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The views expressed in this publication do not necessarily reflect the views and policies of the Asian Development Bank or its member governments.

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India: Key Economic Indicators

Variables	Unit	Reporting Date	Current	Percentage Change ¹
GDP at Factor Cost (1993-94 prices)	Rs. Billion	July–September 2003	3,234	8.4
• GDP in Agriculture	Rs. Billion	July–September 2003	570	7.4
• GDP in Industry	Rs. Billion	July–September 2003	923	6.3
• GDP in Services	Rs. Billion	July–September 2003	1,740	9.9
Industrial Production – General (1993-94 = 100)	Index	April–October 2003	180.4	5.9
Industrial Production – Manufacturing (1993-94 = 100)	Index	April–October 2003	187.5	6.5
Wholesale Price – All Commodities (1993-94 = 100)	Index	April–December 2003	174.6	5.3
• Primary Articles	Index	April–December 2003	181.3	4.8
• Manufactured Articles	Index	April–December 2003	155.1	5.2
Consumer Price (Industrial Worker) (1982-83 = 100)	Index	April–October 2003	498	3.9
Broad Money (M3)	Rs. Billion	14 November 2003	18,689	11.9
RBI's Credit to Commercial Sector	Rs. Billion	14 November 2003	21	-30.0
RBI's Credit to General Government	Rs. Billion	14 November 2003	644	-50.9
Consolidated Fiscal Deficit / GDP	Per cent	FY2002	10.1	–
Domestic Public Debt	Rs. Billion	FY2002	18,666	14.4
Exports	\$ Billion	July–September 2003	14.6	8.9
Imports	\$ Billion	July–September 2003	20.8	29.7
Trade Balance / GDP	Per cent	July–September 2003	-4.6	–
Current Account Balance / GDP	Per cent	July–September 2003	0.4	–
International Reserves	\$ Billion	26 December 2003	96.5	44.1
External Debt	\$ Billion	end–September 2003	112.5	9.8
External Debt to GDP Ratio	Per cent	end–March 2003	20.0	–
Debt Service Ratio	Per cent	end–March 2003	14.7	–
Foreign Exchange Rate, Spot	(Rs./\$)	31 December 2003	45.6	-5.0
Nominal Effective Exchange Rate (1985 = 100)	Index	April–October 2003	36.7	-1.8
Real Effective Exchange Rate (1985 = 100)	Index	April–October 2003	74.3	1.9

¹ Percentage change over the corresponding reporting date a year ago.

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**Managing Capital Flows and Foreign Exchange Reserves:
Some Lessons from India's Experience**

Professor Mihir Rakshit, Director, Monetary Research Project,
ICRA Limited, Kolkata

I. Macroeconomic Growth: Trend Acceleration and Cyclical Upswing

1. GDP grew by 8.4% during the quarter ending September 2003, marking a sharp increase from 5.7% growth registered during the first quarter of FY2003¹. The consensus growth forecast for FY2003 is in the range of 7.1% to 7.2% (Table 1), which is higher than the trend

Table 1: Projections of India's GDP Growth in FY2003 (%)

Agency	Growth Rate
ADB	7.3
Ministry of Finance, Government of India	7.0
Reserve Bank of India	7.0
IMF	6.5-7.0
International Institute of Finance	6.5
Confederation of Indian Industry (CII)	7.2
Centre for Development Economics, Delhi School of Economics (CDE-DSE)	7.0
National Council of Applied Economic Research (NCAER)	8.1
Institute of Economic Growth (IEG)	6.8-7.0
Centre for Monitoring Indian Economy (CMIE)	8.2
Investment Information and Credit Rating Agency (ICRA)	6.5-6.9
Credit Rating Information Services of India Limited (CRISIL)	7.1
<i>Consensus Forecast</i>	7.1-7.2

Note: The consensus forecast is revised from the September issue of this bulletin with substantial revision in growth projections by ADB, RBI, NCAER and IMF for FY2003 and inclusion of predictions by CDE-DSE, IEG and CMIE.

growth of 5.9% since 1991-92. The turnaround in aggregate growth during the current year is being led by growth acceleration in services, combined with a strong recovery in agriculture and higher growth in industry. The question is whether such higher growth will be sustainable.

2. Short-term macro fundamentals appear to be sound for sustaining growth. Most indicators, especially in the external sector, show significant improvement in FY2003 as compared to the average for FY1998-FY2002 (Table 2). However, the large consolidated fiscal deficit and especially the revenue deficit is a major impediment to growth because it crowds out both public and private investment. This issue is discussed further below. Had the deficit been smaller, with less crowding out, growth would have been still higher.

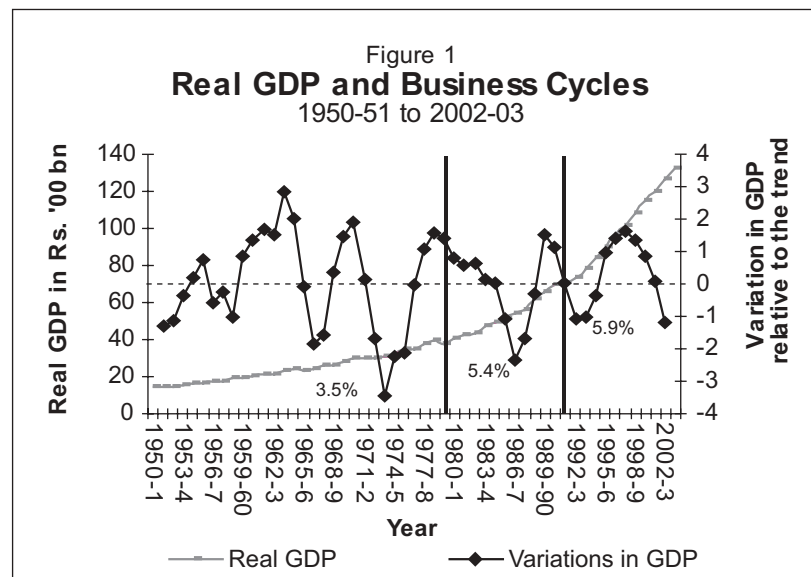
¹ Year ending 31 March 2003.

Table 2: Macro Fundamentals of the Indian Economy

Indicators	Average FY1998-FY2002	FY2003
Real GDP Growth (%)	5.4	7.3 ^a
Inflation (%)	4.7	5.3 ^b
Gross Domestic Investment/GDP (%)	23.9 ^c	24.0 ^c
Gross Domestic Saving/GDP (%)	23.5 ^c	24.1 ^c
Money Supply (M3) Growth (%)	16.0	11.9 ^d
Consolidated Fiscal Deficit #/ GDP (%)	-9.6 ^c	-9.5 ^c
Export Growth (%)	8.7	10.4 ^e
Import Growth (%)	5.4	30.2 ^e
Current Account Balance / GDP (%)	-0.3	0.1 ^e
External Debt / GDP (%)	21.8	18.0 ^e
Foreign Exchange Reserves (US \$ Billion)	71.9*	96.5**
- net of Portfolio Investment and Short-term loans	70.0*	81.5***

Note: ^a ADB-INRM projection. ^b April-December 2003. ^c Estimated for FY2002 and FY2003. ^d As of 14 November 2003. ^e April-September 2003. #This includes the combined fiscal deficit of the central government and all state governments. * As of 31 March 2003. ** As of 26 December 2003. *** As of 30 September 2003.

3. More important than these short-term considerations, our analysis of growth patterns over the past 50 years indicates that the Indian economy is now poised at the beginning of a new business cycle. This in turn is riding on an underlying long-term trend of accelerating growth, which has increased from 3.5% upto the 1970s to 5.4% in the 1980s and further to 5.9% in the 1990s (Figure 1).²



Source: Mundle et al. (forthcoming) based on www.mospi.nic.in/stat_pr.htm

² For a detailed discussion of the methodology for estimation of trend and business cycles in the Indian economy, see Mundle et al. (forthcoming).

II. Sectoral Performance

4. Growth acceleration particularly in the 1990s is on account of a significant step up in growth of services. Services growth of 7.8% during the 1990s, up from 6.1% during 1980-91 and 2.7% during 1950-79, is significantly higher than growth in agriculture and industry (Table 3). Industrial growth has also increased over time, and exceeds the rate of growth in agriculture. These variations in trend growth across sectors have led to a major change in the structure of the economy. The share of services in GDP increased from 27.9% to 50.8% between 1950-51 and 2002-03. The increase in the share of industry was more modest from 14.7% to 27.1%. There was a decline in the share of agriculture from 57.4% in 1950-51 to 22.1% in 2002-03. This built-in process of a rising share of the faster growing sectors in the structure of the economy has reinforced the process of growth acceleration.

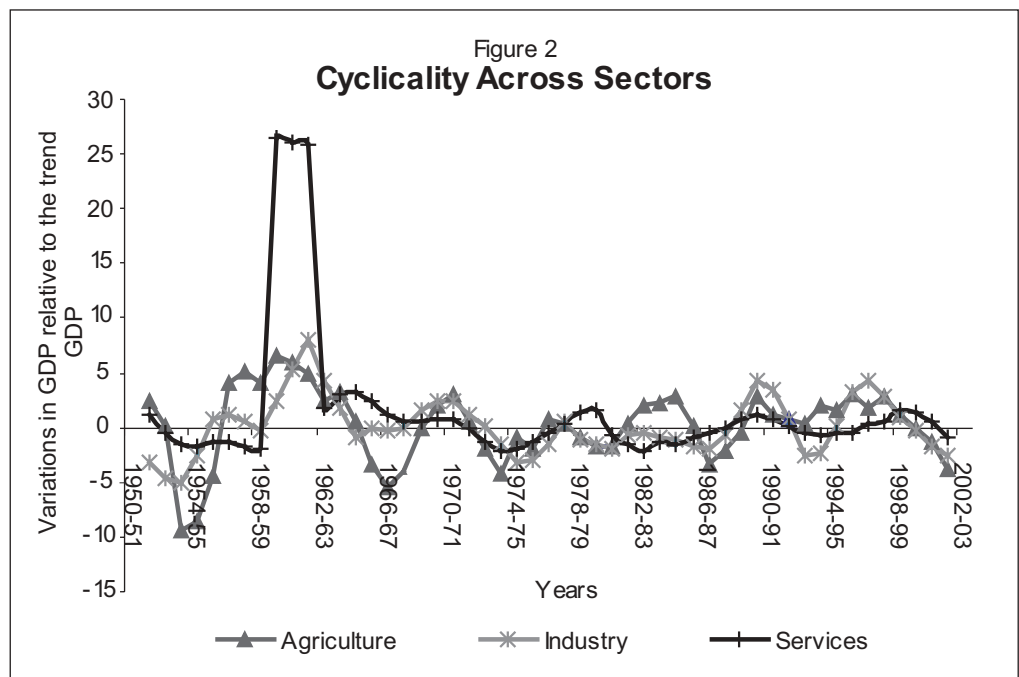
Table 3: Sectoral Growth and Share in Real GDP (%)

		Agriculture	Industry	Services
Growth	1950-79	2.5	3.9	2.7
	1980-91	5.3	6.3	6.1
	1992-2002	4.5	6.4	7.8
Share	1950-51	57.4	14.7	27.9
	1979-80	37.9	24.4	37.7
	1991-92	31.3	26.7	42.0
	2002-03	22.1	27.1	50.8

Source: Calculation based on www.mospi.nic.in/stat_pr.htm

5. Furthermore, growth in services is much more stable than in agriculture and industry (Figure 2). Consequently, the rising share of services in GDP implies that growth volatility is also declining over time in the economy.

6. Turning now to the short-term sectoral outlook for the current year, strong growth in FY2003 is again being led by the services sector. Services growth of 9.9% during July-September 2003 is way above 7.1% in FY2002 or even 7.6% recorded during April-June 2003. Since services account for over half of GDP, high growth in this sector alone will likely contribute 68% of GDP growth. Within services, trade, hotels/restaurants, transport and communications registered the highest growth rate at 11.9% during the second quarter, with growth in social, community and personal services, including public administration and defence, and financial services, real estate



Source: Mundle et al. (2003) based on www.mospi.nic.in/stat_pr.htm

and business services including software, rising to 8.9% and 7.3% respectively. A recent IMF study suggests that growth acceleration in the services sector is on account of high income elasticity of demand, user industry demand and rising exports in addition to reforms and technological advances.³

7. The industrial sector continued to register robust and broad based growth during April-November 2003 (Table 4). Manufacturing grew at 6.8%, mainly on account of the high growth of capital goods (8.8%) and consumer goods (8.1%). Except for jute manufactures, cotton textiles, leather and leather products, and metal products, all other subsectors registered a positive growth. Significant among these are basic metals, food products, beverages and tobacco, transport equipment, paper and paper products, wood and wood products, and other industries. Machinery production also registered significant improvements in growth after growing at only 1.8% during FY2002. However, core infrastructure such as petroleum, coal, electricity, cement, and steel grew at a much lower rate of 3.9% during April-October 2003 compared to 6.5% during the same period in FY2002. This is a cause for concern and needs close monitoring in view of the strategic importance of this sector. Weak growth in some subsectors notwithstanding, the outlook for the industrial sector as a whole remains buoyant, supported by strong growth in consumer

³ See Gordon and Gupta (2003).

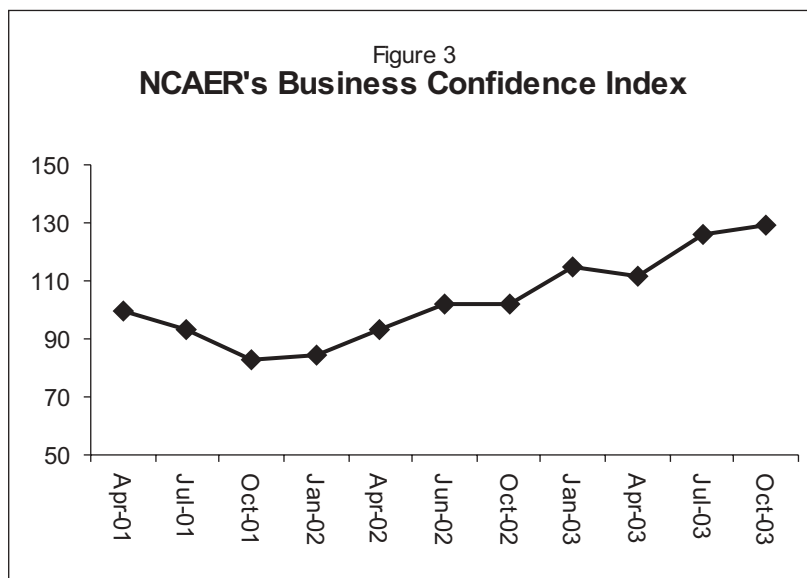
demand, low interest rates and improvements in corporate profitability. This buoyancy is reflected in the continuing upward trend of the NCAER Business Confidence Index since April 2003 (Figure 3).

Table 4: Sectoral Performance: Manufacturing (%)

Increasing Output				Declining Output			
Sector	2001-02	2002-03	2003-04 [@]	Sector	2001-02	2002-03	2003-04 [@]
Textile Products	2.4	15.6	0.5	Jute and Mesta	-5.9	8.4	-0.3
Man-made Fibres etc.	4.4	3.8	3.7	Metal Products	-10.0	6.4	-0.7
Chemicals & Allied Products	4.8	4.0	4.6	Leather & Leather Products	5.3	-2.9	-3.4
Rubber, Plastic etc.	11.1	4.9	5.1	Cotton Textiles	-2.2	-2.4	-6.3
Non-metallic Mineral Products	1.1	5.0	5.2				
Machinery (except Transport Equipment)	1.3	1.8	6.1				
Other Industries	8.9	-0.5	6.1				
Food Products	-1.6	10.7	6.9				
Basic Metal	4.3	9.2	11.6				
Wood & Wood Products	-11.0	-17.8	11.6				
Beverage, Tobacco etc.	12.2	27.3	11.8				
Transport Equipments	6.8	14.9	20.5				
Paper & Paper Products	3.0	5.6	22.3				
Overall Manufacturing	2.9	6.0	6.8				

Note: [@] denotes April-November 2003.

Source: Compiled from www.mospi.nic.in/stat_pr.htm



Source: NCAER, 2003. Business Expectations Survey. October. New Delhi.

8. In agriculture the revival of growth is significant at 7.4% during July-September 2003,⁴ up from -3.2% and 1.7% growth during FY2002 and April-June 2003 respectively. Variations in agricultural output follow the rain cycle. In the current year, widespread southwest monsoon rains (1 June 2003 - 30 September 2003) led to above normal sowing of major *kharif* (summer) crops. Subsequently, the delayed withdrawal of the monsoon, moderate temperatures, and excellent winter precipitation (1 October 2003 - 31 December 2003) have again resulted in above normal sowing of *rabi* (winter) cereals, pulses and oilseeds. Hence, it is expected that the large *kharif* harvest, followed by a bumper *rabi* crop, will yield record output levels for the current agricultural year.

9. Rising economic growth, the large accumulation of foreign exchange reserves and rising stock prices have generated a great deal of optimism, sometimes described as the 'feel good' factor. However, such optimism needs to be tempered by India's relatively poor performance on the social front (see Box 1).

III. Sources of Growth

10. A recent ADB-INRM analysis of the sources of growth shows that the largest contribution to GDP growth during 1960-2002 has come from capital stock (Table 5).⁵ Total factor productivity (TFP)

Table 5: Sources of Growth

	Period I			Period II			Period III		
	L	K	TFP	L	K	TFP	L	K	TFP
ADB-INRM	1960-78			1979-90			1991-2002		
	0.9	2.2	0.6	0.8	2.5	1.6	0.9	3.0	1.7
Bery-Singh	1961-80			1981-90			1991-2001		
	0.8	2.2	0.3	0.7	2.5	2.2	0.9	3.0	1.6
Guha-Khasnobis-Bari	1960-79			1980s			1990s		
	0.4	0.9	-0.1	0.3	1.1	2.4	0.3	1.5	1.6

Note: ADB-INRM's TFP estimation procedure is similar to that of Bery and Singh (2003), using the same set of variables such as GDP, capital stock and labour. Guha-Khasnobis and Bari (2003) have used GDP per worker, capital per worker and human capital stock instead. The Bery and Singh numbers for the decades 1961-70 and 1971-80 are averaged to arrive at the figures for 1961-80. For the period 1991-2001, the Bery and Singh numbers are arrived at by averaging the estimates for 1991-95 and 1996-2001. The Guha-Khasnobis and Bari estimates for 1960-79 are averages of figures for the 1960s and 1970s.

⁴ The agricultural year in India runs from July to June.

⁵ Sources of growth for aggregate GDP are calculated in terms of Total Factor Productivity (TFP) growth using the Cobb-Douglas production function and the Solow residual method. For estimating TFP, labour share in net domestic product has been calculated at 41% by adding up compensation to employees and agricultural rent. Earnings of the self-employed have been left out because they form a part of operating surplus/mixed income in the unregistered sector, and could not be estimated separately. The labour share is therefore an underestimate, though it is higher than that used in Bery and Singh (2003).

Box 1 Economic Gains and Social Challenges

Despite the acceleration of output growth, employment growth has been tardy. The only sector where employment has picked up is the industrial sector, where employment growth increased from 0.6% during 1987-93 to 2.4% during 1993-99 (see Table below). Evidence also shows that labour demand elasticities in the manufacturing sector are higher in a period of trade liberalization, varying across states in negative correlation with the degree of labour regulation (see Hasan et al. 2003). However, the industrial sector only accounts for 17.6% of the workforce. The services sector, which is the fastest growing and the largest sector in the economy, accounts for about 26% of total employment. Employment growth in this sector declined from 3.1% during 1987-93 to 2.1% during 1993-99. In the agricultural sector, which now accounts for only 22% of output but about 57% of total employment, there has been no growth of employment. As a consequence, while GDP growth has now risen to over 7%, overall employment is growing at less than 1%, a phenomenon sometimes described as 'jobless growth'. The consequent increase in open unemployment and underemployment is a major social challenge.

Employment Growth and Structure, 1983-1999 (%)

	Growth			Share			
	1983-87	1987-93	1993-99	1983	1987-88	1993-94	1999-2000
Agriculture	1.6	2.2	0.0	63.2	60.1	60.4	56.7
Industry	5.0	0.6	2.4	15.6	17.6	15.8	17.6
Services	3.6	3.1	2.1	21.2	22.3	23.8	25.7
Total	2.6	2.1	0.9				

Source: Estimations based on National Sample Survey Organisation. *Employment and Unemployment Surveys*, various rounds. New Delhi.

There are several other social challenges which also need to be urgently addressed. In the health sphere, the maternal mortality rate remains more or less stagnant, and the proportion of assisted deliveries must at least double to reach Millennium Development Goal targets. The National Family Health Survey (NFHS)-2 revealed that more than one-third of the women in the age group 15-49 years are undernourished. It also revealed considerable disparities in the health status across states and between socio-economic groups. Under-5 and infant mortality rates continue to be high. Changes in population structure have resulted in a larger graying population as per the latest 2001 census, while changes in the global environment have enhanced insecurity of livelihood, which impacts on human development. The spread of HIV/AIDS and other infectious diseases, stress, and pollution—all pose new challenges to human development.

There are also a variety of persisting disparities across gender, regions and different social groups which are undermining social cohesion. Gender parity in secondary education is far from being achieved. The juvenile sex ratio has recorded a sharp decline, highlighting the vulnerable status of the girl child and women. There is also an accentuation of regional disparities, with the southern and western regions doing much better than the northern and eastern regions (Deaton and Dreze 2002). Human poverty indices based on health, literacy, income, and social exclusion factors place some states such as Gujarat, Haryana, Kerala, Maharashtra, Punjab, and Tamilnadu on the top rung, while Assam, Bihar, Madhya Pradesh, Orissa, Rajasthan, and Uttar Pradesh are on the lowest rung (Hirway and Dev 2000). Rural-urban and gender disparities continue to exist between and within states. Significant inequalities also exist in the distribution of interpersonal consumption and levels of living, even within the states. Studies reveal that the intensity of poverty is highest among landless wage earners, marginal farmers, scheduled castes, scheduled tribes, and indigenous populations (Shariff 1999).

growth has been the second next important source of growth since 1979, and its contribution has been rising. Other estimates by Bery and Singh (2003) and Guha-Khasnobis and Bari (2003) indicate that the productivity trend has been mixed.

IV. Fiscal Developments

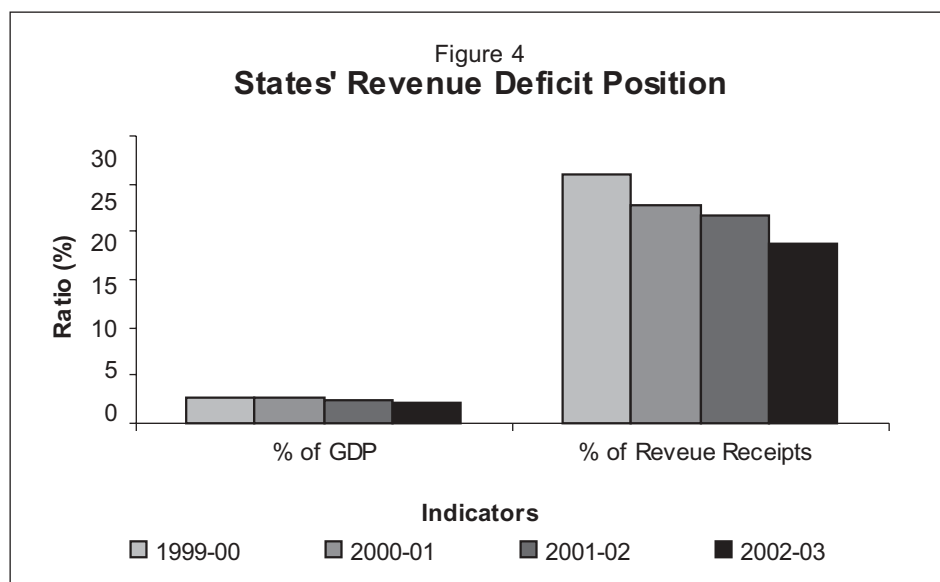
11. The fiscal situation remains fragile in an otherwise sound macroeconomic environment. The combined gross fiscal deficit of the central and state governments was as high as 10.1% of GDP in FY2002 and the situation may have deteriorated further in FY2003. The fiscal deficit of the central government was up by about 40.3% during April-September 2003 as compared to the same period in FY2002.⁶ It is estimated at 6.5% of GDP, which is already significantly higher than the budget target of 5.6% of GDP for FY2003. This is largely on account of revenue expenditure far exceeding revenue receipts during the first half (April-September) of FY2003. Estimated at 5.2%, the revenue deficit works out to 80.8% of the fiscal deficit during the period. The rapidly growing revenue deficit of the central government is quite out of line with the roadmap set out in the *Fiscal Responsibility and Budget Management Act, 2003*, that aims to eliminate the central government revenue deficit by 2008. It is crowding out capital expenditure, and adversely impacting on growth.⁷

12. The fiscal situation has also deteriorated in several states, though there is improvement in a few other states. To rein in large deficits at the state level, the Eleventh Finance Commission recommended the introduction of a Medium Term Fiscal Reforms Program (MTFRP), supported by the States' Fiscal Reforms Facility (SFRF) 2000-01 to 2004-05. The program seeks to encourage states' fiscal reforms through performance-linked transfers from the central government. Overall, the fiscal position of the states improved between FY1999 and FY2002 (Figure 4). Thus, the revenue deficit as a percentage of total revenue receipts, the single monitorable fiscal indicator adopted for the MTFRP, has improved by 7 percentage points during the period.⁸ A mid-term review of SFRF indicates that the states of Sikkim,

⁶ See Government of India (2003a).

⁷ This declining trend in planned capital expenditure is in addition to the predicted fall in corporate investment in FY2003 as compared to FY2002, due to the lack of large projects in the last two years (see Reserve Bank of India 2003).

⁸ Out of this 7 percentage point improvement in the indicator, 4 percentage points are attributable to the states' own fiscal efforts and the remaining 3 percentage points to the increase in central transfers as a percentage of total revenue receipts. It should be noted, however, that the single indicator is not a very robust measure of fiscal performance.



Source: Based on Government of India. 2003b.

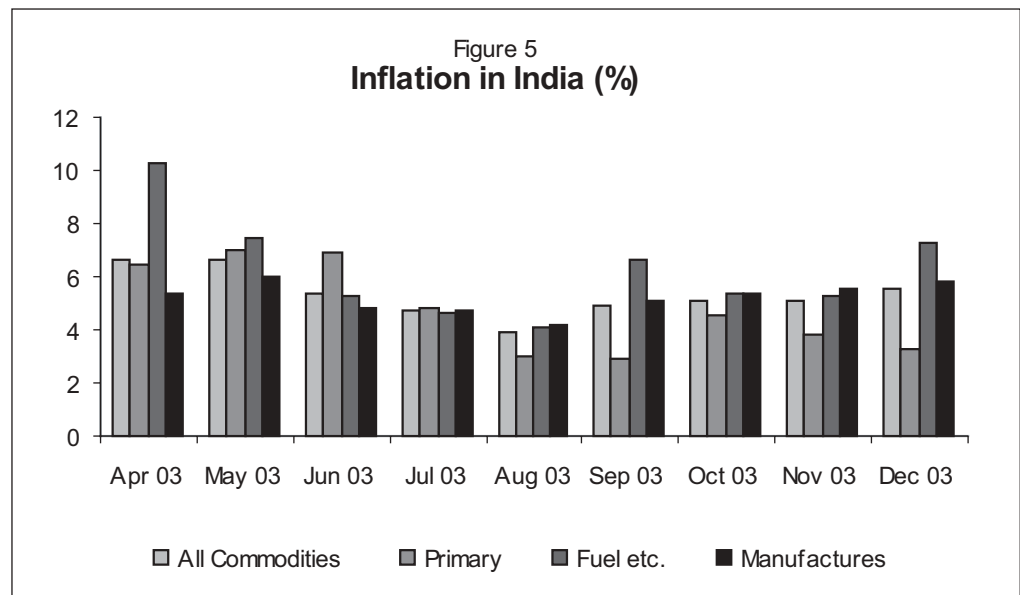
Chhattisgarh, Delhi, Goa, Kerala, and Uttar Pradesh have shown *consistent improvement* in terms of this indicator as against *consistent deterioration* in Gujarat, Himachal Pradesh, Jharkhand, and Uttaranchal (Government of India 2003b). The performance of other states has been mixed during the period 1999-2000 to 2002-03.

V. Inflation, Money and Financial Market Developments

13. Inflation has remained moderate during FY2003, fluctuating around the average rate of 5.3% during April-December 2003.⁹ Inflation as measured by the consumer price index (CPI) for industrial workers has hovered around the lower average rate of 3.9% during the same period. In terms of individual products, wholesale prices of primary products have been declining in recent months, while the prices of manufactures and fuels and related products have been rising since September 2003 (Figure 5).

14. Money supply (M3) growth has remained within the monetary policy target of 14%. M3 had grown at 11.9% as of 14 November 2003, down from over 16% during the corresponding period in FY2002. Money supply growth has decelerated despite the large increase in foreign exchange assets and the central bank maintaining an easy monetary policy stance. In its Mid-term Review of the Monetary and Credit Policy of 2003-04, the Reserve Bank of India

⁹ This is inflation measured by the Wholesale Price Index (WPI).



Source: www.eaindustry.nic.in

(RBI) has indicated that it intends to provide adequate liquidity to meet credit growth and support investment demand in the economy, and continue with a soft and flexible interest rate environment within the framework of macroeconomic stability. The bank rate and the cash reserve ratio have been maintained at 6.0% and 4.5% respectively. With regard to the prime lending rate, the RBI has advised banks to price floating rate products by using market benchmarks in a transparent manner.

15. In recent months the performance of Indian banks has improved in terms of efficiency and profitability. This is quite different from the trend that prevailed during the 1990s. Bank deposits increased significantly, along with a decline in the average interest margin and increase in competition following financial sector reforms in 1991.¹⁰ However, banks remained risk averse because they continued to confront problems such as crowding out of private debt in banks' portfolio, a trend of high non-performing loans, and a profit squeeze till 2000.¹¹ The Reserve Bank of India has since then emphasized the importance of transparency and market disclosure of critical information on risk profile, capital structure and capital adequacy of

¹⁰ The first phase of financial sector reforms in 1991 allowed banks' operational flexibility and functional autonomy to remove structural rigidities, improve efficiency and profitability. In order to strengthen the financial position of banks, a capital to risk weighted asset system was introduced in 1992. This was carried forward in the second phase of banking sector reforms which included measures for facilitating consolidation, strengthening the capital base of banks, introducing sophisticated financial instruments, and rationalization of the banking system. However, it is argued that these changes have not been far-reaching, and instead they are relatively narrow and predominantly mechanistic (see Bhattacharya and Patel 2003).

¹¹ See Hanson (2003).

banks, and the importance of better coordination between banks and regulators.¹² In this emerging environment, regulatory efforts have encouraged greater reliance on market discipline to control risk-taking behavior by Indian banks.¹³ Adhering to prudential norms of minimum capital requirements, bank supervisory review and market discipline, as proposed in the Basel II framework for internationally active banks, is an important move in this direction. However, this may pose significant challenges for those banks that are not internationally active.¹⁴ Moreover, the banking sector continues to be dominated by state owned banks. It has been claimed that strong risk aversion of these banks, combined with large-scale government borrowing, has crowded out small- and medium- businesses.

VI. Balance of Payments and Foreign Exchange Management

16. The external sector has remained buoyant. The current account balance which was in surplus during FY2002, turned negative in the first quarter of FY2003 (April-June), but again became positive in the second quarter of the year (July-September). While merchandise exports grew at 10.4% during April-September 2003, imports grew at a significantly faster rate of 30.8% indicating larger domestic absorption during the quarter. Consequently, the trade deficit increased to \$12.1 billion during the period. The improvement in the current account position is due to a 65.6% growth in the invisibles balance during April-September 2003 as compared to the same period in FY2002.

17. Exports recorded double-digit growth during the first half of FY2003 despite an appreciation of the real exchange rate.¹⁵ It essentially reflects buoyancy in world demand emanating from Asian destinations. In fact, ASEAN+3 countries have now emerged as India's predominant trading partners, accounting for about a quarter of India's total merchandise trade, surpassing the respective trade shares of North America and the European Union (Table 6). Going forward, sustained export growth will be facilitated by greater market access to Asian countries. The recent agreement on SAFTA negotiations, and the preparation or signing of framework agreements for free trade with Singapore, Thailand and ASEAN will significantly aid growth of India's trade.

¹² See Jalan (2002).

¹³ See Ghosh and Das (2003).

¹⁴ Nachane, Narain, Ghosh, and Sahoo (2000), and Nachane (2003).

¹⁵ It must be noted that the rupee has appreciated mainly against the dollar while depreciating against other major currencies such as euro and yen.

Table 6: India's Trade Matrix: Major Trading Partners

(% of total trade)

	Exports		Imports		Trade	
	1991	2001	1991	2001	1991	2001
North America	17.6	24.2	11.4	9.5	14.4	16.3
European Union	28.3	24.6	29.9	25.4	29.1	24.3
Japan	9.3	4.6	7.0	4.3	8.1	4.4
ASEAN + 2	10.7	18.3	7.1	23.9	8.8	21.3
of which:						
PRC	0.3	3.6	0.1	4.2	0.2	3.9
South Asia	3.6	5.5	0.5	0.9	2.0	3.0
Middle East	9.7	9.6	17.2	23.7	13.6	17.8
Africa	2.6	4.0	4.7	5.6	3.7	5.0
Rest of the World	18.3	9.2	22.3	8.1	20.4	7.8

Note: North America includes USA, Canada, and Mexico. ASEAN + 2 includes Republic of Korea, and People's Republic of China in addition to ASEAN 10. South Asia includes Afghanistan, Bangladesh, Bhutan, Maldives, Nepal, Pakistan, and Sri Lanka apart from India.

Source: IMF, *Direction of Trade Statistics Yearbook*, various issues.

18. Along with improvements in the current account position, foreign exchange reserves increased to \$96.5 billion as of 26 December 2003. First quarter data for FY2003 indicate that there are some qualitative changes in the sources of reserve accretion as compared to the previous year (Table 7). In FY2002, the foreign exchange

Table 7: Sources of Accretion to Foreign Exchange Reserves (\$ billion)

	FY2002	H1 FY2002	H1 FY2003
Current Account Balance	4.1	2.0	0.2
Net Capital Account	12.1	4.3	12.9
Foreign Investment	4.6	1.6	5.2
Banking Capital	8.4	2.5	3.1
Loans ^a	-3.8	-1.4	1.7
Other Capital	3.4	2.0	3.3
Errors & Omissions	0.7	0.3	0.4
Valuation Change	3.9	2.0	1.8
Additions to Reserves	20.8	8.6	15.3

Note: ^a Loans comprise of external commercial borrowings, short-term credit and external assistance.

Source: RBI. 2003. *Sources of Accretion to Foreign Exchange Reserves in India: Updated Figures for April-September 2003*. 31 December. Mumbai (www.rbi.org.in/sec4/50262.pdf); and RBI, 2003. *Reserve Bank of India Bulletin*. December.

reserve build up was attributable to a surplus in the current account, along with large net banking capital flows in the form of non-resident deposits, 'other capital' flows, and significant valuation gains. In contrast, the foreign exchange accrual in the first half of FY2003 is primarily on account of foreign investment inflows, especially portfolio investment, though banking capital, other capital and loans in the form of short-term credit also remain important. These gains in the capital account are however not without risk, given the rising share of reversible portfolio investments and short-term loans. There are also emerging questions about the opportunity cost of maintaining such large reserves (see Special Feature in this issue).

VII. Short-term Outlook

19. The short-term outlook for the economy will remain buoyant for FY 2004 and FY 2005 (Table 8). ADB-INRM is now forecasting a GDP growth of 7.3% in FY2004. The forecast is based on expectations of a normal monsoon, strong recovery in industry and high growth in services. The consolidated fiscal deficit of the central and the state governments is expected to remain at the average level of 9.6% of GDP during FY2004. With higher projected growth in industry, import growth is also expected to be high at 18.7% during FY2004.

Table 8: Short-Term Projections of Major Economic Indicators: India (%)

Indicators	FY2004	FY2005
Real GDP Growth	7.3	6.5
Inflation	5.0	4.7
Gross Domestic Investment/GDP	24.0	24.0
Gross Domestic Saving/GDP	24.3	24.3
Money Supply (M3) Growth	13.5	12.4
Consolidated Fiscal Balance ^a / GDP	-9.6	-9.0
Export Growth	17.5	17.6
Import Growth	18.7	16.7
Current Account/ GDP	0.3	0.3

Note: ^a This includes the combined fiscal deficit of the central government and all state governments.

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Special Feature _____

Managing Capital Flows and Foreign Exchange Reserves – Some Lessons from India’s Experience

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Professor Mihir Rakshit is one of India’s most eminent macroeconomists. Professor Rakshit taught at Presidency College, Kolkata; Indian Statistical Institute, Kolkata; Delhi School of Economics; and Erasmus University, Rotterdam. He was also the SBI Professor at the National Institute of Public Finance and Policy, New Delhi. Currently he is Director, Monetary Research Project at Investment Information and Credit Rating Agency (ICRA) Limited and Editor-in-Chief, *Money & Finance*. He is also a member of the Central Board of Directors of the Reserve Bank of India. His publications include *The Labour Surplus Economy* (Macmillan, Delhi and Humanities Press, NJ, 1982), *Studies in the Macroeconomics of Developing Countries* (ed.; OUP, New Delhi, 1989), *Trade, Mercantile Capital and Economic Development* (Orient Longman, Delhi, 1993), *Issues in Economic Theory and Public Policy* (jt. ed.; OUP, New Delhi, 1997), and *The East Asian Currency Crisis* (OUP, New Delhi, 2002).

1. India's management of external finance since the 1991 balance of payments (BoP) crisis has won high commendation in all quarters, domestic as well as international. And for good reasons. Since 1992 not only has the country's current account deficit been quite small (averaging less than 1 % of GDP), but in recent years the deficit has turned into a modest surplus¹⁶ (Table 1). Flows on capital account have also shown remarkably healthy trends. While aggregate capital inflows during 1991-03 were substantial, the major part of them were non-debt so that the ratio of external debt to GDP was nearly halved, from 39 to 21%, between 1992 and 2003. Particularly impressive was the steep decline in reliance on short-term borrowing (Table 1) which had proved, among other things, a veritable source of many a BoP trouble, including those of India and East Asia (Rakshit 2002a, b).

2. Indeed, from the viewpoint of BoP viability in general and prevention of currency crisis in particular, the Reserve Bank policies can hardly be faulted. Since fixed exchange rates generally tend to invite speculative attacks, RBI has refrained from setting a target rate; but large swings in the rate, both nominal and real, have been avoided (Table 1) through intervention in the currency market as and when required. The most noteworthy external sector development over the last decade has been the huge accumulation of foreign exchange reserves which have just crossed the \$100 billion mark (20 December 2003). Even before the recent surge in reserves accretion, the conventional indicators—debt-service ratio, import cover of reserves, ratio of short-term debt to foreign exchange reserves and non-debt liabilities and short-term debt as percentage of reserves—all attested to the country's strong (external) shock absorptive capacity and ability of the Reserve Bank to take the rough with the smooth (Table 2): one need only recall the resilience of the external sector in the face of a series of crises in emerging market economies all over the world from 1997 onward, and absence of any jitters in the currency market even while \$5 billion worth of Resurgent India Bonds (RIB) were redeemed on a single day, 1 October 2003.

3. Interestingly enough, performance of the domestic economy since the mid 1990s stands in sharp contrast to the universally acclaimed developments on the BoP front (Table 3). The period has been marked by (a) a slowdown in GDP, industrial and agricultural growth; (b) a large and widening output gap (RBI, 2002; GOI, 2003); (c) a decline in both investment and saving ratios; and (d) increasing revenue and fiscal deficits. Close connections among these features

¹⁶ In the second quarter of 2003-04 there was however a small negative balance.

Table 1: A Profile of India's External Sector 1990-03

	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
Nominal Exchange Rate (Index) ¹	67.2	52.51	43.46	44.69	43.37	39.73	38.97	40.01	36.34	35.46	35.54	35.75	37.31	
Real Effective Exchange Rate (Index) ¹	75.58	64.2	57.08	61.59	66.04	63.62	63.81	67.02	63.44	63.29	66.53	68.43	72.93	
(% of GDP unless otherwise specified)														
Current account balance	-3.05	-0.34	-1.71	-0.42	-1.05	-1.65	-1.19	-1.37	-0.96	-1.05	-0.80	0.29	0.70	
Invisible balance	-0.08	0.65	0.60	1.06	1.76	1.55	2.65	2.43	2.22	2.94	2.56	2.92		
Merchandise trade balance	-2.98	-0.99	-2.30	-1.48	-2.81	-3.20	-3.84	-3.80	-3.19	-3.99	-3.11	-2.63		
Capital account balance	2.27	1.46	1.59	3.54	2.84	1.31	2.96	2.47	2.01	2.48	1.86	1.99	2.39	
Total external debt	28.66	38.72	37.51	33.80	30.78	27.00	24.55	24.27	23.62	22.13	22.42	20.93	20.0	
Short-term debt (% of total debt)	10.30	8.20	7.10	3.90	4.30	5.20	7.20	5.40	4.40	4.00	3.59	2.79	3.9	
(in USDM)														
Capital account balance	7188	3777	2936	9695	9156	4689	11412	10011	8260	10444	10018	10573	12638	6066*
Net Non-debt inflows	103	133	557	4235	4922	4902	6153	5390	2412	5191	5102	5125	4555	2761*
FDI	97	129	315	586	1314	2144	2821	3557	2462	2155	2339	3905	2857	
FPI	6	4	244	3567	3824	2748	3312	1828	-61	3026	2760	2020	986	2048*
External loans	7085	3644	2379	5460	4234	-213	5259	4621	5848	5253	4916	5448	8083	3305*
Reserves accretion	1872	3386	612	9422	5932	-3499	4736	2946	3121	5546	4245	11825	20699	25243 [^]
(at end March)														
Foreign exchange reserves	5834	9220	9832	19254	25186	21687	26423	29369	32490	38036	42281	54106	74805	100048 [^]

Notes: 1: Base 1994-95. * April-June data from *RBI Bulletin*; ^ 20 December, 2003.

Source: RBI. *Handbook of Statistics*; GOI. *Economic Survey*; CMIE. *Monthly Bulletin*.

Table 2: Indicators of Balance of Payments Viability

<i>(Per cent)</i>	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Total Debt to GDP	28.70	38.70	37.50	33.80	30.80	27.00	24.50	24.30	23.60	22.10	22.40	20.90	20
Short-term Debt to GDP	2.90	3.16	2.65	1.32	1.33	1.40	1.77	1.31	1.04	0.90	0.80	0.60	0.79
Debt Service Ratio	35.30	30.20	27.50	25.40	26.20	24.30	21.20	19.00	17.80	16.20	17.30	13.90	14.7
Import Cover of Reserves (in months)	2.70	5.60	5.10	8.60	8.50	6.10	6.60	6.90	8.20	8.20	8.6	11.3	14.6
Short-term Debt to Foreign Exchange Reserves	146.50	76.68	64.48	18.84	16.95	23.20	25.46	17.18	13.15	10.30	8.60	5.10	5.46
Non-Debt Liabilities and Short-term Debt to Reserves	148.20	79.24	72.57	44.54	57.00	92.30	105.35	107.41	102.10	99.90	100.80	88.40	62.1

Source: RBI. *Report on Currency and Finance 2001-02; RBI Handbook 2002-03.*

Table 3: Some Macroeconomic Indicators

	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
GDP growth	5.60	1.30	5.10	5.90	7.30	7.30	7.80	4.80	6.50	6.10	4.40	5.60	4.40	
Industrial growth	6.76	-1.22	4.09	5.20	10.20	11.60	7.10	4.30	3.70	4.80	6.60	3.30	6.10	
(% of GDP)														
Investment	26.30	22.60	23.60	23.10	26.00	26.90	24.50	24.60	22.60	25.20	24.00	23.70	na	
Saving	23.10	22.00	21.80	22.50	24.80	25.10	23.20	23.10	21.50	24.10	23.40	24.00	na	
Current account balance	-3.05	-0.34	-1.71	-0.42	-1.05	-1.65	-1.19	-1.37	-0.96	-1.05	-0.80	0.29	0.70	
Capital account balance	2.27	1.46	1.59	3.54	2.84	1.31	2.96	2.47	2.01	2.48	1.86	1.99	2.39	
Reserves accretion	-0.40	1.43	0.33	3.18	1.44	-0.82	1.52	0.94	0.95	1.38	1.31	2.46	4.46	
Fiscal deficit	9.4	7.0	7.0	8.3	7.1	6.5	6.4	7.3	9.0	9.5	9.5	10.32	9.59	
Revenue deficit	4.2	3.4	3.2	4.3	3.7	3.2	3.6	4.1	6.4	6.3	6.6	7.00	6.24	
as % of reserve money (stock)														
Net RBI Credit to Government	98.84	92.72	87.13	69.79	58.43	61.08	60.36	59.02	56.08	49.84	48.31	41.83	32.55	16.30
RBI Credit to commercial sector	7.22	7.30	5.61	4.65	3.89	3.53	3.12	3.62	4.72	5.44	4.38	1.75	0.83	0.50
Net foreign exchange assets of RBI	9.09	18.93	20.44	37.08	44.14	38.10	47.41	51.19	53.21	59.13	65.01	78.10	97.10	112.60
As % of reserve money (flow)														
Net RBI Credit to Government	144.73	46.97	37.76	0.93	6.96	78.87	34.99	48.89	35.88	-26.27	29.46	-14.86	-68.74	-245.34
RBI Credit to commercial sector	-0.07	7.83	-9.22	0.81	0.48	1.04	-10.99	7.34	12.29	14.31	-8.72	-21.23	-9.31	-4.20
Net foreign exchange assets of RBI	18.80	92.57	33.79	103.16	76.11	-2.49	374.91	79.77	67.10	131.30	137.52	192.72	304.50	361.20

Note: 2003-04 data are upto end November 2003.

Source: RBI. 2002. *Handbook of Statistics*. Mumbai; GOI. 2003. *Economic Survey 2002-03*. New Delhi.

of the economy are not very difficult to discern; but they are also inter-related, it is not often recognized, with capital inflows, reserves accretion, the extent of their sterilization and other RBI measures.

4. The first thing to be noted in this connection is that neither accumulation of reserves nor capital inflows are ends in themselves and can have positive or negative effects on basic economic objectives. When a country's reserves are inadequate and currency turmoil looms large, reserves accumulation has to receive top priority remembering that a free fall of the exchange rate, apart from causing serious disruptions in trade, tends to magnify the country's external debt burden and cause widespread bankruptcies among firms having a large external debt component on the liability side of their balance sheet. Under these conditions capital inflows can be of great help in enabling an economy to replenish foreign exchange (forex) reserves without (i) quantitative control on imports with all its distortionary consequences; and/or (ii) a severe fiscal-cum-monetary squeeze (for generating a current account surplus)—something which led to a steep fall in GDP as well as a sharp rise in the poverty ratio in East Asia and Argentina during their recent BoP crises. However, as we shall presently discuss, beyond some (what may be called the optimum) level reserves accretion entails a net loss to the economy.

5. Once forex reserves are at their optimum level, contribution of capital inflows lies primarily in raising domestic investment and total factor productivity. It is on this score that foreign capital has failed to play its expected role in the Indian economy. We have already seen how burgeoning capital inflows have been associated with deceleration in GDP growth, large excess capacity and a declining investment ratio. Both macro- and micro-economic data also suggest a fall in total factor productivity during the second half of the 1990s (RBI 2002; Rakshit 2002b). Apart from its analytical significance, resolution of this puzzle suggests quite a few important policy conclusions.

6. We have examined elsewhere (Rakshit 2002b) how a combination of factors, of which domestic macroeconomic policy was the most important, led from the mid 90s to slowdown in growth, demand deficiency and fiscal imbalance. With demand constrained production, capital inflows tend to make the exchange rate appreciate and hence aggravate the recessionary conditions unless the central bank neutralises the adverse effect through intervention in the currency market at the appropriate scale. An exchange rate appreciation reduces the current account balance; but the associated increase in

the investment-saving gap is brought about primarily through a fall in saving due to economic contraction. In fact, since an increase in excess capacity has an adverse impact on private propensity to invest, there is also a tendency for investment to decline, albeit at a slower rate than saving. In a demand deficient economy consequences of capital inflows for current and future GDP are thus unambiguously adverse.

7. In India RBI purchase of foreign currencies has helped partially mitigate these adverse consequences. Even during 1996-01, when the country ran current account deficits, the overwhelming part of capital inflows was mopped up for accumulation of forex reserves. Over the last two years and a half not only have capital inflows surged, but the current account balance has also turned positive with the result that forex reserves jumped from \$42.3 billion to 96 billion¹⁷ between end March 2001 and early December 2003. Though this policy has drawn flack from some quarters, in the absence of RBI purchases of foreign exchange, appreciation of the rupee would have been larger and the demand deficiency problem more acute. This does not mean that forex accumulation does not involve any cost or that no better policy alternative is available to the monetary and fiscal authorities. Before coming to consider the best way of dealing with the twin phenomena of burgeoning capital inflows and demand deficiency, let us consider the losses the economy has to bear on account of reserves accumulation beyond what is required for BoP viability (remembering that by 1999 India's forex reserves, as may be seen from Table 2, were already adequate as per all the usual criteria).

8. To illustrate the nature of losses, assume that capital inflows consist of loans carrying an interest of r^* . If RBI's foreign exchange holdings yield i at the margin, a unit increase in reserves causes a decline in net national product (NNP) to the tune of r^*-i (measured in terms of foreign currency) times the exchange rate¹⁸. Given the magnitude of forex reserves and the relatively low return on foreign government bonds in which they are held, the amount of India's NNP loss on this count is quite substantial. Thus a conservative estimate of adequate forex reserves at \$40 billion and of r^*-i at 3% imply as of now an yearly NNP loss of more than USD 1.8 billion or nearly Rs. 8,200 crore, a fairly tidy sum by any reckoning.

¹⁷ Part of the increase was due to depreciation of the US dollar against the euro and the yen.

¹⁸ We are abstracting from gains or losses due to variations in the real exchange rate.

9. Other losses due to excess reserves holding are also by no means inconsequential. A major part of reserves accretion has been sterilized, involving a sharp fall in the flow of RBI credit to the domestic sector, especially to the government (Table 3). The result has been that while at end March 1996 Reserves Bank's credit to government, and the commercial sector and foreign exchange assets as proportions of reserve money amounted to 61.1, 3.5 and 38.1% respectively¹⁹, the corresponding figures at end October 2003 were 18.4, 0.8 and 108.3. This dramatic change in the composition of RBI assets has had an adverse impact on its net earnings²⁰ and added to the government's fiscal woes. With the yield on government bonds and RBI credit to commercial sector averaging a little over 6%, the returns-differential between RBI's domestic and foreign assets is about 4%. Note that a one-for-one substitution of domestic for foreign assets in Reserve Bank's portfolio leaves high power money and hence aggregate supply of money unaffected. The implication is that holding of more than \$60 billion excess forex reserves entails a loss of government revenue to the tune of at least \$2.4 billion or about Rs. 11,000 crore. The sharp reduction in RBI holding of government bonds is also posing problems for the central bank in conducting open market operations for keeping domestic money supply at the targeted level.

10. The losses on account of capital inflows and excessive reserves build-up noted above are relatively minor when compared with the opportunity cost of not pursuing policies appropriate for a demand deficient economy. In such an economy an increase in investment (or consumption) does not require foreign capital inflow. Indeed, since the marginal opportunity cost of domestic production, from the macro-viewpoint, is then zero, even an interest-free external borrowing for purposes of investment is burdensome to the economy: unlike foreign borrowing, domestic financing of such investment would not involve any future payments to the rest of the world (by way of debt-servicing). It is only under full employment does the economy require foreign finance for purposes of raising capital accumulation (without having to cut current consumption).

11. This perspective suggests a set of domestic and BoP-related measures appropriate for a demand deficient economy like India's.

¹⁹ The figures add up to more than 100 since the reserve money (or RBI's monetary liability) falls short of Reserve Bank's total assets (and hence liabilities) on account of its net non-monetary liability consisting mostly of share capital, accumulated undistributed profits and Relief Bonds.

²⁰ The major part of which goes to the government as dividends.

The need for stepping up public investment in the infrastructural and the social sector for raising capacity utilization and boosting the country's long-term growth potential can hardly be exaggerated, especially since (a) externalities, lumpiness and durability of such investments militate against private initiative in these areas; and (b) they have significant crowding-in effects on private sector investment. Note also that given the poor credit delivery system and relatively small coverage of the organized financial market, an easy money policy will not on its own be effective in providing sufficient boost to effective demand. Monetized financing of public sector investment thus appears to be the best option in eliminating the output gap without adding to the government's fiscal burden²¹.

12. What about external sector management when expansionary policies are being pursued? An increase in domestic demand tends to spill over to the rest of the world through larger imports. The nature of BoP management required under these conditions depends on whether the prevailing exchange rate is in line with the country's long-term fundamentals: it is these rather than short-term cyclical considerations that should be relevant for RBI policies relating to the exchange rate²². If the exchange rate is considered overvalued from this viewpoint, RBI can let the rate depreciate while excess capacity is being eliminated; there is then no need for inflow of foreign capital or reduction in foreign exchange reserves to finance the incipient increase in current account deficit. However, if the exchange rate is close to the optimum (or undervalued), domestic expansionary policies have to be accompanied with drawing down of reserves or reliance on foreign capital inflows (if reserves are inadequate) to prevent a depreciation of the exchange rate (or to steer the rate toward its optimum level).

13. So far as the Indian scenario is concerned, there is little doubt that the scope for productive investment is significantly larger than the economy's full employment saving rate. Of particular importance, we have emphasized, are building up of infrastructural facilities and social sector development. Investments in these areas raise the country's full-employment growth potential through a boost to total factor productivity, given the strong complementarities between infrastructural-cum-human capital and other resources of the economy. While these investments have large crowding-in effects

²¹ The reason is that RBI credit to the government does not involve an increase in net interest obligation of the government.

²² Though the central bank should not have an explicit exchange rate target.

and raise the economy's capacity to absorb foreign capital, in view of their long gestation period, durability, high risk and coordination problems, the primary responsibility of quickening the pace of infrastructural and social sector capital formation has to be of the state, not of private producers. Note also that though a moderate revival of the economy has made current account balances negative in recent months with no significant changes in the real exchange rate, large capital inflows and reserves build-up have continued unabated. Our analysis and observation suggest how policies relating to the external sector have to be integrated with measures aimed at stimulating growth and fiscal viability.

14. At this juncture of the Indian economy the policy mix for closing the output gap seems relatively easy to implement. The boost to aggregate demand required for this purpose can be provided through the operation of multiplier-cum-crowding-in effects of a step-up in public investment. Even without any exchange rate appreciation, this should cause a widening of the current account deficit and permit the economy to use reserves (or capital inflows) for meeting the investment-saving gap. This policy combination, it is also important to recognize, strengthens budgetary viability even in the short run. First, not only is there an increase in government revenue with enlargement of production and income, but with a strong enough crowding-in effect this increase can be larger than the rise in public investment expenditure. Second, so long as capacity is underutilized monetized financing of government expenditure does not add to the fiscal problem in the short or in the long run: there are no immediate inflationary consequences, nor is there any additional interest obligation in the future. Finally, as the import-export gap is financed through depletion of RBI's reserves holding, there is a substitution of GOI securities for US or EU government bonds (so that domestic money supply is not reduced). The resultant increase in RBI and hence government revenue contributes further toward strengthening the fiscal balance.

15. We have indicated earlier why a policy of letting the exchange rate appreciate in the face of demand deficiency would on its own have been counterproductive. However, under the policy package suggested by us the trade-weighted real exchange rate would require some upward revision. The government policy of raising the supply of infrastructural services, human resource development and maintenance of adequate effective demand should open up considerable opportunities for private sector capital formation as well as foreign direct investment (FDI). Some back-of-the-envelope

estimates suggest that under these conditions the optimum current account deficit (or excess of investment over full employment saving) would be around 2.5 to 3% of (full employment) GDP, and the real exchange rate about 5% higher than its current level.

16. The domestic expansionary and exchange rate policies outlined above need to be backed up by some measures relating to capital account transactions. In most emerging market economies short-term loans and foreign institutional investments (FIIs) have proved highly volatile so that the central bank has to hold large reserves against them in order to avoid exchange rate instability. RBI can claim credit for significant reduction in short-term debt; but FIIs have become quite important especially in recent months and constitute a potential source of stock market bubble as well as disruptions in the foreign currency market. Empirical studies also suggest that, unlike FDI, FII does not (even under full employment conditions) contribute toward capital accumulation or an increase in total factor productivity (Rakshit 2002). It is thus necessary to (a) continue with the policy of restricting capital account convertibility for domestic entities; and (b) discourage short-term external borrowing as also foreign portfolio investment. These steps would permit the Reserve Bank to bring down foreign currency reserves substantially without endangering BoP viability, and enable productive deployment of external funds flowing into the economy.

17. Policies relating to capital inflows and reserves accretion have thus to be an integral part of overall macroeconomic management for full employment of resources, stimulating growth and avoiding instability on the domestic as well as the BoP front. It is the absence of such an overall approach that has made RBI policies relating to capital account transactions, exchange rate and reserves build-up largely inappropriate, if not counterproductive.

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