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## The Pre-reforms Indian Economy\*

### *Plan Strategy, Development Experience, and Payments Crisis*

I have always found that plans are useless, but planning is indispensable.

Eisenhower

After a gap of three and a half decades the economic policy pursued in India has once again been receiving worldwide attention and accolades, but this time for moving away from a planned to a market economy. We propose to trace in this chapter the course of events leading up to the policy reversal following the 1990–1 crisis, and to examine whether the widely held diagnosis of the crisis stands up to a close scrutiny. A proper understanding of the interplay of economic forces in the pre-reforms period is important not only for its own sake, but also for drawing the right policy conclusions. If the crisis is considered, as is being done by most analysts, to be the inevitable outcome of the planning process, there is a danger of throwing the baby away along with the bath water in the process of liberalization.

The first section provides a synoptic view of the experience of the Indian economy during the Plan period<sup>1</sup> (1951–90) in general and prior to the 1990–1 BoP crisis in particular. The second section summarizes the mainstream perception concerning the genesis of the payments problems, with special reference to the plan strategy and macro management of the economy

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<sup>1</sup> Though planning has not been abandoned since 1991, in view the major moves towards market orientation in the post-reforms era, we refer to the years from the First to the Seventh Five-Year Plan as the Plan period.

during the 1980s. The last section presents an alternative explanation of the nature and roots of the crisis and seeks to identify the major omissions and commissions of policymakers that made the economy vulnerable to external shocks.

### Indian Economy During the Plan Period: An Overview

As Tables 3.1 and 3.2 suggest, contrary to the currently fashionable view, performance of the economy during the Plan period was not altogether dismal. The average annual growth rates of the gross national product (GNP) and per capita net national product (NNP)—at about 3.9 and 1.4 per cent respectively—over the four decades were undoubtedly modest by the East Asian standard, but constituted a quantum jump over the rates the country ‘enjoyed’ during 1900–47.<sup>2</sup> Indeed, India’s economic performance was much more impressive from the mid-1970s since when there seems to have occurred a clear transition from a modest to a high growth trajectory for both GDP and per capita income.<sup>3</sup> While the GDP and per capita NNP

TABLE 3.1  
Annual Growth Rates and Inflation Rates

Year	GNP at 1999–2000 prices	Per capita NNP at 1999–2000 prices	Inflation rate (% change)
First Plan 1951–6	3.7	1.8	-2.7
Second Plan 1956–1	4.2	2.0	6.3
Third Plan 1961–6	2.8	0.2	5.8
Three Annual Plans 1966–9	3.9	1.5	8.1
Fourth Plan 1969–74	3.4	1.0	9
Fifth Plan 1974–9	5.0	2.7	6.3
Annual Plan 1979–80	-5.0	-8.3	17.1
Sixth Plan 1980–5	5.5	3.2	9.3
Seventh Plan 1985–90	5.8	3.6	6.7
1990–1	5.5	3.3	10.3
1991–2	1.1	-1.5	13.7

Source: Government of India (2006).

<sup>2</sup> Mukherjee (1969) estimates that there was no increase in per capita income in (undivided) India between 1900 and 1947, the year of independence from the British rule.

<sup>3</sup> On the basis of decadal growth rates, most analysts consider the 1980s to be the period when India graduated from a low to a high growth economy (see, for example, Rodrik and Subramanian, 2004). However, a close scrutiny of annual growth rates during the Plan period clearly suggests that the growth transition of the Indian economy occurred from the Fifth Five-Year Plan. In fact, the official estimates of growth for the

TABLE 3.2  
Gross Savings and Investment in India, Percentage of GDP at Current Market Prices

Year	Household sector	Private sector				Public sector				Total	
		Savings	Savings	Investment	Savings less investment	Savings	Investment	Savings less investment	Savings	Investment	Savings less investment
1950-1	6.2	7.1	7.7	-0.6	1.8	2.8	-1.0	8.9	8.7	0.2	
1960-1	7.3	8.9	7.8	1.1	2.6	6.9	-4.3	11.5	14.4	-2.9	
1970-1	10.1	11.6	9.4	2.2	2.9	6.4	-3.5	14.6	15.4	-0.9	
1971-2	10.7	12.2	9.9	2.3	2.8	7.0	-4.2	15.1	16.0	-1.0	
1972-3	10.4	11.9	9.0	2.9	2.7	7.2	-4.5	14.6	15.1	-0.6	
1973-4	12.2	13.8	9.2	4.6	2.9	7.5	-4.5	16.8	17.4	-0.6	
1974-5	10.4	12.3	10.9	1.4	3.7	7.4	-3.8	16.0	16.8	-0.8	
1975-6	11.7	13.0	9.6	3.4	4.2	9.4	-5.1	17.2	17.1	0.1	
1976-7	13.2	14.5	9.3	5.2	4.9	9.8	-5.0	19.4	17.9	1.5	
1977-8	14.1	15.5	10.7	4.8	4.3	8.0	-3.7	19.8	18.4	1.4	
1978-9	15.4	16.9	11.5	5.5	4.5	9.2	-4.7	21.5	21.6	-0.1	
1979-80	13.8	15.8	11.3	4.5	4.3	10.0	-5.7	20.1	20.6	-0.5	
1980-1	13.8	15.4	10.3	5.2	3.4	8.4	-5.0	18.9	20.3	-1.5	
1981-2	12.6	14.1	12.3	1.8	4.5	10.1	-5.6	18.6	20.1	-1.5	
1982-3	12.3	13.9	11.0	2.9	4.3	10.7	-6.4	18.3	19.6	-1.4	
1983-4	12.8	14.3	10.0	4.3	3.3	9.7	-6.4	17.6	18.7	-1.1	
1984-5	14.3	15.9	11.2	4.8	2.8	10.4	-7.6	18.8	20.1	-1.3	
1985-6	14.3	16.3	12.9	3.4	3.2	10.8	-7.6	19.5	21.7	-2.2	
1986-7	14.5	16.2	12.0	4.2	2.7	11.2	-8.4	18.9	21.0	-2.0	
1987-8	16.7	18.4	12.6	5.8	2.2	9.5	-7.3	20.6	22.5	-1.9	
1988-9	16.8	18.8	14.2	4.6	2.1	9.5	-7.4	20.9	23.8	-2.9	
1989-90	17.9	20.3	14.1	6.2	1.7	9.5	-7.9	22.0	24.5	-2.5	

Note: Sectoral saving ratios may not tally due to rounding. The discrepancy between public and private investment and total investment is mainly due to the adjustment for errors and omissions.

Sources: Government of India (2006); Reserve Bank of India (2006).

growth during 1951–75 were about 3.6 per cent and 1.2 per cent, respectively, over 1975–90 the corresponding figures were more than 5.0 per cent for the former and 2.3 per cent for the latter. This transition was all the more remarkable in the context of growth slowdown in practically all developed and (non-oil producing) developing countries during the 1970s and 1980s due to sky rocketing of petroleum prices. The fact that the Indian economy could sustain an average growth of more than 5 per cent even though the share of petroleum in the import bill went up by nearly six times, might be viewed as a sign of strengthening of the country's economic fundamentals during this period.

Perhaps the most important source of this strengthening was the substantial rise in the country's saving and investment. The increase in aggregate saving and investment as ratios of GDP, from less than 9 per cent in the early 1950s to nearly 22 per cent by the end of the Fifth Plan (1978–9), laid the foundation for a fairly high if not spectacular rate of growth. What is no less noteworthy, until the Seventh Plan, the reliance on foreign savings to fund domestic capital formation was quite low, as shown in Table 3.2.

The Plan period saw a radical transformation of the structure of the Indian economy, with agriculture's share in GDP declining from a little less than 57 per cent in 1950–1 to 31 per cent in 1989–90, and that of industries and services rising from 14 and 30 per cent to 28 and 41 per cent, respectively, during the same period. There was also a significant qualitative change in the nature of industrial activities: by the mid-1980s India had built up a diversified industrial structure capable of producing not only consumer goods but also a wide range of basic intermediate and capital goods. An important consequence of this structural transformation was that, by the early 1980s the monsoon ceased to be the dominant factor affecting the Indian macroeconomy. In sharp contrast to the experience of the earlier decades, monsoon failures during the 1980s—in the years 1983, 1985, 1987, and 1988—did not cause a large decline in agricultural output,<sup>4</sup> and more importantly, the industrial sector recorded fairly rapid growth even when agricultural production fell.

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1980s have a significantly upward bias due to (a) the exceptionally low GDP in the base year, 1979–80, when due to widespread monsoon failure GDP plummeted by 5.2 per cent, and (b) the procedure of taking the arithmetic mean of annual growth rates (rather than computing the compound rate) while estimating growth for a Five-Year Plan period. Indeed, taking the GDP growth in 1989–90 to be nil, the (compound) annual growth rates over the Fifth, the Sixth, and the Seventh Plan turn out to be 5.0 per cent, 4.4 per cent, and 5.9 per cent, respectively.

<sup>4</sup> Thanks to expansion of irrigation facilities and growing importance of high yielding boro crops since the adoption of the new agricultural strategy in the early 1970s.

From the viewpoint of promotion of social welfare, the most notable achievement of the Indian economy from the mid-1970s onward consisted of attainment of food security, poverty reduction, and absence of prolonged inflation. Except for 1979, when there was a severe drought, the inflation rate during the 1975–90 period was modest and did not ever exceed single-digit figures. This was quite remarkable in view of the fact that (a) during the 1980s agricultural production, as already noted, was below normal in quite a few years and (b) prices of primary goods, whose weights are relatively large in price indices, tend to be much more sensitive than prices of industrial products to supply side shocks.

No less noteworthy was the decline in the incidence of poverty. According to official estimates, the percentage of population living below the poverty line came down from 48.3 in 1977–8 to 29.9 in 1987–8 (Government of India, 1992). Though there is scope for debate about the reliability of this estimate (Minhas et al., 1991), the rate of decline in the incidence of poverty is generally admitted to have accelerated during the 1980s. What is more significant, in sharp contrast to earlier experiences, the incidence of poverty declined even in 1987–8, when the production of foodgrains fell.

The main reason behind the phenomenon of moderate inflation along with a decline in poverty may be traced to the radical transformation of India's food economy. Not only had India been prone to periodic famines during the British Raj (Bhatia, 1985), but even in 1965 and 1966 a major part of the northern region of the country suffered from severe shortage of food leading to widespread starvation. Indeed, during the 1960s India had very often to rely on food aid (especially under the US PL 480) to tide over the shortfall of domestic production. Starting from the early 1970s, the Green Revolution and extensive use of the public distribution system (PDS) supported by buffer stocking of foodgrains, freed the country from famines and dependence on food aid. Even in draught years release of subsidized foodgrains through an extensive network of PDS as well as open market sale by the FCI significantly kept down both food price inflation and the incidence of hunger.

### Some Disquieting Features

While one should not underestimate the plus points of the Plan period in India, it is important to recognize the major failings and weaknesses of the economy which prompted the government to opt for economic reforms. Even after four decades of planning, nearly 30 per cent of India's population lived in abject poverty and the country's per capita income was one of the lowest among low-income nations. The record of the country in respect of income distribution despite the goal in all the Plans of a 'socialistic pattern

of society' was also poor. All available evidence suggests that the gains from the relatively high growth during 1975–90 were very unevenly distributed across occupation groups and geographic regions. The decline in poverty was faster in urban than in rural areas. Between 1977–8 and 1987–8 the relative gap in the incidence of poverty between the rural and urban areas rose from 37 to 67 per cent (Government of India, 1992). This agrees with the fact that, although income originating in agriculture fell to 31 per cent of GDP by the end of 1980s, some two-thirds of the total population remained dependent on agriculture for their livelihood.

That growth had left a substantial part of the population practically untouched is further confirmed by the employment trend in the organized sector.<sup>5</sup> Even though industrial growth averaged nearly 8 per cent per annum during the 1980s, employment in the organized sector, especially in private enterprises, did not register any significant increase. Organized sector employment rose by about 2.5 per cent a year between 1977 and 1981—just ahead of the population growth rate—but during the next eight years the average annual employment growth in this sector fell to less than 1.5 per cent (Government of India, 1992). This resulted in a more than 100 per cent rise in the number people on the Live Register of Employment Exchange between 1980 and 1990, from 16.2 million to 34.6 million.

Finally, the 1980s were characterized by the emergence of serious macroeconomic imbalances, which culminated in the 1991 crisis, causing a sharp break from the earlier policy stance. The revenue deficit, fiscal deficit, and public debt rose rapidly during this period. More important, the domestic savings ratio reached a plateau in the late 1970s and recorded a decline in the 1980s.<sup>6</sup> The result was that even the mild increase in the investment ratio during the later part of the decade resulted in a steep rise in the investment-savings gap (or current account deficit); raised the burden of foreign debt; and led to a cumulative worsening of the balance-of-payments position. Table 3.3 indicates the major developments in the external sector before the payments crisis of 1991, and brings into sharp relief the contrasting picture of the country's foreign indebtedness and balance of payments position during the 1970s and 1980s. The earlier decade was characterized by a steep fall in the outstanding amount of foreign debt and debt servicing as ratios of both GNP and exports, and by a fairly comfortable position in respect of foreign exchange reserves. In marked contrast, all the indices relating to the

<sup>5</sup> Remembering the huge gap between wage rates between the organized and unorganized sectors.

<sup>6</sup> This was in sharp contrast to the experience of newly industrialized countries, where the savings ratio had displayed a rising trend from the 1960s and was 10–12 percentage points higher than that of India in 1990 (World Bank, 1991).

TABLE 3.3  
Some Indicators of External Imbalance

Year	Current account deficit to GNP	Debt stock to GNP	Debt stock to exports	Interest to exports	Debt servicing to exports	Foreign exchange reserves to imports (months)	(per cent)
1970	0.8	14.9	357.5	8.7	22.8	4.4	2.4
1978	-0.2	13.8	164.8	3.8	10.5	9.6	2.3
1980	1.3	11.9	136.0	4.2	9.3	7.9	3.1
1981	1.5	14.4	144.3	3.0	8.1	5.4	2.1
1982	1.3	14.9	179.8	4.2	10.6	5.8	2.3
1983	1.1	16.1	207.9	9.4	16.9	5.9	4.5
1984	1.2	17.7	209.5	10.7	18.2	5.4	5.1
1985	2.3	19.3	265.2	12.6	22.7	5.4	4.8
1986	2.0	21.3	294.8	14.2	32.0	5.8	4.8
1987	2.4	21.9	287.4	14.0	29.4	5.3	4.9
1988	2.9	20.8	280.5	13.4	28.6	3.7	4.8
1989	2.7	26.4	308.6	17.1	29.6	4.4	5.5
1990	3.2	27.1	313.0	18.2	30.1	1.9	5.8

Source: World Bank (1991).

debt burden rose steeply during the 1980s, pointing clearly to an impending BoP crisis. External factors such as the (first) Gulf War undoubtedly aggravated the problem; but it is generally agreed that, given the trend of the major macroeconomic indicators during the 1980s, a payments crisis could not have been avoided without a radical change in domestic policies and/or external economic environment.

### Roots of the Crisis: The Conventional Hypothesis

While the course of events culminating in the 1990–1 crisis is clear enough, there is scope for serious argument regarding its roots. The crisis is generally attributed to two sets of policy failures, the first relating to the overall Plan strategy and the second to the macroeconomic mismanagement of the economy during the Sixth and the Seventh Plans.

From the Second to the Seventh Plan, the development strategy consisted of (a) government control over the 'commanding heights of the economy'; (b) step-up in capital accumulation of which a major part was in the public sector; (c) control over the quantum as well as allocation of private investment in line with Plan priorities; (d) import substituting industrialization (ISI) with emphasis on rapid development of industries

producing capital and basic intermediate goods.<sup>7</sup> In pursuit of this strategy practically all the major industries as well as commercial banks, insurance companies, mutual funds, and DFIs came to belong exclusively to the public sector. Between 1950–1 and 1989–90 use of private saving for financing public investment went up from 1 per cent to 8 per cent of GDP. For making private sector production and investment conform to plan priorities, extensive use was made of industrial licensing, administered interest rates along with directed credit programmes, and price control cum rationing of important basic and intermediate goods. Stifling of market forces was the most severe in respect of external transactions. A rigid system of exchange control was in force under which not only capital but most current account transactions also were subject to severe restrictions. High tariffs supplemented by licensing and quotas made Indian industries one of the most protected in the world.<sup>8</sup>

The financial repression, the inward looking trade strategy, exclusion of private enterprises from the major spheres of economic activity, and the long shadow of the 'licence-permit-quota raj', all, it is generally emphasized, tended to create gross distortions, promoted rent seeking at the expense of productive economic endeavour, and severely eroded the country's export competitiveness. A reflection of this loss of competitive edge in the world market was the steep fall in India's share in global trade, from 1.0 per cent in the early 1950s to 0.5 per cent in 1990.

### Macro (Mis)Management

Though the inefficiency of the economic system resulting from the Plan strategy is considered the fundamental reason behind the 1991 crisis, the proximate factors were the rising current account deficit and the growing burden of servicing external debt during the 1980s. However, these factors themselves are commonly traced to inapt macro management, reflected in:

- (a) poor performance of the public sector in respect of saving;
- (b) a sharp rise in fiscal deficit as a ratio of GDP; and

<sup>7</sup> The case for development of domestic industries with protection against foreign competition is a long-standing one and may be traced back to List (1856), among others. The heavy industry strategy (HIS) followed from the Second Five-Year Plan had its origin in the Soviet planning model and is based on the perception that, in view of low elasticity of world demand for a developing country's exportables, its savings cannot be converted into investment in machinery and equipments, needed for stepping up economic growth. For a discussion on ISI and HIS see Rakshit (1997b).

<sup>8</sup> The stiffest hurdle faced by prospective importers was perhaps the 'domestic availability criterion' under which import license was not issued if the commodity could be procured from domestic sources.

- (c) an increasing reliance on monetized deficit for financing government expenditure.

Most analysts regard the growing investment-savings gap of the public sector as the primary reason for the economy's increasing current account deficit during the 1980s. Between 1981-2 and 1989-90 there was a 2.9 percentage point increase in the public sector's investment-saving gap (as a percentage of GDP) compared with a rise in the economy's current account deficit by 2.0 percentage points.<sup>9</sup> As Table 3.2 shows, this widening gap was due entirely to the poor performance of the public sector in respect of saving. Over 1981-90 public savings declined from 4.5 per cent to 1.7 per cent of GDP. In contrast, private savings registered a 3 percentage point increase during the same period. This seems to make an open and shut case against the public sector: had the sector been able to prevent the decline in its savings, if not to maintain the upward trend of earlier decades, the aggregate savings ratio would have exceeded 25 per cent by the end of the Seventh Plan and the economy enjoyed even higher growth without running into a BoP crisis.

In most discussions of the payments problems faced by the Indian economy in the late 1980s and early 1990s, the more fundamental factors behind the trouble are said to be the growing fiscal deficit, the net RBI credit to the government<sup>10</sup> and the excess demand conditions resulting therefrom. Over the period 1980-90 the annual average fiscal deficit and net RBI credit to the government (as proportions of GDP), at 8.0 and 2.1 per cent respectively, were twice their corresponding magnitudes (at 4.8 per cent and 0.9 per cent, respectively) during the earlier decade. This is held to have played an important role in undermining the BoP viability, *a la* the Polak-IMF thesis (Polak, 1957; Robicheck, 1967). According to this thesis an increase in fiscal and monetized deficits raises inflationary pressure, reduces private investment, and widens the current account deficit. While the rise in prices is due to the generation of excess demand, the problem on the BoP front is created through:

- (a) the spillover of a part of additional domestic absorption into imports and exports, with an increase in the former and a fall in the latter; and
- (b) the switching of expenditure, both at home and abroad, as the real exchange rate rises with inflation.

<sup>9</sup> Implying that performance of the private sector helped in moderating the deficit. Recall that current account deficit is nothing but the investment-savings gap of the public and the private sectors taken together.

<sup>10</sup> Which constitutes the seigniorage revenue of the government.

The greater the reliance on seigniorage for financing government expenditure, the higher will be the rate of inflation and the import-export gap. To the extent the fiscal deficit is not met through borrowing from the central bank, there will be some crowding out of private investment, but not enough to prevent an increase in excess demand, inflation, and current account deficit.

To summarize, according to the mainstream perception the 1990–1 crisis was the inevitable outcome of the highly expansionary macro policy stance of the government during the 1980s. This led to a step-up in GDP growth, but being demand driven, its sustenance ultimately required growing external indebtedness with ever increasing reliance on foreign borrowing or/and running down of foreign exchange reserves<sup>11</sup>—a process that could not but land the country in a payments crisis.

### Some Dissenting Notes

Before commenting on the relevance of the theoretical framework behind the popular explanation of the crisis it is instructive to see how far the main conclusions of the model are confirmed by the behaviour of the Indian economy during the Plan period.

#### Theory and Evidence

So far as the overall Plan strategy is concerned, its direct impact may be expected to be primarily on allocative efficiency and growth, not so much on the current account balance. Only the so called financial repression could have produced a payments problem: with administered interest rates set below the market clearing level, demand for investment would tend to exceed the supply of saving and create a deficit in the current account. Note however that the 1970s were characterized by a phenomenal growth in nationalized banking, a sharp rise in allocation of credit to priority sectors and large public investment, especially in agriculture and petroleum, as part of the strategy of import substitution. During this period the country was able to take the successive oil shocks in its stride and ended the decade with a significantly reduced burden of foreign debt and debt servicing (Table 3.3). Weakening of the country's external balances started in fact in the 1980s when the government initiated several measures of liberalization of imports and private investment and the rate of public investment was cut back during the Seventh Plan. It may be too facile to hold this policy shift responsible for the 1990–1 payments problem; however it appears

<sup>11</sup> Growing indebtedness and declining foreign currency reserves lead to a loss of (international) credit-worthiness and hence rising borrowing rates.

reasonable to look for factors other than the overall strategy during the Plan period to understand what made the economy vulnerable to external shocks.

What about the fallout of macro management? Note first that the 1980s were indeed characterized by a sharp fall in public savings (Table 3.2), but in tracing the source of this decline we should distinguish between government administration and public sector enterprises. Savings by public undertakings as a proportion of GDP rose during the 1970s by only about 1 percentage point to 3.3 per cent in 1979–80, but registered a near 4 percentage point increase to reach 7.2 per cent in 1989–90. Markedly different was the behaviour of savings by government administration over the two decades: this component of public savings (as a ratio of GDP) rose from 1.5 to 2.4 per cent between 1970–1 to 1989–90, but started falling steeply after 1981–2, turned negative since 1985–6, and was close to minus 2.3 per cent by 1989–90 (Central Statistical Organisation). Hence the fall in public savings can be traced to the government's revenue receipts and expenditure, rather than to the operation of public sector undertakings. Indeed, it is the enterprises in the private corporate sector and not those in the public sector that failed to raise their savings during the 1980s: the increase in the average savings ratio of corporates between the 1970s and 1980s, at 0.2 percentage point, fell far short of the 2.6 percentage point rise registered by PSU savings between the two decades.

While considering the behaviour of the government and household savings during the 1980s, we must take cognizance of the effect on the latter, which recorded a rapid rise since 1982–3, of the increase in transfer payments (Table 3.4) and government expenditure on education, health, and other social services, remembering that these basically constitute private rather than 'public' consumption.<sup>12</sup> If these services were not provided by the government or their costs were fully recovered, there would have been a significant difference in the relative importance of public and private savings.<sup>13</sup> Hence the view that the stagnation of aggregate savings in the economy was due to unproductive public consumption and investment is somewhat simplistic.

<sup>12</sup> Or human capital formation, though they are not so treated in the system of national accounts (SNA).

<sup>13</sup> Mundle and Rao (1991) estimate that the uncovered cost of the economic and social services provided by the government in 1987–8 was about 16 per cent of GDP, that is, close to 87 per cent of private savings in that year. Or to put the matter in a different manner, full cost recovery would have implied *ceteris paribus* a 16-percentage-point increase in government saving along with a fall in private saving by 6.4 percentage points, taking the marginal saving out of private disposable income to be about 40 per cent.

TABLE 3.4  
Government Expenditure, Revenue, and Deficit (all are as % of GDP unless otherwise specified)

Year	Govern- ment expen- diture	Govern- ment revenue	Reve- nue	Con- sump- tion expen- diture	Transfer pay- ments	Fiscal deficit	Revenue deficit	Primary pay- ments	Interest pay- ments	Interest as % of total revenue	Interest as % of government expen- diture	Mone- tized deficit	Mone- tized deficit as % of gross fiscal deficit	Change in small market loans as % of gross fiscal deficit	Change in market loans as % of gross fiscal deficit
1970-1	18.2	13.3	13.6	9.4	1.9	4.3	-0.3	2.7	1.6	9.0	12.3				
1971-2	20.2	15.1	14.9	10.2	2.0	5.0	0.2	3.3	1.7	8.4	11.3	1.8	35.3		
1972-3	20.5	15.4	15.3	9.8	1.9	4.9	0.1	3.3	1.6	7.8	10.4	1.5	31.3		
1973-4	18.5	14.0	14.2	8.8	1.8	4.1	-0.2	2.6	1.5	8.3	10.9	1.2	28.5		
1974-5	19.2	13.5	15.1	9.0	2.5	3.9	-1.5	2.4	1.5	7.9	11.2	0.9	22.1		
1975-6	22.0	15.0	17.4	9.9	2.8	4.4	-2.2	3.0	1.4	6.4	9.3	-0.2	-5.4		
1976-7	23.3	16.3	18.0	10.2	3.4	5.1	-1.6	3.1	2.0	8.4	12.0	0.9	18.4		
1977-8	22.0	15.6	17.1	9.6	3.1	4.6	-1.4	2.9	1.7	7.8	11.0	-0.1	-2.5		
1978-9	23.8	16.7	18.0	9.9	3.6	5.4	-1.3	3.4	2.0	8.3	11.9	1.6	29.7		
1979-80	25.0	17.8	18.6	10.3	3.9	6.1	-0.7	3.9	2.2	8.8	12.4	2.5	40.4		
1980-1	26.4	18.2	17.8	10.1	8.1	7.5	0.4	5.4	2.1	7.8	11.3	2.8	37.5		
1981-2	26.4	17.4	18.1	10.1	7.3	6.3	-0.6	4.1	2.2	8.5	12.8	2.4	37.7	20.3	31.3
1982-3	27.7	18.7	18.5	10.7	8.0	5.9	0.2	3.4	2.5	8.9	13.2	1.3	21.4	26.5	36.9
1983-4	27.3	18.8	17.8	10.6	8.2	7.3	1.1	4.8	2.5	9.2	13.4	1.8	25.0	22.2	29.0

(Table 3.4 Contd.)

(Table 3.4 Contd.)

1984-5	29.2	20.3	18.5	10.9	9.4	9.0	2.1	6.2	2.8	9.6	13.8	3.1	34.3	22.8	22.1
1985-6	28.3	21.3	19.5	11.4	9.9	8.0	1.9	4.9	3.1	11.0	14.5	1.6	19.5	27.4	26.5
1986-7	32.3	22.7	20.3	12.1	10.7	9.9	2.4	6.5	3.4	10.6	15.0	2.4	24.7	17.2	21.9
1987-8	31.1	22.9	20.0	12.4	10.5	9.2	2.9	5.5	3.7	11.8	16.0	1.8	19.7	19.7	22.8
1988-9	30.0	22.5	19.6	12.0	10.5	8.5	2.9	4.6	3.9	13.0	17.3	1.6	19.3	24.5	29.0
1989-90	29.9	23.4	20.2	11.9	11.5	8.9	3.2	4.6	4.2	14.1	18.1	2.9	32.6	27.8	22.5
1990-1	28.8	22.8	18.6	11.6	11.2	9.4	4.2	5.0	4.4	15.3	19.3	2.7	28.3	24.8	19.8
1991-2	28.5	22.9	19.5	11.4	11.5	7.0	3.4	2.3	4.7	16.7	20.8	0.8	11.3	23.6	23.7

Note: Transfer payments are calculated by deducting Government final consumption expenditure from Government revenue expenditure.

Source: Reserve Bank of India (2006).

As far as the effects of the fiscal deficit, money supply, and financial repression are concerned, the following stylized facts appear significant:

- (a) As shown in Tables 3.2 and 3.4, private sector investment, contrary to the conventional wisdom, was not negatively related to the fiscal or revenue deficit. Indeed, there was a mildly positive trend in private investment as a percentage of GDP in 1983–90, when both revenue and fiscal deficit grew fairly rapidly.
- (b) The behaviour of the price level cannot be explained by the fiscal deficit, the net Reserve Bank credit to the government, or money supply (Table 3.5). There was, to be sure, a fairly stable relationship between  $M_1$ , defined as currency with the public plus demand deposit with commercial banks, and GDP at market prices. This may be taken to support the orthodox transactions demand for money function, but cannot explain the behaviour of nominal income in terms of the supply of total or high power money.
- (c) The macro behaviour of the economy does not bear out the hypothesis relating to financial repression. The nominal or real rate of interest had little impact on household or total savings; there is no strong evidence to suggest that the appropriation of bank credit by the government adversely affected private investment or growth of the economy.
- (d) There was no significant relationship between fiscal deficit on the one hand, and inflation, exports, imports, and trade balance on the other.<sup>14</sup>
- (e) The current account deficit was positively related to fiscal deficit, though the association was weak.<sup>15</sup>

Only point (e) seems to lend some support to the Polak-IMF hypothesis. But the interesting point in this connection is that contrary to the generally perceived view, the increase in the current account deficit did not take place through a widening of the trade deficit, which in fact showed a mildly declining trend in the second half of the 1980s. One can only conclude that the widely held diagnosis of the malady of the Indian economy is quite inadequate.

<sup>14</sup> For the period 1980–90, the regression line of inflation on fiscal deficit or public sector borrowing (as a ratio of GDP) is near horizontal; for the trade deficit the sign of the coefficient is negative(!), though insignificant; and the same is true of exports. See Rakshit (1991).

<sup>15</sup> See Rakshit (1991).

TABLE 3.5  
Fiscal Deficit, Money Supply, Inflation, and External Balance (all are as % of GDP unless otherwise specified)

	Fiscal deficit	Net Reserve Bank credit to government	$M_1$	$M_3$	Imports	Exports	Trade deficit	Current account deficit	Inflation
1970-1	4.6	0.7	16.1	24.1	4.5	3.6	-0.9	-1.0	5.5
1971-2	5.3	1.8	17.0	25.9	4.6	3.7	-0.9	-1.0	5.6
1972-3	5.2	1.5	18.0	27.8	4.4	4.2	-0.2	-0.6	10.0
1973-4	4.3	1.2	17.1	26.9	4.7	4.1	-0.7	1.7	20.2
1974-5	4.1	0.9	15.5	25.2	6.2	4.8	-1.4	-1.2	25.2
1975-6	4.6	-0.2	16.0	27.0	7.0	5.9	-1.0	-0.2	-1.1
1976-7	5.4	0.9	17.9	31.0	6.8	6.7	-0.1	1.0	2.1
1977-8	4.9	-0.1	14.2	32.4	6.5	6.4	-0.1	1.1	5.2
1978-9	5.7	1.6	15.7	36.4	7.8	6.2	-1.6	-0.2	0.1
1979-80	6.5	2.5	16.6	39.1	8.9	6.5	-2.4	-0.5	17.1
1980-1	8.1	2.8	16.3	38.8	9.8	6.2	-3.6	-1.5	18.2
1981-2	6.7	2.4	14.8	37.2	9.4	6.1	-3.3	-1.7	9.3
1982-3	7.3	1.3	15.2	38.9	9.4	6.3	-3.1	-1.7	4.9
1983-4	8.1	1.8	15.2	39.4	8.8	6.2	-2.6	-1.5	7.5
1984-5	9.7	3.1	16.3	41.9	8.7	6.5	-2.2	-1.2	6.5
1985-6	9.3	1.6	15.9	42.9	8.5	5.6	-2.9	-2.1	4.4
1986-7	10.9	2.4	16.6	45.5	8.2	5.6	-2.6	-1.9	5.8
1987-8	10.0	1.8	16.5	46.4	8.4	5.9	-2.4	-1.8	8.1
1988-9	9.4	1.6	15.8	45.9	9.2	6.3	-3.0	-2.7	7.5
1989-90	10.1	2.9	16.7	47.5	9.6	7.3	-2.3	-2.3	7.5
1990-1	10.2	2.7	16.3	46.7	9.9	7.3	-2.7	-3.1	10.3
1991-2	9.0	0.8	17.5	48.5	9.3	8.8	-0.5	-0.3	13.7

Notes: (a) Net Reserve Bank credit to government is deficit financing and refers to the increase in high power money due to net credit to the government.

(b)  $M_1$ : Currency in circulation plus demand deposits with commercial banks.

(c)  $M_3$ : Supply of money; it consists of currency with the public and bank deposits.

Sources: Government of India (2006); Reserve Bank of India (2006).

### An Alternative View of Macroeconomic Linkages and the Crisis

As a prelude to our explanation of the 1990–1 crisis it is useful to consider why the relations between the major macro policy instruments and variables during the 1980s did not conform to orthodox results. The first point to note in this connection is that, given the existence of excess capacity in the economy during the 1980s (Reserve Bank of India, 1985), the high growth over the Sixth and the Seventh Plan periods can be accounted for by sharp increases in the government consumption and transfer payments. As a ratio of GDP the former rose by nearly 2 percentage points over 1981–90 and the corresponding increase in the latter was as much as 4 percentage points<sup>16</sup> (Table 3.4). It was this jump in the government's current expenditure that caused a 3 percentage point increase in revenue and fiscal deficit between 1982–3 and 1989–90 even though the government revenue as a proportion of GDP recorded a fair improvement during the decade.

As Table 3.4 shows, behind the deteriorating budgetary balance, the role of burgeoning transfer payments was more important than that of rising government consumption. But since the major part of transfer payments consisted of interest on public debt, their sharp rise over the Sixth and the Seventh Plan periods may in turn be traced to the (public consumption driven) increase in the average primary deficit from 3.1 per cent of GDP during the 1970s to 4.6 per cent in the subsequent decade.<sup>17</sup> However, a

<sup>16</sup> Rodrik and Subramanian (2004) explain the improvement in growth during the 1980s in terms of the rise in total factor productivity, after allowing for the increase in capacity utilization. However, apart from the differences in the estimates of capacity utilization, which the authors refer to, they also suggest that lagged effects of public investments in infrastructure on productivity of private firms 'could explain a substantial part of overall growth'. Several points may be noted in this regard. First, the gestation lag of public investment in roads, railways, electricity, ports and other infrastructural facilities is often significant. Second, availability of these facilities, most of which are intermediate inputs, tended to raise the capacity output of private firms more than proportionately, remembering that in the absence of these services the firms cannot fully exploit the economies of scale. Third, under the licence-raj actual investment (or addition to capacity) of almost all firms was substantially in excess of the permitted or the officially recorded amount. Finally, with liberalization of capital goods imports, the effective increase in capacity was more than the estimates based on investment expenditure. All these suggest that increases in aggregate demand played a key role in boosting GDP growth during the 1980s, though in the absence of infrastructural investments sustenance of the demand-led growth would have been difficult.

<sup>17</sup> Recall that even when debt financing of deficit is sustainable with GDP growth exceeding the government's borrowing rate of interest (Domar, 1944), an increase in primary deficit leads to a rise in the (long-run) equilibrium interest payments and public debt (as a proportion of GDP) so that the adjustment over time to the new equilibrium will be characterized by a rising ratio of fiscal deficit.

major part of the rise in fiscal deficit during the 1980s was also due to the mode of financing the deficit.

Note that during the 1980s the 90 per cent increase in interest payments as a ratio of GDP was more than twice than that of fiscal deficit (at around 42 per cent). Indeed, the growing significance of interest payments over the decade is indicated by the fact that between 1980–1 and 1989–90 these outgoes as ratios of the government's total and revenue expenditure rose from 7.8 and 11.1 per cent to 14.2 and 18.1 per cent, respectively (Table 3.4). As already noted, one reason for the rising interest payments was the jump in primary deficit. No less important, however, was the reliance on relatively high cost borrowing instruments for financing the fiscal deficit. Compared with the earlier decade, the 1980s were characterized by a higher ratio of the RBI credit to the government as well as of fiscal deficit. However, after 1981–2 there was a sharp fall in the share of net RBI credit along with a steep rise in that of small saving in gross fiscal deficit (Table 3.4). Small saving instruments like NSCs and PPF carried a 12 per cent interest rate along with substantial benefits by way of tax concessions so that they involved a borrowing cost to the government of around 20 per cent.<sup>18</sup> Thus the increase in the share of small saving at the expense of RBI credit constituted a switch from a zero cost<sup>19</sup> to an extremely high cost mode of meeting the fiscal deficit and hence one of the major reasons for the sharp, cumulative rise in the deficit during the decade.

### Fiscal Deficit, Money Supply, and Inflation

Given the near 18 per cent growth of money and bank credit along with the sharply rising trend of fiscal deficit during the 1980s, the average WPI (wholesale price index) inflation at a moderate 6.8 per cent may appear somewhat puzzling. The main explanation of this puzzle needs to be sought in the structural features of the Indian economy. In countries like India the crux of the inflationary situation lies in the market for agricultural goods, and it is through this market that factors affecting aggregate demand influence the general price level. Unlike non-agricultural prices that are generally set on a mark-up basis, prices of agricultural goods are market clearing. Hence, the first impact of a rise in aggregate demand will be on prices of food and other

<sup>18</sup> For many individuals not only was the entire amount invested deducted from their taxable income, but the interest was also tax free. Given the high income tax rates prevailing in those days, the 20 per cent return is perhaps an extremely conservative estimate.

<sup>19</sup> Remembering that additional interest earnings of RBI ultimately accrue to the government by way of extra dividend. However, the central bank credit is more inflationary than other forms of loans for financing the deficit and may fail to garner additional resources beyond a point (Rakshit, 2005).

farm products. Apart from their significant weight in WPI,<sup>20</sup> agricultural prices also have considerable impact on the prices of non-agricultural goods through the raw material cost of agro-industries and adjustment, albeit imperfect, in money wages to changes in the cost of living index (Cardoso, 1981; Kalecki, 1976; Rakshit, 1982; Taylor, 1983). Thus the inflationary consequences of a given increase in aggregate demand depend crucially on:

- (a) its distribution between agricultural and other goods;
- (b) the prevailing supply conditions in agriculture and the extent of government intervention in the market for farm products through fertilizer subsidies, fixation of procurement prices, and public distribution of foodgrains;
- (c) the significance of agricultural raw materials in the production of non-agricultural output; and
- (d) the degree of upward revision in wages in response to an increase in the cost of living index.

In view of the chain of causation specified above, it is not very difficult to discern why the demand-driven growth in the 1980s did not lead to a high rate of inflation in WPI or in the price level of primary articles.<sup>21</sup> Thanks to the insignificance of direct taxes,<sup>22</sup> the pattern of government expenditure and the consequent change in the distribution of income, the increase in demand was mainly for industrial consumer goods, especially consumer durables and services<sup>23</sup> (Kelkar and Kumar, 1990; Nagaraj, 1990). Furthermore, the government procurement and the PDS played an important role in stabilizing foodgrains prices, perhaps the most critical factor in the economy's inflationary mechanism. Thus although the index of foodgrains production—taking 1969–70 as the base year—declined from 161.9 in 1985–6 to 150.0 in 1986–7 and further to 149.8 in 1987–8, the release of foodgrains through PDS limited the rise in foodgrains prices to 3.0 per cent in 1986–7 and 8.5 per cent in 1987–8.

It is also important to recognize that extension of credit has a dual role in the inflationary process in countries like India where a large number of small and medium borrowers face severe credit constraint. In so far as additional credit finances consumption and long-term investment, the demand side effect will predominate and the impact will be inflationary in the short

<sup>20</sup> Their weights are much larger in the cost of living indices.

<sup>21</sup> Over 1982–90 the inflation in prices of primary articles averaged 6.4 per cent, quite close to the headline inflation of 6.5 per cent during the period.

<sup>22</sup> In total government revenue and GDP.

<sup>23</sup> While output of industrial consumer goods grew at a rate of 6.5 per cent a year, that of consumer durables recorded a growth rate of more than 16 per cent.

run, since accumulation of fixed capital is yet to yield any additional output. But in a situation of credit rationing, production loans or loans for working capital are clearly disinflationary. Hence an increase in the supply of money and credit may reduce rather than raise inflationary pressure, if the additional loan eases the credit constraint faced by producers (Blinder, 1987; Rakshit, 1986a). Remembering that during the reference period not only was there rapid expansion of banking throughout the country, but banks were also required to earmark 40 per cent of their loans for farmers, small enterprises, transport operators, and others belonging to the priority sector, the supply side impact of credit must have played a role in relieving the inflationary pressure.

### Fiscal Deficit and Private Investment

An interesting feature of the Indian macroeconomy during the 1980s was that, contrary to the conventional wisdom, despite the large fiscal deficit and rising public debt, private investment did not suffer and even showed some increase in the latter part of the decade. For an appreciation of this phenomenon it is useful to consider the operation of the demand and supply side factors affecting private sector capital accumulation during this period.

Consider first the supply of financial resources through which fiscal deficit is deemed to crowd out private investment. Since the deficit represents government borrowing for financing its expenditure, interest rates would tend to rise and private investment fall, though the crowding out is generally less than one-to-one.<sup>24</sup> In the Indian instance, the crowding out might be expected to be more than in the normal case, remembering that the government appropriated a significant part of bank credit through imposition of the Statutory Liquidity Ratio<sup>25</sup> (SLR). However, during the 1980s, there were several factors which raised the supply of bank as well as non-bank finance and prevented (financial) crowding out of private investment.

To the extent the fiscal deficit was financed through the net RBI credit, there was an increase in reserve money which in its turn augmented the supply of bank and non-bank credit. While the supply of bank credit is boosted through the usual money multiplier mechanism, there is an increased

<sup>24</sup> The reason is that, given some positive interest elasticity of supply of financial resources, a unit increase in government borrowing from the public reduces private investment by less than one unit (assuming private investment demand to remain unchanged).

<sup>25</sup> SLR specifies the minimum proportion of the net demand and time liability of a bank required to be held in the form of excess reserves or unencumbered government securities. The SLR requirement thus created a captive market for government bonds and to the extent banks are obliged to raise their holding of SLR securities, there is a one-to-one fall in bank credit to private borrowers.

supply of funds outside the banking sector as well as the public distributes its portfolio between bank deposits and other financial assets, for example, company deposits, mutual funds, small savings, shares, private debentures, etc. The important point to note in this connection is that, both the money multiplier and the ratio of non-bank to bank finance vary with policy induced or other changes in the financial system. Thus under an administered interest rate regime, if returns on financial assets other than bank deposits are raised, there will be an increase in the supply of finance outside the banking sector, while the supply of bank credit remains unaltered.<sup>26</sup> In light of these inter-relations between money and credit, the absence of financial crowding out despite the large fiscal deficit during the 1980s can be traced to the following factors:

- (a) Compared with the earlier decade there was a faster growth in the supply of bank credit, driven by an increase in money multiplier and a higher growth rate of reserve money: between the 1970s and 1980s the average values of the money multiplier, and the growth rates of reserve money and bank credit went up from 2.66, 15.0, and 17.5 per cent to 3.03, 16.8, and 18.1 per cent, respectively. While the increase in reserve money was due primarily to RBI credit to government, the upward trend in the money multiplier was the consequence of the growing importance of time deposits, rapid expansion of banking, and relative decline in income originating in agriculture.<sup>27</sup> But despite the faster increase in total bank credit, in view of the rising share of government securities in banking sector's asset, there was some fall (by about 1.75 percentage points) in the growth rate of bank credit to the commercial sector (at 17.2 per cent). However, with inflation remaining fairly moderate during the 1980s, the average *real* growth of bank credit to the commercial sector at about 11 per cent did not create as serious a constraint for private sector investors as one might expect in the face of large scale borrowing on the part of the government.

<sup>26</sup> The reason is that, though economic agents switch from bank deposits to other financial assets, the funds flow back into the banking system so that with no change in reserve money and factors governing the money multiplier, the equilibrium amounts of bank deposit and credit remain unaltered (Rakshit, 1986a, 1997a).

<sup>27</sup> The growing importance of time relatively to that of demand deposits reduced the cash reserve requirement of banks, given the amount of deposits. Expansion of banking reduces the significance of cash transactions and hence the demand for currency (relatively to bank deposits) on the part of the public. Similar is the effect of a fall in agriculture's share in GDP, remembering that the significance of cash transactions is much higher in agriculture than in other sectors.

- (b) There was a considerable increase in non-bank finance with a rise in the returns differential between non-bank financial assets and bank deposits.<sup>28</sup> The 1980s were also marked by financial innovations such as convertible debentures and permission for a large number of initial public issues by companies. The result was a significant flow of non-bank financial resources to private entrepreneurs.
- (c) Companies procuring machinery and equipments from abroad were permitted to avail of supplies' credit, which they did with alacrity, given the wide gap between the domestic and foreign interest rates.

Apart from financial easing, demand side factors also played an important role in preventing crowding out of private investment. The demand-led growth during the decade raised capacity utilization and profitability and hence investment demand by private producers. Similar and more pronounced perhaps was the impact of large public sector investment in infrastructure. Measures like broad banding<sup>29</sup> provided greater flexibility to private producers and additional incentives for capacity expansion. Despite the growing aggregate demand, investment and operational costs did not rise; in fact they declined in some instances, due to liberalization of imports of capital goods, components, parts, and raw materials. Thus the overall economic environment turned relatively congenial for private investors, especially from 1985–6 when the government initiated a fair number of business-friendly measures.

### Genesis of the Payments Problem

What then were the major factors behind the 1990–1 crisis? Before addressing the question let us take stock of the most striking features of India's external account during the 1980s. The demand-led growth over this period raised imports of capital and intermediate goods,<sup>30</sup> especially during the Seventh Plan. However, this was more than neutralized by the buoyancy of export earnings, partly due to the relatively low rate of domestic inflation, but mostly to various export subsidies and a steady, albeit slow,

<sup>28</sup> If the differential remains the same, growth of bank deposit and non-bank financial assets held by the public would roughly be the same. With a widening returns differential, growth of the latter would be at a higher rate (Rakshit, 1997a).

<sup>29</sup> Under which automobile companies could adjust their production of different types of vehicles in response to changes in market conditions—something which could not be done earlier due to separate licensing of capacity for each type of vehicle.

<sup>30</sup> There was a fair degree of liberalization, as already noted, of these two categories of imports; but restrictions on imports of consumption goods remained in force.

devaluation of the rupee.<sup>31</sup> Indeed, the trade deficit as a ratio of GDP displayed a declining trend during the decade, falling from 3.3 per cent in 1981–2 to 2.3 per cent in 1989–90. The current account deficit also showed some decline in the earlier part of the decade, but rose sharply from the mid-1980s (Table 3.3).

The most important manifestation of the increasing external imbalance during the 1980s consisted of the country's mounting indebtedness to the rest of the world and rapidly rising debt service obligations. External debt as a ratio of GDP recorded an increase of nearly 230 per cent during the decade, from 11.9 per cent in 1980 to 27.1 per cent in 1990. Significantly greater was the increase in the burden of debt servicing, which, as a proportion of export proceeds, went up from 9.3 per cent to 30.1 per cent between the two years (Table 3.3). The key to understanding the sources of the crisis thus lies in the factors governing the external debt dynamics during the period.

At the proximate level, the debt dynamics is driven by the behaviour of the current account deficit and the interest rate on foreign debt. Any positive current account deficit implies an increase in the net external liability of the country, and hence a rise in interest payments and worsening of the balance of payments in the future (other things remaining the same). Again, given any current account deficit,<sup>32</sup> external debt and its servicing cost will rise at a faster rate when interest rates go up. Both these factors played an important role in the accelerated increase in the debt burden during the Sixth and the Seventh Plan periods.

Unlike in the Fifth Plan (1974–9) when the average current account balance registered a surplus of 0.5 per cent of GDP, in all the years during the 1980s the balance was uniformly negative, with the deficit averaging 1.5 per cent during the Sixth and rising to nearly 3 per cent by the end of the Seventh Plan (Table 3.3). No wonder then that the ratio of external debt to GDP grew at a rapid rate during the 1980s, especially in the second half. However, the worsening of the BoP was also due in large measure to the rising trend in the cost of the country's borrowings from abroad, as exhibited by the increase in the average interest rate on external debt from a lowly 2.1 per cent to a fairly steep 5.8 per cent between 1981 and 1990.

Analysing the debt dynamics in terms of the (primary) current account deficit and interest rate variations constitutes only the first step in an

<sup>31</sup> The real effective exchange rate (with 1985 as the base year) went down from 104.5 in 1981–2 to 78.4 in 1989–90, averaging a decline of 3.6 per cent per annum (Reserve Bank of India, 2001).

<sup>32</sup> Strictly speaking, as in the case of internal debt, in examining the external debt dynamics also the focus, apart from interest rate and growth, is to be on what may be called the primary current account deficit (CAD), that is, CAD less interest payments.

explanation of reasons behind the worsening debt scenario; we also need to examine the more primitive factors, especially policy omissions and commissions, behind the two proximate sources of the problem. We have already noted how the GDP growth, especially during the Sixth Plan, was driven primarily by government revenue expenditure<sup>33</sup> (including consumption and subsidies), not so much by investment, public, or even private (Table 3.2). In fact, the first half of the 1980s was marked by a declining investment ratio even though the current account deficit recorded a fairly sharp rise. The implication is that the enlarged external borrowings were used for financing consumption rather than capital accumulation—something which would normally store up troubles for the future.

There was however an increase in capital accumulation along with a rise in current account deficit during the Seventh Plan period. But the net benefit of the (external) debt-financed investment expenditure was often negative from the viewpoint of the economy as a whole. The reason lay in some structural features of the Indian economy under which there was a wide gap between the social and the private returns on tied credit from abroad for purposes of domestic capital formation. Recall that during the 1980s imports of capital goods were substantially liberalized and government approval for greenfield investment as well as capacity expansion was more easily forthcoming. Given the domestic credit constraint and easy loan facilities provided by foreign suppliers of machinery and equipment, the policy change led to a surge of import of capital goods even though these goods were easily available in the domestic market.<sup>34</sup> There are two macroeconomic implications of such imports which seem to require some elaboration.

First, contrary to the usual explanation of domestic excess demand spilling over into the trade and current account deficit, in the case considered above, it was the 'loan pushing' on the part of foreign suppliers that tended to widen the import-export gap and piling up of external liabilities. In other words, the causation ran largely from external borrowing to the domestic investment-saving gap, not the other way round.

Second, by the early 1980s India had built up a fairly large industrial sector capable of producing a wide variety of goods including capital goods and basic metals. The units producing heavy machinery, equipment, iron

<sup>33</sup> Which in its turn raised household consumption through the usual multiplier process.

<sup>34</sup> There were quite a few instances when some state electricity boards were eager to place their order for machinery and equipment with the Bharat Heavy Electricals Ltd. (BHEL), a public sector undertaking, but had to take recourse to imports since, while the imports could be financed through suppliers' credit or (tied) foreign loans, credit from domestic financial institutions was not available.

and steel, etc. belonged to the public sector,<sup>35</sup> and the wage bill in these enterprises practically constituted fixed rather than variable cost in the short and medium run.<sup>36</sup> Again, as we have already noted, the industrial sector was operating with excess capacity during our reference period. Under these conditions an increase in demand for machinery or other fixed capital goods from domestic sources would not only be costless to the economy, but also raise public sector savings by an almost identical amount.<sup>37</sup> It is thus not very difficult to see how the government policy of encouraging capital goods imports financed through suppliers' credit (or other types of foreign loan) produced a significantly negative impact on public sector savings on the one hand and the economy's current account balance on the other.

The exchange rate regime in force was not conducive to promotion of BoP viability either. The rupee was pegged to a basket of currencies and with gradual devaluation the index of the (trade weighted) nominal effective exchange rate<sup>38</sup> (NEER) was brought down from 103.5 in 1980–1 to 72.2 in 1989–90. Apart from the fact that the corresponding fall (from 104.5 to 78.4) in the real effective exchange rate (REER) was lower, the devaluation, it needs to be noted, was effected only from 1984–5, and still left the rupee significantly overvalued. With inflation raging at 17.1 per cent in 1979–80 and 18.2 per cent in 1980–1, there was a jump in REER from 92.0 to 104.5 over the two-year period so that the (total) depreciation between 1978–9 to 1989–90 was no more than 13.6 per cent,<sup>39</sup> a little over 1 per cent per year. An important consequence of the overvaluation was the wide gap between the black market and the official exchange rate leading to widespread underinvoicing of exports and overinvoicing of imports and hence to a considerable capital outflow even while the country was borrowing from abroad to meet the current account deficit.

<sup>35</sup> Except for the Tata Iron and Steel Company (TISCO) which was in the private sector. Anyway, output of the Steel Authority of India Limited (SAIL), a public sector enterprise, was substantially higher than that of TISCO.

<sup>36</sup> Remembering that employment could not be cut even if there was a fall in demand or capacity utilization.

<sup>37</sup> The reason is that almost all the material inputs required for capital goods were produced by some or other PSUs so that for the public sector as a whole additional investments added more or less wholly to its gross operating surplus. This also implies that the value of the investment multiplier would be close to unity (Rakshit, 1986b). The additional profit accruing to the public sector would be less than the increase in the demand for domestic capital goods to the extent some of the intermediate inputs needed to be obtained from abroad or from the private sector producers.

<sup>38</sup> With 1985 as the base year.

<sup>39</sup> The exchange rate in 1978–9 itself was overvalued, remembering that despite the rigorous import control regime in force, there was substantial trade deficit and that the current account deficit remained moderate primarily because of large NRI remittances.

A major source of the mounting debt service obligations and growing imbalances in the balance of payments during the 1980s was, as already observed, the sharp rise in the average interest on external liabilities. This was largely a reflection of a significant change in the composition of foreign debt. In 1980 more than three-fourths of total debt were concessional, carrying a fairly low interest rate. But as the sources of concessional credit started drying up, commercial borrowing came to constitute the main instrument of meeting the external deficit. The result was a steep fall in the share of concessional loans in total debt, from 75.1 per cent in 1980 to 42.4 per cent in 1987 before registering a minor recovery to 47.6 per cent in 1990. Such heavy reliance on commercial credit from external sources for financing the growing current account deficit constituted a major policy failure in more ways than one.

We have already discussed the questionable economic logic of (external) debt-financed imports of capital goods mostly because of non-availability of domestic loans for procuring the required machinery and equipment from Indian manufacturers. In fact, even when there is little excess capacity in domestic industries, external loans on a large scale for purposes of private capital formation often erode BoP viability. The reason is twofold. First, since larger debt entails higher country risk to international lenders, the marginal cost of external credit to the economy is higher than the interest rate paid by the borrower. The implication is that though the country may be 'small', that is, a price taker in the international market, the net benefit at the margin from externally financed capital formation would be negative for the economy. Second and more important in the context of the Indian economy during the 1980s, investments undertaken may not add much to the country's export potential, remembering that under the then prevailing trade regime, imports of machinery, components, and raw materials were used primarily to raise production with a view to serving the sheltered market for domestic consumer goods, not augmenting the supply of exportables.<sup>40</sup>

The policy failures considered above could not but have produced an adverse impact on the country's economic fundamentals in general and those related to the BoP in particular. However, as in the case of most currency crises, the proximate source of vulnerability of the country's payments position lay in poor risk management on the part of the monetary authorities. The major risk in any balance-sheet position arises from what is called the maturity mismatch, characterized by predominance of long-lasting and

<sup>40</sup> Under these conditions external debt-financed investment may be profitable for individual investors, but for the economy as whole it creates BoP difficulties because of insufficient exports earnings for meeting the debt service obligations.

relatively illiquid assets against liabilities that are mostly short-term or highly liquid. A look at Table 3.6 suggests how vulnerable the country's external balance-sheet position became over the 1980s. In the aggregate debt stock, the share of short-term debt, the most volatile component of external liability, jumped from 6.2 per cent to 10.2 per cent between 1980 and 1987, and over the next three years stayed close to the elevated level. The other and quantitatively the more important component of the country's liquid liability was NRI deposits. Even when their maturity period was more than one year,<sup>41</sup> they could be easily withdrawn (and repatriated) with negligible cost to investors.<sup>42</sup> When these deposits are taken into account, the increase in the vulnerability of the country's payments position may be seen to be much more pronounced: the share of easily reversible liability in total debt more than doubled during the decade, from 11.0 per cent in 1980 to 23.1 per cent in 1990.<sup>43</sup>

An important means of tackling problems on the BoP front and countering speculative attacks on a country's currency is to hold sufficient foreign exchange reserves. Traditionally, such reserves have been used for facilitating trade-related transactions, given the lack of synchronization between export earnings and payments on account of imports. The reserves requirement for this purpose is generally taken to be four to five months' import bill. However, if a country has accumulated large short-term or other relatively liquid liabilities, the central bank needs to hold correspondingly large reserves<sup>44</sup> over and above what is deemed necessary for smoothening current account transactions. Otherwise, a speculative attack or an adverse shock even though temporary can trigger off a payments crisis and make the country default on its external debt.

<sup>41</sup> NRI deposits with a maturity of one year or less are included in short-term debt. Note that foreign portfolio investments (FPIs) which constitute the largest part of liquid and easily reversible liability as of now were barred from the Indian capital market in those days.

<sup>42</sup> The cost consisted of the foregone interest earnings due to premature withdrawal. Indeed, there was a rush on the part of NRIs to withdraw their deposits (including long-term ones) as soon as the payments problems had become serious.

<sup>43</sup> In the absence of separate estimates for short- and long-term NRI deposits for years before 1990, for estimation of long-term NRI deposits in those years we have used the ratio between the two types of deposits obtaining in 1990. Since with increasing deterioration of BoP the proportion of short- to long-term deposits tends to rise, our procedure is likely to produce underestimates of long-term deposits for the earlier years so that the extent of increase in easily reversible liabilities in total debt is likely to be larger than what is suggested by our estimates.

<sup>44</sup> Even long-term and not easily reversible debt can pose serious problems when there is bunching of repayment and domestic or international conditions become unfavourable at the time of repayment.

TABLE 3.6  
Current Account Deficit, External Debt, and Reserves Adequacy

	1980	1987	1988	1989	1990
1 Current a/c deficit as % of GNP	1.3	2.4	2.9	2.7	3.2
2 Primary current account deficit as % of GNP	0.9	1.3	1.9	1.2	1.6
3 Total debt stock as % of GNP	11.9	21.9	20.8	26.4	27.1
4 Total debt stock as % of exports of goods and services	136.0	287.4	280.5	308.6	313.0
5 Short-term debt as % of total debt stock	6.2	10.2	10.9	10.2	10.4
6 Short-term debt and long-term NRI deposit as % of total debt stock	11.0	20.2	23.7	22.8	23.1
7 Concessional debt as % of total debt stock	75.1	45.0	42.4	48.6	47.6
8 International reserves as % of imports of goods and services (in months)	7.9	5.3	3.7	4.4	1.9
9 International reserves as % of total debt stock	57.9	20.5	15.8	15.8	6.9
10 International reserves as % of short-term debt	938.2	201.8	145.4	154.8	66.0
11 International reserves as % of easily reversible external liability	527.9	101.5	66.8	69.2	29.7

Notes: (a) Easily reversible external liability refers to short-term debt (including short-term NRI deposit) and long-term NRI deposit.

(b) Primary current account deficit refers to current account deficit less interest payments on external debt.

Source: World Bank (1996).

In the light of above observations, it is quite clear that management of the country's foreign exchange reserves during the 1980s was far from satisfactory. Judged by all the usual criteria, the reserves were more than adequate at the beginning of the decade: as proportions of imports of goods and services, total debt stock, short-term debt, and easily reversible external liabilities (ERELs), the reserves were 7.9 (months), 57.9 per cent, 938.2 per cent and 527.9 per cent respectively (Table 3.6). But the reserves position became progressively precarious over the decade, with the four adequacy indicators plummeting to 3.7 (months), 15.8 per cent, 145.4 per cent and 66.8 per cent by 1988, and further to 1.9 (months), 6.9 per cent, 66.0 per cent, and 29.7 per cent in 1990. With such grossly inadequate reserves even a country with strong economic fundamentals would often find it extremely difficult to cope with some adverse shock and to prevent a short-term liquidity problem from degenerating into a full blown payments crisis.<sup>45</sup>

In the Indian instance the shocks came in two stages. First, the collapse in 1989–90 of the USSR and other Soviet group of countries with which India had fairly strong economic links created a disruption in trade and the country's BoP. Second and more important was the first Gulf War and the related turmoil in the Middle East. The import bill shot up with sky-rocketing prices of petroleum products which constituted by far the largest item of the country's import. No less significant was the loss of earnings on account of exports of goods and services: the region had become a major market for Indian goods; Indian companies had been executing large contracts in construction and other areas; and remittances of Indians working in Iraq and other Middle-East countries accounted for the overwhelming part of the country's invisible earnings. The government had also to spend a tidy sum in evacuating a large number of Indian workers and their families stranded in the war-torn region. The foreign currency drain on all these counts though by no means insignificant constituted only a minor fraction of the country's GDP, nor was the turmoil expected to last for long; but with grossly inadequate foreign exchange reserves and large ERELs, they (the costs) were large enough to create adverse expectations concerning the near-term prospects of the BoP,<sup>46</sup> trigger off a rush on the part of foreign lenders along with the NRIs to exit from the Indian market, force the government to seek succour from international agencies, and adopt willy-nilly the IMF-approved programme of economic reforms.

<sup>45</sup> Induced through self-fulfilling expectations of impending troubles.

<sup>46</sup> Including sustainability of the value of the rupee vis-à-vis other currencies.

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