

## *The Role of Fiscal and Monetary Policies in Sustaining Growth with Stability in India*

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The performance of the Indian economy in recent years has attracted increasing international interest. This conference is therefore a timely one to take stock of what has happened and to also deepen our understanding of the policies and processes that have led to the current trends. This paper focuses on the role of fiscal and monetary policies in the evolution of the Indian economy over the years, with particular attention being given to the reforms undertaken in these policies since the early 1990s.

### **Macroeconomic Overview**

An interesting feature of the record of economic growth in India is that it has experienced a sustained slow acceleration in growth since independence. Growth has been accelerating gradually since the 1950s, except for an interregnum between 1965 and 1980<sup>1</sup> (Table 1). Thus, the current observed acceleration in growth has to be seen in the context of this long record of consistent growth, which has been accompanied by a relatively continuous increase in savings and investment rates over the years. What is remarkable in recent years is the very substantial steep increase that has taken place in this decade in the rates of savings and investment.

Comprehensive economic reforms have been undertaken on a continuous basis since the crisis year of 1991-92, which have presumably contributed to the acceleration in growth that is now being experienced. There was, however, some

\* Updated version of the paper presented by Dr. Rakesh Mohan, Deputy Governor, Reserve Bank of India at the Sixth Asian Economic Policy Review Conference on April 19, 2008 at Tokyo. The assistance of R.K. Pattnaik, M.D. Patra, B.M. Misra, Muneesh Kapur and Indranil Bhattacharyya in preparation of paper is gratefully acknowledged. The paper has benefited immensely from comments of the discussants, Mr. Takatoshi Ito and Mr. Chalongsob Sussangkarn, at the Conference as well those of other participants at the Conference. An edited version of this paper will appear in the Asian Economic Policy Review, Vol 3, 2008.

<sup>1</sup> For a detailed discussion on the growth process of Indian Economy (1950-2008), refer to Mohan (2008b)

Table 1 : Macroeconomic Indicators at a Glance

(Per cent)							
	1950-51 to 1964-65	1965-66 to 1980-81	1980s	1990-91	1991/92 to 1996-97	1997/98 to 2002/03	2003/04 to 2007/08
1	2	3	4	5	6	7	8
1. Real GDP Growth	4.1	3.2	5.6	5.3	5.7	5.2	8.7
Agriculture and Allied	2.9	2.1	4.4	4.0	3.7	0.9	4.4
Industry	6.7	4.2	6.4	5.7	7.0	4.1	8.4
<i>Manufacturing</i>	6.6	3.9	5.8	4.8	7.5	3.9	9.1
Services	4.9	4.2	6.3	5.9	6.4	7.8	10.3
2. Real GDCF/GDP	13.5	19.2	20.2	24.4	22.5	24.1	31.4 £
3. ICOR	3.3	6.0	3.6	4.6	4.0	4.6	3.6 £
4. Nominal GDCF/GDP	11.8	16.7	20.8	26.0	23.9	24.5	33.0 £
5. GDS / GDP	10.3	15.9	19.0	22.8	22.7	24.1	32.7 £
6. Saving-Investment Gap/GDP (5-4)	-1.5	-0.7	-1.8	-3.2	-1.2	-0.4	-0.3 £
7. M3 Growth	6.4	15.6	17.2	15.1	17.5	15.9	17.6 @
8. SCB's Non-food Credit Growth	NA	17.8	17.8	12.4	16.2	15.3	25.7 @
9. Growth in investments in Govt. Securities	8.0	17.7	19.4	18.2	21.5	22.0	12.8 @
10. WPI Inflation (Average)	3.8	9.0	8.0	10.3	9.6	4.6	5.5

AE : Advance Estimates.

NA : Not Available.

@ : Adjusted for the mergers and conversions in the banking system. Variation for 2005-06 is taken over April 1, 2005.

£ : Data pertain to 2003-04 to 2006-07.

GDCF : Gross Domestic Capital Formation; GDS: Gross Domestic Savings; ICOR: Incremental Capital Output Ratio; SCB: Scheduled Commercial Banks.

slowdown of the growth process in the latter half of the 1990s, which coincided with the onset of the East Asian financial crisis. Since 2003-04, there has been a distinct strengthening of the growth momentum with real GDP growth averaging close to 9 per cent per annum over the 5 year period ending 2007-08.

The sustained acceleration in real GDP growth of the Indian economy has been associated with a secular up trend in domestic savings and investment over the decades. Gross domestic saving has moved up from an average of 9.6 percent of GDP during the 1950s to almost 35 per cent of GDP in 2006-07. Similarly, the domestic investment rate has increased continuously from 10.8 per cent in 1950s to close to 36 per cent by 2006-07. The remarkable feature of these trends in

savings and investment rates is that Indian economic growth has been financed predominantly by domestic savings. The recourse to foreign savings has been modest. However, the two decades of 1960s and 1980s, when the current account deficit had reached or exceeded around 2 per cent of GDP, were followed by significant balance of payment difficulties and economic crises.

A significant feature of the Indian growth record has been that inflation has been relatively moderate throughout. Average inflation, measured by the wholesale price index, was low at 1.2 per cent during the 1950s, but then increased to 6.4 per cent during the 1960s, 9.0 per cent in the 1970s, 8.0 per cent in the 1980s, and close to 10.0 per cent during the first half of the 1990s. Subsequently, in this

decade, inflation has averaged close to 5.0 per cent (until the current upsurge in inflation in 2008). The current regime of low and stable inflation appears to have reduced and stabilised inflation expectations and the threshold level of inflation tolerance in the economy has come down significantly.

The economic crisis of 1991 was essentially a balance of payments crisis. A key feature of the success of India's reform process since the early 1990s is the substantial strengthening of India's external sector. The current account deficit has been maintained at a modest level of around 1 per cent of GDP though it also experienced a marginal surplus during 2001-02 to 2003-04. The value of exports and imports, in US dollar terms, more than tripled by 2007-08 relative to 2000-01. India has emerged as an increasingly open economy with the value of trade in goods and services increasing from 29.2 per cent of GDP in 2000-01 to 46.5 per cent in 2007-08. On account of strong capital flows, there have been accretions to foreign exchange reserves, which at US \$ 312 billion on June 30, 2008 are much higher than the external debt (US \$ 221 billion at end-June 2008).

The sustained reform process in the macro economy has been accompanied by gradual reforms in the financial sector through the whole period since the early 1990s. The efficient allocation of resources is helped greatly if interest rates are market determined and reflect the opportunity cost of money appropriately. The earlier period had been characterised

by a plethora of administered interest rates, a system of credit allocation, and automatic monetisation of fiscal deficits. The process of interest rate deregulation was carried out gradually, and banks were given increasing autonomy in decision making along with the cessation of credit allocation. The monetisation of fiscal deficits was first reduced and then eliminated, with government financing being done increasingly through debt auctions entailing the discovery of risk free interest rates in the economy.

Current account convertibility was introduced in the early 1990s enabling the adoption of a market-determined exchange rate. The capital account has also been liberalised gradually, but is not fully open, entailing intervention in the forex market by the Reserve Bank to contain excess volatility. The financial sector reforms, designed to improve cost efficiency through price signals have, in turn, facilitated the conduct of monetary policy through indirect market-based instruments and improved fiscal-monetary coordination.

On the fiscal side, this process was further strengthened through the implementation of the Fiscal Responsibility and Budget Management (FRBM) Act, 2003, under which the Central Government was mandated to eliminate the revenue deficit and reduce its fiscal deficit to 3 per cent of GDP by 2008-09 and the Reserve Bank was prohibited from participating in the primary government securities market from April 2006.

Whereas the main objective of financial sector reforms has been the enhancement of efficiency of the financial system, a concomitant goal was also to impart stability in a new market oriented environment. Development of financial markets has therefore been a key component of this process. On the whole, the financial sector reforms have led to better price discovery in both interest rates and exchange rates, thereby contributing to overall efficiency in financial intermediation. The increase in financial deepening in recent years and the attainment of overall efficiency in the use of resources suggest that financial intermediation in India has been relatively efficient.

Significant improvement in performance of the domestic banking sector has been witnessed over the past decade or so. Gradual introduction of best international practices and norms, refinements in the supervisory practices, tightening of risk weights/provisioning norms in regard to sectors witnessing high credit growth, greater market discipline brought about by raising of capital from the capital markets and listing on the stock exchanges, interest rate deregulation, and scaling down of statutory pre-emptions are amongst the key factors that have led to better performance of the public sector banks. Concomitantly, greater competition has been induced in the domestic banking sector by successful introduction of new generation private sector banks. The measured performance of the public sector banks is now converging towards that of the best private sector banks in terms of

the usual parameters. Despite strong growth in balance sheets of the new banks, the banking system has exhibited remarkable stability. Although there have been a few instances of weaknesses in a few new private sector banks, pre-emptive measures in the form of the mergers of such banks with stronger banks, or infusion of new capital and change in ownership, on a voluntary or involuntary basis, have contributed to the strength of the domestic banking system, engendered confidence in the depositors and enabled maintenance of overall financial stability. Overall, the Indian banking sector exhibits a high degree of financial health. Notwithstanding the substantial improvement, the domestic banking system will need to be further strengthened to face greater external competition and introduction of financial innovations and fuller capital account convertibility (Mohan, 2007).

The coordination of fiscal and monetary policies has been crucial in sequencing of the economic reform process carried out since the early 1990s. While both the policies may have independent objectives, they complement each other: there has had to be a continuous process of fiscal monetary cooperation.

### Fiscal Policy in India

#### *Fiscal Regimes over the Years – A Snapshot*

The objective of economic policy during the 1950s and 1960s was mainly to increase the growth rate of the economy

through increasing public investment and overall economic planning. Taxation was used as an instrument for reducing private consumption and investment and for transferring resources to the Government to enable it to undertake large-scale public investment in an effort to spur economic growth. Furthermore, taxation policy was geared towards achieving the economic objectives of promoting employment through grant of tax incentives to new investment; reducing inequality through progressive taxes on income and wealth; reducing pressure on balance of payments through increase of import duties; and stabilising prices through tax rebate in excise duties on consumption goods.

Fiscal policy during the 1970s consciously focused on achieving greater equity and social justice and both taxation and expenditure policies were employed towards this end. Accordingly, income tax rates were raised to very high levels, with the maximum marginal rate of income tax moving up to 97 per cent and, together with the incidence of wealth tax, it even crossed 100 per cent. Over the years, in addition to the commitment towards a large volume of developmental expenditure, the Government's expenditure widened to include rising subsidies. Large interest payments on growing debt and downward rigidity in prices further contributed to increased current expenditure. Current revenues, on the other hand, were less buoyant leading to the emergence of sizeable revenue deficits in the Central government budget from 1979-80 onwards, complicating the task of monetary policy.

During the 1980s, Indian public finances were in a state of disarray with the fiscal pattern destabilising the relationship between the economy and the budget. This resulted in persistently large deficits which were seemingly intractable. Considerable fiscal deterioration took place during the 1980s and eventually became unsustainable, though the growth rate did rise significantly with enhancement in public investment in infrastructure. During this phase, expenditure of the Government was seen as an instrument having a bearing upon aggregate demand, resource allocation and income distribution. The Government sought to reduce its deficit through tax increases. Customs duties were hiked to augment revenue and to protect domestic industry. There was a structural change in the government budgets during the 1980s. The emergence of revenue deficit in 1979-80 in the Centre's Budget continued to enlarge during the 1980s, raising concerns over the rising public debt and interest payments and the consequent constraint on the availability of resources for meeting developmental needs. The 1980s witnessed a steady increase in market borrowings along with an increase in Reserve Bank's support to such borrowing, thus compromising monetary policy.

Fiscal dominance in the system meant that, alongside primary financing by the Reserve Bank in the form of higher monetised deficits, the banking system was also subjected to statutory preemptions through a phased increase in

the statutory liquidity ratio (SLR): at its peak, 38.5 per cent of banks' net demand and time liabilities had to be invested compulsorily in government and other approved securities. The monetary policy imperative was that, in order to retain monetary control, the Reserve Bank had to progressively increase the cash reserve requirements (CRR) on banks, preempting further the use of banking resources. Consequently, although monetary expansion was low by the standards of several Latin American countries, it remained high during the 1970s and 1980s with its consequent impact on inflation, which was also fuelled by the global oil shocks in the 1970s (Table 2).

Besides the regular instruments of monetary policy such as CRR and Bank Rate, the Reserve Bank also took recourse to selective credit control measures in order to restrict credit flow to sensitive commodities during the 1970s since inflation was partly thought to be structural. During the 1980s, however, inflation was largely demand-pull as rising fiscal deficits, which were financed through greater monetisation, boosted aggregate demand. Consequently, the monetary impact of greater monetisation was sought to be neutralised by raising CRR while unbridled credit expansion in the commercial sector was checked through the imposition of higher SLR. But

**Table 2: Money Supply Growth - A Cross-Country Survey**

((Per cent))					
Country	1960s	1970s	1980s	1990s	2000-06
1	2	3	4	5	6
<b>Developed Economies</b>					
Australia	3.9	11.1	9.9	11.3	13.3
Canada	5.2	9.7	12.6	6.9	7.9
France	-	-	-	-	-
Germany	7.8	9.5	6.2	9.9	-
Japan	16.9	16.3	4.9	8.5	7.6
New Zealand	2.1	12.2	15.1	5.9	12.2
Switzerland	7.1	7.8	3.0	6.9	5.6
US	4.3	7.0	6.9	4.1	2.4
UK	3.1	12.5	14.8	10.4	10.8
<b>Developing Economies</b>					
Argentina	26.7	117.7	657.7	130.0	24.1
Brazil	51.0	40.7	312.6	803.8	16.0
Egypt	6.9	19.5	14.1	10.3	15.0
India	9.1	20.3	15.5	15.7	15.4
Indonesia	-	34.3	20.7	19.3	17.8
Korea	28.9	29.6	16.4	12.7	10.0
Malaysia	6.1	16.4	10.1	15.2	9.9
Mexico	11.6	22.7	57.1	34.4	13.6
Philippines	9.8	16.9	16.1	17.4	10.4
Singapore	9.4	15.7	9.3	8.7	7.8
South Africa	11.4	11.1	22.7	19.9	12.9
Thailand	7.4	12.9	10.7	13.3	6.7

Source: International Financial Statistics online, IMF.

inflation in the 1980s remained elevated. Thus, the choice of and emphasis on a particular monetary policy instrument has varied across the decades, particularly, in the context of inflation emanating from different sources (Bhattacharyya and Ray, 2007). Although inflation (in terms of the CPI) in India was significantly higher in the 1970s and 1980s than in previous periods, it was still substantially lower than in many Latin American and other developing countries (Table 3).

### Fiscal Policy Reforms since the 1990s

The fiscal imbalances of the 1980s spilled over to the external sector resulting

in the macroeconomic crisis of 1991. Another disquieting feature of the fiscal system was the large size of monetised deficit, which in turn exerted inflationary pressures. The reforms aimed at augmenting revenues and removing anomalies in the tax structure through restructuring, simplification and rationalisation of both direct and indirect taxes. Deterioration of the fiscal situation and increased dissaving of Government administration by the latter half of the 1990s renewed the urgency for improving public finances at both Centre and State levels, particularly, in view of the need to benchmark Indian codes and practices to international standards in the aftermath

**Table 3: Consumer Price Inflation - A Cross-Country Survey**

((Per cent))					
Country	1960s	1970s	1980s	1990s	2000-06
1	2	3	4	5	6
<b>Developed Economies</b>					
Australia	2.5	9.8	8.4	2.5	3.3
Canada	2.5	7.4	6.5	2.2	2.3
France	3.9	8.9	7.4	1.9	1.8
Germany	2.4	4.9	2.9	2.3	1.6
Japan	5.4	9.1	2.5	1.2	-0.4
New Zealand	3.2	11.5	12.0	2.0	2.6
Switzerland	3.1	5.0	3.3	2.3	1.0
US	2.3	7.1	5.6	3.0	2.8
UK	3.5	12.6	7.4	3.7	2.6
<b>Developing Economies</b>					
Argentina	22.9	132.9	565.7	252.9	8.9
Brazil	-	-	354.5	843.3	7.8
Chile	25.1	174.6	21.4	11.8	2.8
Egypt	2.9	7.8	17.4	10.5	5.1
India	6.0	7.5	9.1	9.5	4.2
Indonesia	213.3	16.9	9.6	14.5	9.1
Israel	5.2	32.7	129.7	11.2	1.7
Korea	11.3	15.2	8.4	5.7	3.0
Malaysia	0.8	5.5	3.7	3.7	2.0
Mexico	2.7	14.7	69.0	20.4	5.4
Philippines	4.7	14.6	14.2	9.5	5.3
Singapore	1.2	5.9	2.8	1.9	0.8
South Africa	2.5	9.7	14.6	9.9	5.1
Thailand	2.2	8.0	5.8	5.0	2.5

**Source:** Report on Currency and Finance 2003-04, International Financial Statistics, February 2008 and IFS Yearbook, 2006, IMF.

of its membership to G-20 group of countries. The Central Government, through the enactment of the Fiscal Responsibility and Budget Management (FRBM) Legislation in August 2003, set for itself a rule-based fiscal consolidation framework. Expenditure Reform Commissions set up by the Government also suggested a host of measures to curb built-in-growth in expenditure and to bring about structural changes in the composition of expenditure. Some of these measures have been implemented by the Government (Acharya, 2005; Mohan, 2000).

### *Fiscal Reforms - Central Government Revenue Pattern and Tax Reforms*

The revenue pattern of the Central Government shows that the gross tax revenue-GDP ratio, which had fallen to 8.8 per cent during 2000-04 from 10.3 per cent during 1995-2000, has been on an uptrend

in recent years reaching 10.4 per cent during 2004-07 and 12.5 per cent in 2007-08. This has been possible due to a steady rise in the share of direct taxes, particularly in respect of corporate income tax. There has been a concomitant decline in the share of indirect taxes in total revenue accounted for mostly by union excise duties, notwithstanding the gradual increase in the share of service tax (Table 4).

Systematic and comprehensive efforts to reform the tax system in India started only after market based economic reforms were initiated in 1991. Direct tax reforms included rationalisation of tax rates, minimisation of exemptions and concessions, revamping of tax administration and computerisation. Tax rates in respect of personal income tax were simplified considerably to just three slabs of 20, 30 and 40 per cent in 1992-93. The financial assets were excluded from

**Table 4: Profile of Total Revenue of the Central Government**

Item	(Per cent of GDP)				
	1990-95 (Avg.)	1995-00 (Avg.)	2000-04 (Avg.)	2004-07 (Avg.)	2007-08 (RE)
1	2	3	4	5	6
Revenue receipts (net)*	10.1	9.0	9.3	10.0	11.2
Gross tax revenue	10.3	9.0	8.8	10.4	12.5
Direct taxes	2.4	2.9	3.4	4.7	6.5
Corporate	1.2	1.4	1.9	3.0	4.0
Income	1.1	1.2	1.5	1.6	2.5
Indirect taxes	7.5	6.1	5.4	5.8	6.0
Customs	3.3	2.7	1.9	1.9	2.1
Excise	4.3	3.2	3.3	3.0	2.7
Service tax	-	0.1	0.2	0.7	1.1
Other tax revenue	0.4	0.3	0.1	0.2	0.0
Non-tax revenue**	2.6	2.5	2.8	2.2	2.0
Share of states in tax revenue	2.8	2.5	2.4	2.7	3.2

\* : Revenue Receipts (net) = (Gross tax revenue - share of States) + Non-tax Revenue.

\*\* : Net of receipts of commercial departments such as general services, social services and economic services.

Avg. : Average RE : Revised Estimates

Source: Budget Documents of the Union Government, various years.

wealth tax and the marginal rate was reduced to one per cent. Further reduction was introduced in 1997-98, when the three slabs were brought down to 10, 20 and 30 per cent.

The corporate income tax has also undergone significant changes. The distinction between closely held and widely held companies was done away with and tax rates were unified at 40 per cent in 1993-94. The corporate tax rate was brought down to 35 per cent in 1997-98 and the levy of tax on dividends in the hands of shareholders was eliminated. However, a new dividend distribution tax was introduced and levied on firms. The corporate income tax rate was further reduced to 30 per cent in 2005-06. The dividend distribution tax rate has varied been 10 per cent and 20 per cent since its introduction, and is currently at 15 per cent. With a view to bringing the 'zero-tax' companies, which took full advantage of tax preferences and incentives, into tax net, a minimum alternative tax (MAT) was introduced in 1997-98. Under the MAT, in case the total income of the company, as computed under the Income Tax Act after availing of all eligible deductions, is less than 30 per cent of the book profit, the total income of such a company shall be deemed to be 30 per cent of the book profit and shall be charged to tax accordingly. Certain other direct taxes have been introduced in recent years, such as the levy of fringe benefit tax on companies, which, in principle, taxes those fringe benefits that cannot be taxed in the hands of the employees.

The indirect tax structure has also undergone marked changes during the last decade or so. Both domestic excise duties that were levied on manufactured goods and customs duties on imports had traditionally been characterised by the existence of high levels and a multiplicity of rates. Both have undergone considerable simplification and rationalisation. Besides reduction in the number of rates, the tax has been progressively reduced. In 1999-2000, almost 11 tax rates were merged into three, with only a handful of 'luxury' items being subject to higher rates. These were further merged into a single rate in 2000-01 to be called a Central VAT (CenVAT), along with three special additional excises (8, 16 and 24 per cent) for a few commodities. The CenVAT rate of 16 per cent has now been reduced to 14 per cent.

Custom duties have undergone far reaching reforms. By 1990-91, the tariff structure was highly complex varying from 0 to 400 per cent. Further, quantitative restrictions covered 90 per cent of total imports. The reform of custom duties started in 1991-92 when all duties above 150 per cent were reduced to this level to be called the 'peak' rate, which was brought down in the next four years to 50 per cent by 1995-96 and further to 40 per cent in 1997-98, 30 per cent in 2002-03, 25 per cent in 2003-04, 15 per cent in 2005-06 and 10 per cent in 2007-08 for non-agricultural goods. Quantitative restrictions on imports have virtually been done away with. The number of major

duty rates was reduced from 22 in 1990-91 to 4 in 2003-04. There are some items outside these four rates, but 90 per cent of the custom duties are collected from items under the four rates.

Whereas manufactured goods have been subject to excise duty, services had not been subject to a corresponding domestic indirect tax. With the increasing importance of the service sector in the economy, the service tax was introduced in 1994-95, initially with a levy of taxes on three services of 5 per cent. The tax rate was revised to 10 per cent in 2004-05 and further to 12 per cent in 2006-07. The aim is to eventually unify the tax rates on goods and services in the form of a full scale Value Added Tax (VAT). The list of services subject to tax has been gradually expanded in succeeding years to include 100 services at present.

### *Fiscal Reforms: State Governments*

At the state level, while individual State Governments appointed Committees from time to time to reform their tax structure, there was no systematic attempt to streamline the reform process even after 1991 when market oriented reforms were introduced. The pace of tax reforms in the States accelerated in the latter half of the 1990s when there was increasing pressure on their budgets and to meet targets set under the central government sponsored medium term fiscal reform facility. Since the division of tax responsibilities between the Indian central government and the states is mandated by the constitution, the central government has no jurisdiction over state

level tax reforms. Thus, the introduction of unified tax reforms at the state level required a great degree of cooperation between states, on the one hand, and collectively, with the central Ministry of Finance on the other. A major innovation that was introduced in 1999-2000 was the formation of an "Empowered Committee" of State Finance Ministers under the aegis of the Central Finance Ministry. The work of this Committee resulted in very significant and coordinated tax reform at the State level. The main tax resource at the state level is the sales tax: each state had a multitude of tax rates, and there was no uniformity across states. Beginning with simplification and rationalisation of sales tax rates since the beginning of this decade, a uniform Value Added Tax (VAT) has now been adopted by all the States in place of the existing sales tax. The Central Government has played the role of a facilitator for successful implementation of VAT. For example, in order to induce states to undertake this reform, and to reduce their fears about a possible reduction in revenue, a compensation formula was put in place for providing compensation to the States on a graded basis during 2005-06, 2006-07 and 2007-08 for any loss on account of introduction of VAT. Technical and financial support has also been extended to the States for VAT computerization, publicity, awareness and other related aspects. The initial experience with implementation of VAT has been encouraging with VAT implementing States/Union Territories (UTs) having exhibited a rise in collection in VAT during 2005-06 (over sales tax of

2004-05) by 13.8 per cent and further by 21.0 per cent in 2006-07.

### *Expenditure Pattern and Policy*

Since the very significant fiscal imbalance in the 1980s had also contributed to the 1991 balance of payments crisis, fiscal stabilisation carried out in the 1990s included both extensive tax reform as well as expenditure reforms. The total expenditure of the Central Government has declined from 17.9 per cent of GDP in 1990-95 to 14.7 per cent in 2004-07 (Table 5). Both revenue and capital components of expenditure have declined during this period. Most importantly the share of capital expenditure in total expenditure declined sharply from 25.7 per cent in 1990-98 to 17.0 per cent in 2004-07, though this happened partly because of the cessation of loans from the central government to states, which were classified as capital expenditures. However, the decline in capital expenditure does suggest some moderation in public investment over the period, which has contributed to the lower than desirable growth in infrastructure investment since the mid 1990s.

It has not been easy to undertake expenditure reforms. Much of government expenditure is non-discretionary. With increasing fiscal deficits, interest payments have formed a significant proportion of government expenditure. It is only recently, with reduction in interest rates, and reduction in the fiscal deficit, that interest payments of the central government have begun to reduce. A significant non-discretionary

portion of Central Government expenditure is the transfers it makes to State Governments as mandated by the constitutionally appointed Finance Commissions that make an award every 5 years. Until recently, the Central Government also acted as an intermediary for State Government borrowing from the market. Consequent to the recommendations of the Twelfth Finance Commission, this practice has now been stopped since 2005-06 and States now have to borrow directly from the market. The government wage bill and pension obligations are also non-discretionary, unless the government labour force is reduced. However, the government has succeeded in arresting the growth in government personnel since the early 1990s, so the wage bill has been relatively stable (as reflected in "Other Non Plan Expenditure" in Table 5). Recognising the possible unsustainable growth in the pension bill over the long term, the government has now moved to a defined contribution regime for all new civil servants since January 2004. Most State Governments are also following suit. But this reform will have a beneficial effect on government expenditure only in the very long term, since the incumbent civil servants will continue on their defined benefit, pay-as-you-go, system. Defence expenditures have also been brought down gradually, but cannot probably be reduced much further (as a proportion of GDP). Subsidies on food, fertilizer and oil have proved to be difficult to reduce, despite various attempts at targeting them better. As a proportion of GDP, however,

## SPEECH

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**Table 5: Profile of Expenditure of the Central Government**

Item	(Per cent of GDP)				
	1990-95 (Avg.)	1995-2000 (Avg.)	2000-04 (Avg.)	2004-07 (Avg.)	2007-08 (RE)
1	2	3	4	5	6
Non-plan expenditure	12.7	12.0	12.0	10.6	10.7
Interest payment	4.4	4.6	4.7	3.8	3.7
Defence	2.6	2.4	2.3	2.2	2.0
Total subsidy	1.8	1.3	1.5	1.4	1.5
Food subsidy	0.5	0.5	0.8	0.7	0.7
Other subsidy	1.3	0.7	0.1	0.1	0.1
Police	0.3	0.3	0.3	0.3	0.3
Pensions	0.4	0.5	0.6	0.6	0.5
Loans and advances to States and UTs	1.0	0.9	0.8	0.6	0.0
Grants to State and UTs	0.5	0.4	0.6	0.7	0.8
Other non-plan expenditure	1.8	1.6	2.0	1.9	1.6
Plan expenditure	5.2	4.1	4.3	4.1	4.4
Total expenditure (plan + non-plan)	17.9	16.1	16.3	14.7	15.1
Revenue expenditure	13.3	12.8	13.4	12.3	12.5
Capital expenditure	4.6	3.4	3.0	2.4	2.6

(Avg.: Average RE: Revised Estimates)

Source: Budget Documents of the Union Government, various years.

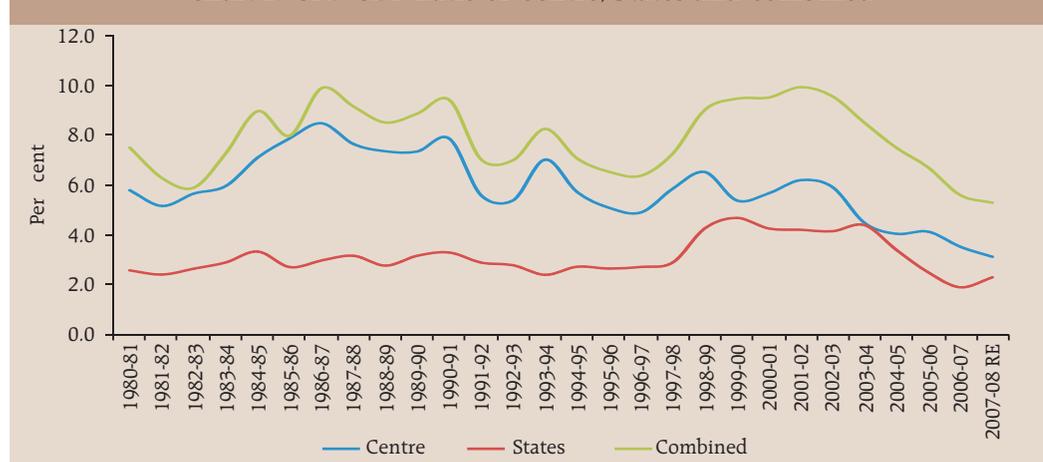
they are now lower than they were in the early 1990s, though there are now renewed pressures for higher subsidies because of the recent increases in the prices of each of these items. Overall, the correction in total central government expenditure has essentially come from lower interest costs and reductions in capital expenditure.

## Broad View on the Outcome of Fiscal Reforms

### Deficit Indicators

The progress in fiscal correction was mixed during the 1990s, both at the Central and State levels (Chart 1). While there was some reduction in fiscal deficit in the first half of the 1990s, progress was

**Chart 1: GFD-GDP Ratio of Centre, States and Combined**



reversed in the late 1990s mainly due to the impact of implementation of the Fifth Pay Commission's awards. The combined fiscal deficit of Centre and the States reached its peak at 9.9 per cent of GDP in 2001-02. However, fiscal correction has been continuous from 2004-05 with both the Centre and most of the States operating under a rule based fiscal framework. The combined fiscal deficit reached 5.5 per cent in 2007-08. Incidentally, the fiscal correction process has been faster for the States compared with that of the Centre. Their consolidated revenue balance is estimated to be in surplus during 2007-08 (Table 6).

Apart from the quantitative improvement, a salient feature of the fiscal consolidation underway has been some qualitative progress, as reflected in the reduction in the proportion of revenue deficit to gross fiscal deficit.

The fiscal deficit of both the Centre and the States is basically financed by

domestic sources up to over 90 per cent of GFD. Within domestic sources, market borrowings have emerged as the most important instrument for the Central Government accounting for about three-fourth of financing with the rest contributed by others, such as small savings, provident funds and reserve funds deposits and advances. This is in contrast to the scenario before 1997-98, when the fiscal deficit was also financed through monetisation. This development has contributed to the overall market determination of interest rates in the economy, and hence to the relevance and effectiveness of monetary policy.

### *Outstanding Liabilities*

The high level of fiscal deficits both at the Centre and the States led to debt accumulation over the period resulting in a rise in the debt to GDP ratio. The combined debt-GDP ratio of Centre and States was about 81.0 per cent during 2004-06. Following the impact of fiscal

**Table 6: Deficit Indicators of Centre, States and Combined finances**

(Per cent of GDP)							
Item	1980-85 (Avg.)	1985-90 (Avg.)	1990-95 (Avg.)	1995-00 (Avg.)	2000-04 (Avg.)	2004-07 (Avg.)	2007-08 RE
1	2	3	4	5	6	7	8
Centre							
RD	1.0	2.4	3.0	3.1	4.1	2.3	1.4
GFD	5.9	7.7	6.3	5.5	5.5	3.9	3.1
PD	3.8	4.5	2.2	1.1	0.9	0.1	-0.6
MD	2.1	2.2	0.8	0.6	-1.0	-0.4	-
States*							
RD	-0.4	0.2	0.7	1.6	2.4	0.5	-0.3
GFD	2.8	3.0	2.8	3.4	4.3	2.9	2.3
PD	1.9	1.6	1.1	1.4	1.5	0.4	0.1
Combined							
RD	4.8	5.2	2.9	2.5	6.5	2.9	1.3
GFD	7.2	8.9	7.8	7.7	9.4	6.8	5.5
PD	0.6	2.7	3.7	4.7	3.1	1.1	0.1

\* : State Governments' data for the year 2006-07 and 2007-08 relate to revised estimates and budget estimates, respectively.

RD : Revenue Deficit

GFD : Gross Fiscal Deficit

PD : Primary Deficit

MD : Monetised Deficit

Avg. : Average

RE : Revised Estimates

Source : Handbook of Statistics on Indian Economy, 2006-07, RBI.

Responsibility legislations at both the Centre and the States, the combined debt-GDP ratio has come down in recent years to 73.8 per cent in 2007-08 (Table 7). Contingent liabilities in the form of outstanding guarantees by the Government have also witnessed some decline in the recent years: the combined outstanding guarantees of the centre and the States declined from 12.2 per cent of GDP at end-March 2001 to 8.1 per cent by end-March 2007. It may be added that, under the FRBM Act, the annual increase in the stock of contingent liabilities of the Central Government is limited to a ceiling of 0.5 per cent of GDP.

A comparative analysis of fiscal deficit-GDP ratio and debt-GDP ratio of few emerging Asian countries indicates that India's fiscal position is still relatively stressed notwithstanding the improvement in recent years (Table 8).

### *Deficit and Growth*

A high level of fiscal deficit impacts the practice of monetary policy and tends to have a negative impact on real GDP growth through 'crowding out' effects and/or rise in interest rates in the economy. Chart 2 presents the movements of GDP

growth and combined GFD-GDP ratio. The high level of fiscal deficit between 1997-98 and 2002-03 was associated with relatively low GDP growth. The reduction in fiscal deficit since 2003-04 has been associated with a phase of high GDP growth. Thus, fiscal correction and consolidation, which is a major ingredient of macroeconomic stability, provide a conducive environment for propelling growth of the economy. Low fiscal deficits also enable more effective monetary policy.

### *Tax-GDP Ratio*

A major drag on public finances was the decline in the gross tax-GDP ratio of the Central Government from 10.3 per cent in 1991-92 to 9.4 per cent in 1996-97 and further to a low of 8.2 per cent in 2001-02. The decline in tax-GDP ratio over this phase could, *inter alia*, be attributed to the initial effects of the reduction in tax rates. As already discussed in the earlier section, as a part of reform of the taxation system, indirect taxes, excise duties as well as custom duties, were reduced substantially from their earlier high levels and this impacted the magnitude of indirect tax collections. Revenue from custom duties

**Table 7: Outstanding Liabilities of Centre and States**

Item	(Per cent of GDP)					
	1990-95 (Avg.)	1995-00 (Avg.)	2000-04 (Avg.)	2004-06 (Avg.)	2006-07 RE	2007-08 BE
1	2	3	4	5	6	7
Central Government	54.2	50.8	60.5	63.2	61.2	58.5
State Governments	22.1	22.5	30.9	32.6	30.6	29.3
Combined	64.1	63.2	77.2	80.9	77.1	73.8

Avg.: Average RE: Revised Estimate BE: Budget Estimate

Source: 1. Handbook of Statistics on Indian Economy, 2006-07, RBI.  
2. State Finances - A Study of Budgets of 2007-08, RBI.

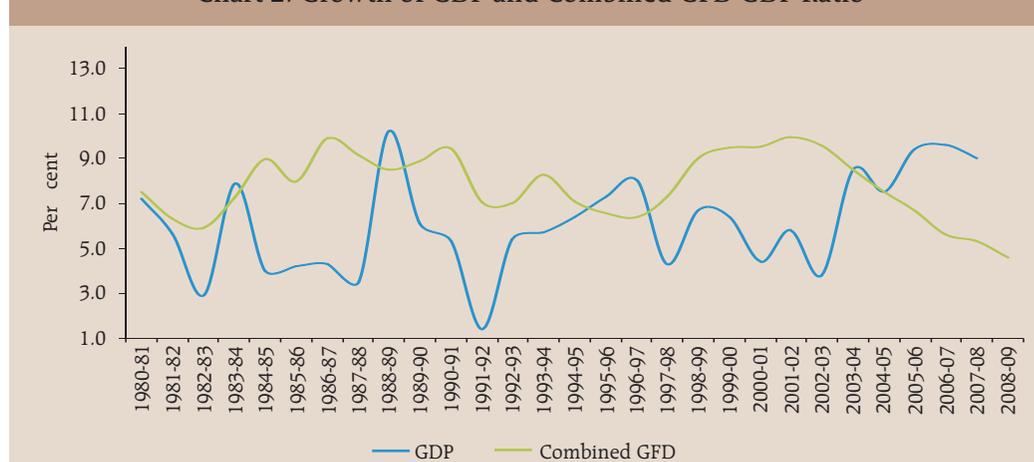
**Table 8: Fiscal Indicators - Select Countries**

(Per cent of GDP)								
Country	Fiscal Deficit				Public Debt			
	2003	2004	2005	2006P	2003	2004	2005	2006P
1	2	3	4	5	6	7	8	9
China	2.2	1.3	1.2	0.5	19.2	18.5	17.9	17.3
Republic of Korea	-0.1	0.5	1.0	1.3	21.9	25.2	29.5	32.2
India	4.5	4.0	4.1	3.5	63.0	63.3	63.1	61.2
Indonesia	1.7	1.0	1.0	1.0	58.3	55.7	46.5	40.9
Malaysia	5.3	4.3	3.8	2.6	68.8	66.7	62.5	56.5
Thailand	-0.5	-0.3	-0.2	-0.1	50.7	49.5	47.4	42.3

Source: Asian Economic Monitor and Union Budget Documents of Government of India.

as a ratio of imports witnessed almost a secular decline from the high level of 47.8 per cent in 1990-91 to 10.0 per cent in 2006-07. Similarly, revenue from union excise duties as a ratio to value of industrial output declined from 22.1 per cent to 15.2 per cent over the same period (Table 9). The distorting impact of high and varied indirect taxes on overall resource allocation has therefore been reduced considerably, thereby enabling increased economy wide economic efficiency. Rationalisation of the direct tax structure also did not lead to any positive impact

on revenue collections until 2001-02. While compliance response to lower taxes took some time, lower economic growth also contributed to lack of growth in direct taxes over this period. The tax-GDP ratio, however, has moved up significantly in recent years reflecting beneficial impact of the rationalisation of the direct tax structure on the revenues. The tax-GDP ratio for 2007-08 is estimated higher at 12.5 per cent. The share of direct tax in total gross tax revenue of Centre crossed 50 per cent in 2006-07. Improved corporate results during the last 4-5 years have led

**Chart 2: Growth of GDP and Combined GFD-GDP Ratio**

**Table 9: Customs and Union Excise as per cent of Imports and Value of Industrial Output**

(Per cent)		
Year	Customs Revenue/ Value of Imports	Excise Duties/Value of Industrial Output
1	2	3
1990-91	47.8	22.1
1991-92	46.5	23.1
1992-93	37.5	21.6
1993-94	30.4	19.1
1994-95	29.8	18.4
1995-96	29.1	16.2
1996-97	30.8	16.1
1997-98	26.1	16.0
1998-99	22.8	16.0
1999-00	22.5	17.7
2000-01	20.6	17.5
2001-02	16.4	17.7
2002-03	15.1	17.8
2003-04	13.5	17.8
2004-05	11.5	16.6
2005-06	9.9	16.4
2006-07	10.0	15.2

**Source :** 1. Handbook of Statistics on Indian Economy 2006-07, RBI.  
2. Budget Documents of the Union Government, various years.

to significant rise in collection of corporate income tax. Thus, growth provides the base for rise in tax-GDP ratio of the country.

These data demonstrate the efficacy of the Indian tax reform programme undertaken since the early 1990s: direct taxes are increasing in importance and the tax-GDP ratio is rising. The Indian experience also shows how long it takes for fiscal reform to be effective, and hence the importance of consistent policy over a long period.

### *Fiscal Deficit and Public Sector Savings*

The reduction in fiscal deficits has also helped in turning around savings and investments in recent years. The long-term upward trends in savings and investments

have been interspersed with phases of stagnation. In particular, during the 1980s, the inability of the Government revenues to keep pace with growing expenditure resulted in widening of the overall resource gap. The period 1997-98 to 2002-03 witnessed rising public debt with its adverse impact on public investment and growth. Following the reform led fiscal consolidation process, the combined fiscal deficit of Centre and States declined from 9.9 per cent of GDP in 2001-02 to 6.4 per cent in 2006-07 owing to reduction in revenue deficit relative to GDP from 7.0 per cent to 2.1 per cent. As a result, the dissavings of Government administration declined from (-)6.0 per cent of GDP in 2001-02 to (-)1.3 per cent in 2006-07, and total public sector savings increased from (-)2.0 per cent in 2001-02 to 3.2 per cent in 2006-07. Thus, implementation of rule-based fiscal reforms has helped in enabling the turnaround in the public sector savings which in turn has been a key element of the remarkable enhancement in gross domestic savings from 23.5 per cent in 2001-02 to 34.8 per cent in 2006-07, along with the substantial increase in private corporate sector savings.

Fiscal policy and monetary policy are essentially two arms of overall economic management. Both have common objectives *i.e.*, the stabilisation of output and prices and both belong in the genre of policy instruments that operate on aggregate demand, adjusting/smoothing it so as to ensure an economy-wide correspondence with the evolution of aggregate supply, though elements of fiscal policy, particularly in the levy of

indirect taxes, can also have sectoral components. Thus, it is critical for the formulation and implementation of monetary and fiscal policies to be interactive and complementary so as to maximise public policy's contribution to enhancing social welfare. In essence, this is the philosophical rationale driving the reforms of monetary and fiscal policies in India since the 1990s. Accordingly, even as monetary policy provided stable monetary and financial conditions, which aided the fiscal reform process, it has had to undergo significant change in formulation and conduct in order to cope with the changing contours of fiscal policy and the new dynamics of monetary-fiscal coordination.

### Monetary Policy since the 1990s

The simultaneous institution of macroeconomic stabilisation and structural reforms in response to the fiscal/balance of payments crisis in 1990-91 brought in fundamental changes in the conduct of monetary policy in India in terms of a clearer recognition of the hierarchy of objectives, adjustments in the operating framework, choice of instruments, and institutional deepening. During the difficult years of transition in the early 1990s, monetary policy performed the role of nominal anchor for an economy undergoing a deep-seated structural transformation. Tight monetary control set the stage for fiscal stabilisation and consolidation and a wide range of reforms encompassing the real, financial and external sectors of the economy. In addition, the setting of monetary policy

had to adapt to the new challenges being thrown up by the reform process. First, the diffusion of financial sector reforms was altering the processes of financial intermediation and the channels of policy transmission. Second, progressive international integration of the economy as a part of reforms was increasingly subjecting the conduct of monetary policy to exogenous influences from the external environment.

### *Objectives*

The case for price stability as the dominant objective of monetary policy began to assume importance in the early 1990s (RBI, 2004). This acquired a new urgency as strong capital flows expanded liquidity sizeably and began to push inflation into double digits in the mid-1990s. In response, monetary conditions were tightened sharply, producing a significant and lasting disinflation during the second half of the 1990s, thereby demonstrating the commitment of monetary policy to ensuring price stability. In the subsequent years up to 2003, monetary policy pursued an accommodative stance as the economy slowed down, with an explicit policy preference during the period for a softer interest rate regime while continuing a constant vigil on the inflation front.

The objectives of monetary policy have evolved as those of maintaining price stability and ensuring an adequate flow of credit to the productive sectors of the economy. In essence, monetary policy aims to maintain a judicious balance

between price stability and economic growth. The relative emphasis between the two is governed by the prevailing circumstances at a particular point of time, and consequently, there is an ongoing rebalancing of priorities.

With the opening up of the Indian economy and the spread of financial sector reforms aimed at functional autonomy, prudential strengthening, operational efficiency and competitiveness of banks, considerations of financial stability have assumed greater importance in recent years alongside the increasing openness of the Indian economy. Episodes of financial volatility, often sparked off by sudden switches in capital flows in response to various shocks - such as the East Asian financial crisis, sanctions after the nuclear explosions, downgrading of credit ratings, the meltdown of the information technology bubble and the September 11 US terrorist attacks - required swift monetary policy responses. The Reserve Bank, therefore, began to emphasise the need to ensure orderly conditions in financial markets as an important concern of monetary management. Consequently, financial stability is now being recognised as a key consideration in the conduct of monetary policy. In fact, financial stability has ascended the hierarchy of monetary policy objectives since the second half of the 1990s. It is interesting that, in response to the ongoing financial turbulence in North America and Europe, monetary authorities in these jurisdictions have also given increased explicit importance to the goal of maintaining financial stability.

The specific features of the Indian economy, including its socio-economic characteristics, predicate the investing of the monetary authority with multiple objectives for some time to come. A single objective for monetary policy, as is usually advocated, particularly in an inflation targeting (IT) framework, is not likely to be appropriate for India, at least over the medium term. Apart from the legitimate concern regarding growth as a key objective, there are other factors that suggest that inflation targeting may not be appropriate for India. First, unlike many other developing countries, we have had a record of moderate inflation, with double digit inflation being the exception, and which is largely socially unacceptable. Inflation targeting has been especially useful in countries that have experienced high inflation prior to the adoption of inflation targeting. Second, adoption of inflation targeting requires the existence of an efficient monetary transmission mechanism through the operation of efficient financial markets and absence of interest rate distortions. In India, although the money market, government debt and forex market have indeed developed in recent years, they still have some way to go, whereas the corporate debt market is still to develop. Moreover, a number of administered interest rates continue to be in existence to serve certain perceived public or social purposes. Third, inflationary pressures still often emanate from significant supply shocks, emanating particularly from external sources in energy and from the weather dependent food economy. Targeting some theoretical

"core inflation" rate, which excludes a significant portion of any inflation index in a low income economy, would have little utility. Finally, in an economy as large as that of India, with various regional differences, and continued existence of market imperfections in factor and product markets between regions, the choice of a universally acceptable measure of inflation is also difficult (Mohan, 2006).

Internationally, there is no unique or even best way of monetary policy making and different approaches or frameworks can lead to successful policies by adapting appropriately to diverse institutional, economic and social environments (Issing, 2004). Moreover, some evidence suggests that average inflation as well as its volatility in prominent non-IT industrial countries has, in fact, been somewhat lower than that in prominent IT industrial countries. IT is not found to have any beneficial effect on the level of long-term interest rates either (Gramlich, 2003; Ball and Sheridan, 2003). Emerging market

economies (EMEs) face additional problems in an IT regime. These economies are typically more open and this exposes them to large exchange rate shocks that can have a significant influence on short-run inflation. Furthermore, food items continue to have a significantly larger weight in the price indices in developing economies and, food inflation, as reinforced by the recent cross-country evidence, can be a major contributor to headline inflation (Table 10). This can also render difficulties in short-term inflation forecasting and management, especially in the EMEs. In such an environment, focussing on core inflation may not be meaningful.

An empirical evaluation of the experience of EMEs that have adopted IT confirms that IT is a more challenging task in such economies compared to developed economies that have adopted IT. While inflation in EMEs was indeed lower after they adopted IT, their performance was not as good as that experienced in developed IT countries. Deviation of

**Table 10: Headline and Food Inflation**

Region	(Per cent)					
	Headline Inflation		Food Inflation		Contribution of Food Inflation to Headline Inflation	
	2006	2007	2006	2007	2006	2007
1	2	3	4	5	6	7
World	3.4	3.9	3.4	6.2	27.0	44.3
Advanced Economies	2.3	2.2	2.0	3.0	12.4	19.5
Africa	7.2	7.4	8.5	8.7	46.6	43.6
Commonwealth of Independent States	9.3	9.6	8.5	9.2	40.0	41.1
Developing Asia	3.7	4.9	4.4	10.0	37.7	67.5
Central and Eastern Europe	5.2	5.4	4.6	8.2	22.0	34.9
Middle East	3.4	10.1	5.1	13.6	57.0	42.3
Western Hemisphere	5.4	5.4	4.5	8.5	23.1	40.8

Source: World Economic Outlook (April 2008), IMF.

inflation from its targets is found to be larger and more common in EMEs (Fraga, Minella and Goldfaj, 2003). In this context, it is interesting to note that a very recent comprehensive survey by Alan Blinder and others (2008) is also sceptical of the benefits of IT regimes. To quote from the study:

"In conclusion, the evidence suggests that adopting an inflation target may have beneficial effects by lowering inflation, by de-linking long-run inflation expectations from short-run data, and by reducing inflation persistence. However, these estimated benefits may reflect a kind of selectivity bias: They seem to accrue primarily to countries that succeed in stabilizing inflation. There appears to be no systematic difference in the economic performance of low-inflation countries with and without explicit inflation targets.

Accordingly, we conclude that inflation targeting is one way, but certainly not the only way, to control inflation and inflationary expectations. One clear alternative is establishing an anti-inflation track record that allows economic agents to make reasonably accurate inferences about the central bank's objectives and strategy."

### *Operating Framework*

By the late 1990s, the process of financial liberalisation necessitated a re-look at the framework of monetary targeting and the efficiency of using broad money as an intermediate target of monetary policy. It was increasingly felt

that the dominant effect on the demand for money in the near future need not necessarily be real income, as it had in the past. Interest rates seemed to exercise increasing influence on the decisions to hold money (RBI, 1998). Accordingly, the Reserve Bank formally adopted a multiple indicator approach in April 1998. Besides broad money which remains as an information variable, a host of macroeconomic indicators including interest rates or rates of return in different markets (money, capital and government securities markets) along with such data as on currency, credit extended by banks and financial institutions, fiscal position, trade, capital flows, inflation rate, exchange rate, refinancing and transactions in foreign exchange available on high frequency basis are juxtaposed with output data for drawing policy perspectives in the process of monetary policy formulation.

As channels of monetary policy transmission shift course as a result of financial liberalisation, the central bank has to naturally operate through all the paths that transmit its policy impulses to the real economy. Given the environment of high uncertainty in which monetary authorities operate in many emerging market economies like India, a single model or a limited set of indicators is not a sufficient guide for the conduct of monetary policy. The multiple indicators approach provides the required "encompassing and integrated set of data" for this purpose (RBI, 2004).

### *Choice of Instruments*

With the shift away from the monetary targeting framework towards a multiple indicator approach in the late 1990s, the operating procedures of monetary policy in India have undergone a significant shift. The liberalisation of the Indian economy required a comprehensive recast of the operating procedures of monetary policy. The Reserve Bank had to shift from direct to indirect instruments of monetary policy in consonance with the increasing market orientation of the economy. Even within the set of indirect instruments, the preference is for relatively more market-based instruments such as open market operations. Accordingly, the cash reserve ratio (CRR) was gradually lowered from 15 per cent in the early 1990s to 4.50 per cent by 2004, with the stated objective of further reduction to at least 3 per cent, but then had to be raised in steps to 9.00 per cent by August 2008 to deal with the evolving liquidity situation in the economy. In view of some liquidity pressures in the aftermath of the accentuation of the financial crisis in the major advanced economies in early October 2008, the Reserve Bank cut the CRR, in phases, by 350 basis points to 5.5 per cent as of November 2008 (see Mohan, 2008c). Recent developments in the Indian context shows that CRR can be used as an instrument of sterilisation and monetary management under extreme conditions of excess liquidity by a prudent monetary authority (RBI, 2004).

As a part of the financial sector reforms process, the statutory liquidity

ratio (SLR) was also brought down from its peak of 38.5 per cent to the then statutory floor of 25 per cent in 1997. However, based on their risk-return assessment, the banks, in the subsequent period, continued to voluntarily hold Government securities well in excess of the required 25 per cent. The Banking Regulation Act was amended in 2007 and the statutory floor of 25 per cent has been dispensed with and the Reserve Bank has been provided the discretion to prescribe the SLR, taking into the evolving macroeconomic and monetary conditions. This is expected to provide greater maneuverability to the Reserve Bank in its conduct of monetary policy, but is dependent on the continuing pursuit of fiscal prudence that enables the reduction of such pre-emptions from banks. As more resources are intermediated on market considerations, the effectiveness of monetary policy would also improve. In order to alleviate liquidity pressures emanating from the global financial crisis, the Reserve Bank, on September 16, 2008, announced, as a temporary and ad hoc measure, that scheduled banks could avail additional liquidity support under the LAF to the extent of up to one per cent of their NDTL and seek waiver of penal interest. It has subsequently (November 1) decided to make this reduction permanent. Accordingly, the SLR stands reduced to 24 per cent of NDTL, effective the fortnight beginning November 8, 2008.

In the new environment, short-term interest rates have emerged as instruments to signal the stance of monetary policy. In order to stabilise short-

term interest rates, the Reserve Bank now modulates market liquidity to steer monetary conditions to the desired trajectory. This is achieved by a mix of policy instruments including changes in reserve requirements and standing facilities and open market (including repo) operations which affect the quantum of marginal liquidity and changes in policy rates, such as the Bank Rate and reverse repo/repo rates, which impact the price of liquidity.

### *Liquidity Adjustment Facility*

Reforms in the monetary policy operating framework led to the introduction of the Liquidity Adjustment Facility (LAF) in 2000. Under the LAF, the Reserve Bank sets its policy rates, *i.e.*, repo and reverse repo rates and carries out repo/reverse repo operations, thereby providing a corridor for overnight money market rates. The LAF has settled into a fixed rate overnight auction mode since April 2004. LAF operations continue to be supplemented by access to the Reserve Bank's standing facilities linked to the LAF repo rate - export credit refinance to banks and standing liquidity facility to the primary dealers.

The introduction of LAF has had several advantages. First, it made possible the transition from direct instruments of monetary control to indirect instruments. Second, LAF has provided greater flexibility in determining both the quantum of adjustment as well as the rates by responding to the needs of the system on a daily basis. Third and most

importantly, though there is no formal targeting of a point overnight interest rate, LAF has helped to stabilise overnight call rates within a specified corridor, *i.e.*, the difference between the fixed repo and reverse repo rates (150 basis points as of November 2008). The width of the corridor has varied from 100 to 300 basis points since the introduction of uniform price auction from March 2004. In response to the emerging market conditions, the reverse repo rate had been reduced to 4.5 per cent by August 2003, but then had to be raised to 6.0 per cent. Correspondingly the repo rate was reduced to 6.00 per cent in March 2004 and was then raised in 10 steps to 9.00 per cent by July 2008. Since then, the repo rate has been cut by 150 basis points to 7.5 per cent in response to the to the evolving global and domestic macroeconomic and monetary conditions. The LAF has thus enabled the Reserve Bank to affect demand for funds through policy rate changes. The LAF is also effective in modulating liquidity in the economy, which is affected continuously by changes in government cash balances, and by the volatility in excess capital flows.

### *Open Market Operations*

Since the onset of reforms, as part of the shift to indirect instruments of monetary policy, the Reserve Bank reactivated open market operations (OMO) as an instrument of monetary management. This was enabled by a transition to a system of market determined interest rates in Government securities and the development of an adequate institutional framework in the

Government securities market. Active use of OMO for mitigating inflationary pressures was undertaken during 1993-1995 in the wake of unprecedented capital flows and the consequent higher monetary expansion, as the exchange rate system became market-based. The Reserve Bank had to divest Government securities from its portfolio through the OMO so as to sterilise the monetary impact of the capital inflows and to restrain inflationary pressures. Thus, the Reserve Bank's recourse to OMO sales acted as a substitute to a possible hike in CRR and obviated the need to resort to an across-the-board monetary tightening.

An important prerequisite for the Reserve Bank to modulate primary liquidity conditions by operating the OMO is for it to have an adequate stock of Government securities in its portfolio. The increasing market participation in the primary issuance of Government securities, and the Reserve Bank's predominant use of OMO sales from its portfolio of Government securities for absorbing the excess liquidity prevailing almost continuously since 1998-99 resulted in a steady depletion of marketable securities available on its own account by 2003. The LAF instrument, which was introduced to manage liquidity only at the margin, therefore, became a tool for managing enduring liquidity and was losing its efficacy as an instrument to manage short-term liquidity. In order to avoid such problems, the market stabilisation scheme was operationalised from April 2004 in order to supplement OMO for liquidity management.

### *Market Stabilisation Scheme*

The money markets have generally operated in a liquidity surplus mode since 2002 due to large capital inflows. Keeping in view the objective of absorbing the liquidity of enduring nature by using instruments other than LAF, new instruments for sterilising excess capital flows were introduced in early 2004 (RBI, 2003). The Government agreed to allow the Reserve Bank to issue T-bills and dated securities under a new Market Stabilisation Scheme (MSS) where the proceeds of MSS bonds are held by the Government in a separate identifiable cash account maintained and operated by RBI. The amounts credited into the MSS Account are appropriated only for the purpose of redemption of these instruments. These securities have all the attributes of existing T-bills and dated securities and indistinguishable from regular government securities in the hands of the creditors. They are serviced like any other marketable government securities but their interest costs are shown separately in the budget. At the same time, there is an increase in the holdings of the Reserve Bank's foreign currency assets, which leads to higher earnings for the Reserve Bank and these are mirrored in higher surplus profit transfers to the Central Government from the Reserve Bank. Thus, the interest expenses incurred by the Government on account of issuances under the MSS are offset by higher transfers from the Reserve Bank (Table 11).

**Table 11: Fiscal Impact of the Market Stabilisation Scheme**

(Rupees billion)				
Item	2004-05	2005-06	2006-07	2007-08
1	2	3	4	5
Balances under Market Stabilisation Scheme (MSS) (outstanding, end-March)	642	291	630	1,684
Interest paid by the Government on issuances under the MSS during the year (April-March)	21	34	26	84
Foreign Currency Assets of the Reserve Bank (outstanding, end-March)	5,931	6,473	8,366	11,960
Net Disposable Income of the Reserve Bank during the year (July-June)	54	84	114	150
Surplus Transfer from the Reserve Bank to the Central Government during the year (July-June)	54	84	114 @	150

@ : Excluding profits on sale of shares of State Bank of India.

For mopping up enduring surplus liquidity, a policy choice exists between the central bank issuing its own securities or government issuing additional securities. A large number of countries, such as, Chile, China, Colombia, Indonesia, Korea, Malaysia, Peru, Philippines, Russia, Sri Lanka, Taiwan and Thailand have issued central bank securities. However, central banks in many of these countries have faced deterioration in their balance sheets. As such, there is merit in issuing sterilisation bonds on government account. This is more so, in case of an already well established government debt market, where issuing of new central bank bills of overlapping maturity could cause considerable confusion and possible market segmentation which could obfuscate the yield curve, reduce liquidity of the instruments and make operations that much more difficult.

The MSS has considerably strengthened the Reserve Bank's ability to conduct capital account and monetary management operations. It has allowed

absorption of surplus liquidity by instruments of short term (91-day, 182-day and 364-day T-bills) and the medium-term (dated Government securities) maturity. Generally, the preference has been for the short-term instruments. This has given the monetary authority a greater degree of freedom in liquidity management during transitions in liquidity conditions. In response to the tightening of domestic liquidity brought about by the global financial crisis, the MSS is being unwound, both on account of normal redemptions as well as through buy-back of MSS dated securities. These operations have provided another avenue for injecting liquidity of a more durable nature into the system and highlight the flexibility provided by the MSS.

### *Prudential Instruments*

In the wake of the persistence of global financial imbalances against the background of low and stable inflation in a world undergoing fundamental change, there has been growing support for greater macro-prudential orientation of the financial regulatory/supervisory

framework in order to support monetary policy. There is a gradual realisation that while the success in fighting inflation has been extraordinary, price stability has not been sufficient to secure financial stability (Borio and Shim, 2007). In the current context in which financial factors, in general, and asset prices in particular, are acting as drivers of economic fluctuations, the country experiences across Europe and Asia (including India) have placed a premium on strengthening the macro-prudential orientation of policies for financial regulation/supervision.

It has been argued in an orthodox perspective that prudential regulations, originally designed for financial stability, are not very effective in addressing asset price cycles due to the time lag in transmission and the relatively blunt impact with unintended secondary consequences. Moreover, the use of such tools for macroeconomic purposes is seen as conflicting with their original objective of financial stability. However, the more contemporary, pragmatic view advocates the use of prudential regulations to dampen excessive credit growth in pursuit of financial stability as the 'first instance' policy response, followed at a later stage, if required, by tightening monetary policy (White, 2004).

Accordingly, prudential measures have supplemented monetary measures in realising the objectives of monetary policy in India. In this regard, India has been one of the earliest users of prudential measures (Mohan, 2007b). The high rate of credit expansion witnessed in certain

sectors during 2003-07 was partly moderated through the use of prudential measures such as enhancement of provisioning requirements and risk weights rather than resorting to monetary tightening which would have resulted in an overall credit squeeze and thwarted the growth momentum. The use of such prudential measures is now gaining increasing acceptability in the wake of turmoil in international financial markets currently.

### *Institutional Deepening*

A key prerequisite of the growing market orientation of monetary policy is an appropriate legal and institutional architecture. Institutional changes to improve the effectiveness of monetary policy formed the core of the emerging format of monetary-fiscal coordination. In India these reforms, *inter alia*, involved raising fiscal borrowings at market-related yields and the phasing out of automatic monetisation by the Reserve Bank from the mid-1990s. Fiscal-monetary coordination in India was strengthened further through the enactment of the FRBM Act, 2003. The FRBM Act, while placing limits on deficits, prohibits the Reserve Bank from participating in the primary market auctions of Central Government securities from April 2006, except by way of "Ways and Means Advances" to meet temporary liquidity mismatches in Government's cash management, or under exceptional circumstances. The Reserve Bank, however, still buys or sells Government securities in the secondary market

consistent with the conduct of monetary policy. Adherence to FRBM targets is critical for the objective of maintaining price stability, and more importantly, to stabilise inflation expectations in the economy. In the context of monetary-fiscal interface, as noted by Reddy (2008),

"harmonious relations between the Government and the RBI have, no doubt, generally contributed to the successful policy outcomes thus far, but it would not be appropriate to conclude that there are no differences in analyses, approaches, judgements and instrumentalities. In the given legal and cultural context, while making every effort to give its views, either informally or formally, but as unambiguously as possible, the RBI generally respects the wishes and final inclination of the Government. The RBI, however, has to accept the responsibility for all its decisions and actions, while being generally conscious of the impact of its articulation and actions on its credibility. The Government, for its part, recognises the dilemmas posed to the RBI, and accords significant weight to the RBI's judgements".

"In sum, *de jure*, the RBI has not been accorded autonomy on par with recent trends in some of the industrialised as well as emerging economies; but, *de facto*, the recent experience reflects a progressively higher degree of autonomy being enjoyed by the RBI. During the period of reform, since 1991, there has been a gradual and mutually agreed progress towards greater autonomy in matters relating particularly to the

financial markets and the conduct of monetary policy."

### *Market Development*

A key element of structural reforms has been a greater role for markets in the allocation of resources. First, the Reserve Bank began to deregulate interest rates, beginning with the removal of restrictions on the inter-bank market as early as 1989. This was supported by the process of putting the market borrowing programme of the Government through the auction process in 1992-93. This was buttressed by a phased deregulation of lending rates in the credit markets. At present, banks are free to fix their lending rates on all classes of loans except small loans below Rs.200,000. The deregulation of deposit rates began from 1997 and banks are now free to offer interest rates on all classes of domestic deposits (except savings deposits), not only in terms of tenor but also in terms of size.

Second, the process of interest rate deregulation had to be supported by the development of the market structure, especially to address the problem of missing markets at the short end. A number of money market instruments, such as commercial paper, short-term Treasury Bills, certificates of deposit, and the like have been introduced progressively, supplemented by a parallel process of market development, beginning with the institution of the Discount and Finance House of India in 1988 as a market maker with two-way quotes in the money markets.

Third, steps were initiated in 1999 to develop a repo market outside the official window for providing a stable collateralised funding alternative, particularly to non-banks and banks. A recent noteworthy development is the substantial migration of money market activity from the uncollateralised call money segment to the collateralised market repo and Collateralised and Borrowing Lending Obligation (CBLO) markets which together account for more than 80 per cent of overnight money market. Thus, uncollateralised overnight transactions are now limited to banks and primary dealers in the interest of financial stability. Technological upgradation has accompanied the development of the money market – real time gross settlement; screen-based negotiated quote-driven dealings in call/notice and term money markets; and the Clearing Corporation of India Ltd. (CCIL) as a central counter party for CBLO. Information on overnight rates and volumes is disseminated by the Reserve Bank in order to enable market participants to assess the liquidity conditions in an efficient and transparent manner.

There was also a need to develop a benchmark for other fixed income instruments for the purposes of their pricing and valuation. An active secondary market for government securities was also needed for operating monetary policy through indirect instruments such as open market operations and repos. Reforms, therefore, focussed on the development

of appropriate market infrastructure, elongation of maturity profile, increasing the width and depth of the market, improving risk management practices and increasing transparency.

Consequently, the government securities market has witnessed significant transformation in various dimensions, *viz.*, market-based price discovery, widening of investor base, introduction of new instruments, establishment of primary dealers, and electronic trading and settlement infrastructure. Vibrant secondary market trading has helped to develop a yield curve and the term structure of interest rates.

The Indian foreign exchange market was widened and deepened significantly with the transition to a market-determined exchange rate system in March 1993, the subsequent liberalisation of restrictions on various external transactions leading up to current account convertibility in 1994 and the ongoing liberalisation of the capital account. India's exchange rate policy in recent years has been guided by the broad principles of careful monitoring and management of exchange rates with flexibility, without a fixed target or a pre-announced target or a band, coupled with the ability to intervene if and when necessary, while allowing the underlying demand and supply conditions to determine the exchange rate movements over a period in an orderly way. Subject to this predominant objective, the exchange rate policy is guided by the need to reduce excess volatility, prevent the emergence of destabilising speculative

activities, help maintain adequate level of reserves, and develop an orderly foreign exchange market.

A number of steps have also been taken to liberalise the capital account covering foreign direct investment, portfolio investment, outward investment including direct investment as well as depository receipt and convertible bonds, opening of Indian corporate offices abroad and the like.

In line with the international best practices and with a view to further strengthening the consultative process in monetary policy, the Reserve Bank, in July 2005, set up a Technical Advisory Committee on Monetary Policy (TACMP) with external experts in the areas of monetary economics, central banking, financial markets and public finance, along with two members of its Central Board, Deputy Governors and chaired by the Governor. The Committee meets at least once in a quarter to review macroeconomic and monetary developments and advise on the stance of monetary policy. The TAC is advisory and provides guidance to the making of policy from time to time. As such, the responsibility, accountability and time paths for decision making are not formally constrained by the meetings of the TAC.

As each of these segments of the financial market – money market, government securities market, foreign exchange market – develop further, monetary policy can become more effective through improved monetary policy transmission.

### *Monetary Policy Performance: An Assessment of Outcomes*

India's monetary policy framework – goals, operating framework, instruments, communication – has undergone a fundamental change since the early 1990s. It is noteworthy that this change has coincided with regime shifts across many parts of the world, with the adoption of inflation targeting (IT) being perhaps the most widely discussed case in point. Have these regime shifts, including in India, worked. A credible approach to evaluating the efficiency of monetary policy is perhaps to focus on actual outcomes.

Purely for the purpose of analysis, this assessment can be classified as under:

- (i) operating condition indicators;
- (ii) intermediate indicators; and
- (iii) ultimate goals

### *Operating Conditions Indicators*

The key objective underlying the operating framework of monetary policy in India is to ensure stable conditions in financial markets by moderating volatility through a flexible use of policy instruments but without a specific view on the level of financial prices. In the money market, the Reserve Bank's operations are conducted with a view to allowing the overnight interest rates to evolve in a stable manner within an informal corridor set by the LAF so that policy changes in quantities and rates are transmitted to other interest rates in an efficient manner. India's exchange rate policy is one of managed flexibility

without any target or band but with interventions by the Reserve Bank to ensure orderly conditions in the foreign exchange market. In the Government securities market, the objective has been to develop depth and liquidity and a smooth sovereign yield curve that could serve as a benchmark for pricing of other financial instruments. A comparison of movements in these key markets across the decades of the 1990s and the 2000s (up to 2007) indicates a marked decline in the weighted average call money rate and in its variability (Table 12). This moderation of volatility is also reflected in a narrowing of the bid-ask spread over time, indicative of the smoothing role played by the evolving market microstructure.

In the foreign exchange market, there is evidence of growing flexibility in the day-to-day movements in the exchange rate of the Indian rupee, consistent with the stated objective of exchange rate management (Table 13 and Chart 3). Average daily absolute change in the exchange rate of the rupee has seen a consistent rise over the years. During the 1990s, there were large discrete changes in the exchange rate, while the exchange rate was relatively unchanged for the rest of the time. In contrast, in the past few years, there has been a higher degree of two-way movements in the exchange rate on day-to-day basis. At the same time, the Reserve Bank tries to avoid excessive volatility in the foreign exchange market through its market operations. There has

Table 12: Operating Condition Indicators

(Per cent)				
Indicators	1990s		2000s (2000-07)	
	Average	Co-efficient of Variation	Average	Co-efficient of Variation
1	2	3	4	5
<b>Money Market</b>				
Weighted Call Rate	11.6	39.1	6.3	25.7
Bid-Ask Spread	0.31	2.19	0.28	3.76
<b>Foreign Exchange Market</b>				
Spot Exchange Rate (Rupees per Us dollar)	32.7	23.3	46.0	3.2
Bid-Ask Spread in the Spot Market	0.050 #	125.0 #	0.024	25.8
Forward Premia (6-months)	4.7	–	2.7	–
Average Daily Turnover (US \$ Billion)	5.0 ^	33.0 *		
<b>Government Securities Market \$</b>				
1 Year	10.46	5.9	6.60	25.8
10 Year	12.35	8.1	7.59	23.9
Spread (10 Yr. – 1 Yr.)	1.89	–	0.99	–

# : Pertains to data from 1993-94.

\* : Pertains to data for 2006-07.

^ : Pertains to data for 1997-98.

\$ : 1990s pertain to 1996-2000.

**Note** : Coefficient of variations have been computed from (a) daily data in the case of bid-ask spread in the money market and turnover in the forex market and (b) monthly data in the case of weighted call rate, spot exchange rate, bid-ask spread in the spot forex market, forward premia, 1-year yield, 10-year yield and spread.

**Source** : Reserve Bank of India, NSE-FIMMDA

## SPEECH

The Role of Fiscal and Monetary Policies in Sustaining Growth with Stability in India

Rakesh Mohan

**Table 13: Exchange Rate of the Indian Rupee *vis-à-vis* the US dollar**

Year	Coefficient of variation (daily data) (per cent)	Daily absolute change in the exchange rate (annual average) (Rupees per dollar)	Number of days during the year with daily absolute change of more than		
			10 paisa	20 paisa	30 paisa
1	2	3	4	5	6
1993-94	0.10	0.01	1	0	0
1994-95	0.29	0.01	3	2	1
1995-96	5.75	0.10	57	34	23
1996-97	1.35	0.04	21	10	2
1997-98	4.21	0.07	45	20	10
1998-99	2.12	0.05	37	14	6
1999-2000	0.68	0.03	8	1	0
2000-01	2.35	0.04	27	8	1
2001-02	1.47	0.04	19	2	1
2002-03	0.94	0.03	2	0	0
2003-04	1.56	0.05	24	5	3
2004-05	2.30	0.10	89	32	13
2005-06	1.79	0.07	62	13	5
2006-07	1.98	0.09	88	26	7
2007-08	2.07	0.11	98	41	20

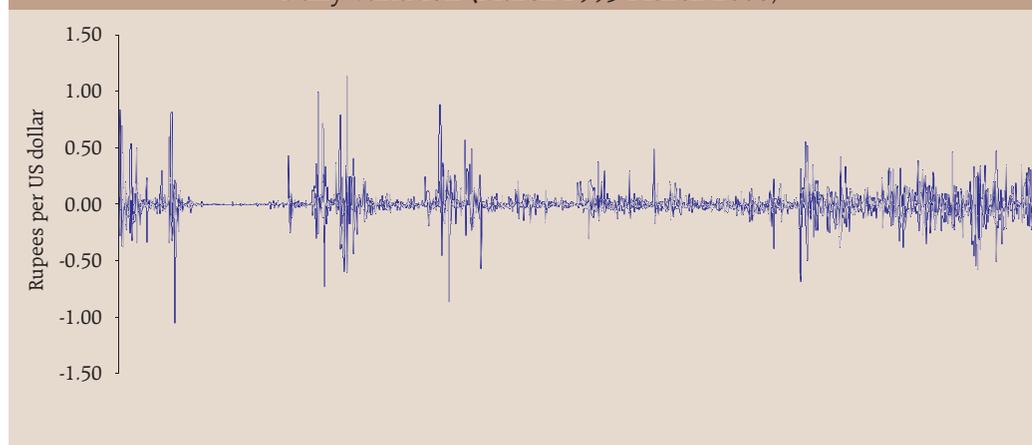
**Note :** Columns 4, 5 and 6 provide data on the number of days during a year when the daily change in exchange rate (Rupees per US dollar) has exceeded 10 paisa, 20 paisa, and 30 paisa, respectively.

**Source :** Reserve Bank of India.

also been a substantial rise in turnover in the forex market. In the Government securities market, there has been a general softening of yields (until recent months) across maturities; however, volatility has increased in the current period, attributable to greater external integration of the market and rising

trading volumes. Yield spreads have also tended to narrow over this period, pointing to a flattening of the yield curve as long term inflation expectations have become anchored and policy interventions in the short end of the money market have increased in frequency (see Table 12).

**Chart 3 : Exchange Rate of the Rupee vis-a-vis the US Dollar: Daily Variation (March 1993-March 2008)**



### Intermediate Indicators

Typically, monitoring of intermediate variables is associated with the establishment of stable and predictable relationships between them and the final targets. With the weakening of the explanatory/predictive power of the standard money demand functions and its variants, the list of intermediate variables has expanded to include the underlying determinants of money, *i.e.*, credit and deposits with a view to also deriving synergies from the responsibility for financial stability where it is reposed in the central bank as in India.

In terms of average growth rates, non-food credit and bank credit to the commercial sector have increased in the period 2000-07 over the 1990s in consonance with an upward shift in the growth trajectory of the economy. On the other hand, growth rates of aggregate deposits and money supply have remained broadly stable. A comparison of volatility in these indicators yields contrasting variations. The credit indicators display a marked decline in volatility despite a step-up in growth. The growth of aggregate

deposits and money supply is, however, associated with some increase in volatility in the period 2000-07, suggesting some causal relationship flowing from deposits to money supply reflecting strong procyclicality as well as relatively larger swings in market liquidity (Table 14).

### Ultimate Goals

In the final analysis, the efficacy of monetary policy has to be evaluated in terms of its success or otherwise in achieving the ultimate goals of price stability and moderation in the variability of the growth path. In terms of the variability of real GDP growth, India outperformed most EMEs and developed economies during the 1990s. While variability of output growth has increased modestly during 2000-07, India continues to experience stability in growth conditions along with some developed countries and EMEs that have adopted inflation targeting as a common feature. Inter-temporally, most economies have recorded a decline in volatility of output growth, outliers being Argentina and Singapore (Table 15). Of course, the stability in the growth conditions cannot

**Table 14: Intermediate Indicators**

Indicators	(Per cent)			
	1990s		2000s (2000-07)	
	Average	Co-efficient of Variation	Average	Co-efficient of Variation
1	2	3	4	5
Non Food Credit Growth	15.4	46.5	23.7	33.1
Growth in Bank Credit to the Commercial Sector	14.8	33.3	20.1	30.4
Growth in Aggregate Deposits of Scheduled Commercial Banks	17.2	18.0	17.3	19.7
Growth in Money Supply (M <sub>3</sub> )	17.2	16.1	16.1	17.7

Source : Reserve Bank of India.

Table 15: Variations in Real GDP – A Cross-Country Survey

((Per cent))				
Country	1990s		2000-07	
	Average Annual Growth	Coefficient of Variation	Average Annual Growth	Coefficient of Variation
1	2	3	4	5
<b>Developed Countries</b>				
Australia	3.3	59.5	3.3	23.3
Canada	2.4	96.6	2.9	36.1
France	1.9	69.2	2.0	45.4
Germany	2.3	80.1	1.4	91.5
Japan	1.5	132.3	1.7	59.3
New Zealand	2.5	105.1	3.4	34.0
Switzerland	1.1	128.6	1.9	69.2
US	3.1	46.8	2.5	40.4
UK	2.1	81.0	2.8	23.6
<b>Developing Countries</b>				
Argentina	4.3	119.8	3.4	230.3
Brazil	1.7	175.8	3.3	48.4
China	10.0	32.4	9.9	11.8
Egypt	4.1	53.5	4.7	33.0
India	5.7	30.0	7.0	31.4
Indonesia	4.3	149.7	5.1	15.8
Korea	6.3	78.8	5.1	34.4
Malaysia	7.2	73.1	5.4	45.9
Mexico	3.4	106.0	2.9	75.1
Philippines	2.8	86.1	5.0	29.6
Singapore	7.6	48.4	5.7	70.0
South Africa	1.4	149.2	4.2	21.8
Thailand	5.3	124.7	4.9	30.1

Source : World Economic Outlook Database, IMF.

be attributed entirely to the conduct of monetary policy; it is also attributable to other key developments such as better inventory management by firms, growing use of information technology, rising share of the services sector activity in output and overall stability in the policy framework. Furthermore, it is important to note that India's growth is largely driven by domestic consumption. As consumption is the less volatile component of demand, this has also contributed in containing volatility.

In terms of inflation volatility, the Indian experience has been more rewarding. Over the 1990s and up to the

recent period, variability of inflation in India has been low, attesting to the effectiveness of monetary policy in reducing the inflation-risk premium. During this period, improvement in the fiscal scenario has also contributed towards the moderation in inflation and inflation expectations. The significant turnaround in the inflation outcome reflected the improved monetary-fiscal interface during this period. Over time, however, several EMEs have recorded an increase in inflation volatility, particularly in the current decade. By contrast, India appears to have joined the great moderation that has characterised the developed world – there is a distinct

decline in inflation variability in India in 2000-07 in consonance with developed countries and a few EMEs which undertook structural changes in their policy regimes in response to their inflation history *i.e.*, Argentina, Brazil and Indonesia (Table 16).

#### IV. Issues and Challenges in Monetary and Fiscal Policy Formulation

The biggest challenge facing the conduct of fiscal and monetary policy in India is to continue the accelerated growth process while maintaining price and financial stability.

The conduct of fiscal and monetary policy since the early 1990s has broadly succeeded in setting the economy on a higher growth path. Far reaching fiscal reforms have been undertaken during this period, which are finally bearing fruit through increased revenue mobilisation, some compression in expenditure, and consequent reduction in the fiscal deficit, leading to the beginning of some reduction in the debt GDP ratio. The exercise of fiscal restraint and admirable fiscal and monetary policy cooperation has enabled the increasing effectiveness of monetary policy: the cessation of automatic monetisation of the fiscal deficit;

**Table 16: Variations in Consumer Price Inflation – A cross-Country Survey**

((Per cent))				
Country	1990s		2000-07	
	Average Annual Inflation	Coefficient of Variation	Average Annual Inflation	Coefficient of Variation
1	2	3	4	5
<b>Developed Countries</b>				
Australia	2.5	83.4	3.2	27.3
Canada	2.2	76.8	2.3	13.9
France	1.9	48.2	1.9	11.7
Germany	2.4	64.8	1.7	21.8
Japan	1.2	105.7	-0.3	-127.6
New Zealand	2.1	81.8	2.6	19.3
Switzerland	2.3	92.0	1.0	33.7
US	3.0	36.6	2.8	22.0
UK	3.3	67.0	1.6	34.7
<b>Developing Countries</b>				
Argentina	253.7	286.1	9.0	97.1
Brazil	854.8	127.5	7.3	46.8
China	7.8	107.4	1.7	108.4
Egypt	10.8	57.8	5.4	63.2
<b>India</b>	<b>9.6</b>	<b>30.7</b>	<b>4.5</b>	<b>22.6</b>
Indonesia	14.4	109.9	8.7	38.7
Korea	5.7	42.7	3.0	22.6
Malaysia	3.7	24.0	2.0	43.5
Mexico	20.4	46.3	5.2	37.3
Philippines	9.7	37.9	5.0	37.1
Singapore	1.9	66.9	0.9	77.1
South Africa	9.9	35.1	5.3	43.3
Thailand	5.0	41.4	2.5	58.3

Source : World Economic Outlook Database, IMF.

increased importance of market borrowing in financing the deficit; introduction of the market stabilisation scheme; and the corresponding measures to deregulate interest rates to enable market discovery; have all contributed to the strengthening of monetary policy transmission.

Where do we go from here? What are the remaining issues and new challenges in this space that have to be confronted in the coming years?

The self imposed rule based fiscal correction at both the national and sub national levels has to be consolidated and carried forward. Achievement of the current objectives will still leave the combined fiscal deficit in India at around 6 percent of GDP, and somewhat higher if the off budget items are also taken into account. By international standards this is still very high, and if this level continues it will be difficult to make much of a correction to the debt-GDP ratio to bring it down to desirable levels within the foreseeable future. The government draft on private sector savings will therefore continue, and hence it will also be difficult to reduce substantially the various stipulations that mandate banks and other financial institutions to invest in government securities, thereby constraining further development in monetary policy and financial sector framework. The existence of such a high level of fiscal deficit also contributes to the persistence of an interest rate differential with the rest of the world, which then also constrains progress towards full capital account convertibility.

The sustained interest rate differential is also connected with the existence of a persistent inflation differential with the rest of the world. As documented, significant success has been achieved in reducing Indian medium term inflation, and inflation expectations, from the erstwhile 7-8 per cent to the current 4-5 per cent, as compared to the 2-3 per cent that has characterised world inflation in recent years (abstracting from the current flare up worldwide). A key challenge for fiscal and monetary policy in the coming years is to further reduce inflation expectations toward international levels. In view of higher inflation rates, higher interest rates, and exchange rate dynamics reflecting growth prospects and capital account movements, rather than inflation or interest rate differentials, there is a need to operate an intermediate regime with a managed floating exchange rate, and an active management of the capital account so as to have the necessary discretion and flexibility to operate monetary policy in order to maintain domestic macroeconomic and financial stability. In particular, ceilings on debt flows to minimise short-term speculative flows will need to be continued.

In the fiscal policy area, the success achieved in revenue buoyancy through tax rationalisation and compliance has to be strengthened further. Large proportions of the self employed remain outside the tax net; thus continued strengthening and modernisation of tax administration now needs to be emphasised, relative to further

reforms in tax policy in terms of relative emphasis. This would enable further shifts in tax revenue toward direct taxes from indirect taxes, thereby aiding greater economic efficiency. At the state level also, the move to VAT has provided very significant tax rationalisation, and emphasis now needs to be put on its administration. In this sphere, the next step of reform would, of course, be the proposed move towards a unified "Goods and Service Tax" regime encompassing the Centre and the States. The foundations of an efficient fiscal regime in India have, therefore, been achieved.

On the expenditure side, containing the subsidy burden has proved difficult, although its increase as a proportion of GDP has been contained. The current world environment of elevated oil, food and fertilizer prices is not conducive to the expectation of significant reduction in these subsidies in the near future. The prognosis on international prices of energy and food is not encouraging in the medium term as of now. So public policy in these areas has to take into account expectations over the medium term: smoothening of prices of such important items of common consumption can be justified if elevated prices are deemed to be temporary. Funding such subsidies over an extended period of time is likely to become unsustainable: hence directly addressing the needs of those less well off and who are less capable of coping with these price increases may be more desirable, rather than suppressing prices overall. The recent practice of issuing

bonds to fund these subsidies is also not sustainable if the need for these subsidies persists.

The second issue on the expenditure side relates to the funding of public investment, particularly related to infrastructure. As documented, public investment has been reduced over the past decade or so. Whereas private investment has clearly substituted or complemented public investment successfully in areas such as telecom, ports and airports, and partially in roads and power, total investment in infrastructure is clearly inadequate, and could constrain further acceleration in overall economic growth. With increasing urbanisation there is need for accelerated public investment in infrastructure. While processes for inducing private investment need continuous improvement, there is need for a reassessment of desirable, expected and feasible public investment requirements, which are likely to be higher than what is currently envisaged. Third, the government is already engaged in expanding programmes and spending for human development. Funding for these needs will continue to require enhancement.

The acceleration of economic growth to the next level is therefore likely to lead to an enhancement of government spending as a proportion of GDP, which would be consistent with the experience of other countries as their per capita incomes increased. This then is the main challenge confronting Indian fiscal policy: how to provide for an enhancement in

public expenditure while continuing fiscal consolidation and reducing fiscal deficits further.

Going forward, therefore, there will be a continuous need to adapt monetary management to the emerging needs of a fast growing and increasingly open economy. This will necessitate ongoing refinement of instruments and modes of management, especially as global developments are expected to have an increasing role in determining the conduct of monetary and exchange rate policies in India. As an economy undergoes accelerated growth from low income levels, it is typically accompanied by financial deepening and increasing monetisation. Consequently, the expansion of monetary aggregates departs from their traditional relationship with real GDP growth. The task of monetary management is then to manage such growth without endangering price or financial stability.

Considerable progress has been made in interest rate deregulation but full deregulation is constrained by the need for various policy interventions in the context of a still developing economy, on both the deposit and lending sides. A certain degree of credit allocation and interest rate directions continues to exist. Hence, monetary transmission can get muted at the margin. As banks have to compete for funds with small saving schemes, the rates offered on long-term deposits mobilised by banks sometimes have to account for these administered rates. The administered small saving rates

have to be sensitive to the maintenance of positive real interest rates. Thus, further deregulation of interest rates is also dependent on the reduction in inflation mentioned earlier.

In the years ahead, the economy will depend increasingly upon the ability of financial markets to allocate resources efficiently for the most productive purposes. Further development of financial markets will also be needed in view of the growing openness and fuller capital account convertibility. Thus, financial markets have to be developed continuously to increase their connection with credit markets and to remove distortions in the market spectrum. While permitting a wider range of instruments and players in the financial markets, it needs to be ensured that development takes place in an orderly manner so as to ensure stability.

Large volume of inflows under private transfers as well as under software earnings – almost 3 per cent of GDP each – and sizeable capital inflows (net) have the potential for possible overvaluation of the currency and the resultant erosion of long-term competitiveness of other traditional and goods sectors – popularly known as the Dutch disease. Given the fact that more people are in the goods sector, the human aspects of the exchange rate management should not be lost sight of. Therefore, the Dutch Disease syndrome has so far been managed by way of reserves build-up and sterilisation, the former preventing excessive nominal appreciation and the latter preventing

higher inflation. However, the issue remains how long and to what extent such an exchange rate management strategy would work given the fact that we are faced with large and continuing capital flows apart from strengthening current receipts on account of remittances and software exports. This issue has assumed increased importance over the last couple of years with increased capital flows arising from the higher sustained growth performance of the economy and significant enhancement of international confidence in the Indian economy.

Large capital inflows in recent years, far in excess of the current account surplus, have, therefore, necessitated a certain amount of capital account management, along with intervention in the forex market to curb volatility in the exchange rate (Mohan, 2007a). Management of volatility in financial markets and implications for the conduct of monetary operations will continue to need attention. Greater inflows will inevitably exert pressure on the Reserve Bank's ability to manage the impossible trinity of independent monetary policy, open capital account and a managed exchange rate, keeping in view that the impact of exchange rate fluctuations on the real sector in developing economies is much higher than in mature economies, particularly in labour intensive low technology price sensitive goods. To what extent is the current account balance a good guide to evaluation of the appropriate level of an exchange rate? To what extent should the capital account influence the exchange rate? What are the implications

of large current account deficits for the real economy? Are they sustainable and, if not, what are the implications for financial stability in developing countries? India always had a modest current account deficit though, because of remittances and service exports, the trade deficit has widened significantly in recent years. These are the issues that monetary policy will have to continue to deal with while addressing the impact of capital flows.

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