INDIA'S MACROECONOMIC MANAGEMENT IN THE NINETIES

SHANKAR ACHARYA

OCTOBER 2001

INDIAN COUNCIL FOR RESEARCH ON INTERNATIONAL ECONOMIC RELATIONS
Core-6A, 4th Floor, India Habitat Centre,
Lodhi Road, New Delhi-110 003

INDIA'S MACROECONOMIC MANAGEMENT IN THE NINETIES

SHANKAR ACHARYA

OCTOBER 2001

The author is a professor at ICRIER on leave from his previous assignment as
Chief Economic Adviser, Ministry of Finance. The views expressed are strictly personal.

INDIAN COUNCIL FOR RESEARCH ON INTERNATIONAL ECONOMIC RELATIONS
Core-6A, 4th Floor, India Habitat Centre, Lodhi Road, New Delhi-110 003

FOREWORD

This paper by Dr Shankar Acharya provides a comprehensive review of India's macroeconomic performance and policies during the last 10 years. The paper was presented on September 3, 2001 at the first of a series of ICRIER Seminars on "Ten Years of Economic Reform". The session was chaired by Dr Y Venugopal Reddy, Deputy Governor, Reserve Bank of India. Professor John Williamson of the Institute of International Economics, Washington D.C., was the principal discussant. The papers presented at these seminars will be revised for publication in a book.

This paper was prepared by Dr Acharya during the first part of his association with ICRIER as a visiting professor while on study leave from the Ministry of Finance, Government of India.

Given the contemporary importance of the issues and policies addressed in this study of India's economic growth, inflation, external sector management, fiscal balances, savings and investment, ICRIER is bringing it out as a Discussion Paper to promote quick dissemination and wide policy debate.

Isher Judge Ahluwalia
Director and Chief Executive
ICRIER

CONTENTS

LIST OF TABLES

Page No.

LIST OF FIGURES

Page No.

INDIA'S MACROECONOMIC MANAGEMENT IN THE NINETIES

Shankar Acharya*

1. INTRODUCTION

This is a story of India's macroeconomic policies in the 1990s. Like most stories, it hopes to interest, inform and intrigue the reader. And like many stories, it will reveal the biases and limitations of the author, who was a participant through most of the period.

What do I mean by "macroeconomics"? Joshi and Little (1994, p.1) provide a workable answer in their unique study of Indian macroeconomics for the period 1964-1991:

"It is the study of the behaviour of very large economic aggregates, their relationships and their determinants… [including]… gross national and domestic product, national investment and savings, imports and exports, and the balance of overseas payments".

And macroeconomic policies refer to those policies which influence such macro aggregates.

The scope of this paper is as follows. Section 2 provides an overview of macroeconomic performance during the decade. Section 3 recounts the macro policy responses to the principal problems or challenges which surfaced as the decade unfolded. Section 4 surveys the main institutional reforms carried out in the nineties in the key dimensions of macroeconomic policy: fiscal, monetary and the exchange rate regime. Section 5 concludes by outlining briefly some of the major ongoing challenges for macroeconomic policy.

* I am grateful to ICRIER (and especially its Director, Isher Ahluwalia), for providing a very hospitable and supportive environment, without which I could not have completed this paper in time. I owe special thanks to Deepti Goel for her cheerful and extremely competent research assistance. The paper was initially presented at a Seminar on "Ten Years of Economic Reform" organized by ICRIER on September 3, 2001. It has benefitted from comments at the Seminar and outside. In particular, I would like to thank Montek Ahluwalia, Vijay Joshi, Vijay Kelkar, Y. Venugopal Reddy, N. K. Singh and John Williamson for their written comments. Responsibility for remaining errors and all views are mine alone. A caveat : this paper focuses on macroeconomic policies, performance and institutions; its scope does not extend to sectoral reforms or to the very important issues of poverty, income distribution and employment.

2. MACROECONOMIC PERFORMANCE : AN OVERVIEW

A. Economic Growth

Historical Perspective

Economic growth is the principal yardstick of macroeconomic performance. By this standard, the two decades since 1980/81 have been easily the best in the last half century of India's economic performance (Table 1). After averaging the so-called "Hindu rate" of 3.6 per cent per year in the thirty years between 1950/51 and 1980/81, GDP growth accelerated to 5.6 per cent in the eighties and averaged even higher at 5.8 per cent in the final decade up to 2000/01. Indeed, if the crisis-affected year of 1991/92 is omitted, as it reasonably should be, GDP growth in the past nine years (1992/93 – 2000/01) averaged an unprecedented 6.3 per cent.[1]

Furthermore, the growth performance of the eighties was bedevilled by the emergence of unsustainable fiscal deficits and increasing strains in the external accounts, which triggered the crisis of 1991. In the last nine years, although the fiscal imbalances have waned and waxed, the external sector has been far more manageable. Clearly, this has been a golden decade (almost) of growth for India. The trend in decadal growth rates looks even better when we look at per capita GDP growth, which accelerated from 0.8 per cent in the seventies to 4.4 per cent in the last nine years. If we think of per capita GDP as a rough proxy for average living standards of India's population, the last two decades have shown welcome improvement.

International Perspective

India's growth performance in the last two decades of the twentieth century also looks good in international perspective. Virmani (1999) ranks India sixth in the world growth league after China, Korea, Thailand, Singapore and Vietnam (Table 2). This is certainly a far cry from the conventional image of the Indian economy as a lumbering, shackled giant trailing far behind most significant emerging market economies in the growth race. Even more heartening is Virmani's finding that India retains sixth position when the ranking is redone in terms of per capita GDP growth.

[1] Some commentators believe that the growth in the crisis year of 1991/92 should be included in the earlier, "pre-crisis" period (which would pull down that average to 5.3 per cent) on the grounds that the crisis was a direct result of the policies and trends in the eighties. Others, such as Williamson, feel that 1991/92 growth belongs in the latter period because of "slack built up during the crisis". My preferred option of omitting 1991/92 from both periods would seem to be a reasonable compromise.

Table 1: Average Growth of Real GDP over Fifty Years
(per cent)

	1951/52-1960/61	1961/62-1970/71	1971/72-1980/81	1981/82-1990/91	1991/92-2000/01	1992/93-2000/01
1. Agriculture and Allied	3.1	2.5	1.8	3.6	2.8	3.2
2. Industry	6.3	5.5	4.1	7.1	5.7	6.4
3. Services	4.3	4.8	4.4	6.7	7.8	8.1
4. GDP (factor cost)	**3.9**	**3.7**	**3.2**	**5.6**	**5.8**	**6.3**
5. Per Capita GDP	**2.0**	**1.5**	**0.8**	**3.4**	**3.9**	**4.4**

Source: Central Statistical Organisation

Note: Industry includes Construction

Table 2: Growth Trends for Medium and Large Countries: 1980-2000
(per cent)

Country	GDP		Per Capita GDP	
	Growth Trend	Rank	Growth Trend	Rank
China	10.1	1	8.8	1
Korea, Rep.	7.7	2	6.6	2
Thailand	7.1	3	5.7	3
Singapore	6.9	4	5.1	4
Ireland	5.3	10	4.9	5
India	**6.0**	**6**	**4.1**	**6**
Vietnam	6.2	5	4.1	7
Chile	5.6	9	4.0	8
Indonesia	5.7	8	3.9	9
Hong Kong	5.3	11	3.7	10
Malaysia	6.0	7	3.5	11

Source: Virmani (1999)

Notes:
1. Medium and Large countries are defined as those with population greater than 10 million and GDP greater than $ 40 billion.
2. The growth trend for 1980-98 is a log average of the growth trends for 1980-90 and 1990-98, from *World Development Report 1999-2000*.
3. Population growth trends from *World Development Report 1998-1999* and projections.
4. Forecasts of 1999 and 2000 are from Asian Development Bank's *Asian Economic Outlook 1999* and IMF *World Economic Outlook* where available.

The Last Decade : A Closer Look

Table 3 presents more detail on India's growth in the most recent decade, including performance of the major sectors which constitute GDP. Furthermore, we subdivide the nine years following the 1991 crisis into an initial high growth period of five years (corresponding to the Eighth Plan) and the subsequent four years up to 2000/01. Several points are worth nothing. First, comparing performance in the last nine years to the pre-crisis decade, it is interesting that the acceleration in GDP growth (from 5.6 to 6.3 per cent) is entirely attributable to the services sector where growth surged to 8.1 per cent from an already high 6.7 per cent in the eighties. Indeed, the growth of both agriculture and industry averages a little slower in the post-crisis nine years compared to the pre-crisis decade. Second, focusing now on the post-crisis quinquennium, the acceleration of GDP growth to 6.7 per cent from the pre-crisis decadal average of 5.6 per cent is quite remarkable. Clearly, economic policy (including macro policy) was getting somethings right! Third, it is noteworthy that in the post-crisis quinquennium all the major sectors (Agriculture, Industry, Services) grew noticeably faster than in the pre-crisis decade. Fourth, it is interesting to note that in both the pre-crisis decade and the post-crisis quinquennium, the sectors of industry and services grew at almost identical rates.

The good news ends when we look at the average growth performance in the four most recent years. Overall GDP growth drops to 5.8 per cent. Much more disquieting is the collapse of agricultural growth to 1.4 per cent (from over three times the rate in the Eighth Plan period) and the significant fall in industrial growth down to 4.9 per cent. Indeed, the drop in GDP growth in these four years would have been much steeper but for the extraordinary buoyancy of services which averaged growth of 8.8 per cent. This growth in services was much faster than industry, a pattern which is quite different and novel compared to our past experience and, at the very least, raises questions of sustainability.

Table 3: Growth of GDP and Major Sectors

	Share in Real GDP 1993/94 prices (%) Average of 1994/95 - 1996/97	Average Annual Growth Rates 1981/82 - 1990/91	1992/93 - 2000/01	1992/93 - 1996/97	1997/98 - 2000/01
	(1)	(2)	(3)	(4)	(5)
1. Agriculture	28.9	3.6	3.2	4.7	1.4
2. Industry	27.6	7.1	6.4	7.6	4.9
3. Services	43.5	6.7	8.1	7.6	8.8
4. GDP (factor cost)	**100.0**	**5.6**	**6.3**	**6.7**	**5.8**

Source: Central Statistical Organisation

The growing importance of services in India's economic growth is brought out in Table 4. In both the pre-crisis decade and the post-crisis quinquennium, services accounted for a little under half of GDP growth. For the full nine years, post-crisis, the growth-contributing role of services was almost 60 per cent. Even more remarkably, the proportion rose to 70 per cent in the last four years. Without wishing to be labeled as a commodity-fetishist, this kind of numbers surely raises genuine issues of both plausibility and sustainability.

Furthermore, a part of the services sector growth in the last four years was "spurious" in the sense that it simply reflected the revaluation of the value added in the subsector "Public Administration and Defence" because of higher pay scales resulting from decisions on the Fifth Pay Commission. It is a peculiarity of national income accounting conventions that value added in non-marketed services is estimated on the basis of cost. These Pay Commission effects (including knock – on effects in States) were spread mainly over three years, 1997/98, 1998/99 and 1999/2000, when 'real' growth of "Public Administration and Defence" soared to 14.5 per cent, 10.3 per cent and 13.2 per cent, respectively, compared to an average growth in the previous five years of less than 4 per cent. Subtracting the trend growth from the exceptionally high reported growth rates gives a measure of the "spurious" (or Pay Commission effected) growth in these years, which we also subtract from overall GDP growth in the relevant years. This adjustment reduces GDP growth by 0.5 per cent in 1997/98 and 1999/2000 and by 0.4 per cent in 1998/99. The adjusted (net of Pay Commission effect) GDP growth becomes 4.3 per cent in 1997/98, 6.2 per cent in 1998/99 and 5.9 per cent in 1999/2000. As a result of these adjustments, the average GDP growth in the last four years 1997/98 to 2000/01 drops to 5.4 per cent, which is below the 5.6 per cent average for the pre-crisis decade and substantially lower than the 6.7 per cent achieved in the post-crisis quinquennium.[2]

Table 4: Sectoral Contributions to Growth
(per cent)

	1990-91/ 1980-81	2000-01/ 1991-92	1996-97/ 1991-92	2000-01/ 1996-97
1. Agriculture and Allied	21.9	14.0	21.1	6.1
2. Industry	32.0	27.3	30.8	23.4
3. Services	46.1	58.7	48.1	70.5
4. GDP (factor cost)	**100.0**	**100.0**	**100.0**	**100.0**

Source: Central Statistical Organisation

[2] It could be argued that, for strict comparability, similar adjustments should be made to the growth in previous periods following previous Pay Commission decisions. However, the scale of the pay increases following the FPC is of a different order.

Growth in the Nineties : A Capsule Story

A serious investigation of the determinants of growth in the last decade is far beyond the scope of this paper. But we can essay a brief heuristic story.

GDP growth collapsed to 1.3 per cent in 1991/92 as the balance of payments crisis of 1991 took its toll. The stabilization and structural reform measures of 1991-93 restored macroeconomic stability and fuelled one of the swiftest recoveries of economic dynamism seen anywhere in the world in recent decades [see Acharya (1995, 1999)]. GDP growth recovered to nearly 6 per cent in 1993/94 and exceeded 7 per cent in each of the next three years. Manufacturing recorded average real growth of 11.3 per cent in the four years 1993/94 to 1996/97. Export growth in dollar terms averaged 20 per cent in the three years 1993/94 – 1995/96 and the rates of aggregate savings and investment in the economy peaked in 1995/96. Real fixed investment rose by nearly 40 per cent between 1993/94 and 1995/96, led by a more than 50 per cent increase in industrial investment. It was, manifestly, boom time for the Indian economy.

The year 1997 was a watershed, which rang in the end of the economic party. In particular, three marker events occurred within a six month period to check the momentum of growth. In March, the instability inherent in coalition governments became manifest in the political crisis which ended the Deve Gowda government and ushered in the Gujral version of the United Front government. In July the Thai financial crisis raised the curtain on the Asian crisis saga, which dominated the international economic arena for next 18 months. Finally, in September, the Gujral government announced its decisions on the Fifth Pay Commission report, decisions which were to prove costly for both the fiscal and economic health of the country.

Economic growth fell to 4.8 per cent in 1997/98, 4.3 per cent if the "Pay Commission effect" is netted out. Agriculture recorded negative growth in value added, while the growth of manufacturing slumped to 1.5 per cent from 9.7 per cent in the previous year. Only services boomed at 9.8 per cent. Although industrial expansion remained subdued , GDP growth recovered smartly in 1998/99 thanks to a strong rebound in agriculture and continued buoyancy in services. Growth was sustained in 1999/2000 by a temporary recovery in industry. In 2000/01, renewed industrial deceleration and virtual stagnation in agriculture pulled GDP growth down to 5.2 per cent.

The marker events of 1997 are by no means the only reasons for the deceleration in India's economic growth after 1996/97. Others included the petering out of productivity gains from economic reforms, which clearly slowed after 1994. Although reforms continued throughout the decade, they never regained the breadth and depth of the early nineties. Key reforms in the financial sector, infrastructure, labour laws, trade and industrial policy, bankruptcy provisions and privatization remained unfinished or undone. Real investment in

industry, which had risen fast until 1995/96, plateaued thereafter for several reasons, including the political instability associated with three general elections and a succession of coalition governments, rising fiscal deficits after 1996/97 which kept real interest rates high, and the loss of momentum in reforms. Third, despite good intentions, the bottlenecks in infrastructure became worse over time, especially in power, railways and water supply, reflecting slow progress in reforms of pricing, ownership and the regulatory framework. Fourth, the low quality and quantity of investment in rural infrastructure combined with distorted pricing of some key agricultural inputs and outputs to damp the growth of agriculture. Fifth, the continuing decline in governance and financial discipline in (especially, but by no means exclusively) the populous States of the Gangetic plain constrained growth prospects for over 30 per cent of India's population. Finally, aside from the Asian crisis of 1997/98, the economic sanctions of 1998/99 and the rebound of international oil prices in the last two years have together made the international economic environment less supportive than in the Eighth Plan period.

Potential versus Actual Growth

The above discussion omits the important issue of the evolution of **potential** GDP over time and the gaps between potential and actual GDP. Some interesting work has been done by Reserve Bank of India (RBI) analysts Donde and Saggar (1999) showing much lower differences between potential and actual growth in the post - 1991 period as compared to the previous four decades. Although the study is not conclusive, it does suggest that macroeconomic policy has had greater success in attaining the economy's output potential in the last decade than in any previous period.

B. Inflation

Historical Perspective

If growth is the key measure of macroeconomic performance, inflation (or rather its absence) is the generally preferred indicator of macroeconomic stability. As Table 5 shows, the 1950s was the best decade in the last half century as far as inflation is concerned. The seventies had the worst record, with annual inflation averaging in double digits. This is mainly because the decade straddled the two oil shocks of 1973/74 and 1979/80. In both the decades since 1980/81 inflation has averaged in the 7 to 8 per cent range: the average annual rate was 7.2 per cent in the ten years up to 1990/91 and 7.8 per cent in the ten years since. If the crisis year of 1991/92 is omitted, the average rate of inflation in the last 9 years was 7.1 per cent.

Table 5: Average Annual Inflation (WPI) over Fifty Years
(per cent)

1951/52 to 1960/61	1.8
1961/62 to 1970/71	6.3
1971/72 to 1980/81	10.3
1981/82 to 1990/91	7.2
1991/92 to 2000/01	7.8
1992/93 to 2000/01	7.1

Sources: RBI and Ministry of Finance.

Table 6: India's Inflation in Global Perspective
(Average annual per cent increase)

	1981-90	1991-2000	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
India	**7.2**	**7.8**	**13.7**	**10.1**	**8.4**	**12.5**	**8.1**	**4.6**	**4.4**	**5.9**	**3.3**	**7.0**
Advanced Economies	5.6	2.6	4.7	3.5	3.1	2.6	2.6	2.4	2.1	1.5	1.4	2.3
Developing Countries	39.0	25.6	43.2	42.8	43.2	55.3	23.2	15.4	9.9	10.4	6.7	6.1
Asia	7.1	8.2	8.3	8.6	10.8	16.0	13.2	8.3	4.8	7.7	2.5	1.9
Latin American and Carribean	145.4	77.3	173.9	150.3	152.1	200.3	36.0	21.2	12.9	9.8	8.8	8.1

Sources: IMF, *World Economic Outlook*, various issues and RBI *Handbook of Statistics for the Indian Economy 2000*.

Notes: 1. For India the data relate to the WPI and fiscal years (1991 means 1991/92).

2. Country grouped data from the IMF are consumer prices.

International Comparisons

How does India's inflation record stack up in international perspective? Table 6 provides some answers for the last two decades. In the eighties India's average inflation rate of 7.2 per cent was close to the average rate for Asian Developing Countries as a group (7.1 per cent), a little above the average rate for the Advanced Economies (5.6 per cent) and much lower than the average for all Developing Countries (39.0 per cent), which was driven high by Latin American inflation (145.4 per cent). In the most recent decade a similar pattern is repeated except for the conspicuous difference that inflation in Advanced Economies is very low at 2.6 per cent, or one-third the average rate for India. Two other points are noteworthy. First, although the average inflation recorded by Asian Developing Countries is marginally higher than India's for the decade, the Asian group does better than India in the two most recent years. Second, Latin American inflation has dropped to single digits in the last three years.

All of this suggests that in the closing years of the twentieth century the inflation dragon had been slayed in most parts of the world. This was both a boon to India (in helping contain price increases of freely traded commodities) and a challenge to keep inflation low or suffer the penalties in competitiveness and exchange rate volatility.

The Last Decade: A Closer Look

Conventionally, inflation in India is measured by the wholesale price index (WPI) for the principal reason that its coverage is far wider and more uniform than that of the three available consumer price indices (CPI) for selected sections of society. Of the three available CPIs, the index for industrial workers, CPI(IW), is most commonly used when there is a special need to focus on consumer prices. Of late (e.g. Reserve Bank, 2000) the concept of "core inflation" has gained some currency both in India and abroad. Alternative measures of "core inflation" have been experimented with by the RBI. For our purpose, the essence of the idea (of filtering out temporary fluctuations because of supply shocks and administered price hikes) may be adequately captured by looking at trends in the wholesale price index for manufactures, WPI(MP).

In Table 7 and Figure 1 we look at the evolution of inflation during the last decade. It is also instructive to split the decade into two five-year periods. The first noteworthy point is that inflation was in double digits in the first half of the decade according to all three indices. Even if the crisis year of 1991/92 is excluded, inflation averaged close to 10 per cent in the next four years according to all three indicators. Second, the rate of inflation clearly decelerated in the second half of the decade according to all three measures. Going by the usual measure of inflation, the WPI, the rate was halved down to 5 per cent in the latter quinquennium. The deceleration

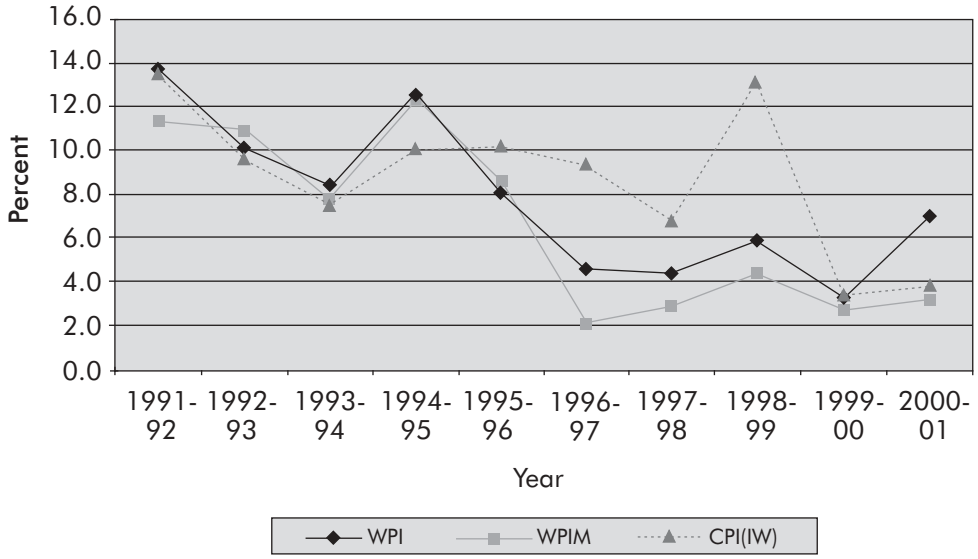
Table 7: Indian Inflation in the Nineties
(Average annual per cent increase)

	WPI(AC)	WPI(MP)	CPI(IW)
1991/92- 2000/01	**7.8**	**6.6**	**8.7**
1991/92- 1995/96	**10.6**	**10.2**	**10.2**
1992/93- 1995/96	**9.8**	**9.9**	**9.4**
1996/97- 2000/01	**5.0**	**3.1**	**7.3**
1991/92	13.7	11.3	13.5
1992/93	10.1	10.9	9.6
1993/94	8.4	7.8	7.5
1994/95	12.5	12.2	10.1
1995/96	8.1	8.6	10.2
1996/97	4.6	2.1	9.4
1997/98	4.4	2.9	6.8
1998/99	5.9	4.4	13.1
1999/00	3.3	2.7	3.4
2000/01	7.0	3.2	3.8

Sources: RBI and Ministry of Finance

Notes: WPI(AC): Wholesale Price Index for All Commodities
WPI(MP): Wholesale Price Index for Manufactured Products
CPI(IW): Consumer Price Index for Industrial Workers

Figure 1
Annual Inflation Rates, 1991/92 to 2000/01



was even more dramatic, down to 3 per cent, in core inflation as measured by WPI(MP). The CPI(IW) slowed the least, mainly because of the exceptional spurt in food prices (especially onions and potatoes) in 1998/99. Third, although the WPI ratcheted up by 7 per cent in 2000/01 because of higher oil prices, the increase in both core inflation and the CPI(IW) remained subdued.

Inflation in the Nineties: A Synoptic View

As with economic growth, inflation is a multi-causal phenomenon, which defies simple explanations. A short heuristic story would run as follows.

The balance of payments crisis of 1991 and attendant severe restrictions on imports disrupted industrial production. Coupled with a bad year in agriculture these supply problems propelled inflation to nearly 14 per cent in 1991/92. Inflation moderated in the next two years as the stabilization programme took hold and confidence in macromanagement was restored. By the second half of 1993/94 the restoration of confidence and liberalization of foreign investment policies had triggered a temporary surge in foreign capital inflow, which added over US$ 12 billion to foreign exchange reserves between September 1993 and October 1994. As a result, reserve money shot up by 25 per cent in 1993/94 and by over 22 per cent in 1994/95, fuelling broad money growth of over 18 per cent in 1993/94 and 22 per cent in 1994/95 (Table 8)[3]. This surge in liquidity pushed inflation back up to 12.5 per cent in 1994/95. By the following year monetary growth had been curbed and the simultaneous boom in industry and imports ensured an easy supply situation, resulting in moderation of inflation down to 8 per cent.

In 1996/97 aggregate demand cooled as both investment and exports levelled off after the boom in the preceding three years. The supply situation remained easy with strong growth in agriculture and industry. More significant for the medium –term, the cumulative impact of import liberalization and customs tariff reductions combined with low world inflation in manufactures to bring down the increase in the WPI(MP) to 2.1 per cent in 1996/97. As a result, the increase in the overall WPI dropped to 4.6 per cent in 1996/97.

From 1996/97 onwards inflation in India has remained low, powerfully influenced by the prevalence of very low inflation in industrialized countries and (therefore) internationally traded manufactures, combined with an increasingly open trade regime in India. Core inflation, measured by WPI(MP), stayed around 3 per cent, except for a blip up to 4.4 per cent in 1998/99. Since

[3] To some extent both the acceleration in monetary growth in 1994/95 and the deceleration in 1995/96 were exaggerated by there being 27 reporting fortnights for banks in 1994/95, with the last of them ending on March 31, 1995 and coinciding with the closing day for banks' accounts "thereby giving rise to the phenomenon of year-end bulge in aggregate deposits and credit" (Reserve Bank (1995), p. 47).

Table 8: Trends in Money and Credit
(Annual per cent increase)

	Broad Money (M3)	Reserve Money	Net RBI Credit to Central Government	Net Foreign Assets of Banking Sector	Non-Food Credit of Scheduled Commercial Banks
1985-90 Average	**17.6**	**17.2**	**17.8**	**17.2**	**18.1**
1990/91	15.1	13.1	20.5	55.2	12.4
1991/92	19.3	13.4	6.3	100.6	8.2
1992/93	14.8	11.3	4.6	15.2	20.1
1993/94	18.4	25.2	0.3	123.4	5.7
1994/95	22.4	22.1	2.2	44.7	29.8
1995/96	13.6	14.9	20.1	3.9	22.5
1996/97	16.2	2.8	1.6	28.4	10.9
1997/98	18.0	13.2	10.7	30.9	15.1
1998/99	19.4	14.6	8.8	28.8	13.0
1999/2000	13.9	8.1	-3.8	15.6	16.6
2000/2001	16.2	8.3	6.5	18.8	14.3

Sources: RBI *Handbook of Statistics on Indian Economy 2000* and *RBI Bulletin* various issues.

manufactures have a weight of about 64 per cent in the WPI, low increases in WPI(MP) have translated into low inflation in the WPI. In two years there were sharp spikes in the indices for "primary articles" and "fuel, power, light", which temporarily raised the rate of WPI inflation. In 1998/99 the spike was due to the flare up in prices of a handful of agricultural commodities, especially onions and potatoes. In 2000/01 the major increases in petroleum prices were the main culprit.

The relatively low inflation in the second half of the decade also reflected two other factors: mostly moderate increases in money supply and, more worryingly, the apparent slack in autonomous investment demand.

C. The External Sector

The external sector of India's economy was the focal stress point of the 1991 balance of payments crisis. Perhaps for that reason it saw the most far-reaching reforms and successful responses to reform initiatives. As I have dealt with these issues in some detail in a separate paper (Acharya (1999)), I shall be relatively brief here.

Some Historical Antecedents

The 1991 crisis had manifold roots, including a series of high fiscal deficits, excessive regulation of industry and trade and a weakening financial sector. Within the external sector itself the key contributory factors included an overvalued exchange rate (aggravated by real appreciation of the rupee in the first half of the 1980s), foreign trade and payments policies biased against exports and growing recourse to various forms of external borrowing to finance a series of large trade and current account deficits in the latter half of the eighties.

The extent of anti-export bias in the trade and payments regime can be gauged by the fact that in 1985/86 merchandise exports accounted for only 4.1 per cent of GDP, while imports were running more than 80 per cent higher at 7.6 per cent of GDP, entailing a trade deficit of 3.5 per cent of GDP. Although an active policy of real exchange rate depreciation in the second half of the eighties induced good export growth in the later years of the decade, it was a case of too little too late. Moreover, the growth of exports was offset substantially by a steady decline in net invisible earnings.

For the five year period 1985-90, the trade deficit averaged 3 per cent of GDP, while the current account deficit averaged 2.2 per cent of GDP (Table 9). These deficits were financed by growing recourse to various sources of external borrowing including external assistance, commercial borrowing and increasingly expensive NRI deposits. Foreign exchange reserves were also run down. Foreign investment was a negligible 0.1 per cent of GDP. By 1990/91, the trade deficit of 3.0 per cent of GDP was fully reflected in a peak current account deficit of 3.1 per cent of GDP, since invisibles had turned marginally negative.

The growing recourse to external borrowing in the second half of the 1980s had led to a substantial deterioration in India's external debt indicators. The debt service ratio rose to a peak of 35 per cent in 1990/91 (Table 10). The external debt stock to GDP ratio peaked at 39 per cent at the end of 1991/92, as did the debt to exports ratio at 563 per cent. The proportion of short-term debt (by original maturity) in total external debt attained its highest level in March 1991 at 10.3 per cent. As a ratio to foreign currency reserves, short-term debt soared to a dangerous 382 per cent, signalling the heightened fragility of India's external finances.

External Sector Trends in the Nineties

The Gulf War of 1991 and the associated oil price hike tipped India's fragile external finances into a full-blown balance of payments crisis. To contain the crisis and restore economic health, the new Congress government of June 1991 initiated a wide-ranging

Table 9: Balance of Payments Indicators

(As per cent of GDP at current market prices)

	1985-90 (Average)	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/ 2000	2000/ 2001
Exports, f.o.b.	4.8	5.8	6.9	7.3	8.3	8.3	9.1	8.9	8.7	8.2	8.3	9.5
Imports, c.i.f.	7.7	8.8	7.9	9.6	9.8	11.1	12.3	12.7	12.5	11.4	12.3	12.5
Trade Balance	**-3.0**	**-3.0**	**-1.0**	**-2.3**	**-1.5**	**-2.8**	**-3.2**	**-3.9**	**-3.8**	**-3.2**	**-4.0**	**-3.0**
Invisibles, net	0.79	-0.1	0.7	0.6	1.1	1.8	1.6	2.7	2.4	2.2	2.9	2.5
Current Account Balance	**-2.2**	**-3.1**	**-0.3**	**-1.7**	**-0.4**	**-1.0**	**-1.7**	**-1.2**	**-1.4**	**-1.0**	**-1.0**	**-0.5**
Capital Account Surplus	**2.2**	**2.3**	**1.5**	**1.6**	**3.5**	**2.8**	**1.3**	**3.0**	**2.4**	**2.0**	**2.3**	**1.9**
of which:												
Foreign Investment	0.10	0.03	0.05	0.23	1.55	1.53	1.38	1.60	1.31	0.58	1.15	1.07
External Assistance, net	0.68	0.70	1.13	0.77	0.69	0.48	0.28	0.29	0.23	0.20	0.20	0.10
Commercial Borrowings, net	0.57	0.71	0.58	-0.15	0.22	0.32	0.38	0.73	0.96	1.06	0.07	0.87
NRI Deposits, net	0.67	0.48	0.15	0.82	0.44	0.05	0.32	0.87	0.28	0.23	0.34	0.49
IMF, net	-0.26	0.38	0.32	0.45	0.07	-0.35	-0.48	-0.25	-0.15	-0.09	-0.06	-0.01

Table 9: Balance of Payments Indicators (continued)

Memo Items

	1985-90 (Average)	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/ 2000	2000/ 2001
Forex Reserves, year end (US $ million)	5616.2	5834.0	9220.0	9832.0	19254.0	25186.0	21687.0	26423.0	29367.0	32490.0	38036.0	42281.0
Increase in Reserves (US $ million)	-398	1872	3386	612	9422	5932	-3499	4736	2944	3123	5546	4245
Forex Reserves as months of Import Cover	3.4	2.5	5.3	4.9	8.6	8.4	6.0	6.5	6.9	8.2	8.2	8.6
Exchange Rate (Rs / US $)	13.82	17.94	24.47	30.65*	31.37	31.40	33.45	35.50	37.17	42.07	43.33	45.68
Growth of Exports (in US$); %	11.4	9.0	-1.1	3.3	20.2	18.4	20.3	5.6	4.5	-3.9	9.5	19.6
Growth of Imports (in US$); %	9.4	14.4	-24.5	15.4	10.0	34.3	21.6	12.1	4.6	-7.1	16.5	7.0
Growth of Non-oil Imports; %	12.3	3.4	-21.9	12.0	11.2	29.5	28.3	-0.2	14.5	8.0	3.2	-8.5
Foreign Investment (US $ million)	279.2	103.0	133.0	557.0	4235.0	4807.0	4805.0	6153.0	5390.0	2412.0	5191.0	5102.0
Direct (US $ million)		97.0	129.0	313.0	668.0	983.0	2057.0	2841.0	3562.0	2473.0	2155.0	2339.0
Portfolio (US $ million)		6.0	4.0	244.0	3567.0	3824.0	2748.0	3312.0	1828.0	-61.0	3036.0	2763.0

* The average official exchange rate for the year 1992-93 was 25.97.

Sources: RBI, *Handbook of Statistics on Indian Economy 2000*, *RBI Annual Report 2000-01*, and DGCIS (for non-oil imports)

Table 10: External Debt Indicators

(per cent)

	Debt Stock-GDP Ratio	Debt-Service Ratio	Debt-Exports Ratio	Proportion of Short Term Debt to Total Debt	Proportion of Short Term Debt to Foreign Currency Reserves
1990/91	28.7	35.3	491.7	10.3	382.3
1991/92	38.7	30.2	563.0	8.2	141.6
1992/93	37.6	27.5	512.7	7.1	98.3
1993/94	33.8	25.6	408.2	3.9	24.1
1994/95	30.9	26.2	369.6	4.3	20.4
1995/96	27.1	24.3	295.7	5.2	28.5
1996/97	24.7	21.2	277.1	7.2	30.1
1997/98	24.4	19.0	278.6	5.4	19.4
1998/99	23.5	18.0	287.0	4.5	14.8
1999/2000	22.0	16.0	258.6	4.1	11.5

Sources: RBI, *Handbook of Statistics on Indian Economy 2000* and *India's External Debt A Status Report*, Government of India, Ministry of Finance, Department of Economic Affairs, May, 2000.

Note: Flows relate to fiscal year indicated; stocks pertain to the end of the year indicated.

programme of stabilization and structural reform. Without going into the details of the programme, the salient thrusts which directly relate to the external sector may be summarized [they are broadly consistent with the recommendations in (Government of India, 1993)]:

- The exchange rate was devalued and the system transformed in less than two years from a discretionary, basket-pegged system, to a market-determined, unified exchange rate, following a short intermediate period of dual rates.
- The heavy anti-export bias in the trade and payments regime was also reduced substantially by a phased reduction in the exceptionally high customs tariffs and a phased elimination of quantitative restrictions on imports.
- Policies were initiated to encourage both direct and portfolio foreign investment.
- Short-term debt was reduced and strict controls put in place to prevent future expansion. Medium-term borrowing from private commercial sources was made subject to annual caps and minimum maturity requirements.
- Growth of NRI deposits was moderated through reduction of incentives.
- Foreign exchange reserves were consciously accumulated to provide greater insurance against external sector stresses and uncertainties.

As a result of these measures and other reforms in industrial, fiscal and financial areas, the performance of the external sector over the last decade has been generally strong. The stabilization

measures of 1991/92 reduced sharply imports, the trade deficit and the current account deficit. Import growth recovered and surged in the mid-nineties, but the current account deficit remained well below 2 per cent of GDP because of the concomitant buoyancy of exports and the strong recovery of net invisible earnings (Table 9). This surge in net invisibles to an average level of over 2 per cent of GDP in the last five years may be attributed in part to the strength of the world economy, in part to the rational incentives embedded in a market-determined exchange rate system and in part to the strong growth of software service exports.

Merchandise exports grew at about 20 per cent a year in dollar terms for three successive years between 1993/94 and 1995/96 and then decelerated to negative growth in 1998/99 before recovering again to record 20 per cent growth in 2000/01. Despite the sluggish performance of exports between 1996/97 and 1998/99, the trade deficit remained below 4 per cent of GDP thanks to the equally subdued growth of imports, especially non-oil imports. The continuing deceleration in non-oil import growth largely reflects the slow growth of industry in recent years.

Portfolio foreign investment responded smartly to new initiatives and climbed quickly to a peak of $ 3.8 billion in 1994/95. Direct foreign investment rose more slowly but steadily to a peak of $ 3.6 billion in 1997/98, before falling off significantly thereafter. Taken together, foreign investment peaked at $ 6.2 billion 1996/97 or just 1.6 per cent of GDP, which compares quite unfavourably with the record of a number of East Asian and Latin American countries, including China and Brazil, where FDI has attained 5 per cent of GDP in recent years.

Comparing the latest decade to the late eighties, three sources of foreign borrowing have clearly declined in significance : external assistance, NRI deposits and IMF financing. On the other hand, net external commercial borrowings have fluctuated, reaching peak levels in 1998/99 and 2000/01 because of exceptional recourse to Resurgent India Bonds (RIB) and India Millennium Deposits (IMD), respectively.

Taking the constituent elements together, it is noteworthy that the capital account surplus reached its peak in 1993/94 (at 3.5 per cent of GDP) and has been well below that level in all subsequent years. Nevertheless, except for 1995/96, the capital account surplus has been large enough in relation to the corresponding current account deficit in each of the last ten years, to ensure accretion to foreign exchange reserves. Such reserves have increased from $ 5.8 billion in March 1991, representing 2.5 months of import cover to $ 42.6 billion ten years later, amounting to more than 8 months of import cover.

We noted earlier how external debt indicators clearly signalled in 1991 the fragility of India's external finances. Table 10 brings out the sustained and remarkable improvement in these indicators over the decade, reflecting the success of India's external sector policies, in general, and prudent approach to external debt, in particular. By March 2000 the debt service

ratio had more than halved (from its peak) down to 16 per cent. The external debt to GDP ratio had fallen to 22 per cent. The proportion of short-term debt (by original maturity) was at a comfortable level of 4.1 per cent. Perhaps most telling, the ratio of short-term debt to foreign currency assets had plunged from its perilous height of 382 per cent in March 1991 to a sanguine 11.5 per cent in March 2000.

International comparisons with 14 other large external debtor developing countries for December 1999 also show India in a very favourable light (Table 11). By each significant debt yardstick India ranks among the best.

Table 11: External Debt Indicators for 15 Top Debtors, 1999

	Country	Total External Debt (US $ billion)	Increase in Debt between 1990 and 1999 (US $ billion)	Debt to GNP (per cent)	Debt Service Ratio (per cent)	Proportion of Short-term to Total Debt (per cent)
1	**Brazil**	244.7	124.8	33.5	110.9	12.1
2	**Russian Federation**	173.9	114.6	46.3	13.5	9.1
3	**Mexico**	167.0	62.6	35.5	25.1	14.4
4	**China**	154.2	98.9	15.9	9.0	11.5
5	**Indonesia**	150.1	80.2	113.3	30.3	13.3
6	**Argentina**	147.9	85.7	53.7	75.8	21.3
7	**Korea, Rep.**	129.8	94.8	32.3	24.6	26.8
8	**Turkey**	101.8	52.4	54.3	26.2	23.1
9	**Thailand**	96.3	68.1	79.9	22.0	24.3
10	**India**	**94.4**	**10.7**	**21.3**	**15.0**	**4.3**
11	**Poland**	54.3	4.9	35.6	20.4	11.0
12	**Philippines**	52.0	26.8	64.8	14.3	11.0
13	**Malaysia**	45.9	30.6	62.5	4.8	16.4
14	**Chile**	37.8	18.6	55.9	25.4	14.6
15	**Venezuela, RB**	35.9	2.7	35.6	23.2	6.3

Source: *Global Development Finance 2001*, World Bank.

A critical instrument in bringing about healthy outcomes in the external sector has been exchange rate policy. The transition from the prevailing (undisclosed) basket-pegged system in June 1991 to an unified, market-determined system was accomplished in a phased manner and with considerable finesse. By August 1994 India had committed to current account convertibility under Article VIII of the IMF. Following the unification of the exchange rate in March 1993, the authorities (especially the RBI) operated the "managed float" of the rupee with the twin objectives of fostering India's international competitiveness while containing day to day market volatility. Table 12 and Figure 2 present data on nominal and real, export-weighted exchange rate indices

Table 12: Real and Nominal Exchange Rate Indices (Base: 1993/94=100)

	Nominal Effective Exchange Rate (NEER)		Real Effective Exchange Rate (REER)	
	5-cty Index	10-cty Index	5-cty Index	10-cty Index
1985	334.3	341.7	187.6	194.3
1986	284.3	284.2	173.6	175.3
1987	254.8	250.7	165.1	164.1
1988	228.5	225.5	156.9	156.4
1989	204.0	202.3	143.5	143.3
1990	182.1	176.8	135.2	132.3
1991	139.5	136.3	115.8	113.8
1990/91	175.3	169.1	132.4	128.8
1991/92	130.6	127.9	110.9	109.1
1992/93	107.8	105.4	100.6	98.7
1993/94	100.0	100.0	100.0	100.0
1994/95	96.5	95.9	105.9	105.1
1995/96	88.5	87.4	102.6	101.0
1996/97	86.8	85.6	105.9	104.1
1997/98	86.2	86.7	110.1	109.9
1998/99	76.3	76.6	105.8	105.3
1999/2000	73.9	75.4	104.4	105.3
2000/2001	72.9	75.8	103.5	106.3

Source: *Economic Survey 2000/2001.*

Notes: 1. These are export-weighted indices with weights based on direction of India's exports during 1992-97.

2. The USA, Japan, the UK, Germany and France are included in the 5-country index and Netherlands, Italy, Belgium, Switzerland, and Australia are included, in addition, in the 10-country index.

Figure 2 A

5-Country NEER and REER Indices of Rupee

(1993/94 = 100)

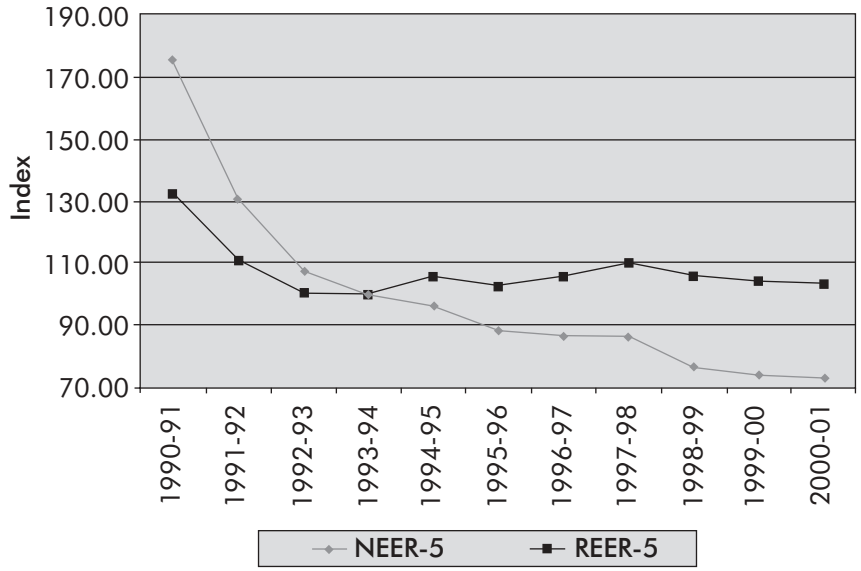
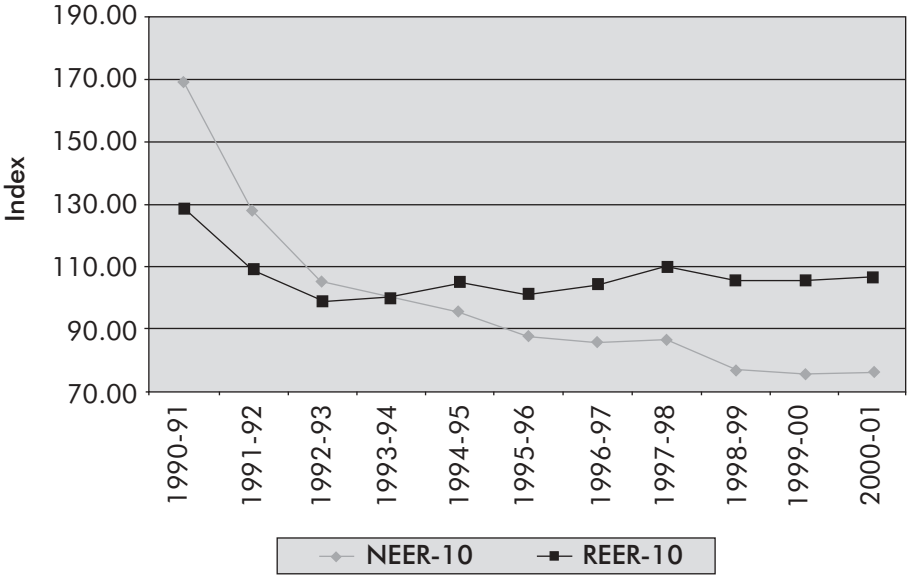


Figure 2 B

10-Country NEER and REER Indices of Rupee

(1993/94 = 100)



of the rupee. The profile of the 10-country REER suggests that the real exchange rate generally prevailed a little higher than the low point of 1993/94, but not by much (except in 1997/98 when the REER index rose 10 per cent above the 1993/94 base thanks to virtual stability in the nominal exchange rate index over two years). Occasional bouts of modest appreciation have usually been corrected. The instruments deployed by RBI to manage the float have included exchange market intervention, occasional administrative measures and monetary policy.

However, these partner country REER indices fail to capture possible deterioration in India's competitiveness in major markets relative to a number of East Asian competitors (notably, Thailand, Malaysia, Philippines and Indonesia) whose nominal exchange rates underwent substantial depreciation during the East Asian crisis of 1997/98 (see Krueger and Chinnoy (2001)). If this dimension is factored in, it is quite possible that the rupee's prevailing exchange rate in the closing years of the decade has been somewhat overvalued from the vantage point of India's export competitiveness.

On the other hand, India's exchange rate policy has achieved considerable success in damping volatility in nominal rates, especially during periods of international currency market turbulence and contagion that prevailed in 1997 and 1998.

D. Fiscal Deficits, Savings and Investment

Growth, inflation and external balance are the main **ultimate** targets of macroeconomic policy. These are the aggregate variables by which an economy's macro performance is most commonly evaluated. However, there is almost as much interest in a set of **intermediate** target variables which lie at the heart of macroeconomic policy, namely fiscal deficits, savings and investment. Each of these, especially fiscal deficits, warrant some commentary.

Fiscal Deficit

It is generally agreed (though not unanimously) that a series of large fiscal and revenue deficits is inimical to macroeconomic performance.[4] Such deficits tend to crowd out private investment, increase inflationary potential, weaken the balance of payments, render financial sector reform more difficult and impose a serious burden of adjustment on future generations. The series of high fiscal deficits in the late eighties were clearly a major cause of the 1991 economic crisis in India. Let us look at the trends since then.

[4] Rakshit (2000) is one of the few proponents of the minority view.

This is easier said than done. Obtaining a comparable and consistent series of even the Centre's fiscal deficit is bedevilled by changes in the treatment of small savings (intermediated through the budget) and significant revisions in GDP data [see Govinda Rao and Amar Nath (2000)]. Here we focus on the definition of deficit net of small savings transferred to States. The GDP series with 1993/94 base is used throughout. Furthermore, we give prominence to the consolidated deficit of the Centre and States, although we present deficit data for each separately as well. We do not deploy a public sector borrowing requirement (PSBR) concept since official Indian data are not compiled on this basis. Nor do we attempt adjustments for extrabudgetary items such as the Oil Pool Account deficit/surplus or contingent liabilities of either the Centre or the States. We recognize that the fiscal deficit in recent years would be larger if such elements were factored in.[5]

Tables 13, 14 and 15 present time series for fiscal, primary and revenue deficits of Centre-States consolidated, the Centre (separately) and States (separately), respectively. The following trends are noteworthy regarding the consolidated picture:

- The gross fiscal deficit increased significantly from an average of 7.2 per cent in the 5 years 1980-85 to 8.9 per cent in the next quinqennium, 1985-90, and even further to 9.4 per cent in 1990/91.

- There was a reduction of over 2 per cent of GDP in the gross fiscal deficit in 1991/92, brought about essentially by the Central budget of that year (Table 14) and in the context of an IMF loan programme initiated to help cope with the balance of payments crisis of 1991.

- This correction was largely negated by a very large Central government fiscal slippage (relative to budget targets) in 1993/94, timed, perhaps not coincidentally, with the end of the IMF programme in spring 1993.

- The lost ground was quickly recovered and further consolidated in the next three years, with the lowest consolidated fiscal deficit for the decade of 6.4 per cent of GDP recorded in 1996/97. This coincided with and was largely a result of the Centre's achieving its lowest deficit in the decade (indeed in 20 years) of 4.1 per cent of GDP.

- This was also the year in which the consolidated primary deficit achieved a nadir of 1.3 per cent of GDP, thanks mainly to the only year of primary surplus achieved by the Centre in the last 20 years.

[5] Strictly speaking, contingent liabilities of government should not be counted in the fiscal deficit until they became actual liabilities. However, as recent events in the financial sector have shown, the notion of contingent liabilities is elastic and undefined commitments of government support to financial institutions can quickly translate into sizable actual calls on the budget.

Table 13: Consolidated Deficits of Central and State Governments (As per cent of GDP at current market prices)

	Fiscal Deficit	Primary Deficit	Revenue Deficit
1980/81	7.5	5.4	0.4
1981/82	6.3	4.1	-0.6
1982/83	5.9	3.4	0.2
1983/84	7.3	4.8	1.1
1984/85	9.0	6.2	2.1
1985/86	8.0	4.9	1.9
1986/87	9.9	6.5	2.4
1987/88	9.2	5.5	2.9
1988/89	8.5	4.6	2.9
1989/90	8.9	4.6	3.2
1990/91	9.4	5.0	4.2
1991/92	7.0	2.3	3.4
1992/93	7.0	2.1	3.2
1993/94	8.3	3.3	4.3
1994/95	7.1	1.9	3.7
1995/96	6.5	1.6	3.2
1996/97	6.4	1.3	3.6
1997/98	7.3	2.2	4.1
1998/99	8.9	3.7	6.3
1999/2000	9.4	3.8	6.2
2000/2001 RE	9.1	3.4	5.9
		Averages	
1980/81-1983/84	**6.8**	**4.4**	**0.3**
1984/85-1990/91	**9.0**	**5.3**	**2.8**
1991/92-1996/97	**7.1**	**2.1**	**3.6**
1997/98-2000/01	**8.7**	**3.3**	**5.6**

Source: Reserve Bank of India

Note: RE: Revised Estimate

Table 14: Deficits of Central Government
(As per cent of GDP at current market prices)

	Fiscal Deficit	Primary Deficit	Revenue Deficit
1980/81	5.4	3.6	1.4
1981/82	5.2	3.3	0.2
1982/83	5.6	3.6	0.7
1983/84	6.3	4.1	1.2
1984/85	7.1	4.7	1.7
1985/86	7.9	5.2	2.1
1986/87	8.5	5.5	2.5
1987/88	7.6	4.5	2.6
1988/89	7.3	3.9	2.5
1989/90	7.3	3.7	2.4
1990/91	6.6	2.8	3.3
1991/92	4.7	0.7	2.5
1992/93	4.8	0.6	2.5
1993/94	6.4	2.2	3.8
1994/95	4.7	0.4	3.1
1995/96	4.2	0.0	2.5
1996/97	4.1	-0.2	2.4
1997/98	4.8	0.5	3.1
1998/99	5.1	0.7	3.8
1999/2000	5.4	0.7	3.5
2000/2001 P	5.3	0.8	3.8
		Averages	
1980/81-1983/84	**5.6**	**3.7**	**0.9**
1984/85-1990/91	**7.5**	**4.3**	**2.4**
1991/92-1996/97	**4.8**	**0.6**	**2.8**
1997/98-2000/01	**5.2**	**0.7**	**3.6**

Sources: *Economic Survey* (various issues) and Ministry of Finance.

Notes: 1. P: Provisional Estimate.
The Provisional Estimate for 2000-01 has been formulated using fiscal data taken from www.cga.nic.in and the provisional estimate of GDP from the CSO 'Press Note on Revised Estimates of Annual National Income and Quarterly Estimates of GDP, 2000-01'.

2. Deficits are uniformly computed net of small savings transferred to states

Table 15: Deficits of State Governments
(As per cent of GDP at current market prices)

	Fiscal Deficit	Primary Deficit	Revenue Deficit
1980/81	2.6	1.7	-1.0
1981/82	2.4	1.6	-0.8
1982/83	2.6	1.7	-0.5
1983/84	2.9	2.0	-0.1
1984/85	3.3	2.3	0.4
1985/86	2.7	1.6	-0.2
1986/87	3.0	1.7	-0.1
1987/88	3.2	1.8	0.3
1988/89	2.8	1.4	0.4
1989/90	3.2	1.7	0.8
1990/91	3.3	1.8	0.9
1991/92	2.9	1.2	0.9
1992/93	2.8	1.0	0.7
1993/94	2.4	0.6	0.4
1994/95	2.7	0.8	0.6
1995/96	2.6	0.8	0.7
1996/97	2.7	0.9	1.2
1997/98	2.9	0.9	1.1
1998/99	4.2	2.2	2.5
1999/2000	4.6	2.3	2.7
2000/2001 RE	4.3	1.9	2.4
	Averages		
1980/81-1983/84	**2.6**	**1.8**	**-0.6**
1984/85-1990/91	**3.1**	**1.8**	**0.4**
1991/92-1996/97	**2.7**	**0.9**	**0.8**
1997/98-2000/01	**4.0**	**1.8**	**2.2**

Source: RBI, *Handbook of Statistics on the Indian Economy 2000.*

Notes: 1. Data for 1999/2000 are provisional.

2. RE: Revised Estimate

- In the next three years, propelled principally by government pay increases following the Fifth Pay Commission, the consolidated fiscal deficit rose sharply to 9.4 per cent of GDP by 1999/2000, equal to the pre-crisis level of 1990/91. The small improvement in 2000/01 may prove illusory as it is based on budget estimates for States and revised estimates for the Centre, both of which could worsen in the final accounting.

- By 1999/2000 the consolidated primary deficit had almost tripled (relative to the 1996/97 nadir) to 3.8 per cent of GDP and the revenue deficit had risen sharply to 6.2 per cent of GDP.

- The consolidated revenue deficit in 1999/2000 at 6.2 per cent of GDP was almost 50 per cent higher than the pre-crisis level of 4.2 per cent in 1990/91.

- Tables 14 and 15 and Figure 3 clearly show that while trends in the consolidated deficit indicators were largely dominated by trends at the Centre up to 1996/97, the recent deterioration is due to adverse trends in both the Centre and States but predominantly in the latter.

This is not the place for a detailed decomposition of the factors explaining the trends in deficits over the decade. However, Tables 16 and 17 support several broad points :

- Revenue receipts (tax and non-tax) did not contribute to the improvement in the Centre's fiscal position between 1990/91 and 1996/97. In fact, there was some decline in the ratios to GDP. There was a particularly worrying decline in the ratio of tax revenues to GDP, which fell to its nadir in 1998/99.

- The entire improvement in the Centre's fiscal situation up to 1996/97 was due to a reduction in the expenditure to GDP ratio from 17.3 per cent in 1990/91 down to 13.9 per cent GDP in 1996/97, with most of the reduction being concentrated in capital expenditure.

- Similarly, the deterioration in the Centre's fiscal position after 1996/97 is wholly attributable to a rise in the expenditure to GDP ratio to 15.2 per cent by 1999/2000. The difference is that this increase is almost entirely because of the rise in the share of revenue expenditure to GDP, in large part to accommodate a higher bill for government pay and pensions.

- At the States level, there is no really significant trend in the fiscal deficit ratio until the sharp deterioration of 1998/99 and 1999/2000. This is largely explained by the ratcheting up of revenue expenditure, partly because of pay revisions following the Pay Commission.

Before leaving the subject of fiscal deficits, a quick glance at international comparisons of fiscal deficits reveals that India's deficit is emphatically on the high side. Out of 74 countries

Figure 3A

Fiscal Deficits of Centre, States and Consolidated (1990/91 to 1999/2000)

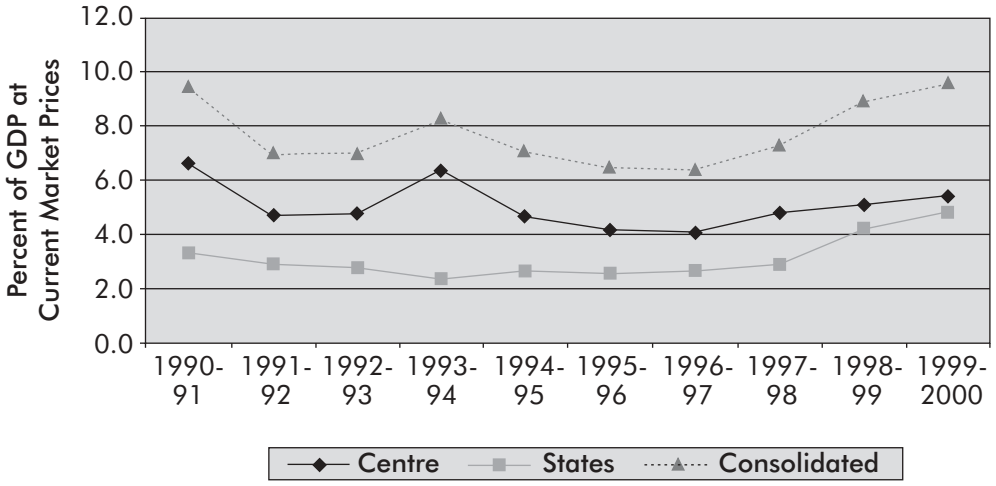


Figure 3B

Revenue Deficits of Centre, States and Consolidated (1990/81 to 1999/2000)

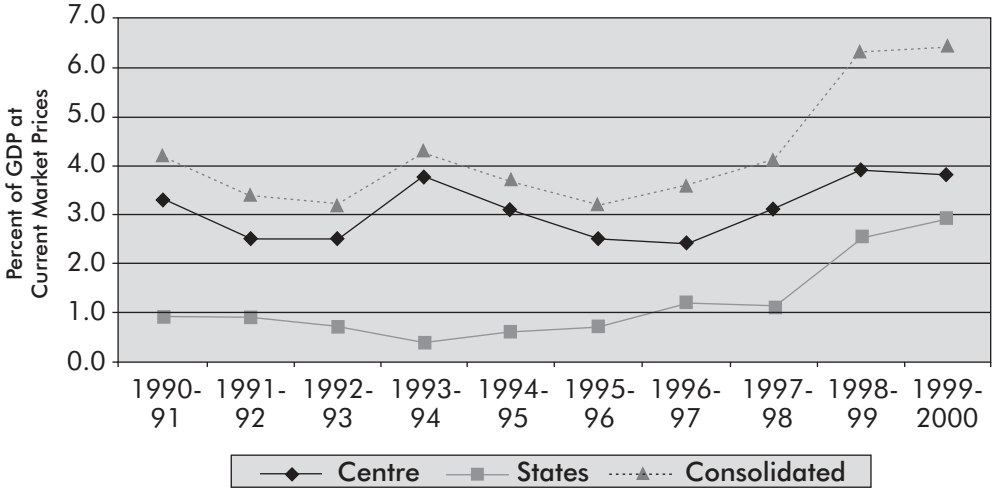


Table 16: Centre's Fiscal Position: A Summary View
(As per cent of GDP at current market prices)

	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/2000	2000/2001 P
1. Revenue Receipts	9.7	10.1	9.9	8.8	9.0	9.3	9.2	8.8	8.5	9.3	8.8
2. Tax Revenue (Net to Centre)	7.6	7.7	7.2	6.2	6.7	6.9	6.8	6.3	6.0	6.6	6.2
3. Non-Tax Revenue	2.1	2.4	2.7	2.6	2.3	2.4	2.4	2.5	2.5	2.7	2.6
4. Expenditure	17.3	16.2	15.8	15.9	14.9	14.2	13.9	14.2	14.5	15.2	14.8
5. Revenue Expenditure	12.9	12.6	12.4	12.6	12.1	11.8	11.6	11.8	12.3	12.7	12.6
6. Capital Expenditure	4.4	3.6	3.4	3.3	2.9	2.4	2.3	2.4	2.2	2.5	2.2
7. Revenue Balance (1-5)	**-3.3**	**-2.5**	**-2.5**	**-3.8**	**-3.1**	**-2.5**	**-2.4**	**-3.1**	**-3.8**	**-3.5**	**-3.8**
8. Fiscal Balance	**-6.6**	**-4.7**	**-4.8**	**-6.4**	**-4.7**	**-4.2**	**-4.1**	**-4.8**	**-5.1**	**-5.4**	**-5.3**

Sources: *Economic Survey* (various issues) and Ministry of Finance.

Note: P: Provisional Estimate.

The Provisional Estimate for 2000-01 has been formulated using fiscal data taken from www.cga.nic.in and the provisional estimate of GDP from the CSO 'Press Note on Revised Estimates of Annual National Income and Quarterly Estimates of GDP, 2000-01'.

Table 17: States' Fiscal Position: A Summary View
(As per cent of GDP at current market prices)

	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/ 2000 RE	2000/ 2001 BE
1. Revenue Receipts	11.7	12.3	12.2	12.3	12.1	11.5	11.2	11.2	10.0	11.0	11.2
2. Tax Revenue (Net to Centre)	7.8	8.1	8.1	8.0	8.0	7.8	7.8	8.0	7.3	7.7	8.1
3. Non-Tax Revenue	3.8	4.3	4.1	4.3	4.1	3.7	3.4	3.2	2.7	3.3	3.1
4. Expenditure	16.0	16.5	15.9	15.7	16.0	14.9	14.8	15.0	15.1	16.6	16.1
5. Revenue Expenditure	12.6	13.2	12.9	12.7	12.7	12.2	12.3	12.3	12.5	13.9	13.3
6. Capital Expenditure	3.4	3.3	3.1	2.9	3.3	2.7	2.5	2.7	2.6	2.8	2.8
7. Revenue Balance (1-5)	**-0.9**	**-0.9**	**-0.7**	**-0.4**	**-0.6**	**-0.7**	**-1.2**	**-1.1**	**-2.5**	**-2.9**	**-2.1**
8. Fiscal Balance	**-3.3**	**-2.9**	**-2.8**	**-2.4**	**-2.7**	**-2.6**	**-2.7**	**-2.9**	**-4.2**	**-4.8**	**-4.1**

Source: RBI, *Handbook of Statistics on Indian Economy 2000.*

Notes: RE: Revised Estimate

BE: Budget Estimate

with population more than 10 million for which the IMF has fiscal data, only 7 recorded a general government deficit higher than 7 per cent of GDP in 2000[6] (Table 18). India is one of this "magnificent seven". And of these seven, only two countries, Turkey and Zimbabwe had a higher deficit than India. The warning bells are ringing loud and clear!

Savings and Investment

As we would expect, the trends in the overall fiscal position, especially in revenue deficits, find reflection in India's public savings performance. Table 19 shows that public savings in the nineties reached its peak of 2.0 per cent of GDP in 1995/96, the year when the consolidated revenue deficit was at its lowest mark in the decade. Subsequently, as the consolidated revenue deficit nearly doubled to 6.2 per cent of GDP in 1999/2000, an increase of 3 per cent points of GDP, public savings fell by almost the same percentage of GDP, becoming negative 1.2 per cent of GDP by 1999/2000.

Table 18: International Comparison of Fiscal Deficits
(Countries with General Government Deficits of more than 7 per cent of GDP in 2000)

Country	Deficits (per cent of GDP)
Ethiopia	9.8
Ghana	8.4
India	**10.5**
Japan	8.2
Sri Lanka	7.7
Turkey	12.0
Zimbabwe	12.7

Source: IMF, World Economic Outlook (WEO) Database
Note: Only countries with population above 10 million (in 1999) are included. Of these there were 74 in the IMF database.

This sharp decline in public savings between 1995/96 and 1999/2000 fully explained the drop in the ratio of gross domestic savings from its peak of 25.1 per cent of GDP in 1995/96 to 22.3 per cent in 1999/2000. Table 19 underscores the point that private savings was at its highest in the decade in 1999/2000 at 23.5 per cent of GDP; indeed it was a little higher than in 1995/96. Furthermore, this was achieved essentially through continued buoyancy of household savings and despite some reduction in corporate savings.

[6] "General government" consolidates government fiscal accounts across all levels of government, not just Centre and States.

Table 19: Savings and Investment

(As per cent of GDP at current market prices)

	GDCF	GDS	Public Savings	Private Savings	Household Savings	Corporate Savings
Average 1985-90	22.7	20.4	2.4	18.0	16.0	2.0
1990/91	26.3	23.1	1.1	22.0	19.3	2.7
1991/92	22.5	22.0	2.0	20.1	17.0	3.1
1992/93	23.6	21.8	1.6	20.2	17.5	2.7
1993/94	23.1	22.5	0.6	21.9	18.4	3.5
1994/95	26.0	24.8	1.7	23.2	19.7	3.5
1995/96	26.8	25.1	2.0	23.0	18.1	4.9
1996/97	24.5	23.2	1.7	21.5	17.0	4.5
1997/98	25.0	23.5	1.5	22.0	17.8	4.2
1998/99	23.0	22.0	-0.8	22.8	19.1	3.7
1999/2000 Q	23.3	22.3	-1.2	23.5	19.8	3.7

Source: *Economic Survey 2000-2001*

Notes: Q: Quick Estimate
GDCF: Gross Domestic Capital Formation
GDS: Gross Domestic Saving

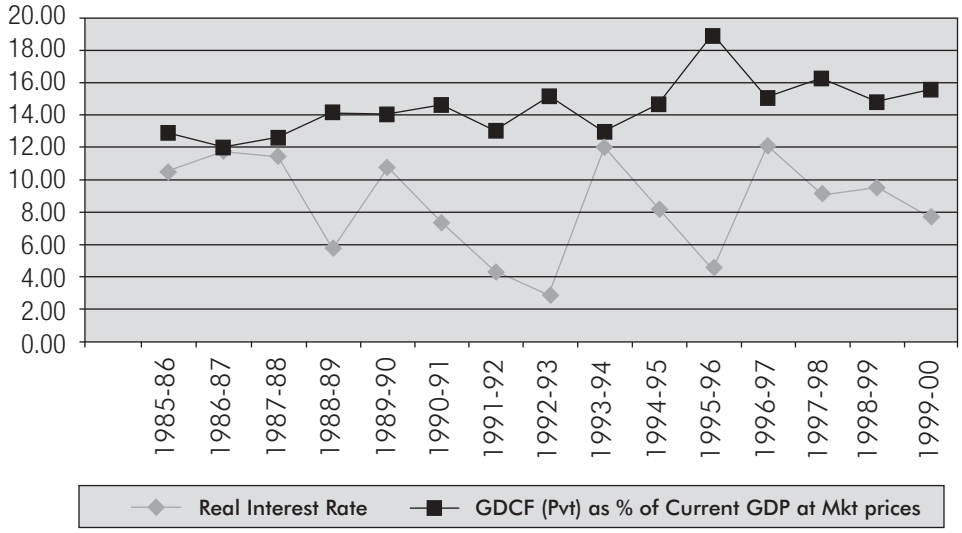
Not surprisingly, the gross investment ratio mirrors the trend in the savings ratio, attaining a peak level of 26.8 per cent of GDP in 1995/96 and then dropping by 3.5 per cent points of GDP to 23.3 per cent in 1999/2000. It is quite uncanny how the deterioration of 3 per cent points of GDP in the consolidated revenue deficit between 1995/96 and 1999/2000 is reflected almost exactly in the worsening of aggregate savings and investment ratios over the period. It would be hard to find more telling presumptive evidence of the adverse impact of fiscal deficits on savings and investment. Another way to look at this is that if the fiscal deterioration since 1995/96 had not occurred, savings and investment might well have been higher by at least 3 per cent points of GDP in 1999/2000. Indeed, the beneficial impact might well have been greater because of the effect of lower real interest rates on the buoyancy of private, especially corporate, investment and savings.

Real interest rates, that is interest rates net of anticipated inflation, are unobservable. However, proxies can be constructed based on past and current inflation data. Even so, the link between real interest rates and private investment is likely to be embedded in a more complex causal story of investment behaviour which includes financial intermediation,

Figure 4

Real Interest Rate and Gross Private Investment

(as % of GDP), 1985/86 to 1999/2000



Note : Real Interest Rate refers to the rate prevailing in the beginning of the corresponding fiscal year. It is estimated by the State Bank's prime lending rate minus the WPI inflation over the preceding year.

"animal spirits" or confidence and uncertainty. Nevertheless, Figure 4 shows some presumption of expected links between real interest rates and private investment in India over the period 1985/86 to 1999/2000. Furthermore, the high average level of real interest rates in the second half of the nineties suggests that the reductions in nominal interest rates did not keep pace with the sharp decline in inflation in this period. Whether this was due more to rising fiscal deficits or unduly slow reductions in administered interest rates (for small savings and provident funds) is hard to say.

3. MACRO POLICY RESPONSES TO EMERGING PROBLEMS

Thus far we have told the macro story in terms of usual tables and charts and with the benefit of hindsight. In this section my aim is to convey some feel for how macroeconomic policy was formulated as major economic challenges emerged and had to be dealt with.

A. The Balance of Payments Crisis of 1991

Much has been written on the 1991 balance of payments crisis and the far-reaching policy responses it triggered. Hence my treatment of this defining challenge for Indian economic policy will be brief, especially since detailed descriptions are available in contemporary official publications, notably the Government's Economic Surveys and the Reserve Bank's Annual Reports.

The deep-seated roots of the 1991 crisis in fiscal laxity, growing reliance on external borrowing, a weakening financial sector and heavy-handed regulation of trade and industry are well known. The proximate trigger was the Gulf War in the second half of 1990/91, which jacked up international oil prices (and India's oil import bill) and reduced remittance inflows from the Gulf. This happened in the context of unstable coalition politics in India in the period between the end of the Rajiv Gandhi Congress government in late 1989 and the assumption of power by the Narasimha Rao Congress government in June 1991. The increase in doubts about India's ability to manage the current account pressures triggered adverse effects in the capital account, which compounded the external sector problem. By September 1990 net inflows of NRI deposits had turned negative and access to external commercial borrowings was becoming costly and difficult. By December 1990 even short-term credit was becoming expensive and elusive. Foreign currency reserves fell sharply and dipped below $ 1 billion in January 1991.

The initial responses to the mounting external payments crisis were "traditional". They included recourse to IMF financing ($ 1.8 billion was drawn in January 1991 under the Compensatory and Contingency Financing Facility and a First Credit Tranche arrangement) and a series of measures to reduce imports, including high and rising cash margin requirements, a surcharge on petroleum product prices, a surcharge on interest on bank finance for imports and a tightening of import licensing. The severity of import compression may be gauged from the fact that in 1991/92 non-oil imports fell by 22 per cent in dollar terms (Table 9). As the *Economic Survey* (Part I, p.8) for the year observes, "Import compression had reached a stage when it threatened widespread loss of production and employment, and verged on economic chaos".

Despite these harsh measures, NRI deposit outflows accelerated in the second quarter of 1991 and foreign exchange reserves continued to fall after a brief respite from IMF-financing.

To quote the *Economic Survey* again, "By June 1991, the balance of payments crisis had become overwhelmingly a crisis of confidence – of confidence in the Government's ability to manage the balance of payments. … A default on payments, for the first time in our history had become a serious possibility in June 1991."

Faced with this prospect, the new Congress government of June 1991, with Manmohan Singh as Finance Minister, acted quickly to stabilize the macroeconomic situation and initiate long overdue structural reforms to restore economic health. In July 1991 the rupee was devalued by 18 per cent and the new Budget for 1991/92 cut the fiscal deficit by 2 per cent of GDP. The transition to a market-determined exchange rate system was begun through the induction of a system of tradable import entitlements called "Eximscrips". Industrial licensing was virtually abolished and Monopolies and Restrictive Trade Practices (MRTP) clearances dispensed with. For the first time, foreign investment up to 51 per cent equity was automatically allowed in a wide range of industries. A programme of disinvestment of government equity in public sector enterprises was begun. To accommodate a revival in imports and industry, further multilateral, balance of payments financing was secured from the IMF, World Bank and Asian Development Bank.

As noted earlier, the economy's response to this programme of stabilization and structural reform was exceptionally strong. By 1993/94, GDP was growing at nearly 6 per cent, manufacturing value added at 8.5 per cent, exports in dollar terms at 20 per cent and the boom time of the mid-nineties was yet to come. As early as March 1993 the external sector was looking good, with foreign exchange reserves nearly touching US $ 10 billion (about 5 months of imports), export growth picking up, trade and current account deficits well under control, net invisible flows recovering, non-resident deposit inflows bouncing back and foreign investment on an upswing. Since most of this data became available with a lag of two or three months (and much longer for national income), the strength of the recovery began to be apparent to us in the Finance Ministry only in the summer of 1993 and much later as far as the real economy was concerned.

B. Foreign Capital Surge of 1993-94[7]

The turnaround in the external sector was very welcome, as vindication of the economic reform policies. But it brought with it the brand new problem of a surge in foreign capital inflows.[8] For us this was a novel challenge and in responding we had to try and marry textbook prescriptions

[7] This and the later section 2.E draw heavily on Acharya (1999).

[8] Schadler, Carkovic, Bennet and Kahn (1993) provides an early survey of experience with capital surge problems in other developing countries.

with practical realities — and that is a marriage which is not made in heaven. Let me give a flavour of the key issues faced, the policy choices made and the ensuing results and lessons.

Between September 1993 and October 1994, foreign currency reserves rose by $ 12.2 billion, or about $ 1 billion per month. Another way of looking at this is that reserve build up during those 13 months amounted to about 4 per cent of GDP.

The surge in inflows of foreign exchange confronted policymakers with three major issues:

- Should the nominal exchange rate be permitted to appreciate in response to these flows or should the money be taken into foreign exchange reserves?
- How could the problem of capital surge be transformed into opportunities for liberalization of external trade and payments?
- If reserves were going to rise sharply what could monetary authorities do to limit the impact on inflation?

Let me make a few remarks on each of these issues. It is important to remember that in taking decisions we were severely handicapped by ignorance about the future trajectory of capital flows; in particular, whether the phenomenon of surge was temporary or lasting.

On the exchange rate issue, despite contrary advice from the IMF, we decided to build up reserves and not permit the nominal rupee-dollar parity to appreciate. Several reasons informed this key decision. First, in September 1993 the stock of foreign currency reserves (exclusive of gold and SDRs), at $7.6 billion (or about 3 months imports), was still quite modest and after the trauma of 1991 we certainly preferred a higher comfort level of forex reserves. Second, at that time India was still in the early months of an export boom, which we did not want to choke off through a significant nominal appreciation in the exchange rate. Third, an appreciation of the nominal exchange rate would have cheapened imports, fanned domestic protectionist sentiments and undermined the ongoing programme of trade liberalization in the form of customs tariffs reductions and progressive relaxation of quantitative restrictions on imports. Fourth, since we were uncertain about the durability of the capital surge, we were reluctant to ride the possible roller-coaster of a sharp nominal appreciation followed by an equally abrupt nominal depreciation in the currency.

To moderate the monetary impact of reserve accumulation **and** seize opportunities for liberalization and strengthening of the external sector, several initiatives were undertaken. First, imports of essential consumer goods, such as sugar, edible oils and cotton, were liberalized from quantitative restrictions. Second, India formally moved to current account convertibility in August 1994 by accepting IMF's Article VIII obligations. Third, deliberate measures were taken to

retire short-term external debt obligations. Fourth, we phased out the category of Foreign Currency Non-Resident Deposits which benefited from exchange guarantee by the Reserve Bank of India. Fifth, we partially liberalized the overseas investment policy for Indian firms.

On the monetary side, the RBI undertook partial sterlization of the foreign asset cumulation through an increase in reserve requirements and some open market sale of government securities by the RBI. Fuller sterlization operations were constrained by the lack of depth in the securities market, the sharp increase in **new** government securities because of major fiscal slippage in 1993/94 and a policy choice not to throttle monetary expansion at early stages of an investment boom.

Looking back, the results and lessons of these policy choices appear to have been reasonably favourable:

- Foreign currency reserves did get built up from 3 months import cover to over 6 months by March 1995. Foreign exchange reserves, inclusive of gold and SDRs, were even more comfortable at over 8 months of import cover.

- The export boom continued strong for three successive years between 1993/94 and 1995/96 at about 20 per cent annual growth in dollar terms.

- The environment for foreign capital inflows remained conducive, although the surge in foreign exchange reserves levelled off after 1994/95 as a strong industrial recovery fuelled high import growth and widened the current account deficit.

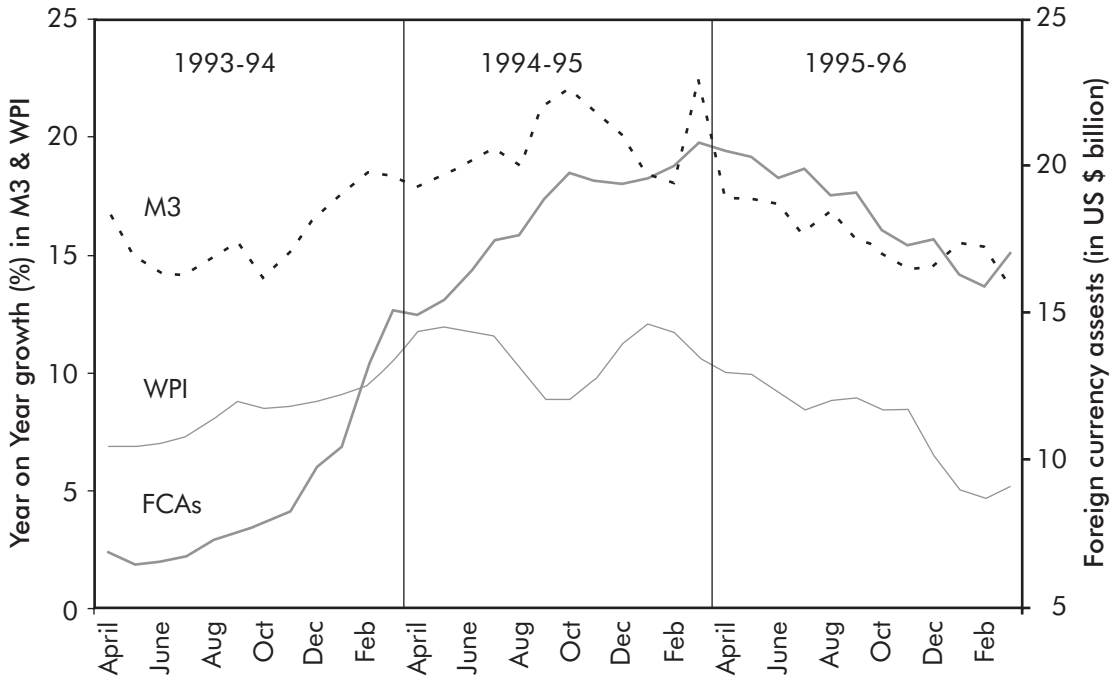
- Overall economic growth accelerated to over 7 per cent by 1994/95, led by an industrial boom.

- The reduction in short-term external debt led the way for improvements in external debt indicators.

- On the negative side, both monetary growth and inflation did accelerate in 1994/95. But by the middle of 1995 the annual growth rate of both inflation and broad money had come down to reasonable levels (Figure 5).

The overall lesson I would draw is that while a temporary capital surge does pose a significant challenge, it can be handled. Perhaps the key point is to prevent temporary phenomena from destabilizing medium-term objectives of growth in exports, investment and the economy.

Figure 5
Month-wise Trends in M3, WPI and FCAs



C. Containing Inflation

We have already noted that the years 1993/94 to 1996/97 were boom time for the Indian economy by the yardsticks of overall growth, manufacturing sector growth, export dynamism and aggregate savings and investment. The first three years of this four year period also saw a strong revival of inflation, which posed a substantial challenge for the technocrats and considerable political discomfort for the ruling party.

After averaging 13.7 per cent in 1991/92 and 10.1 per cent in 1992/93, the annual rate of WPI inflation had decelerated in the last five months of 1992/93 and dropped below 7 per cent in the initial months of 1993/94. By July the trend had reversed and inflation was rising again. By the end of the fiscal year (March, 1994) it was in double digits at 10.8 per cent. Several factors contributed to this resurgence of inflation, including the sharp increase in reserve money fuelled by the build up of net foreign assets, the cumulative effect of earlier increases in procurement prices for foodgrains, the upward revision of administered prices of foodgrains, sugar and petroleum in the final quarter of 1993/94 and the generally buoyant economic conditions. The large fiscal slippage in 1993/94 would also have contributed to monetary growth but for adroit management by the Reserve Bank of large sales of government

securities, as a consequence of which there was hardly any increase in net RBI credit to the Central Government for the year as a whole.

Inflationary pressures persisted throughout 1994/95, with growth of broad money (M3) accelerating to 22.4 per cent. WPI inflation averaged 12.5 per cent in 1994/95, with both manufactures and primary articles recording double digit price increases, suggesting the dominance of macro demand factors in propelling inflation. Government policy sought to deploy both supply and demand measures to contain price increases. In April 1994, imports of sugar and cotton were freed from import licensing and the customs duties reduced to zero. Edible vegetable oils were also freed from import restrictions at a duty of 65 per cent (subsequently reduced to 30 per cent in March 1995). On the demand side a reduction of the Centre's fiscal deficit by 1.6 per cent of GDP helped contain the accretion of fresh inflationary pressures.

Monetary policy had to contend with the competing pulls of accelerating industrial growth and resurgent inflation. In the summer of 1994 the cash reserve ratio (CRR) was raised by one per cent back up to 15 per cent and later in the year the CRR regime was extended to NRI deposits. The Reserve Bank also continued with open market sales of government securities to moderate liquidity growth. In the event these brakes on monetary growth proved insufficient, with both reserve money and broad money growing by 22 per cent. This was enough, despite the acceleration of real GDP growth to 7.3 per cent, to accommodate average WPI inflation of 12.5 per cent. With the benefit of hindsight, it might have been desirable to attempt stronger monetary counter measures to offset the liquidity growth stemming from the surge in net foreign assets. But that would have run the risk of choking off the strong industrial revival which had begun in the second half of 1993/94.

In 1995/96 the sharp edge of the trade-off between growth and inflation was blunted. The annual rate of WPI inflation slowed below double digits by June 1995, although industrial growth continued to accelerate. In August 1995, there was unexpected turbulence in the foreign exchange market after two and a half years of an unchanged rupee-dollar nominal parity. To prevent panic reactions to this unfamiliar variability the Reserve Bank intervened with substantial dollar sales. The foreign capital surge was over. Indeed 1995/96 turned out to be the only year since 1990/91 that has seen a decline in foreign exchange reserves, a fact which helped bring broad money growth down to 13.6 per cent in 1995/96 and supported the deceleration of WPI inflation throughout the year. By March 1996 the annual rate of inflation had fallen to 4.5 per cent, although the average WPI increase for the year was 8.1 per cent.

Although we did not know this at that time, generalized inflation ceased to be a significant problem for the rest of the decade, except for the shortlived "onion crisis" of mid 1998.

D. The Industrial Slowdown

Inflation ceased to be a problem in 1996/97. But the second half of the year saw a sudden deceleration in growth of industry and exports. Measured by the index of industrial production (IIP), annual growth of industrial output was comfortably in double digits in every month of 1995/96, as was the growth of manufacturing output (which accounts for nearly 80 per cent of the weight of this index). This buoyancy continued in the first half of 1996/97. Growth faltered in September 1996, recovered in October and then suddenly plummeted in the last five months of the year (Fig. 6). What is worse, industrial growth remained sluggish throughout 1997/98 and 1998/99 (Table 20). Although there was some pick up in 1999/2000, it was shortlived and ran out of steam by the end of 2000, with month-on-year-ago-month growth rates of both manufacturing

Figure 6A

Month-wise Growth in the General Index of Industrial Production

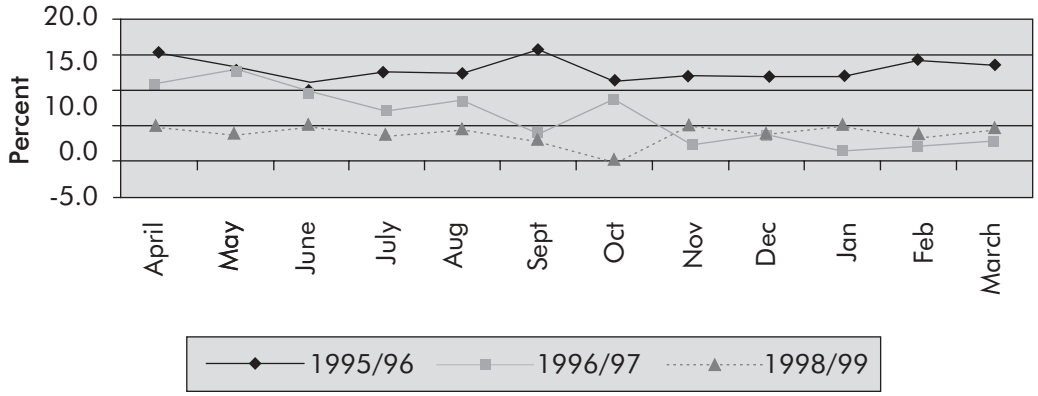


Figure 6B

Month-wise Growth in the Index of Industrial Production for Manufacturing

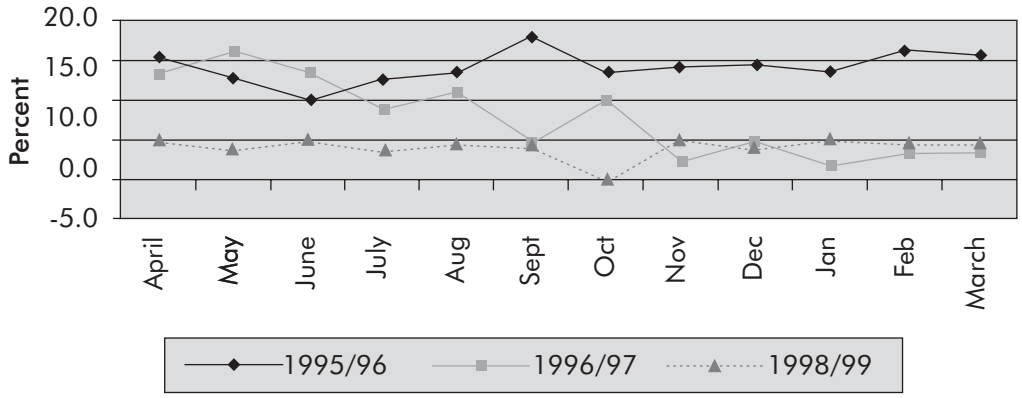


Table 20: Growth of Industry and Manufacturing
(per cent per annum)

	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/2000	2000/2001
Gross Value Added											
Industry	7.7	-0.6	4.0	5.2	10.2	11.6	7.1	4.3	3.4	6.4	6.6
Manufacturing	6.1	-3.6	4.1	8.5	12.0	14.9	9.7	1.5	2.5	6.8	6.4
Index of Production											
Industry	8.2	0.6	2.3	6.0	9.1	13.0	6.1	6.7	4.1	6.7	5.0
Manufacturing	9.0	-0.8	2.2	6.1	9.1	14.1	7.3	6.7	4.4	7.1	5.3

Source: Central Statistical Organisation

Note: The sub-sector of Construction is included in "Industry" in the value added data above but excluded in the data from the "Index of Industrial Production".

and industry collapsing to below 2 per cent by March 2001. It is quite remarkable that after August 1996 there has been only one solitary month (November 1997) in which either the overall IIP or the component for manufacturing has registered double digit growth from a year ago. Moreover, except for the welcome partial recovery of 1999/2000, there is not one instance, since September 1996, of three successive quarters registering more than 6 per cent growth.

Although there has been no lack of hypotheses, there is no definitive, available explanation for the sudden loss of industrial momentum which occurred in late 1996 and has continued to constrain Indian economic performance since. A popular contemporary explanation among many industrialists was the "credit squeeze" of 1995/96. However, this mistook the unexpected and temporary tightening of liquidity in money markets, resulting from the large dollar sales by the Reserve Bank in late 1995 in support of a suddenly wobbly rupee-dollar exchange rate, as an expression of deflationary credit policy. As the Reserve Bank's *Annual Report* for the year was at pains to point out, monetary policy was steadily loosened from November 1995 with successive reductions in the CRR, which added nearly Rs. 13,000 crore of primary liquidity in the nine months between October 1995 and June 1996. Indeed, during this period the total **net** liquidity impact of foreign exchange transactions and CRR reductions was an **injection** of primary liquidity of over Rs. 14,000 crore (Table 21). Furthermore, since non-food bank credit grew by 22.5 per cent in 1995/96, it would be hard to reconcile this with any "credit squeeze" view.

We may be on firmer ground if we seek answers to the industrial slowdown puzzle in the contemporaneous deceleration of exports and the deceleration of investment, especially industrial investment, in 1996/97. Both these sources of demand for industrial products lost their earlier dynamism for different reasons. Export growth in dollars declined from over 20 per cent in 1995/96 to only 5 per cent in 1996/97, partly because of the rupee's real appreciation between March 1993 and August 1995 and also because of a more general, Asia-wide slowing of export growth associated with loss of market share to China's surging exports. Real gross fixed investment in industry showed no increase in 1996/97 or in 1997/98 (Table 22). It declined as a ratio of GDP. The deceleration of investment may be attributable to several factors including the over-expansion of capacities in the investment boom up to 1995/96, the slump in the capital market for the new issues, the rise in real interest rates in 1995/96 because of the fall in inflation and a temporary rise in nominal interest rates and the weakening of business confidence associated with the advent of coalition governance.

The policy response to the initial industrial slowdown was mainly in the monetary arena. The CRR reductions which had begun in November 1995 were continued throughout 1996/97. Between April 1996 and January 1997, the CRR was reduced by 4 percentage points from 14 to 10 per cent. In April 1997 the Bank Rate was reactivated by linking several interest rates to it, including the rate at which RBI would provide refinance. The Bank Rate was reduced to 11 per

Table 21: Liquidity Impact of the Reserve Bank's Domestic Monetary and Exchange Rate Management

(Rupees Crore)

Year/Month	Liquidity Impact of RBI Foreign Exchange Intervention		Release of Resources through Reduction of CRR		Net Impact	
	During Month	Cumulative	During Month	Cumulative	During Month	Cumulative
1	2	3	4	5	6	7
1995						
October	-2780	-2780	0	0	-2780	-2780
November	-392	-3172	+2000	+2000	+1608	-1172
December	-199	-3371	+3050	+5050	+2851	+1679
1996						
January	-1426	-4797	+2475	+7525	+1049	+2728
February	-1198	-5995	0	+7525	-1198	+1530
March	+3247	-2748	0	+7525	+3247	+4777
April	+1192	-1556	+3300	+10825	+4492	+9269
May	+304	-1252	+1900	+12725	+2204	+11473
June	+2653	+1401	0	+12725	+2653	+14126

Source: Reserve Bank of India, *Annual Report 1995/96*

Table 22: Index of Gross Fixed Capital Formation (at 1993-94 prices), by Industry of Use

Base: 1993/94 = 100

		1993/94	1994/95	1995/96	1996/97	1997/98	1998/99
1.	**Agriculture etc.**	100.0	108.6	115.4	118.5	118.7	121.9
2.	**Industry**	100.0	113.3	152.6	152.8	151.2	164.2
	2.a. Manufacturing	100.0	110.3	177.2	183.6	178.3	194.8
	2.b. Mining and Quarrying	100.0	194.6	124.7	78.2	77.8	74.6
	2.c. Electricity, Gas and Water	100.0	91.1	86.3	94.3	91.4	104.4
	2.d. Construction	100.0	157.9	250.6	139.3	266.6	230.2
3.	**Services**	100.0	121.3	125.5	116.9	109.2	117.6
	3.a. Trade, Hotels and Restaurants	100.0	142.9	176.4	113.4	107.1	121.7
	3.b. Transport, Storage and Communication	100.0	122.1	128.1	126.7	111.4	110.4
	3.c. Financing, Insurance, Real Estate and Business Services	100.0	115.4	115.9	108.3	103.0	106.6
	3.d. Community, Social and Personal Services	100.0	122.8	120.5	119.5	117.3	144.3
4.	**Total (1+2+3)**	**100.0**	**116.1**	**138.8**	**135.7**	**131.8**	**142.2**

Source: Central Statistical Organisation

cent in April 1997, 10 per cent in June and 9 per cent in October. These reductions were partially reflected in declines in commercial bank prime lending rates. However, real interest rates probably remained high as economic agents factored in the persisting low inflation.

Government policy also sought to stimulate industrial investment through substantial reduction in rates of corporate and personal income taxes in the February 1997 budget. Although this "dream budget" was delightedly received by the stock markets, the euphoria was cut short by the political crisis within the United Front government in March and April, which brought about a change in Prime Ministers. Despite the easing of monetary policy, the stimulus of tax policy and the resurgence of fiscal deficits (after September 1997) industrial investment and production remained sluggish. Quite possibly, the slowdown in structural reforms and the rise in political uncertainty were taking a significant toll of investment intentions. By the middle of 1997 the Asian crisis had begun and the international environment also became a source of uncertainty and turbulence.

E. East Asian Crisis and Contagion

In July 1997 the Thai baht depreciated massively and ushered in the East Asian financial crisis which had worldwide repercussions. The literature on the Asian crisis is voluminous.[9] My limited focus here is on the question: why didn't India catch the East Asian flu and what was the role of macro policy in achieving this outcome? The question is also relevant for other South Asian countries since if India had succumbed to the contagion, then her immediate neighbours may well have found it impossible to ward off serious infection.

At one level, the experience of 1997-99 has underlined the weaknesses in the international financial architecture in coping with sudden panics in international financial markets and massive swings in cross-border flows of mobile capital. While we should work jointly to strengthen the international financial architecture, here the focus is limited to some of the lessons of the East Asian crisis for **national** economic management. To my mind, the key lessons include:

- Avoid high levels of short-term external debt. This also assumes fairly complete knowledge of the country's total (including short-term) external liabilities, information on which was found to be woefully incomplete in several East Asian countries at the time of crisis.

[9] This still growing literature is closely linked to the equally large and expanding literature on the "new international financial architecture." Among interesting pieces on the Asian crisis see Bhagwati (1998), Fischer (1998) and Rangarajan and Prasad (1999). On financial architecture Ahluwalia (1999) provides an excellent survey of the issues from the Indian perspective. Eichengreen (1999) contains a more general treatment.

- Avoid sustained and substantial appreciation in the real effective exchange rate of the country. In some East Asian countries, the combination of a fixed nominal parity with the dollar, combined with high capital inflows, had laid the basis for the ensuing crisis.

- Avoid massive expenditure of forex reserves in support of unrealistic exchange rate levels.

- Seek to strengthen the domestic financial sector in terms of capital adequacy, prudential norms, disclosure requirements and a well-functioning regulatory environment.

- Consider prudential limits for exposure of the banking system to speculative markets, such as real estate and stocks, where assets bubbles can build up and deflate with severe consequences for the financial system.

- Keep close watch on the size of the current account deficit in relation to growth of current receipts through exports and invisibles.

- Tread the path towards capital account convertibility cautiously with due regard to the strength of the domestic fiscal and financial situations.

If we accept these as some of the major lessons of the East Asian crisis for developing countries, it is noteworthy that Indian policy appears to have internalized some of these prudential lessons **before** the onset of the East Asian financial conflagration in mid-1997. These lessons were drawn largely from India's own external sector crisis in 1991, some of which were reinforced by the Mexican peso crisis of 1994/95. Let me list some India-specific points:

- Short-term external debt was, as we have seen, under tight control and at very modest levels.

- The market determined exchange rate system had been managed in a moderately flexible manner in the four years preceding mid-1997. This practice continued during the period of maximum stress (from the East Asian flu) from August 1997 to December 1998. The rupee-dollar parity depreciated by 16 per cent during this period.

- There was some use of foreign currency reserves, which reduced holdings from $ 26.4 billion in August 1997 to $ 23.9 billion in June 1998. However, by December 1998 the reserves level had recovered to $ 27 billion.

- A series of financial sector reforms were undertaken in the period 1992-1997 which had helped to strengthen the financial sector.

- Prudential limits on exposure of financial intermediaries to stocks and real estate were quite stiff and helped to reduce systemic risks.

- Although export growth had already slowed in 1996/97, the current account deficit remained well within manageable limits.

- While foreign direct and portfolio investors in India and external lenders enjoyed complete convertibility, resident firms and individuals were subject to strict capital controls. In June 1997, an official Expert Committee (Tarapore Committee) came out with a report recommending a phased implementation of capital account convertibility. Its timing, virtually coincident with the onset of the East Asian crisis, meant that the recommendations would be treated with more than the normal dose of official caution!

Despite these very favourable circumstances, India did not remain completely immune from the gales of financial turbulence roaring through Asian markets. Between August 1997 and January 1998, the foreign exchange market was subject to repeated bouts of speculative pressure. In both spot and forward markets, there were persistent excess demand conditions and considerable volatility. To give just one indicator of persistent pressure, outstanding forward sales of foreign currencies by the Reserve Bank surged from negligible levels in early August 1997 to over $ 3 billion by January 1998. Despite such massive intervention in the forward market, the six-month forward premium rose from 3.6 per cent in July 1997 to 14.6 per cent in February 1998, before declining thereafter.

To cope with this spillover of East Asian contagion (to some extent compounded by domestic political uncertainty) monetary authorities deployed a range of measures, which included:

- Substantial intervention by RBI in both spot and forward exchange markets to curb excessive volatility. Basically, the RBI conducted dollar sales and swap operations in these markets to put brakes on the depreciation of the rupee. The operation was fraught with substantial uncertainty and tension and required the "hands on" engagement of the RBI Governor in daily operational decisions.

- Exchange rate flexibility to the tune of 8 per cent depreciation between July 1997 and February 1998, with respect to the US dollar. Such flexibility was essential to the success of the overall effort to contain the risks of destabilization. But it was not easy to achieve in the background of considerable discomfort at political levels with nominal exchange rate depreciation.

- A phased tightening of monetary policy from November 1997, culminating in a mid-January 1998 package which raised the Bank Rate and the fixed repo rate by 2 per cent, increased reserve requirements (CRR) and raised the interest surcharge on bank credit for imports.

These measures had a salutary effect. By March 1998 foreign currency reserves had climbed back to $ 26 billion, the six month forward rate had dropped below 10 per cent, and RBI's outstanding forward sales of foreign currencies had been rolled back below $ 1.8 billion. With calm restored in forex markets, the Reserve Bank quickly loosened the monetary policy reins, reducing the Bank Rate and the CRR to pre-January levels of 9 and 10 per cent respectively and phasing down the short-term fixed repo rate to 5 per cent by mid-June.

F. Pay Commission and the Resurgence of Fiscal Pressure

The Fifth Pay Commission (FPC) had presented its report in 1996. Negotiations between Central government employee unions/associations and the government dragged on for many months. The main decisions were finally taken by the United Front (Gujral) government in September 1997 and entailed pay increases in excess of those recommended by the FPC for the overwhelming majority of government employees. A normally sober observer commented "There is hardly any parallel to this fiscal profligacy in the last 50 years since independence" [Godbole (1997)]. The budgetary implications for the Central government were very substantial and only became fully apparent by 1999/2000 as the follow-up decisions for various employee categories and payment of arrears were finalized and the pension implications became clearer. As in the past, State governments also felt obliged to follow suit and it took a little time for the wage and pension increases to be reflected in budgetary data.

Table 23 presents available time series on employee compensation and pension payments at Central and State (including Union Territories) level. The sharp increases in all the relevant aggregates after 1996/97 are readily apparent. However, it would not be correct to attribute the entire increase to decisions on the FPC Report, since the data show modest upward trends in the years leading up to 1996/97. It is virtually impossible to isolate the FPC-related increases in the **absolute** numbers post 1996/97. But if we focus on the trends as ratios of current price GDP, the stability in the ratios up to 1996/97 and sizable increases thereafter become obvious (Table 24). Given the earlier stability, it is a reasonable approximation to attribute the increases in the **ratios** between 1996/97 and 1999/2000 to FPC effects.

Thus the 40 per cent increase in the ratio of employee compensation to GDP from 1.6 per cent in 1996/97 to 2.2 per cent in 1999/2000 for the Centre accounts for well over half the deterioration in the revenue deficit from 2.4 to 3.5 per cent of GDP over this period and for a little under half of the widening in the fiscal deficit from 4.1 to 5.4 per cent of GDP.[10] While, quite obviously, many other things were going on during this period in the Centre's fiscal trends, the FPC effects were clearly crucial.

[10] It is a little surprising that the increase in these ratios is not higher, since the Pay Commission decisions increased pay for most categories of employees by 40 per cent (or higher). Yet, net of pension payments, the data in Tables 24 suggests that the wage bill ratio (to GDP) increased by only about 25 per cent.

Table 23: Compensation of Employees
(Rupees Crore)

	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/2000
Central Government							
Compensation of Employees	**14530**	**16250**	**19134**	**21884**	**29084**	**36845**	**43568**
(of which pensions)	(3338)	(3643)	(4277)	(5094)	(6881)	(10057)	(14286)
State Government and Union Territories							
Compensation of Employees	**33793**	**37861**	**44576**	**51548**	**60664**	**75046**	**89813**
(of which pensions)	(5107)	(6146)	(7813)	(9827)	(11599)	(16166)	(22295*)
Centre, States and Union Territories							
Compensation of Employees	**48323**	**54111**	**63710**	**73432**	**89748**	**111891**	**133381**
(of which pensions)	(8445)	(9789)	(12090)	(14921)	(18480)	(26223)	(36581)

Sources: Data for compensation of employees (including pensions) are from CSO, pension data for Centre are from *Expenditure Budget 2001/02 Volume I* (Annexure 3.2) and for States from RBI.

Note: * Revised Estimate

Table 24: Employee Compensation and Deficits
(as per cent of GDP at current market prices)

	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/2000
Central Government							
Compensation of Employees	**1.7**	**1.6**	**1.6**	**1.6**	**1.9**	**2.1**	**2.2**
(of which pensions)	(0.4)	(0.4)	(0.4)	(0.4)	(0.5)	(0.6)	(0.7)
Revenue Deficit	3.8	3.1	2.5	2.4	3.1	3.8	3.5
Fiscal Deficit	**6.4**	**4.7**	**4.2**	**4.1**	**4.8**	**5.1**	**5.4**
State Governments and Union Territories							
Compensation of Employees	**3.9**	**3.7**	**3.8**	**3.8**	**4.0**	**4.3**	**4.6**
(of which pensions)	(0.6)	(0.6)	(0.7)	(0.7)	(0.8)	(0.9)	(1.1*)
Revenue Deficit	0.4	0.6	0.7	1.2	1.1	2.5	2.7
Fiscal Deficit	**2.4**	**2.7**	**2.7**	**2.7**	**2.9**	**4.2**	**4.6**
Centre, States and Union Territories							
Compensation of Employees	**5.6**	**5.3**	**5.4**	**5.4**	**5.9**	**6.4**	**6.8**
(of which pensions)	(1.0)	(1.0)	(1.0)	(1.1)	(1.2)	(1.5)	(1.9)
Revenue Deficit	4.3	3.7	3.2	3.6	4.1	6.3	6.2
Fiscal Deficit	**8.3**	**7.1**	**6.5**	**6.4**	**7.3**	**8.9**	**9.4**

Source: Table 23.

Note: * Revised Estimate

At the State level too, the ratio of employee compensation to GDP stays virtually unchanged at 3.8 per cent of GDP between 1993/94 and 1996/97 and then rises to 4.6 per cent in 1999/2000, a sizable increase of 0.8 per cent of GDP. However, since other factors were also weakening State finances during this period, this increase constitutes "only" about half of the worsening in the State's revenue deficit and over 40 per cent of the widening in the fiscal deficit over these three years.

Taking both levels of government together, Table 24 shows a large increase in the employee compensation ratio from 5.4 per cent of GDP in 1996/97 to 6.8 per cent in 1999/2000. This increase of 1.4 per cent points of GDP accounts for over half of the worsening in the consolidated revenue deficit and for 47 per cent of the increase in the consolidated fiscal deficit over these three years. Whatever else may have been happening, the FPC effects constitute the single largest adverse shock to India's public finances in the last decade, with corresponding negative consequences for aggregate savings and investment in the economy.

Given the magnitude of the fiscal shock, attempts to make offsetting policy corrections were surprisingly modest at both Central and State levels. At the Centre, the government raised the special duty on customs (imposed in the previous budget) from 2 to 5 per cent, increased the foreign travel tax and sought to reduce by 5 per cent expenditure on items other than plan, defence, interest, salaries and transfers to States. The disinvestment target for the year was also raised. In the event, the quantitative yield from these temporary measures proved modest and did not prevent slippage in the fiscal deficit target for the year. The relative inaction at all governmental levels may have been due partly to the temporally extended unwinding of the budgetary implications, spread as they were over different governments at the Centre and (some) States, and partly to serious underestimation of the implications for major components like pensions. The inevitability of the pay and pension increases, once the basic decisions had been made in 1997, may have also played a role.

We have dwelt on the resurgence of fiscal pressure in recent years, with the consolidated fiscal deficit climbing back up to the pre-crisis height of 9.4 per cent of GDP by 1999/2000 and the consolidated revenue deficit scaling new peaks above 6 per cent of GDP. One interesting issue these disturbing new trends have posed is : why hasn't this marked deterioration in the fiscal balance triggered pressure on the external accounts in the way that happened in the late 1980s? Despite the widening of the fiscal deficit, the current account deficit in the balance of payments has remained at or below one per cent of GDP in the last three years. What explains this lack of correlation between the two deficits?

The answer to this apparent conundrum may lie with the anemic behaviour of investment in relation to savings. While high revenue deficits and low public savings have pulled down the

rate of aggregate savings in the economy, aggregate investment has also fallen substantially from its peak in 1995/96. Compared to 1990/91, both public and private investment were significantly lower in 1999/2000 and 2000/01 as proportions of GDP, entailing a relatively small excess of domestic investment over domestic savings (equal, in *ex-post* accounting, to the size of the current account deficits). The uncomfortable obverse of this explanation is that if investment rates recover (or domestic savings fall further) we could well see a resurgence in external account deficits.

G. Economic Sanctions, Onions and Oil Prices

As we saw earlier, an orthodox monetary squeeze in January 1998 had successfully restored a semblance of normalcy to the turbulent forex market by March. But the Asian crisis had not gone away. It continued to cloud the international economic environment throughout 1998 and posed further challenges to Indian macroeconomic management.

The somewhat delicate situation in the forex market was complicated further when the new BJP-centred coalition government of March 1998 conducted nuclear tests in May, provoking economic sanctions by several industrial countries, especially the United States. The main economic content of these sanctions was the cessation of fresh commitments of loans and credits from the World Bank and the Asian Development Bank and a number of bilateral donors. Since it usually takes more than a year for commitments to translate into disbursements, the direct, short-term impact of these measures on flows of external assistance was negligible. But the sanctions triggered a downgrade of India by some international credit agencies and worsened an already difficult climate for private capital flows, leading to significant net outflows by foreign institutional investors (FII) in the summer of 1998. Despite a reversal of trends later in the year, net foreign portfolio investment turned negative in 1998/99 for the first and only year in the nineties (Table 9). Flows of direct investment also dropped by more than a billion dollars from their 1997/98 peak of $ 3.6 billion. As a result, total foreign investment in India slumped to $ 2.4 billion, less than half of the $ 5.4 billion received in the previous year.

The reversal of FII inflows and the downgrade in credit ratings heightened uncertainty and reignited pressures on the rupee. The Reserve Bank countered with a combination of dollar sales and allowing limited market-driven depreciation of the rupee-dollar parity. Between May and July the RBI sold $ 2.5 billion to support the rupee. Despite market intervention of this magnitude the rupee's exchange rate slipped from 39.7 per dollar at the beginning of May to 42.4 in mid-June. Thereafter, the forex market stabilized for a couple of months. In mid-August the contagion from the Asian crisis swept Russia into a severe financial crisis. This event renewed speculative pressure on the rupee. As in January, the RBI responded with its third line of defence – monetary tightening. The CRR was raised by one per cent to 11 per cent and the short-term fixed repo rate was hiked from 5 to 8 per cent. In order to focus the tightening of liquidity at the short end of the

market and minimize any hardening of rates and credit availability in longer-term funds (against a backdrop of sluggish industrial investment), the Bank Rate was left unchanged.

As in January, the monetary squeeze calmed the forex market. Matters were greatly helped by the successful fruition of the government's Resurgent India Bond (RIB) initiative, announced in its June budget. Recognizing the emerging confidence problem in external finance, the government had authorized the scheme of 5 year RIBs floated by the State Bank of India (SBI) and subscribed by NRIs. The dollar interest rate of 7.75 per cent was fairly competitive with quasi-sovereign offerings by other emerging market economies with comparable credit ratings. To protect SBI finances from exchange risk, the bulk of it was borne by the government and RBI. The RIB initiative was successful. It raised $ 4.2 billion at a crucial time when access to regular international market channels had become expensive and confidence in India's external finances was at some risk. The successful RIB flotation in August/September quickly raised foreign exchange reserves to above April levels and restored substantially confidence in India's ability to manage her external finances in a difficult situation.

The first half of 1998/99 was a testing time for macro managers. Against a background of unrelenting pressure on external finances, there was an unexpected flare up in food prices, especially onions and potatoes, in the period May to November 1998. In September onion prices were 400 per cent higher than a year ago and potatoes prices were up 250 per cent ! Prices of some pulses and edible oils also rose. By November 1998 the CPI(IW) had risen by an unprecedented 20 per cent (from a year ago) and the food component of the index was 25 per cent higher. The political discomfort from this sudden spike in vegetable prices was very considerable and spawned various administrative efforts to counter the unexpected supply shortfalls in commodities in which the government did not normally command any capacity to manage supply. Partly thanks to these efforts but mainly because of market induced restoration of normalcy in supply/demand balances, the surge in food prices subsided quickly. By March 1999 the food component of the CPI(IW) showed only 7 per cent annual inflation. Indeed, the annual inflation rate as per the WPI barely exceeded 7 per cent in the worst months of July and November 1998 before subsiding to 5 per cent by March 1999.

The very sharp increase in consumer prices and the modest rise in the WPI posed a difficult conundrum for monetary policy in the autumn of 1998. While the price trends called for a further tightening of monetary policy, the continuing slack in industrial production and investment pointed towards easing of credit conditions. The RBI correctly diagnosed the supply shock driven price rise as temporary and largely self-correcting and therefore refrained from tightening monetary policy further. The deceleration of inflation by March 1999 vindicated this judgement and permitted reduction of the Bank Rate to 10 per cent and the fixed repo rate to 6 per cent. The CRR was backed down to 10 per cent in early May.

Looking back, it is clear that the broadly successful management of external sector pressures in 1997/1998 and 1998/99 was greatly aided by the largely fortuitous coincidence of low international prices for oil. Oil prices declined throughout 1997 and 1998 from a previous peak above $ 20 per barrel in late 1996 to a little over $ 10 per barrel at the end of 1998. As a result, India's oil import bill declined from over $ 10 billion in 1996/97 to $ 8.2 billion in 1997/98 and $ 6.4 billion in 1998/99. The extra leeway of nearly $ 4 billion in 1998/99 was probably crucial to the successful management of the problems of contagion, sanctions and confidence during the year.

This good fortune changed in 1999. For a variety of largely unpredicted reasons oil prices rebounded vigorously in 1999 and continued to surge upwards throughout 2000, rising above $ 30 per barrel in the latter half of the year. The implications for India's oil import bill were equally dramatic. Oil imports rose above $ 10 billion in 1999/2000 and to nearly $16 billion in 2000/01. Compared to 1998/99 India was paying $800 million dollars per month **extra** in 2000/01 for its oil imports. As these payments mounted inexorably, foreign exchange reserves dropped from $ 38 billion at the beginning of the fiscal year to $ 35 billion in October and the rupee depreciated from Rs. 43.3 per dollar to Rs. 46.4 per dollar. The problem of waning confidence feeding speculative pressures again surfaced in the summer of 2000 .

Faced by this rising oil import bill the government followed a three-pronged strategy to deal with the problem. First, to prevent oil import payment pressures from being transmitted into a large, additional fiscal problem via Oil Pool Account deficits, the administered prices of petroleum products were revised upwards in three tranches within a twelve month period : in October 1999, in March 2000 and in September 2000. On two of these occasions the government courageously broke a long-standing taboo and raised the price of kerosene. Second, recognizing that increases in domestic prices of oil were unlikely to bring about the necessary adjustment in the trade deficit (essentially because of the low price- inelasticity of oil demand), and that the adjustment would have to come from other imports and exports, the authorities did not resist unduly the market-driven depreciation of the exchange rate that occurred between April and November. Third, since adjustment takes time, the government mobilized exceptional balance of payments financing to generate the necessary "breathing space" and tackle the emerging confidence problem. The means deployed was the India Millennium Deposit (IMD) scheme, which closely paralleled the earlier RIB venture. Launched in late October and closing in early November, the IMD scheme mobilized $ 5.5 billion of five year funds at 8.5 per cent interest in dollars. Although deemed unduly expensive by some observers, these resources certainly solved the confidence problem and helped take foreign exchange reserves to a new peak of $ 42.4 billion by the end of 2000/01. Aside from the expense, the IMD issue may have been "too successful" in the sense that it prevented the rupee from depreciating enough to facilitate the economy's adjustment to higher oil prices (and to the lifting of the final tranches of quantitative restrictions on imports that occurred in 2000 and 2001).

4. INSTITUTIONAL REFORMS IN MACROECONOMIC POLICY

A. Fiscal Policy

Perhaps the most significant advance in the methodology of fiscal policy in India that occurred during the decade was in the institutionalization of the concept of "fiscal deficit". In retrospect, it is quite remarkable that a dozen years ago the concept of "fiscal deficit" was notable by its absence from official government documents such as Budgets and *Economic Surveys*. The concept first appears in the 1989/90 Survey, published in February 1990, which stated (p.75):

"The Central government budget deficit as conventionally defined has fluctuated around 2 per cent of GDP in recent years …. The conventional budgetary deficit does not indicate the full measure of overall deficit and the Government's draft on domestic savings and dependence on external savings. A fuller measure of the overall deficit, which is commonly used internationally is the difference between government expenditure and net lending on the one hand and current revenue and grants on the other. Measured thus, the overall deficit of the Central Government increased from 6.1 per cent of GDP in 1980/81 to 8.2 per cent in 1988/89 (R.E.)."

The rest, as they say, is history. Within a year or two, tables on fiscal deficit and attendant concepts had become routine in Budgets and Surveys; the fiscal deficit had become the focus of the macro dimension of fiscal policy in all relevant contexts and had firmly supplanted the earlier, more limited concept of budget deficit. This transition was probably accelerated by the IMF programmes of the early 1990s which naturally focussed heavily on fiscal consolidation.

A second important change in the conduct of fiscal policy was in the shift of Central government borrowings to market interest rates. Before 1991, the increases in government borrowing programmes were accommodated through hikes in the statutory liquidity ratio (SLR) imposed on commercial banks. By 1990 the SLR had risen steeply to 39 per cent. This captive market facilitated placement of government securities at sub-market rates and imposed a corresponding tax on financial intermediation by the banks. From 1992/93 government borrowing shifted to market interest rates (usually determined by auction of government paper) and the SLR was progressively reduced. While this change did not help the fiscal accounts, it was an important component of financial sector reform. Government borrowing at market rates was also an essential prerequisite for the development of a healthy secondary market in government securities, which, in turn, was a necessary precondition for the evolution of monetary policy.

In 1994 the Central government undertook a major initiative to curb its hitherto unrestricted access to the Reserve Bank to finance its deficits. Before 1994 the government could unilaterally access RBI financing through the device of "ad hoc" Treasury Bills. What is more, throughout the eighties the government routinely used this route to meet its requirements for funds and such monetization of the deficit became the principal propellant for the expansion of reserve money. On average, changes in net RBI credit to the Central government accounted for 93 per cent of the variations in reserve money (Rangarajan, 1995). Recognizing that such automatic monetization of the deficit undermined severely the scope for discretionary monetary policy, the government formalized an agreement with the RBI in September 1994 to phase out "ad hoc" Treasury Bills over a three year period. The phase out duly occurred and at the end of the three years a new system of ways and means advances was instituted, which placed clear limitations on the government's automatic access to RBI financing. Knowledgeable observers have judged this delinking of budget deficits from their monetization as a landmark event in India's fiscal/monetary institutional history.[11]

Earlier, we assessed the enormous fiscal shock from the decisions taken on the Fifth Pay Commission . One unexpected consequence has been the institutionalization of greater Central government involvement in the fiscal reforms of States. Against a background of extreme pressure on State finances the National Development Council met in February 1999 and mandated the Union Finance Minister and a representative group of State Chief Ministers and Finance Ministers to evolve a medium-term strategy to address the fiscal problem of States. This led to advance financial assistance to States (over and beyond assistance through the normal channels of centre-state financial relations such as tax devolution and Central assistance for State plans) in support of agreed programmes of medium-term fiscal reform.[12] This innovation of conditional Central assistance for State fiscal reforms was later supported by the recommendations of the Eleventh Finance Commission.

Finally, in December 2000 the Fiscal Responsibility and Budget Management (FRBM) Bill was introduced in Parliament. The Bill is based on the work of an expert committee and draws on the international experience with fiscal responsibility legislation. If enacted in its present form, it would have profound implications for the conduct of India's fiscal policy. Amongst its major features are :

- Reduction of the Centre's revenue deficit to nil by March 2006;
- Reduction of the fiscal deficit to 2 per cent of GDP by March 2006;

[11] Reddy (1997) provides an illuminating analysis of the implications.
[12] For details see *Economic Survey 1999/2000*, p.34 and *Economic Survey 2000/01*, pp 46-47

- Reduction of the ratio of Central government liabilities to GDP to 50 per cent by March 2011;

- Quarterly review of fiscal trends (in relation to budget) placed before Parliament;

- Proportionate cuts in expenditure when there is shortfall of revenue or excess of expenditure over budget targets.

Basically the FRBM is an effort to institutionalize the medium-term process of fiscal consolidation through a legislative mandate. It will be interesting to see if it receives Parliament's approval in its present form.

Looking ahead, a remarkable new document has charted the desirable course of reform in institutions and procedures for fiscal policy. This is the (Ahluwalia) *Report of the Advisory Group on Fiscal Transparency* (Reserve Bank, 2001b).

B. Monetary Policy

The reforms in the institutional framework and operational procedures for monetary policy in the nineties were even more far-reaching than in the case of fiscal policy. Prior to 1991, the unrelenting series of high fiscal deficits, the system of administered interest rates and automatic monetization of budget deficits (through "ad hocs") had placed monetary and financial policy in an unsustainable bind. The foremost authority of the period noted (Rangarajan, 1994) :

"Until the overall reform process was initiated in 1991, the basic goal of monetary policy was to neutralize the impact of the fiscal deficits…. Monetary management took the form of compensatory increases in the cash reserve ratio (CRR) for banks, controls on growth of commercial credit (mainly to the enterprises sector) and adjustments of administered interest rates."

Basically, banks were obliged to fund most of the large fiscal deficits at sub-market rates to meet the high and rising SLRs imposed, while the remainder was necessarily accommodated by the RBI through the medium of "ad hoc" Treasury Bills, which the government could (and did) issue at will. The deleterious results of this system included an unsustainably high tax on financial intermediation (pre-emption through reserve requirements cumulated to 63.5 per cent of new bank deposits by 1991!), suppression of the allocative role of interest rates in money and credit markets, stunted development of these markets and severe constraints on discretionary monetary policy.

Against this background, the key themes in the reform of the institutional framework and operational procedures for monetary policy have been:

- Phased reduction in the reserve requirement ratios of CRR and SLR;
- Phased liberalization of interest rates;
- Elimination of direct credit controls;
- Development of money and financial markets, beginning with those for government securities and bills;
- Restraints on automatic monetization of budget deficits;
- Activation of open market operations (OMO) by RBI to influence liquidity;
- Policy focus on interlinkages across various segments of financial markets;
- Restoration of the Bank Rate as a signalling instrument for monetary policy

These broad themes have been pursued with considerable success throughout the decade. Here I will confine my remarks to a few salient features.

The shift of new Central government borrowing to market interest rates (through auctions) from April 1992 was a crucial prerequisite for the development of government securities markets, without which RBI could not conduct open market operations. This shift was successful in placing all primary issues in the market without significant devolvement on RBI, despite a substantial reduction in the SLR. The demand for government paper was obviously interest-elastic. Demand may also have been buttressed by the zero-risk rating of government paper in the new Basle-type capital adequacy norms that were being phased in for banks as part of a broader effort to strengthen prudential and supervisory norms in the financial sector. The need for undertaking OMO arose very soon with the surge in foreign capital inflow in 1993/94, when RBI sold more than Rs. 9000 crore of government securities in the secondary market to moderate this liquidity surge. Thus, within two years of moving away from the "ancien regime", RBI was conducting successful OMO policy in the secondary market for government securities.

To buttress OMO operations for liquidity management RBI also developed repos (repurchase agreements) between RBI and commercial banks. The first such auction of repos, collateralized by central government securities, occurred in December 1992. Repos have focussed on the short-end of the market with periods ranging from overnight to 14 days. Normally, repos mop up liquidity. Over time "reverse repos" have also evolved to allow the RBI to inject short-term liquidity into the market. The use of OMO and repos developed over the course of the decade with the RBI expressing a clear preference for these 'indirect' instruments of monetary management over 'direct' changes in reserve requirements (CRR). The stated medium-term policy

on the CRR was to reduce it, since it was viewed as a tax on financial intermediation. Thus, in 1996/97 the CRR was reduced by 4 per cent points from 14 to 10 per cent; but to moderate the resulting expansion in liquidity, OMO was deployed to mop up more than Rs. 10,000 crore. On occasion, such as January 1998 and August 1998, the RBI has felt compelled to temporarily increase the CRR to deal with special contingencies.[13] But the general preference has been for a secular decline in the CRR, currently ruling at 7.5 per cent compared to 15 per cent plus 10 per cent incremental CRR in 1991.

As OMO and repos have come to the fore as preferred instruments of monetary control, so has the once dormant Bank Rate. By 1997 interest rates had been substantially liberalized. In April 1997 the Bank Rate was reactivated as a signalling rate, with several key rates, including the RBI general refinance rate, linked to it. In 1998 and 1999 the Bank Rate was effectively deployed to signal the stance of monetary policy and influence prime lending rates of banks. By the spring of 1999 monetary policy had evolved to establish an informal corridor for short-term interest rates, with the fixed repo rate providing the floor and the Bank Rate the ceiling (Reddy, 1999).

By April 1999 the RBI's general refinance window had been replaced by a collateralized lending facility (CLF) in the context of the new interim liquidity adjustment facility (ILAF). Access to the CLF, at the Bank Rate, was limited by a transparent, quantitative formula. Beyond that there was further access to an additional CLF at 2 per cent above the Bank Rate. The LAF operations have evolved further with repo and reverse repo auctions setting a *de facto* corridor for money market rates. Together with outright OMO in government securities and Treasury Bills the RBI now marshalls an effective array of instruments to influence liquidity and short-term interest rates. As Reddy (2001) observes:

"With the announcement of the second phase of LAF, the RBI has moved gradually from a system of segmented refinance to a more interlinking or interspersing system of liquidity adjustment at market-related rates."

This evolution in the transmission mechanisms for monetary policy has been facilitated greatly by the abolition of "ad hoc" Treasury Bills and the institution of the new system of limited ways and means advances (WMA) since 1997. But progress has been hampered by the series of large and growing fiscal deficits since 1997/98. Although the abolition of "ad hocs" has cut the automatic link between deficits and monetization, the problem has not gone away. As the

[13] CRR was also hiked temporarily in July, 2000. On all three occasions the RBI was coping with unusual pressures in the forex market. Perhaps, on such occasions the "announcement effect" of a CRR hike made it a preferred instrument over open market operations.

manager of government debt, the RBI too often faces the unpalatable choice between seeing interest rates rise uncomfortably in primary auctions of government securities and accommodating government debts on its books through the medium of private placement. Indeed, this latter mechanism goes against the spirit of the WMA accord, although it does leave the timing and extent of monetization to the discretion of the RBI. Basically, reforms in operational procedures cannot, in themselves, control the leviathan!

The nineties have also witnessed some evolution in the ultimate objectives of monetary policy. Until at least the middle of the decade official pronouncements continued to emphasize the hallowed twin objectives of growth and price stability. Following the subsequent turbulence in forex markets and RBI's preoccupation with restoring or maintaining orderly conditions in these markets, a third objective appears to have joined the pantheon. By early 1999, the RBI's articulate Deputy Governor was explicitly stating (Reddy, 1999), "Apart from these two important goals, there has been a conscious attempt on the part of the Reserve Bank in recent years to maintain orderly conditions in the foreign exchange market.... "

This expansion in the set of ultimate objectives of monetary policy was accompanied by a similar increase in complexity in the case of intermediate targets. From the time of the Chakravarty Committee Report (Reserve Bank, 1985) to 1997/98 the annual growth in broad money (M3) had held sway as the sole, explicit intermediate target of monetary policy. With the liberalization of financial markets in the nineties and the growing importance of external economic transactions, matters have changed. Based on substantial technical work (e.g. Reserve Bank, 1998), the RBI announced in 1998/99 in favour of a "multiple indicator approach", which would encompass interest rates, exchange rate and other variables. In practice M3 appears to continue as the single most important intermediate target. But it has clearly lost its exclusivity.

The conceptualization and practice of monetary policy has clearly undergone a sea change during the nineties. Key institutional reforms have been carried out. New institutions and operational procedures have been established and strengthened. The array of instruments of monetary policy has been effectively broadened. The complexity of market interactions has been recognized. Overall, monetary policy at the end of the decade was a far more sophisticated operation than at its beginning. But some of the old problems and dilemmas remain. In particular, the efficacy of monetary policy continues to be constrained by an excessively loose fiscal policy as well as an insufficiently responsive financial system.

C. Exchange Rate Policy

The transition to a market-determined exchange rate was the key institutional reform which was crucial for the success of both macroeconomic management and structural reforms in the first half of the nineties. We have already described how India moved to an unified, market-determined rate by March 1993 and to full current account convertibility by August 1994. After the initial 30 months of stability in the nominal rupee-dollar parity up to August 1995 (roughly coterminous with the period of large capital account surpluses), the nominal rate has varied in line with underlying conditions in the forex market, as modified by occasional bouts of RBI intervention to counter unusual speculative pressures.

During these past half a dozen years there has been little change in the institutional framework for India's exchange rate policy. However, there has been a great deal of on-the-job learning by RBI of the nitty gritty of monitoring the forex market and its linkages with the domestic money market and of the arduous activity of central bank intervention in spot and forward forex markets. Also, RBI has, in recent years, evolved a doctrine or view to support it's brand of managed floating (Reserve Bank, 2001). This view, based on the experiences of East Asia, Russia, Mexico and Brazil (and more recently Turkey and Argentina), perceives high real economic costs from "contagion" effects in currency markets and places a premium on damping volatility. In RBI's view (Reserve Bank, 2001a, p.10) "India's exchange rate policy of focussing on managing volatility with no fixed target while allowing the underlying demand and supply conditions to determine the exchange rate movements over a period in an orderly way has stood the test of time."

The dilemmas of a managed float in today's world are real and I have discussed them elsewhere (Acharya, 1999). Part of the problem stems from the 'thinness' of the forex markets, both spot and forward. But such 'thinness' itself is partly a result of a cautious approach to currency convertibility. With capital account convertibility (for residents) still very distant in India, it is not surprising to find somewhat shallow forex markets which are potentially vulnerable to swings in expectations and herd mentality. At the same time, the East Asian crisis has driven home the downside risks of capital account convertibility in the absence of a really strong, well regulated financial sector. The only viable medium-term solution is to acquire the requisite strength in the financial sector and cautiously tread the path towards full capital account convertibility.

One recent important institutional reform in this area has been the modernization of the legal framework brought about by the passage of the Foreign Exchange Management Act (FEMA) in December 1999. Its provisions came into effect in June 2000 and supplanted the earlier Foreign Exchange Regulation Act (FERA). FEMA takes current account convertibility as a base and allows for progressive liberalization of the capital account. It is more transparent than FERA

and, unlike FERA, is a civil law. Nor does it embody the FERA's fearsome presumption of *mens rea*, which placed the burden of proving innocence on the citizen.

In a longer perspective the key "institutional" advance in this area has perhaps been in the mind-set of policymakers. Before the nineties "foreign exchange shortage" was the foundation on which a rickety structure of bad economic policy was built. The typical response to an exchange shortage or reserve loss was to further tighten import controls. The nineties have changed all that. Foreign exchange is seen to have a price, the exchange rate, which plays a pervasive allocative function in the economy. Faced by temporary pressures in forex markets policy makers now respond with a sensible mix of rate flexibility, market intervention and monetary policy. To a significant (though, by no means complete) extent the exchange rate has been 'depoliticized'.

D. Men and Institutions

Institutions and procedures do not alone make economic policy. Conception, implementation and articulation of policy also requires people. Part of India's apparent success with macroeconomic performance and institutional reforms in the nineties may be attributed to the people who manned the levers of economic policy. It was an unusually talented and cohesive team. To begin with, India was blessed by a succession of three very able ministers, starting with the remarkable Manmohan Singh. Dr. Singh had earlier held every serious economic manager position (including Governor, RBI, Deputy Chairman, Planning Commission, Secretary for Economic Affairs and Chief Economic Adviser) and knew the Indian economy inside out. He quickly assembled half a dozen or so top officials in the Ministry of Finance (MoF) and RBI, who shouldered the day-to-day responsibilities of economic management, not only during his five-year tenure from 1991 to 1996 but also for much of the remaining years of the decade.[14]

This core group of econocrats at MoF and RBI provided exceptional continuity to economic management in the nineties. Apart from their individual talents, there were several other factors which amplified the policy effectiveness of these officials. First, they were experienced; almost all of them had served earlier in macro policy positions a rung or two below the level they attained in the nineties. Second, they remained at the top for unusually long tenures, partly

[14] Among them were Montek Singh Ahluwalia who headed the critical Department of Economic Affairs (DEA) for seven years from late 1991, the last five as Finance Secretary; C. Rangarajan, who led the RBI as Governor for five years between 1992 and 1997 (when he was succeeded by Bimal Jalan) building on his earlier reforms groundwork of ten years as Deputy Governor; S.S. Tarapore and Y.V. Reddy, who aided, amplified and carried on Rangarajan's pioneering work as successive Deputy Governors from 1991 to 1996 and 1996 to the present; N.K. Singh, who served in various senior position in DEA in the first half of the decade before moving to be, successively, Secretary for Expenditure, Revenue and PMO; and myself as Chief Economic Adviser for nearly eight years from early 1993 to the end of 2000.

because they had entered public service laterally at relatively young ages and partly thanks to the raising of the retirement age in 1997. Both factors contributed to continuity. Third, the group displayed unusually strong rapport and teamwork. Most had worked as colleagues in the eighties. Some were close friends of many years. All had mutual respect. The density of informal professional interaction was exceptional and enhanced the conduct of economic management. Fourth, these officials held similar views on the paradigm and priorities of Indian economic policy. The disagreements were minor, the common ground enormous. Last, these men commanded substantial credibility and respect as professionals both at home and in international economic and financial circles.

By the middle of 2001 this core team had largely dispersed from the MoF/RBI citadels of macroeconomic policy (with the exception of Jalan and Reddy at the RBI) and it is a matter of some interest whether a similar, cohesive and enduring group could be rebuilt soon to deal with ongoing challenges of macroeconomic policy.

5. MACROECONOMIC CHALLENGES AHEAD

The nineties have ended but macroeconomic challenges continue. In this concluding section I discuss briefly some of the main problems that confront macroeconomic policy today and are likely to pose continuing challenges in the years ahead.

First and foremost is the enduring problem of the fiscal deficit. As we saw earlier, with a consolidated general government deficit of around 10 per cent of GDP India has the dubious privilege of being in the top three countries in worldwide fiscal deficit rankings. The ratio of Central and State government debt to GDP also stands impressively high at about 70 per cent. Our own economic history and that of many other countries point to the unsustainability of such high ratios and to the enormous economic toll they exact.[15] Furthermore, the problem of debt sustainability is likely to become more pressing if the present slowdown in economic growth continues. The sooner there is significant and enduring progress in fiscal consolidation the better it will be for overall macroeconomic performance, the health of the financial sector and the economy's capacity for coping with unforeseen external or internal shocks. The best medium-term hope in this regard is the Fiscal Responsibility and Budget Management Bill (FRBM) tabled in Parliament in December, 2000. Much will depend on its legislative fortunes. In the short run there is no substitute for determined efforts at expenditure containment, better cost recovery and revenue mobilization at all levels of government. In any case, even if the FRBM Bill is enacted in its present form, meeting its targets will require the same set of coordinated and comprehensive policies for fiscal consolidation.

Second, recent months have brought home the high economic costs that can emanate from a weak and inefficient financial sector. It is a drag on overall economic performance, generates periodic and large claims (through bail-outs of foundering financial institutions) on an already strained fisc, weakens significantly the competitiveness of Indian firms and can profoundly cloud the climate for business investment. Prescriptions for necessary financial sector reform have been around for a long time, for example the "second" *Narasimham Committee Report on Banking Sector Reforms* (Government of India, 1998) and the *Report on Restructuring Weak Public Sector Banks* brought out by the RBI (Reserve Bank, 1999). The challenge is to move forward with implementing the key prescriptions in the face of political and administrative opposition.[16] Indeed in some areas the time may have come to go further than some of the recommendations in these reports.

[15] These ratios are understatements since they exclude various extra-budgetary accounts (like the Oil Pool Account) and various explicit and implicit contingent liabilities at all levels of government.

[16] Financial sector reform straddles the broad areas of both macroeconomic policy and structural reforms. To keep this paper manageable and to avoid overlaps with other authors in the volume, I have deliberately kept away from this very important subject.

Third, the challenge of a sluggish industrial economy continues. To a substantial extent, real progress with fiscal consolidation and financial sector reform will enhance the climate for industrial investment and improve the availability and terms of financing. This will certainly help the industrial sector. But some of the solutions to the problem lie outside the realm of macro policy. For example, successful reform of rigid labour laws, small-scale reservation policy and ill-functioning infrastructure sectors is crucial for improving industrial productivity and investment. Unless these problems are seriously tackled the best macro policy will only have limited impact on boosting industrial growth. Nor does the oft-touted solution of "pump priming" have much credibility when fiscal deficits are already so dangerously high. And sector-specific tax sops (often advocated by industry associations) could set back seriously the genuine progress achieved in tax reform without accomplishing any lasting favourable impact on overall industrial growth. Indeed, a continuing challenge for economic policy will be to avoid inappropriate and ill-conceived solutions to the very real problem of growth slowdown.

In the external sector some disquieting signs have emerged in recent years. Export growth in dollars has slowed to average below 10 per cent in the last five years and the outlook for 2001/2002 and beyond is clouded by the slowing world economy and our weakening international competitiveness. Foreign investment has fallen substantially from the peak level of 1996/97. The future debt service profile has to navigate the redemption humps of RIBs and IMDs. Until now these weaknesses have been outweighed by the continued buoyancy of inward remittances and software exports and the sluggishness of non-oil import growth. But the tide could turn, especially if exports of both goods and services are hurt seriously by the global slowdown which began in the second half of 2000. In the short run this will pose a challenge for appropriately flexible exchange rate management. In the medium-term, there is no alternative to improving the underlying productivity and competitiveness of the economy through the wide range of structural reforms indicated earlier.

Policy will also have to contend with tensions between the priorities for stabilization on the one hand and structural reform on the other. An important example of this is in tax policy. To enhance our competitiveness and reduce the policy bias against exports it is important to reduce our still exceptionally high customs tariffs. But with customs revenue still accounting for about 30 per cent of the Central government's gross tax revenues, reductions in customs tariffs will have to be carefully managed to avoid missing fiscal deficit targets. The solution to this dilemma is to increase the proportion of tax revenues coming form direct taxes and domestic commodity / service taxes, notably central excise. It is relatively simple to state the necessary direction of change, much harder to carry it out in practical policy.

In the decades ahead, there is likely to be growing need to coordinate the Central government's budget policy with that of the States. Already we have seen the rising share of

State deficits in consolidated deficits of the Centre and States. This has had serious implications for the management of overall fiscal policy. Coming to grips with this problem will necessarily require changes in the existing pattern of inter-government fiscal relationships—a difficult task in the best of circumstances. The recent injection of some conditionality in Central financial assistance to States (linked to medium-term fiscal reform at the State level) may have to be strengthened. The key objective has to be the reversal of the recent deterioration in the States' fiscal positions. Without such improvement both macroeconomic stability and development momentum will remain exposed to substantial risks.

Finally, there is urgent need to recapture the growth momentum of the mid-nineties, not only in industry but in all sectors of the economy. Most of the policy initiatives necessary to achieve this overarching objective are of a sectoral or structural nature. They entail reforms in agriculture, health and education, infrastructure, energy sector, industrial policy, labour laws, public enterprises and the financial sector. Some of the reforms have already been announced and await implementation. Others have been identified but not yet decided upon.[17] At the level of macro policy, the key elements for restoring the growth momentum are successful fiscal consolidation, the evolution of a more flexible, market-responsive exchange rate policy and a supportive monetary policy. Without a decisive and sustained resurrection of the economy's growth momentum, the prospects for rapid increase in gainful employment and quick reduction of India's poverty will become distant.

[17] A recent, semi-official inventory of desirable, growth-promoting policies is contained in the Planning Commission's Employment Task Force report (Government of India, 2001)

REFERENCES

1. Acharya, Shankar (1995), "The Economic Consequences of Economic Reforms", *Sir Puroshotamdas Thakurdas Memorial Lecture*, delivered in Mumbai, November, 1995; reprinted in *Indian Economy : Update, Volume I*, edited by Raj and Uma Kapila, Academic Foundation, Delhi, 1996.

2. _____ (1999), "Managing External Economic Challenges in the Nineties: Lessons for the Future", 18th Anniversary Lecture of the Centre for Banking Studies, *Central Bank of Sri Lanka Occasional Paper No. 33*, September; also available on the website www.icrier.org.

3. Ahluwalia, Montek Singh (1999), "The Emerging Global Financial Architecture and its implications for India", *ICRIER Discussion Paper*, July.

4. Bhagwati, J. (1998), "The Capital Myth: The Difference between trade in Widgets and Dollars", *Foreign Affairs,* Vol. 77.

5. Donde, K. and M. Saggar (1999), "Potential Output and Output Gap: A Review", *Reserve Bank of India Occasional Papers, Winter.*

6. Eichengreen, Barry (1999), *Towards a New International Financial Architecture: A Practical Post-Asia Agenda*, Institute of International Economics, February.

7. Fischer, Stanley (1998), "the IMF and the Asian Crisis", *Forum Funds Lecture* at UCLA, Los Angeles, March 20.

8. Godbole, Madhav (1997), "Pay Revision: High Cost of Total Surrender", *Economic and Political Weekly*, October 4.

9. Government of India (1993), *Report of High Level Committee on Balance of Payments*, April.

10. _____ (1998), *Report of the Committee on Banking Sector Reforms*, April.

11. _____ (2001), *Report of the Task Force on Employment Opportunities,* July.

12. Govinda Rao, M. and H.K. Amar Nath (2000), "Fiscal Correction: Illusion and Reality", *Economic and Political Weekly*, August 5.

13. Joshi, Vijay and I.M.D. Little (1994), *India: Macroeconomics and Political Economy, 1964-1991*, Oxford University Press.

14. Krueger, Anne O. and Sajjid Z. Chinoy (2001), "Indian Exchange Rate Policy", paper delivered at the Conference on Indian Economic Policy at the Centre for Research on Economic Development and Policy Reform, Stanford University, June.

15. Rakshit, Mihir K. (2000), "On Correcting Fiscal Balances in the Indian Economy", ICRA Bulletin, *Money and Finance*, July-September.

16. Rangarajan, C. (1994), "Developing the Money and Securities Markets in India", paper presented at the Sixth Seminar on Central Banking, Washington, March, reprinted in Rangarajan (1998).

17. _____ (1995), "Monetary Management: The Changing Framework", Presidential Address at the 31st Annual Conference of the Indian Econometric Society, Pune, May, reprinted in Rangarajan (1998).

18. _____ (1998), *The Indian Economy: Essays on Money and Finance*, UBS Publishers' Distributors Ltd.

19. Rangarajan, C. and A. Prasad (1999), "Capital Account Liberalization and Controls: Lessons from the East Asian Crisis", ICRA Bulletin, *Money and Finance*, April-June.

20. Reddy, Y. Venugopal (1997), "The Budget and the RBI: New Directions", Address at the Administrative Staff College of India, Hyderabad, March, reprinted in Reddy (2000).

21. _____ (1999), ""Monetary Policy in India: Objectives, Instruments, Operating Procedures and Dilemmas", Address at Fourth Securities Industry Summit, Mumbai, March, reprinted in Reddy (2000).

22. _____ (2000), *Monetary and Financial Sector Reforms in India: A Central Banker's Perspective*, UBS Publishers' Distributors Ltd.

23. _____ (2001), "Developments in Monetary Policy and Financial Markets", *Reserve Bank of India Bulletin*, May.

24. Reserve Bank of India (1995), *Annual Report, 1994/95*, September.

25. _____ (1985), *Report of the Committee to Review the Monetary System* (Chairman)

26. _____ (1998), *Money Supply: Analytics and Methods of Compilation*, Report of the Working Group, June.

27. _____ (1999), *Report of the Working Group on Restructuring Weak Public Sector Banks*, October.

28. _____ (2000), *Annual Report, 1999/2000*, September.

29. _____ (2001a), *Statement on Monetary and Credit Policy for the year 2001-2002*, April.

30. _____ (2001b), *Report of the Advisory Group on Fiscal Transparency*, June.

31. Schadler, Susan, Maria Carkovic, Adam Bennett and Robert Kahn (1993), "Recent Experiences with Surges in Capital Inflows", *IMF Occasional Paper No. 108*.

32. Virmani, Arvind (1999), "Potential Growth Stars of the 21st Century: India, China and the Asian Century", *Chintan Occasional Paper*, October.

Indian Council for Research on International Economic Relations
Core-6A, 4th Floor,
India Habitat Centre,
Lodhi Road,
New Delhi - 110 003, India
Tel : 91-11-4645218-19-20, 4692070, 4616329
Fax : 91-11-4620180, 4618941
E-mail : info@icrier.org
Website : www.icrier.org