on deepening of liquidity in the market so that trading becomes easier and more efficient. The government securities market needs to be widened much more to non-bank participants such as insurance companies, pension and provident funds, and many real sector participants who need fixed instruments for their treasury management. This will need greater trading of debt in the stock exchanges and better price discovery through anonymous, screen based, order matching systems. With increasing interest rate movement, in both directions, the efficient functioning of the debt market will also be aided by further development of the derivatives market. However, this has to be done in a careful manner, while ensuring that market participants have adequate risk management systems.

Financial sector reforms in India were initiated early in the reform cycle. Complementary measures in other areas including fiscal and external sector provided the crucial support to the financial sector reform process. In order to deepen the financial sector reforms further, it is essential that significant reform measures are initiated in other segments of the economy including real sectors. Since the early 1990s, India as well as the world economy have undergone a structural transformation. An enduring development has been the changed perception about India

– both internally and from the rest-of-the-world. While India assumes a more pivotal role in the global arena, internally the country needs to reassess the future course of restructuring process. Managing heightened expectations is going to be the major challenge of future public policy in India since, this, on the one hand, provides the country to take a quantum jump in terms of development, but, on the other hand, even a small slippage in the policy framework may prove to be the undoing of the past painstaking reform efforts. As envisaged by the 10th Plan, India is posed to attain 8 per cent per annum growth rate on a consistent basis. This was even outside the realm of wishful thinking a few years back. Appropriate sequencing and repackaging of reform measures with changed emphasis and relative speed of reforms at various sectoral levels would ultimately determine whether India would be able to leapfrog into the new growth trajectory.

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Annex I : Banking Sector Indicators of Select Emerging Market Economies

Table A.1 : Bank Liquid Reserves to Bank Assets Ratio

	1991	1995	2000	2002
Singapore	4.1	4.0	2.5	2.5
Korea, Rep.	6.5	6.2	2.0	2.6
South Africa	..	2.9	2.7	2.7
Chile	6.0	5.2	3.1	3.0
Czech Republic	..	12.7	18.9	3.8
India	**16.0**	**16.2**	**8.0**	**5.6**
Poland	14.6	7.8	4.9	5.6
Philippines	23.4	11.2	7.4	8.5
Argentina	8.2	3.6	2.5	9.5
Mexico	3.0	22.3	5.5	11.1
Indonesia	9.0	1.9	7.0	11.1
China	17.8	18.0	12.7	12.1
Malaysia	6.4	14.4	13.6	12.5
Russian Federation	..	12.0	15.4	13.9
Brazil	7.3	7.7	7.7	23.6
High income: OECD	1.7	1.5	0.9	..

Source : World Development Indicators online, World Bank.

Table A.2 : Domestic Credit Provided by Banking Sector (Per cent of GDP)

	1991	1995	2000	2002
Mexico	36.8	42.3	26.7	26.6
Russian Federation	..	25.5	24.7	26.6
Poland	34.8	32.0	34.1	36.2
Czech Republic	..	75.9	54.5	45.8
India	**51.3**	**44.3**	**53.3**	**58.5**
Indonesia	45.6	52.7	67.4	59.5
Philippines	23.9	64.3	66.9	60.5
Argentina	22.8	27.9	34.5	62.4
Brazil	93.8	44.8	49.5	64.8
Chile	63.9	60.3	72.6	77.6
Singapore	75.9	76.0	90.4	84.8
Korea, Rep.	66.4	64.7	103.1	116.9
South Africa	..	140.2	158.4	150.9
Malaysia	79.0	126.7	148.2	154.2
China	92.6	91.2	132.7	166.4
High income: OECD	135.3	154.2	175.2	170.0

Source : World Development Indicators online, World Bank.

Table A.3 : Domestic Credit to Private Sector (Per cent of GDP)

	1991	1995	2000	2002
Mexico	21.0	29.3	13.0	12.6
Argentina	12.6	20.0	23.9	15.3
Russian Federation	..	9.4	13.3	17.6
Indonesia	46.2	53.5	21.9	22.3
Poland	24.0	18.5	27.7	28.8
India	**24.2**	**22.8**	**29.0**	**32.6**
Czech Republic	..	75.2	54.0	33.4
Brazil	42.7	37.3	34.7	35.5
Philippines	21.5	45.1	43.8	36.4
Chile	44.8	54.4	63.7	68.1
Singapore	96.9	106.4	111.0	115.5
Korea, Rep.	65.2	64.7	101.0	115.6
South Africa	..	119.3	138.9	131.7
High income: OECD	109.5	119.3	138.0	133.7
China	89.9	88.3	124.6	136.5
Malaysia	..	124.4	140.4	146.1

Source : World Development Indicators online, World Bank.

Table A.4: Gross Domestic Savings (Per cent of GDP)

	1991	1995	2000	2002
Poland	18.0	22.1	18.4	15.7
Mexico	20.4	22.5	21.8	18.3
High income: OECD	23.0	22.4	22.0	18.4
Philippines	17.2	14.6	23.1	18.8
South Africa	21.7	18.9	18.3	19.2
Indonesia	33.2	30.6	25.6	21.1
Brazil	20.5	20.5	20.0	22.4
India	**21.9**	**25.3**	**21.9**	**22.5**
Czech Republic	30.1	29.3	26.3	25.8
Chile	27.0	27.6	23.5	26.8
Argentina	16.2	17.5	15.6	26.9
Korea, Rep.	36.8	35.7	31.3	27.5
Russian Federation	36.6	28.8	38.7	31.8
Malaysia	34.1	39.7	47.2	41.9
China	38.1	43.1	39.0	43.4
Singapore	45.1	50.2	48.1	44.7

Source : World Development Indicators online, World Bank.

Table A.5 : Gross Fixed Capital Formation (Per cent of GDP)

	1991	1995	2000	2002
Argentina	..	17.9	16.2	12.0
South Africa	17.2	15.9	14.8	15.1
Russian Federation	23.3	21.1	16.9	17.9
Poland	19.5	18.6	23.9	18.6
Mexico	18.7	16.2	21.4	18.9
High income: OECD	22.6	21.2	21.9	19.0
Philippines	20.0	22.2	21.2	19.2
Brazil	18.1	20.5	21.8	19.3
Indonesia	27.0	28.4	21.8	20.2
Chile	19.9	23.9	21.0	21.6
India	**22.0**	**24.4**	**22.0**	**22.5**
Malaysia	36.4	43.6	25.6	23.2
Singapore	33.6	33.4	30.0	25.7
Czech Republic	24.1	32.0	28.3	26.3
Korea, Rep.	39.0	36.7	28.4	26.7
China	27.5	34.7	36.5	40.2

Source : World Development Indicators online, World Bank.

Table A.6 : Inflation, Consumer Prices (annual %)

	1991	1995	2000	2002
China	3.5	16.9	0.3	-0.8
Singapore	3.4	1.7	1.4	-0.4
Czech Republic	..	9.2	3.9	1.8
Malaysia	4.4	3.5	1.5	1.8
Poland	76.7	28.1	10.1	1.9
Chile	21.8	8.2	3.8	2.5
Korea, Rep.	9.3	4.4	2.2	2.8
Philippines	18.5	8.0	4.4	3.1
India	**13.9**	**10.2**	**4.0**	**4.4**
Mexico	22.7	35.0	9.5	5.0
Brazil	432.8	66.0	7.0	8.4
South Africa	15.3	8.7	5.3	9.2
Indonesia	9.4	9.4	4.5	11.5
Russian Federation	..	197.5	20.8	15.8
Argentina	171.7	3.4	-0.9	25.9

Source : World Development Indicators online, World Bank.

Table A.7: Real Interest Rate (Per cent)

	1991	1995	2000	2002
Russian Federation	..	72.3	-9.6	0.4
Malaysia	4.4	3.9	1.7	2.7
Mexico	..	15.7	4.2	3.4
Czech Republic	..	2.3	6.0	3.5
Philippines	5.6	6.6	4.3	4.1
Korea, Rep.	-0.8	1.8	9.8	5.0
Chile	6.1	8.1	10.2	5.0
Singapore	3.0	4.2	1.3	5.2
China	1.8	-1.0	4.9	5.6
South Africa	4.0	6.9	6.8	6.6
India	**3.6**	**6.0**	**8.2**	**8.7**
Poland	-0.4	3.8	7.6	10.3
Indonesia	15.4	8.3	8.1	11.0
Argentina	..	14.2	9.9	16.2
Brazil	..	..	42.9	50.1

Source : World Development Indicators online, World Bank.

Annex II : Major Financial Crises Since the 1990s

Nature of Crises	Reasons
ERM crisis of 1992-93, affected the countries under the Exchange Rate Mechanism	The ERM crisis brought into focus the ability of speculators to precipitate a crisis and the limited ability of available foreign exchange reserves to stem the run on a currency in a world of volatile capital flows. The ERM crisis also highlighted the trade-off between monetary and exchange rate management policies under a convertible currency.
Currency crisis in Mexico in 1994-95 which graduated into a debt crisis	Volatile capital flows resulted in a currency crisis, which graduated into a debt crisis with the inability of the government to redeem the 'tesebonos', which were short-term debt instruments repayable in Pesos but were indexed to the US dollar issued by the Mexican Government.
East Asian currency crisis which started with the collapse of the Thai Baht in July 1997 engulfed other Asian countries like South Korea, Indonesia, Philippines and Malaysia	The crisis reflected a typical case of structural imbalance and some major deficiencies in the affected economies. Uncontrolled capital account liberalisation on the back of weak financial systems that were characterised by poor monitoring and surveillance, inappropriate policy stances such as pegged exchange rates and unlimited access to foreign currency loans for the private sector led to the crisis. Lack of timely and adequate financial assistance from the multilateral institutions, at least initially, seems to have exacerbated the crisis.
Russian currency crisis in August 1998	Faced with significantly large capital outflows in the face of inadequate reserves, Russia defaulted on its domestic and external debt in August 1998. It subsequently devalued its currency, thereby disrupting the international economy to a certain extent.
Brazilian currency crisis in February 1999	In February 1999, following months of speculative pressure and in spite of a large IMF rescue package, the Brazilian Real was devalued. Reasons included volatile capital flows and fundamental problems associated with the adoption of the Real Plan (1994) to control hyperinflation. Inadequate fiscal consolidation also led to fears of default, high interest rates, and a consequent debt spiral.
Argentinean crisis in September 2001	In September 2001, Argentina defaulted on almost US $ 3 billion debt owed by it to the IMF. Interactions between an unsustainable fiscal regime and the existing currency board arrangement in the face of unfavourable external developments were the most crucial elements in the Argentine crisis.
Crisis in Turkey in 2001	The immediate cause of crisis in Turkey in 2001 was a combination of portfolio losses and liquidity problems in a few banks, which triggered a loss of confidence in the entire banking system leading to a reversal of capital flows. The Turkish Lira was devalued by 30 per cent in February 2001 and the Government adopted a floating exchange rate regime to keep most of its reserves intact.