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GLOBAL RESEARCH PROJECT ON GROWTH

INDIA: ECONOMIC GROWTH, 1950-2000

by

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Chapter 1

Growth and Macroeconomic Developments (1960-2000): An International Perspective

In this brief chapter we present a summary comparative overview of India's growth and macroeconomic developments in the forty years 1960-2000 (Fifty years would have been better but comparable data was readily available only for forty). The comparisons are made with the group of all 'Developing Countries' and three other large emerging economies, China, Indonesia and Brazil. Before turning to them, we present a snapshot comparison in the evolution of per capita GDP of India and China over the much longer period, 1913-1998, based on Maddison's (2002) recent work (Table 1.0).

Table 1.0
India vs. China
(Per capita GDP in 1990 PPP dollars)

	1913	India-China relative	1950	India-China relative	1998	China- India relative
India	673	1.29	619	1.41	1760	1.77
China	522		439		3117	
World	1510		2114		5709	

Source : A. Maddison (2002)

In 1913, Indian per capita GDP was 29 per cent greater than the China's per capita GDP. India improved its relative position further between 1913 and 1950, when India's per capita GDP was 41 per cent higher than China's per capita GDP. However, by 1998, the trend was decisively reversed; China's per capita GDP was 77 per cent higher than the Indian per capita GDP.

Table 1.1 gives the basic data on growth rates for the period 1960-1999. Taking the forty year period as a whole, India's average annual growth at 4.6 percent is a little higher than for all Developing Countries, a little lower than Brazil and significantly slower than both China and Indonesia. India grew slowly for the first twenty years, when Developing Countries were growing about two percentage points faster. The situation reversed in the two most recent decades, when India's growth accelerated significantly while the growth of Developing Countries as a group slowed substantially. Over the nineteen years form 1980 to 1999 India grew much faster than Brazil, a little faster than Indonesia and a lot slower than China, which averaged almost 10 percent growth.

Table 1.1
Growth of Real GDP
(average annual growth rates in per cent)

	1961 to 1970	1971 to 1980	1981 to 1990	1991 to 1999	1961 to 1999
India	**3.8**	**3.2**	**5.6**	**5.8**	**4.6**
Brazil	6.2	8.5	1.6	2.5	4.8
China	3.7	5.4	9.2	10.4	7.1
Indonesia	4.2	7.9	6.4	4.3	5.7
Developing Countries	**5.4**	**5.5**	**3.2**	**3.2**	**4.4**

Sources: World Bank, World Development Indicators CD-ROM, 2001 and Government of India, Economic Survey, 2001-2002.

Note: For all countries except India and the group of Developing Countries, the annual percentage growth rates refer to those of GDP at market prices based on constant local currency. Aggregates for the group of Developing Countries are based on constant US $.

For India, GDP at factor cost, in rupees crore, at 1993-94 prices has been used.

The intertemporal variation in aggregate growth is also reflected in the growth of major sectors (Table 1.2). In the first two decades it is striking how much slower is the growth of the industrial sector in India compared to the comparator countries. In the two more recent decades

India's industrial growth is faster than for all Developing Countries and compares favourably with Brazil and Indonesia, but is much slower than the sustained industrial boom in China. Much the same can be said about the growth of agriculture in this period, 1980-1999. The acceleration of services growth in the latter period is quite different from the experience of other comparators, except China which displays even stronger acceleration.

Table 1.2
Growth of Major Sectors
(average annual growth rates in per cent)

		1961 to 1970	1971 to 1980	1981 to 1990	1991 to 1999	1961 to 1999
India	**Agriculture**	**2.5**	**1.8**	**3.6**	**3.0**	**2.7**
	Industry	**5.5**	**4.1**	**7.1**	**5.6**	**5.6**
	Services	**4.8**	**4.4**	**6.7**	**7.8**	**5.9**
Brazil[1]	Agriculture	0.7	4.8	2.7	3.5	3.3
	Industry	9.5	9.9	0.5	2.0	5.0
	Services	9.6	8.5	2.4	2.6	5.3
China	Agriculture	6.6	2.1	6.2	4.0	4.8
	Industry	7.5	9.2	9.6	14.1	10.0
	Services	2.0	6.0	12.4	9.2	7.3
Indonesia	Agriculture	2.9	4.5	3.4	2.4	3.3
	Industry	7.6	10.4	7.1	6.0	7.8
	Services	3.5	8.9	7.7	3.6	6.0
Developing Countries[2]	**Agriculture**		**2.6**	**3.4**	**2.1**	**2.7**
	Industry		**6.3**	**3.3**	**3.8**	**4.5**
	Services		**6.2**	**3.7**	**3.8**	**4.6**

Source: World Bank, World Development Indicators CD-ROM, 2001 and Government of India, Central Statistical Organisation.

Note: 1) In case of Brazil the average pertains to 1966 to 1970 and not 1961 to 1970.
2) In case of Developing Countries, the average in the last column pertains to 1971 to 1999 and not 1961 to 1999.
3) For India, 1961 refers to fiscal year 1961/62 and so on.

Table 1.3 compares the evolution of sectoral shares over time. It is noteworthy that at the end of the period, in 1999, India has more than a quarter of its GDP originating in agriculture, about double the share for all Developing Countries, three times the share in Brazil and significantly more than in China and Indonesia. Part of the explanation lies with India's high share of agriculture, 53 percent, in 1960, and part must be attributed to the relatively slow growth of industry, especially in the first two decades. Between 1970 and 1999 India's sectoral shares evolve in a manner similar to all Developing Countries: a modest increase in the share of industry, a substantial drop in agriculture and a sizable increase in services. The pattern is noticeably different in the other three comparator countries. In Brazil the shares of both agriculture and industry decline while the services climb above 60 percent by 1999. China shows no rise in the share of services over the forty years; agriculture's share decreases by a modest amount, matched by an equivalent increase in the share of industry to a remarkable 49.3 percent by 1999. Even in 1960 China had an unusually high share of GDP originating in industry. Indonesia also displays little increase in the share of services; however, the share of industry increases sharply (partly reflecting the growing role of the oil sector), while the share of agriculture declines steeply from levels comparable to India in 1960.

Table 1.3
Sectoral Shares in GDP
(per cent)

		1960	1970	1980	1990	1999
India	**Agriculture**	**53.0**	**46.3**	**39.7**	**32.2**	**25.2**
	Industry	**18.4**	**21.7**	**23.7**	**27.2**	**26.7**
	Services	**29.0**	**32.2**	**36.6**	**40.6**	**48.1**
Brazil	Agriculture	20.6	12.3	11.0	8.1	8.6
	Industry	37.1	38.3	43.8	38.7	30.6
	Services	42.3	49.4	45.2	53.2	60.8
China	Agriculture	22.3	35.2	30.1	27.0	17.6
	Industry	44.9	40.5	48.5	41.6	49.3
	Services	32.8	24.3	21.4	31.3	33.0
Indonesia	Agriculture	51.5	44.9	24.0	19.4	19.5
	Industry	15.0	18.7	41.7	39.1	43.3
	Services	33.5	36.4	34.3	41.5	37.3
Developing Countries	**Agriculture**		**23.8**	**18.4**	**15.8**	**12.4**
	Industry		**33.7**	**40.1**	**38.1**	**35.0**
	Services		**42.5**	**41.5**	**46.1**	**52.6**

Sources: World Bank, World Development Indicators CD-ROM, 2001 and Government of India, Ministry of Finance.
Note: For Brazil, China, Indonesia and the group of Developing Countries, GDP refers to Gross Domestic Product at purchaser prices, while for India GDP refers toGross Domestic Product (1993-94 prices) at factor cost.

India's inflation record looks good by comparison (Table 1.4). Only China has a better record, mainly because of its price stability in the first two decades of the period. The contrast with Brazil's hyperinflation is most marked. Indeed, the high rates of inflation in all Developing Countries in

the two more recent decades are largely attributable to Latin American countries.

Table 1.4
Average Annual Inflation
(per cent)

	1961 to 1970	**1971 to 1980**	**1981 to 1990**	**1991 to 1999**	**1961 to 1999**
India	**6.3**	**10.3**	**7.2**	**7.9**	**7.9**
Brazil	45.8	40.9	562.9	636.9	313.6
China	1.3	1.8	5.6	7.1	3.9
Indonesia	219.8	21.3	8.9	17.3	68.1
Developing Countries*			**40.4**	**26.4**	**31.9**

Sources: World Bank, World Development Indicators CD-ROM, 2001, Government of India, Ministry of Finance, Handbook of Data on Wholesale Price Index and Consumer Price Index- (IW, AL, UNME) and International Monetary Fund, World Economic Outlook.

Note: * For Developing Countries, the average in the last column refers to 1977 to 1999 and not 1961 to 1999.

For Brazil, China and Indonesia, inflation rates are based on GDP Deflators, for India on Average Based Wholesale Price Index and for the group of Developing Countries on Consumer Prices.

Turning to the performance of aggregate savings and investment over the four decades, Table 1.5 shows India's steady increase in these parameters between 1960 and 1990, much faster than the progress recorded by all Developing Countries. By 1999 India, though a low income country, has savings and investment ratios comparable to the average for all Developing Countries. Gross investment levels are higher than middle income Brazil's and comparable to Indonesia's. But these levels of around 24-25 percent of GDP are much lower than China's 37-38 percent. Even in

1960 China boasted savings and investment levels around 35 percent of GDP. Indonesia's ratios are comparably with India's low levels in 1960 but then rise even more steeply than India's by 1980, thanks in large part to the two major oil price hikes of the seventies. Interestingly, although Brazil's economic growth fluctuates widely over the forty years, there is little variation in the savings/investment ratios, which hover around 20 percent of GDP throughout.

Table 1.5

Savings and Investment

(as per cent of GDP)

	1960		**1970**		**1980**		**1990**		**1999**	
	GDS	**GDCF**	**GDS**	**GDCF**	**GDS**	**GDCF**	**GDS**	**GDCF**	**GDS**	**GDCF**
India	**11.6**	**14.4**	**14.6**	**15.4**	**18.9**	**20.3**	**23.1**	**26.3**	**23.2**	**24.3**
Brazil	19.6	19.7	20.1	20.5	21.1	23.3	21.4	20.2	19.3	20.4
China	35.3	35.5	29.0	29.0	34.9	35.2	37.9	34.7	40.1	37.2
Indonesia	12.4	9.2	14.3	15.8	38.0	24.1	32.3	30.7	31.6	23.7
Developing Countries	**19.8**	**20.4**	**21.4**	**22.0**	**25.5**	**26.5**	**25.9**	**25.7**	**25.2**	**23.3**

Sources: World Bank, World Development Indicators CD-ROM, 2000, World Bank, World Development Indicators CD-ROM, 2001 and Government of India, Economic Survey, 2001-2002.

Notes: 1) GDS- Gross Domestic Saving GDCF - Gross Domestic Capital Formation

2) For Brazil, China, Indonesia and the group of Developing Countries, GDP refers to Gross Domestic Product at current purchaser prices, for India GDP refers to Gross Domestic Product at current market prices.

3) For Brazil, China, Indonesia and the group of Developing Countries, all the data have been taken from World Development Indicators CD-ROM, 2001 except for the year 1960, GDS data for China and Developing Countrieshas been taken from World Development Indicators CD-ROM, 2000.

Table 1.6 provides data on foreign trade. The unusually low export and import shares (under 5 percent of GDP each) for India as recently as 1970 stand out. Together they amounted to less than 8 percent of GDP, less than a third of the trade share for all Developing Countries in that year. This was a result of anti-trade policies followed in the previous two decades. Remarkably, China's trade share in 1970 is even lower at less than 4 percent of GDP. Even more noteworthy is the over tenfold increase in the share of foreign trade in GDP in China to over 40 percent by 1999. As policies become less inimical to foreign trade, India's trade share also increases substantially over the ensuing three decades to reach 27 percent of GDP. That's higher than Brazil's but much lower than China's and Indonesia's. Moreover the average for all Developing countries is by then as high as 54 percent of GDP. In other words, despite the threefold increase in India's trade share over the thirty years, by 1999 it is still only half that of all Developing Countries. Finally it is worth noting that India's trade deficit has been consistently and significantly higher than all Developing Countries over the last thirty years.

India's external debt worsened greatly between 1980 and 1990(Table 1.7). Following the reforms in the external sector and a consistent policy to improve the country's external debt profile, the indicators of both debt stock and debt service improved steadily. By 1999 these indicators were substantially better than for all Developing Countries and much better than those for either Brazil or Indonesia. As in many other dimensions, China's external indicators were even better.

Table 1.6

Foreign Trade Indicators

(as per cent of GDP)

		1960	1970	1980	1990	1999
India	**Exports**		**3.5**	**6.2**	**7.3**	**12.1**
	Imports		**4.2**	**9.5**	**10.0**	**15.0**
	Trade Balance		**-0.7**	**-3.3**	**-2.7**	**-3.0**
	Current Account Balance		**-0.9**	**-1.3**	**-2.6**	**-0.8**
Brazil	Exports	7.1	7.0	9.1	8.2	10.6
	Imports	7.1	7.4	11.3	7.0	11.7
	Trade Balance	-0.1	-0.4	-2.3	1.2	-1.1
	Current Account Balance			-5.5	-0.8	-3.3
China	Exports		1.8	7.6	17.5	22.1
	Imports		1.9	7.9	14.3	19.2
	Trade Balance		-0.1	-0.3	3.2	2.9
	Current Account Balance				3.4	1.6
Indonesia	Exports	15.0	13.5	34.2	25.3	34.9
	Imports	11.9	15.0	20.2	23.7	26.9
	Trade Balance	3.2	-1.5	14.0	1.6	7.9
	Current Account Balance				-2.6	4.1
Developing Countries	**Exports**		**12.1**	**19.1**	**20.7**	**28.1**
	Imports		**12.7**	**20.1**	**20.4**	**26.2**
	Trade Balance		**-0.5**	**-1.0**	**0.3**	**1.9**
	Current Account Balance					

Source: World Bank, World Development Indicators CD-ROM, 2001.

Note: 1) GDP refers to Gross Domestic Product at current purchaser prices.
2) Data on Exports, Imports and Trade Balance refer to Goods and Services.

Table 1.7

External Debt Indicators

	1970	1975	1980	1985	1990	1995	1999
Total External Debt as percentage of Gross National Income							
India	**13.9**	**14.4**	**11.3**	**18.1**	**26.8**	**27.1**	**21.3**
Brazil	13.7	22.4	31.5	49.1	26.5	22.9	33.5
China			3.0[1]	5.5	15.6	17.2	15.9
Indonesia	46.7	36.7	28.0	44.4	64.0	63.4	113.3
Developing Countries	**9.7**	**11.9**	**18.2**	**30.7**	**30.9**	**38.3**	**40.5**
Total Debt Service as percentage of Exports of Goods and Services							
India	**33.6**	**13.6**	**9.4**	**22.7**	**32.7**	**28.1**	**15.0**
Brazil		43.5	63.3	39.1	22.2	36.7	110.9
China			8.4[2]	8.3	11.7	9.9	9.0
Indonesia			14.0[3]	28.8	33.3	29.9	30.3
Developing Countries			**12.8**	**22.9**	**18.1**	**15.7**	**21.4**

Source: World Bank, World Development Indicators CD-ROM, 2001.
Notes: 1) Figure refers to year 1981 and not 1980.
2) Figure refers to 1982 and not 1980.
3) Figure refers to 1981 and not 1980.

Chapter 2

OVERVIEW: INDIA'S ECONOMIC GROWTH, 1950/51-2000/01

2.1 Basic Facts of Growth

In the previous chapter we placed India's economic growth and macroeconomic developments over the past forty years in an international perspective. Here we focus on the intertemporal record. Table 2.1 presents the growth averages for the fifty year period, 1950/51-2000/01, divided into four sub-periods, based on official national income data.[1] The table also includes some recent growth estimates for the pre-Independence years, 1900/01-1946/47, divided into two sub-periods. Three broad facts emerge from even a cursory inspection of the table. First, the initial half century (during British colonial rule) saw very slow growth of the Indian economy at less than one percent per year, leading to hardly any improvement in per capita GDP over the entire period. Second, there was a marked acceleration of growth to around 3.5 percent a year in the first three decades after 1950 but per capita growth remained low at hardly 1.5 percent. Third, there was a further acceleration of growth performance in the next two decades, the eighties and nineties, to 5.6 percent. Since population growth had begun to slow, per capita GDP growth accelerated smartly in the these last twenty years to about 3.5 percent a year.

[1] The choice of sub-periods is discussed below.

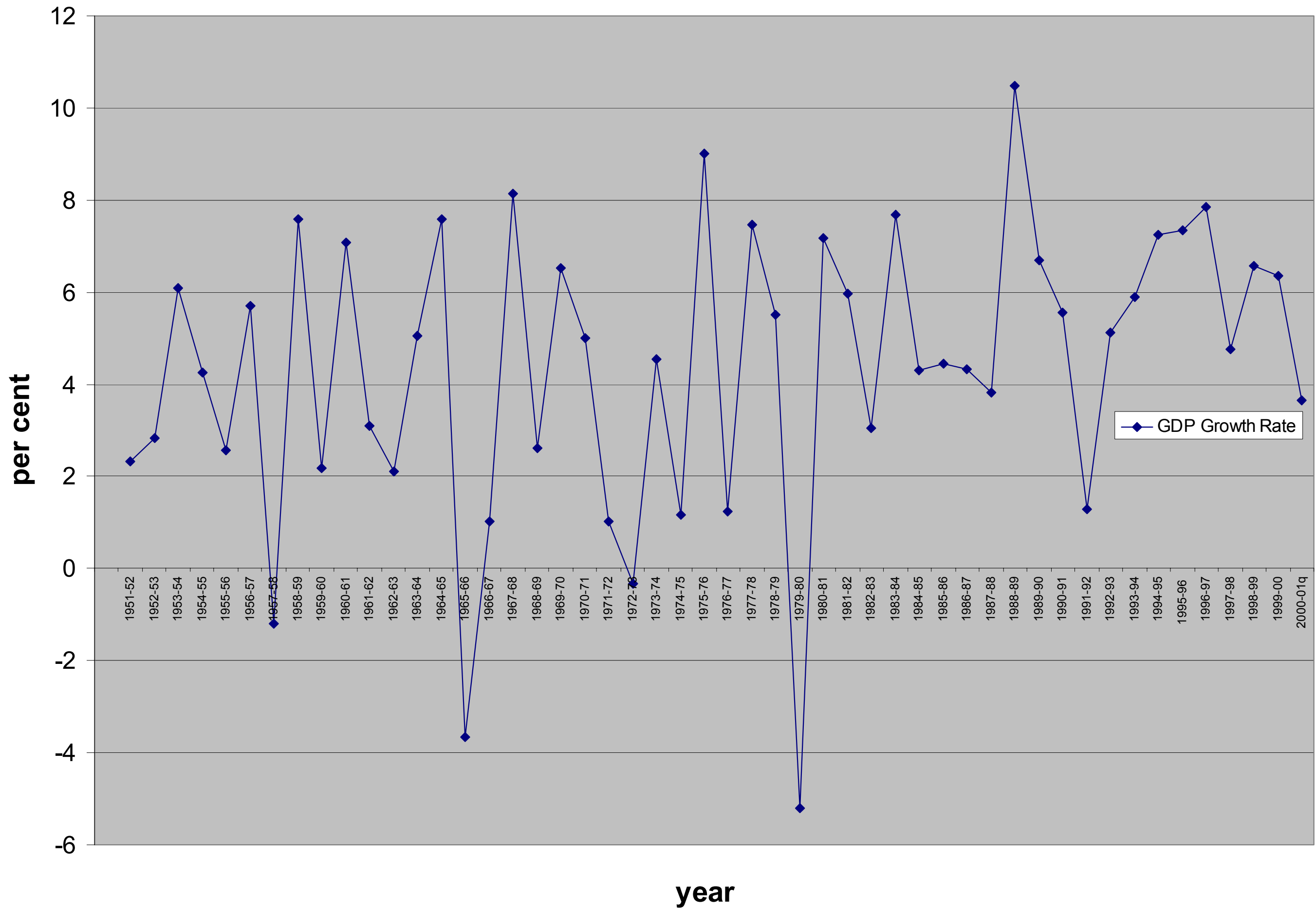
Table 2.1
Average Annual Growth Rates of GDP and Major Sectors

	1900/01-1929/30	1930/31 - 1946/47	1951/52 – 1966/67	1967/68 - 1980/81	1981/82 - 1990/91	1991/92 - 2000/01
	(1)	(2)	(3)	(4)	(5)	(6)
Agriculture and Allied	0.5	0.2	1.8	3.3	3.5	2.7
Industry	0.9	1.2	6.3	4.1	7.1	5.7
Services	1.6	1.7	4.8	4.3	6.8	7.6
GDP	**0.8**	**0.8**	**3.4**	**3.8**	**5.6**	**5.6**
Per Capita GDP	0.4	-0.5	1.4	1.5	3.4	3.5

Source: Central Statistical Organisation (2001) and Sivasubramonian (2000)
Note : The growth rates in Columns (1) and (2) actually refer to Primary, Secondary and Tertiary sectors, which are close approximations to Agriculture, Industry and Services, respectively.

These trends should not mislead us to the implicit conclusion that the Indian economy grew steadily at or around the average rates for the respective sub-periods. A glance at Figure 2.1 would disabuse any such notion. In fact, the year to year variation in annual growth rates is a striking feature of India's growth experience in the last fifty years, especially in the first three decades when agriculture accounted for between one third and one half of total GDP.

Figure 2.1
Annual GDP Growth, 1950/51-2000/2001



Source : Central Statistical Organisation

What were the factors explaining India's growth performance in the second half of the twentieth century, especially the variations in growth record over the chosen sub-periods? Just as the quest for growth by countries has frequently been elusive, so has economists' explanations for the varied growth performance of nations[2]. In general, the received

[2] See Easterly(2001)

wisdom is rightly skeptical of unicausal explanations whether these be capital, technology, socio-cultural heritage, external orientation, human resource development or whatever. At an almost axiomatic level, we would expect the growth of national output to be strongly related to the growth of the major inputs (notably capital, labour and land) and the productivity of these inputs. Following this line of thought there has been a major and well-established industry of "growth accounting", which finds quite a few practioners in India as well.[3] A recent example is provided by Sivasubramonian (2002). He constructs an index of total factor input (TFI), composed of separate indices for capital, labour and land, and divides this into an index for national output (GDP) to yield an index of total factor productivity (TFP). Based on his data, we have constructed Table 2.2 showing trend growth rates in GDP, TFI and TFP for our chosen sub-periods.

Table 2.2
Growth of GDP, Total Factor Input and Total Factor Productivity

	1950/51-1966/67	**1967/68 - 1980/81**	**1981/82 - 1990/91**	**1991/92 - 1999/2000**
	(1)	(2)	(3)	(4)
GDP	**3.8**	**3.4**	**5.3**	**6.5**
Total Factor Input (TFI)	2.4	2.7	3.3	3.9
Total Factor Productivity (TFP)	**1.4**	**0.7**	**2.0**	**2.6**
Proportion of Growth Explained by TFP (%)	37.6	20.8	37.7	39.7

Source : Sivasubramonian (2002)

The results are interesting and broadly in line with earlier growth accounting studies in India. They suggest that the initial step-up in growth

[3] See, for example, Dholakia (1974), Ahluwalia (1985, 1991), Goldar (1986).

of the Indian economy in the first period after Independence was largely due to an increase in the application of productive factors but productivity improvements also played a significant role. In the second period, 1967-1980,although input growth increased, there was a marked decline in productivity growth as a result of which GDP growth slowed slightly. Both TFI growth and TFP growth picked up appreciably in the eighties, bringing about a substantial acceleration in GDP growth. These favourable trends continued in the nineties.

This decomposition of economic growth into the growth of inputs and their productivity is only intended to be suggestive and supportive to our overall analysis. For one thing there are massive and well-known conceptual and statistical problems in compiling meaningful indices for factor inputs, which cast doubt on the quality of results emerging from such exercises. Second, the attribution of a substantial part of the growth performance to factor productivity increases (almost 40 percent in three of our four sub-periods) simply whets the appetite for explanations of what caused these productivity increases. We also want know what brought about the increases in investment and other factors of production. Indeed, our study is a qualitative exploration of the policies and other factors which interacted during the past half century to bring about the observed growth in the Indian economy.

2.2 Choice of Sub-Periods

An account of India's economic policies and development performance over the fifty years since 1950 necessarily requires subdivision into manageable sub-periods. Such periodisation can be done according to several alternative criteria:

- *growth performance*: that is, if there are clear cut discontinuities or breaks in the trajectory of growth;
- *policy shifts*: that is, readily identifiable changes in the overall economic policy regime;
- *shocks (external and internal)*: these can be external like wars and oil price hikes or internal such as major droughts;
- *major institutional shifts*: such as a change in governance structure of the political or economic system:
- *factor supply shifts*: an example could be a sharp and sustained increase in aggregate investment in the economy.

After considerable discussion and debate we have accorded the most weight to the two criteria of *policy shifts* and *shocks* in determining our choice of sub-periods. Thus the first sub-period beginning in 1950/51 ends in 1966/67 with the economy stressed by twin shocks of successive droughts and two short border wars (1965 and 1966) as well as reinforcement of the inward-looking, import-substituting development strategy following the failed attempt at partial liberalization linked to the 1966 devaluation of the rupee. Similarly, the second sub-period up to 1980/81 ends with the economy reeling from drought, the second international oil price hike and infrastructure disarray and the following year ushers in the first attempts at liberalizing the highly controlled and inward-looking policy regime for industry, foreign trade and external payments. The halting efforts at opening up the economy to domestic and external market forces in the eighties are insufficient and the decade (and sub-period) ends in 1990/91 with another oil price spike (triggered by the Gulf War) which tips India's by then fragile external payments position into a full-fledged balance of payments crisis. The policy response to the crisis encompasses wide-ranging structural reforms and an initial effort at fiscal consolidation.

Inevitably, any choice of turning points or "breaks" between sub-periods will, to some extent, be arbitrary. Other perspectives could yield alternative turning points and associated sub-periods. Although we recognize this, we do think that the periodization we have chosen is reasonable and assists in understanding India's economic policies and macroeconomic performance over the past fifty years. Incidentally, those familiar with India might also note the coincidence of our chosen turning points with changes in prime ministers!

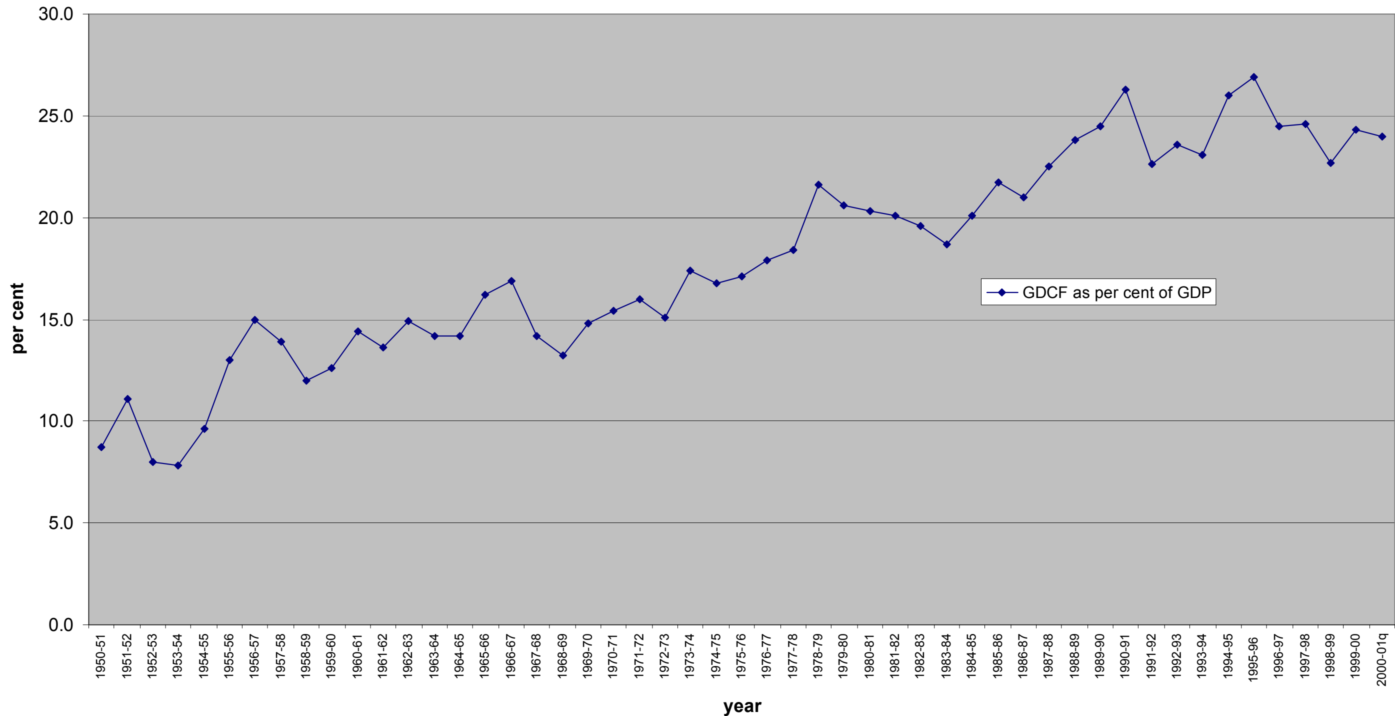
2.3 Economic Policies and Growth: a Preview

The first period, 1950-67, includes the early efforts at purposive development planning to step up investment, accelerate growth and contend with issues of social justice. The first Five Year Plan, 1951-56, rightly accorded high priority to agriculture, irrigation and infrastructure sectors in public investment and quickly reaped the rewards of faster growth of GDP and all major constituent sectors. Development strategy shifted gear in the second Five Year Plan, heavily influenced by the Mahalanobis-Feldman model and Soviet experience with industrialization. The emphasis switched explicitly to heavy industry, led by public sector investment. Against a background of "export-pessimism", import-substitution was perceived as the way forward and inward-looking external sector policies began to take hold. The 1957 foreign exchange crisis led to reimposition of strong exchange controls, which bolstered the import-substituting, anti-export bias. The momentum of development planning faltered with the China border war of 1962 which shifted public expenditure priorities away from development and towards defence. These tendencies were reinforced by the border conflicts with Pakistan in 1965 and 1966. Those years also coincided with successive droughts and mounting dependence on foreign food aid, especially from the United States. Average annual growth during the Third Plan period, 1961-66,

dropped below 3 percent. The contemporaneous policy efforts to shift the balance of development strategy towards a more open trade policy and better incentives for agriculture became inextricably linked with the exercise of external leverage through aid. Partly because of this linkage, the 1966 devaluation-cum-liberalization episode proved unsuccessful and by the end of this first period the anti foreign trade, pro import substitution bias was firmly in place.

The second period, 1967-1980, witnessed a marked strengthening of the import-substitution strategy and a clear preference for government controls over a widening area of economic activity. The nationalization of banks and insurance in 1969-1970 exemplified the new vigour of statism. The Foreign Exchange Regulation Act (FERA) codified the strict controls over the external payments regime. Small scale industry reservations, MRTP controls and tighter industrial licensing reflected the 'dirigiste' approach towards private industry. The strategy was not altered by the external shocks of the 1971 India-Pakistan war and the first oil shock of 1973-74 or by the early fruits of the "green revolution" in agriculture. Although aggregate investment levels in the economy continued on a broadly upward trend through most of the period (see Figure 2.2), there was no pick-up in the GDP growth average from the 3.5 percent achieved in the period 1950/51-1966/67. This suggests that productivity growth had faltered under the new development strategy. This is borne out by detailed studies of productivity trends of the industrial sector [e.g. Ahluwalia (1985,1991), Goldar (1986)].

Figure 2.2
Gross Domestic Capital Formation as per cent of GDP, 1950/51-2000/2001



Source : Central Statistical Organisation

Industrial growth remained anaemic throughout the period, spawning doubts about the efficacy of the system of detailed controls on industry, foreign trade and payments. The second oil shock of 1979-80 and the subsequent recourse to the IMF reinforced these early questionings at the end of the second period.

The third period, 1980-91, saw a clear acceleration of GDP growth from an average of 3.6 per cent in the previous three decades to 5.6 per cent. This was partly due to the early efforts at industrial and trade liberalization during the 1980s, partly to better agricultural performance and partly to an increasingly expansionist (almost profligate!) fiscal policy. Fiscal controls weakened, deficits mounted and spilled over to the

external sector, requiring growing recourse to external borrowing on commercial terms. Against a background of a low export/GDP ratio, rising trade and current account deficits and a deteriorating external debt profile, the 1990 Gulf War and consequent oil price spike tipped India's balance of payments into crisis at the end of the period.

The final period, 1991-2001, began with a successful containment of the external liquidity crisis and a simultaneous launching of wide ranging reforms in the exchange rate and payments regime, industrial deregulation, foreign trade policy, capital markets, and the banking sector together with a period of partial fiscal consolidation. The early phase of macro consolidation and strong reforms of 1991-94 reaped rich rewards in terms of booms in exports and investment in the mid-nineties and an acceleration of GDP growth to above 7 per cent for three successive years. For a variety of reasons the pace of reforms slackened from 1995 and fiscal balances worsened shortly thereafter, especially after the government pay increases of 1997 following the Fifth Pay Commission. Not surprisingly, investment and exports lost momentum and growth slowed noticeably after 1997, compounded by the deterioration in the international economic environment in the closing years of the decade. By 2000/01 GDP growth was back down to the 5 per cent range, investment was sluggish, industry and agriculture were in doldrums and there was mounting stress on fiscal and financial fronts. The outlook at the beginning of the new millennium was not too rosy.

2.4 Growth and Poverty

What has been the impact of economic growth in India on the incidence of poverty? The question has spawned a huge and growing literature, a lot of it focussed on establishing comparable trends in the evolution of poverty in India. It's well beyond the scope of this study to

engage seriously in this ongoing debate. We confine ourselves to presenting a summary view on poverty trends over the past fifty years, based on available evidence.

The official head count ratio estimates of poverty for rural and urban sectors, and all India for the period 1951-52 to 1999-2000 are given in the Table 2.3. It may be seen from the table that between 1951-52 and 1970-71, rural poverty and urban poverty tended to increase, the former from 47.4% to 54.8% and the latter from 35.4% to 45.0%. Overall, poverty increased from 45.3% to 52.9%. Thanks to economic growth and targetted anti-poverty policies since early 1970s, the poverty proportion in both rural and urban sectors declined between 1973-74 and 1987-88: the ratio for rural sector from 56.4% to 39.1% and the ratio for urban sector from 49.0% to 38.2%. The decline continued during the period 1987-88 to 1993-94, but at slower rates compared to the period 1973-74 to 1987-88. The official estimates of poverty for the year 1999-2000 (NSSO 55th round) were 26.8% and 24.1% for rural and urban areas, respectively, and 26.1% for all India. However, due to changes in questionnaire design these estimates are not comparable to the official estimates for the year 1993-94 (NSSO 50th round).

Table 2.3

Percentage of People Below Poverty Line, 1951-52 to 1999-2000 : Official Estimates

	Rural	Urban	All India
(1)	(2)	(3)	(4)
1951-52	47.4	35.5	45.3
1961-62	47.2	43.6	46.5
1970-71	54.8	45.0	52.9
1973-74	56.4	49.0	54.9
1977-78	53.1	45.2	51.3
1983	45.7	40.8	44.5
1987-88	39.1	38.2	38.9
1993-94	37.3	32.4	36.0
1999-2000	26.8	24.1	26.1

Sources: (1) Datt (1997) for 1951-52, 1961-62 and 1970-71

(2) Planning Commission (2001) for 1973-74, 1983, 987-88, 1993-94

(3) Planning Commission (2001a) for 1999-2000

Deaton (2001) adjusts the poverty ratio figures for changes in the questionnaire design. These adjusted figures are shown in the second row of Table 2.4 for rural and urban sectors. The official estimates (row 1) for the rural sector are found to be downwardly biased (26.8 per cent compared to the Deaton estimate of 30.0 per cent). However, there is only a marginal bias in the case of the urban sector (24.1 per cent compared to the Deaton estimate of 24.7 per cent).

There is another problem with the official estimates, which does not concern the 55th round specifically. This relates to the state and sector specific poverty lines used to compute the poverty ratio estimates. The source of the problem lies in the use of defective price indexes in

adjusting the poverty line over time and between states. Deaton and Tarozzi (2000) suggests adjustments to deal with this problem. The adjusted poverty estimates are shown in the third row of Table 2.4. These estimates of poverty are somewhat lower than official estimates in the case of rural India and considerably lower in the case of urban India. The adjusted estimates (row 3) suggest that poverty decline was evenly spread between the two subperiods, 1987-88 to 1993-94 and 1993-94 to 1999-2000.

Table 2.4
Percentage of People Below the Poverty Line: Comparison of Official Estimates and Deaton's Estimates for 1987-88, 1993-94 and 1999-2000

	Rural Sector			**Urban Sector**		
	1987-88	**1993-94**	**1999-00**	**1987-88**	**1993-94**	**1999-00**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**
Official Estimates	39.4	37.1	26.8	39.1	32.9	24.1
Deaton's Estimates						
Step 1: Adjusting for changes in questionnaire design	39.4	37.1	30.0	39.1	32.9	24.7
Step 2: Revising the poverty lines	39.4	33.0	26.3	22.5	17.8	12.0

Source : Deaton and Dreze (2002)

Deaton and Dreze (2002) conclude that the poverty decline implied by the new estimates is in line with the earlier trend. Their results have been supported by an independent study using a different methodology

(Sundaram and Tendulkar 2000). The estimates of Deaton and Dreze are broadly in accord with related evidence from the national accounts statistics, the employment-unemployment surveys and data on agricultural wages.

Wide inter-state variations in the incidence of poverty and its reduction have been major features of poverty in India (Ravallion and Dutt, 1999). In general, richer states grew faster and reduced poverty, while poorer states remained poor and achieved less progress in poverty reduction. However, some poorer states accomplished significant progress in growth and poverty reduction. Studies suggest that the major factors in reducing poverty have been faster growth, particularly agricultural growth, infrastructural availability, human resource development (especially female literacy), and lower inflation.

The above paragraphs focus on “income poverty”, as captured by surveys of household consumption and income. Of at least as much interest is the question of trends in human development indicators of well-being, such as life-expectancy, infant mortality, literacy and schooling. Here too there is a vast literature on both trends in the key variables and their complex interaction with the dynamics of economic growth. We limit ourselves to reporting the basic facts in the Annex to this Chapter. The story is one of substantial improvement over the past fifty years, but at a pace which compares unfavourably with many other developing countries, especially East Asian nations.

2.5 Successes, Failures and Puzzles: Some Preliminary Speculations

The next four chapters tell a story of India’s economic growth and development in the second half of the twentieth century. There are some clear successes. First among these is the swift transition from the

virtually stagnant economy of pre-Independence India to one displaying sustained, albeit modest, growth over long periods. Second, although growth in the first thirty years after 1950 averaged only around 3.5 percent per year, it is noteworthy that there were no periods of decline (lasting more than a year or two linked to an agricultural cycle). Third, the post-1980 acceleration of growth to an average of 5.6 percent is no mean feat for an enormously diverse society of a billion people. Fourth, there was a creditable build up of a modern industrial and service sector, which could compete with some degree of effectiveness in the international economy. Fifth, India and especially her poor, were spared the rack of high inflationary bouts of the kind which have frequently plagued Latin American countries. Sixth, over the long haul, the country did overcome substantially it's allergy to embracing the opportunities provided by international trade and finance. Thanks to the reforms of the early nineties, the dreaded "foreign exchange constraint" and all that went with it lost it's sting. Seventh, a modern financial sector developed in due course; though often plagued by scams and scandals, systemic crises of the financial structure were avoided. Eighth, the agricultural revolution, though slow in coming and spreading, ensured basic self-sufficiency in foodgrains, a goal that looked very distant in the mid-sixties.

But the failures of Indian economic policy and development have been equally apparent. First, it is fairly obvious that that India's growth could have been accelerated to the 5-6 percent range at least a decade before it actually happened. The costs of the statist and inward-looking policy emphases of the late sixties were high in terms of foregone opportunities for higher growth from higher productivity and greater participation in rapidly growing international trade. Second, despite a respectable, though perhaps unremarkable, record of long-term economic growth, the prevalence of poverty remained high for too long. In part this was due to slower than possible growth and in part to a set of policies

(including rigid labour laws, an anti-export bias in trade policy and small scale industry reservations) which discouraged the rapid growth of an efficient, labour-using manufacturing sector. Compared to most East Asian countries the slow transformation of India's labour force from agriculture to industry and services is a pronounced weakness, which left hundreds of millions of workers to eke out precarious livelihoods from largely traditional agriculture and allied activities. Third, the failure of agricultural growth to cross the four percent barrier on a sustained basis has been a major constraint on overall economic growth. Fourth, the infrastructure sectors of power, roads, railways, telecom, water and sanitation have proved to be a major and continuing sources of weak performance. These public utilities soon fell victim to rent-seeking, political favouritism, "subsidyism" and bureaucratic cultures. Sloughing off this heritage has proved to be difficult. Fifth, the high fiscal deficits, which became prominent in the eighties, have returned with renewed vigour to weaken the prospects for future growth and financial stability. Sixth, the financial sector has come under renewed pressure in recent years and it is difficult to envisage a lasting solution without changing the post-1969 paradigm of government ownership and control. Seventh India's record in bringing reasonable quality primary education and health care to her admittedly large population has been disappointing and is probably a significant factor constraining labour productivity in the long run. Finally, despite bouts of reform (including the nineties episode), antiquated laws and regulations and highly bureaucratic systems and procedures continue to exact a significant toll from productivity and growth.

In assessing India's fifty years of economic growth and macroeconomic developments we have also encountered some lingering puzzles which we wish to share with the reader. First, the acceleration in economic growth in the eighties (by two full percentage points compared

to the previous three decades) has not been easy to explain fully. Although reasons have been adduced, doubts linger. Second, it is a little puzzling that India could sustain the relatively high growth average of over 5.5 percent per year during the twenty years of the eighties and nineties despite very high levels of fiscal deficit. True, the rising tiding of fiscal deficits in the eighties helped precipitate the external payments crisis of 1991. And it is also true that the resurgence of high deficits in the later nineties has probably taken some toll of growth and financial stability. Still, by the yardstick of international experience it remains bit of a mystery. Third, the slowdown in agricultural yield increases in the nineties, especially in the latter half, may call for a more convincing explanation than the one we have been able to offer. Certainly, these trends are worrisome on many counts, including poverty, the rural-urban divide, regional equity and, of course, overall economic growth. Finally, the surge in the growth of the services sector in the nineties is not wholly explained by the government pay increases following the Fifth Pay Commission and the IT boom. There may be issues of estimation and sustainability which require further investigation.

ANNEX to Chapter 2

Overview of Health and Education Indicators, 1951-2001

Health :

Indicators of health show that significant progress has been made over the 50 year period under review. A new health policy for India had been laid out in 1946 along the lines of the Britain's National Health Service. This strategy, based upon a tax financed publicly managed health care system, has continued to form the backbone of India's health care system since. Since public resources have been limited, the system has been supplemented by private health care, this essentially involves curative health. Preventive health remains within the public health system. The focus on schemes to provide vaccination, control of communicable diseases, primary health care and family planning resulted in significant improvements in health indicators such as life expectancy and infant mortality.

Life expectancy for both males and females has almost doubled between 1951 and 1996 from 32.1 to 62.4. The increase in life expectancy for females has been higher than that for males. Till 1971, female life expectancy was lower than but in 1991 it surpassed male life expectancy.

Annex Table 1: Life Expectancy at birth (in years)

Year	Males	Females
1951	32.45	31.66
1961	41.89	40.55
1971	46.40	44.70
1981	54.10	54.70
1991	59.00	59.70
1993-97	60.4	61.8

Source: Health Information of India and Economic Survey,2001-02

The Infant Mortality Rate (IMR), or the number of children who die before attaining their first year, is closely related to estimates of life expectancy. IMR declined from 161 per thousand live births in 1941 to 72 per thousand live births in 1998. However, there are sharp disparities between rural and urban levels of health attainment (Annex Table 2).

Annex Table 2: All India Infant Mortality Rate

(Per thousand live births)

Year	Rural	Urban	Total
1981	119	62	110
1990	86	50	80
1991	87	53	80
1992	85	53	79
1993	82	45	74
1994	80	52	74
1995	80	48	74
1996	77	46	72
1997	77	45	71
1998	77	45	72

Source: Manpower Profile of India, various issues

The Child Mortality Rate (CMR), which represents the number of children per 1000 live births who die before attaining their fifth year, has shown a sharp decline in the 1980s and 1990s (Annex Table 3). This improvement may partly be a reflection of the success of vaccination programmes and primary health centres which has reduced the mortality attributable to common childhood illnesses.

The Total Fertility Rate (TFR) and Crude Birth Rate (CBR) are summary measures of the rate at which the population is replacing itself.

The TFR is interpreted as the number of children a woman would bear during her reproductive years, while CBR represents annual number of births per thousand usual residents. Declining fertility would be associated with lower CBR. As Annex Table 3 shows, TFR and CBR have declined throughout the last two decades. However, TFR continues to be much higher than the ideal replacement level of two children per woman.

Annex Table 3: Fertility and Birth Rate

Year	TFR	CBR	CMR
1981	4.5	33.9	41.2
1990	3.8	30.2	26.3
1991	3.6	29.5	26.5
1992	3.6	29.2	26.5
1993	3.5	28.7	23.7
1994	3.5	28.7	23.9
1995	3.5	28.3	24.2
1996	3.4	27.5	23.9
1997	3.3	27.2	23.1
1998	-	26.4	23.1

Source: Sample Registration System, Registrar General of India and Health Information of India, various issues

The achievements recorded in India indicate only the average position and conceal the large inter-state disparities within the country. For instance, life expectancy at birth varied widely between 53.8 years in Madhya Pradesh and 74.7 years in Kerala during 1989-93; female infant mortality rate was a low of 12.9 in Kerala and a high of 98.1 in Orissa in 1997 (Economic Survey, 2000-01).

Education :

Over 80 per cent of India's population was illiterate at the time of Independence. The education system, as in the case of the health system, is largely based on a publicly funded education system that has led to a significant improvement to a reduction in the number of illiterates to about 35 per cent of the population. There is still clearly a long way to go. Gender and spatial disparities in gender are very high. The male literacy rate in 2001 was almost 22 percentage points higher than the female literacy rate (Annex Table 4). The low level of female literacy has serious social implications as female literacy has been found to be positively linked with enrolment of children in school and adoption of family planning measures; and negatively linked with population growth and infant mortality rates.

Annex Table 4: Literacy Rates in India

Year	Males	Females	Total
1951	25	8	17
1961	40	15	28
1971	39	19	29
1981	56	30	44
1991	64	39	52
2001	76	54	65

Source: Census of India, various years

The spread of education in India can also be measured by enrolment ratios (Annex Table 5). The Ministry of Human Resource Development data displayed in table 2.11 refer to Gross Enrolment Ratios, which is defined as the percentage of the enrolment in classes I-V (primary) and VI-VIII (upper primary) and/or I-VIII (total elementary) to the estimated child population in the age groups 6-11 years and 11-14 and/or 6-14 years

respectively. Unfortunately, data on enrolment in India is difficult to interpret. Enrolment in these stages include under-age and over-age children, consequently the total percentage may be more than 100 per cent in some cases. Despite these data shortcomings, the gender bias in enrolment at every stage is very clear.

Annex Table 5 : Gross Enrolment Ratios

Year	Primary			Upper Primary			Elementary		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1980-81	95.8	64.1	80.5	54.3	28.6	41.9	82.2	52.1	67.5
1990-91	114.0	85.5	100.1	76.6	47.0	62.1	100.0	70.8	86.0
1991-92	112.8	86.9	100.2	75.1	49.6	62.8	101.2	73.2	87.7
1992-93	118.1	92.7	105.7	80.5	53.8	67.5	104.2	75.5	91.8
1993-94	115.3	92.9	104.5	79.3	55.2	67.7	102.3	79.3	91.2
1994-95	114.8	92.6	104.0	79.0	55.0	67.2	101.8	78.8	90.7
1995-96	114.5	93.3	104.3	79.5	55.0	67.6	101.8	79.3	90.9
1996-97	98.7	81.9	90.6	70.9	52.8	62.4	88.85	71.8	80.7
1997-98	97.7	81.2	89.7	66.5	49.5	57.6	86.4	70.0	78.6
1998-99	100.86	82.9	92.1	65.3	49.1	57.6	87.6	70.6	79.4

Source: Selected education statistics, Ministry of HRD, GOI, various years

The aim of universal elementary education set by policy makers includes not just enrolment, but also retention of students within the educational system. One way to measure the retention of students is by the drop-out rate, which is defined as the percentage of the number of children dropping out of the school education system to total enrolment in a given year. Drop-out rates for girls and boys in the elementary stage has fallen in the last decade, though the percentage of girls dropping out of school continues to be higher than the corresponding ratio for boys (Annex Table 6).

Annex Table 6: Drop-out rates at elementary level (Classes I-VIII)

Year	Boys	Girls	Total
1980-81	68.0	79.4	72.7
1990-91	59.1	65.1	60.9
1991-92	56.1	62.4	58.7
1994-95	50.0	56.5	52.7
1998-99	54.4	60.1	56.8

Source: Selected education statistics, Ministry of HRD, GOI, various issues

While the growth of education in India is not very spectacular at the primary level, the growth at secondary level has been even more erratic. Despite rapid and unplanned growth of institutes of higher learning total all-India enrolment in graduate and higher level courses constituted only 3 per cent of total enrolments in 1998. Measures of educational attainment including literacy rate, enrolment ratio and drop-out rates display wide variation across different states. A great deal of gender variation in educational attainment is also observed across states. In general, gender disparity is found to be very high among states that were found to be educationally backward and low for the states with the highest levels of educational attainment.

Chapter 3

The Evolution of Industrial Development Strategy: 1950-67

3.1 Introduction

India was under British rule for about 150 years until 1947, when it was granted independence after a long, largely non-violent freedom struggle. Partition of the country and the formation of a new Islamic State of Pakistan with about 23 per cent geographical area and 18 per cent population of undivided India coincided with the transfer of power. The two new nations witnessed large scale communal riots and massive influx of refugees across the borders for a couple of years at the time of Partition.

After the resettlement of the refugees, integration of hundreds of erstwhile princely states into the Indian Union, rehabilitation of the physical infrastructure that had been run down during the Second World War, and adoption of a Republican Constitution in 1950, India embarked upon a mammoth exercise of planned development. This chapter deals with the evolution of the development strategy and its working during the period 1950-67. The plan of the chapter is as follows.

The initial conditions are discussed in Section 2. The pattern of development of the (undivided) Indian economy during the period 1900-47, as well as the state of the economy at the time of independence are the subject matter of this section. The evolution of thinking on the future

development strategy and the key features of the strategy are traced in the third Section. The strategy at work, its achievements and failures are analysed in Section 4. An overview of the chapter is presented in the fifth and final section.

3.2 Initial Conditions : Indian Economy During 1900-47.

3.2.1 Colonial Legacy

India, the second most populous country in the world, was predominantly agricultural and rural at the time of independence. It was one of the poorest nations. Capital formation was quite low, around six per cent of NDP. Per capita income was about one-twentieth of the level attained in developed countries. Incidence of communicable diseases was widespread. During the colonial era, economic policies of the government were concerned more with protecting and promoting British interests than with improving the welfare of the Indian populace.[1] The government adopted a laissez-faire attitude in the matter of development. While investments for building the railway network were encouraged in order to facilitate trade between India and Britain, public investment in irrigation, roads, education and other infrastructure facilities received very limited attention. There was no coherent policy to promote indigenous industry, and much of India's traditional industry declined.

Agriculture stagnated and even deteriorated. Fertilisers and other modern inputs were hardly in use. Irrigation facilities were available only for about one sixth of the area.[2] Per capita availability of food was only 51.2 grams per day in the first decade of the century.[3] Furthermore, during 1911-41, per capita agricultural production and food production declined

[1] See Vaidyanathan (1982) and Chandra (1992).
[2] Vaidyanathan (1982).
[3] Sivasubramonian (2000).

at rates of 0.72 and 1.14 per cent per year, respectively. The rates of increase in all-crop yield and food grain yield per acre during 1911-41 were as low as 0.02 and 0.44 per cent per year, respectively.[4]

India was industrially quite underdeveloped before independence. During the nineteenth century, two agro-based industries, namely, jute manufactures and cotton textiles were the only major industries. Iron and steel industry developed after 1907, while sugar, cement, paper and engineering industries came up in the 1930s when Indian entrepreneurs took advantage of the opportunities for import substitution. Even though modern industry developed relatively fast at the rate of 3.8 per cent per annum after the First War, the GDP share of modern industry in 1947 was only 7.5 per cent, (compared to its share of 3.8 per cent in 1913). The growth of modern industry barely compensated for the displacement of traditional handicrafts. The number of persons engaged in processing and manufacturing, including artisanal industries, declined from 10.3 millions in 1901 to 8.8 millions in 1951, even though population increased by nearly 40 per cent.[5]

During the first half of the twentieth century, nearly 70 per cent of India's exports consisted of foodstuffs and raw materials, while its imports consisted of mainly manufactures.

The communal riots and influx of refugees at the time of Partition caused much dislocation in economic and political terms. In the face of shortages and rising prices, there was a resort to controls,[6] and these controls continued even after 1950.

[4] See Chandra (1992).
[5] Chandra (1992).
[6] Bhagwati and Desai (1970).

3.2.2 Some Positive Developments and Features

After the first world war, a small but independent (India-owned-and-controlled) industrial base and a substantial industrial capitalist class with an independent economic and financial base emerged. The diversification and expansion of industries during the inter-war period was encouraged by a tariff policy which broke with the tradition of free trade.[7]

Thanks to a process of import substitution after the first world war, India became more or less self-sufficient in regard to major consumer goods by 1939. Some intermediate and capital goods industries including basic chemicals and metallurgy began to develop. Industrial development based on indigenous raw materials and oriented towards internal market gained strength, the link between indigenous industry and agriculture became stronger, internal trade increased manifold and international trade tended to decline. In the 1930s, there was considerable shift of money capital from usury and trade to manufacturing. Indian capital class gradually started participating in activities such as banking, insurance, shipping and foreign trade as entrepreneurs.

The second world war too provided considerable stimulus to the growth of Indian industries.

On the eve of independence, the share of foreign enterprises in total output was only 25 per cent and more than 70 per cent of the home market needs were met by Indian-owned enterprises.

By 1947, India possessed a core of scientific and technical manpower. In Indian-owned enterprises, most of the managerial and

[7] Bhagwati and Desai (1970).

technical personnel were Indians, both in agro-based and metal-based industries.

One of the legacies of the British rule was an efficient civil service and administrative structure. This administrative apparatus stood free India in good stead. Enlightened, devoted and honest political leadership was a major asset of the young nation. The leadership lost no time in framing a Constitution and giving concrete shape to plans for development. A point of economic strength at the time of independence was the liquidation of foreign debt of nearly Rs.450 crores and the accumulation of sterling balances of over Rs.1,700 crores.

In spite of agricultural stagnation and general impoverishment, there were several signs of social progress in the first half century. Literacy rate increased from 6.1 per cent in 1901 to 16.7 per cent in 1951. Crude death rate decreased from 43 per thousand in 1901 to 23 in 1951. Infant mortality declined from 205 in 1901 to 116 in 1951.

3.2.3 Growth Pattern : 1900-1 to 1946-7

Table 3.1 below gives the trend growth rates of real GDP per cent per annum in the different sectors during 1900-1 to 1929-30, 1930-1 to 1946-7 and 1900-1 to 1946-7. Overall GDP grew at a low rate of 0.8 per cent per annum in both the sub-periods. Because of the steep acceleration of population growth from 0.5 per cent per annum during 1900-29 to 1.3 per cent per annum during 1930-46, per capita GDP growth decelerated from 0.4 per cent in the first sub-period to –0.5 per cent in the latter sub-period. Thus the standard of living measured in terms of per capita GDP deteriorated markedly during the seventeen year period preceding Independence.

Table 3.1
Structure of GDP and Sectoral GDP Growth Rates in India: 1900-01 to 1946-47

Sector / Sub Sector	Structure of GDP (%) at 1948-49 Prices		Annual Growth Rates (%) of Sectoral GDP		
	1900-1909	1940-46	1900-46	1900-29	1930-46
(1)	(2)	(3)	(4)	(5)	(6)
Primary sector	**63.1**	**51.9**	**0.4**	**0.5**	**0.2**
of which Agriculture	51.5	41.4	0.3	0.4	0.2
Secondary sector	**12.0**	**14.4**	**1.5**	**0.9**	**1.2**
Of which Manufacturing	2.4	7.5	3.8	2.7	7.0
Small-scale and cottage industries	9.2	6.2	0.4	0.2	-2.9
Tertiary sector	**24.9**	**33.7**	**1.7**	**1.6**	**1.7**
GDP	**100.0**	**100.0**	**0.9**	**0.8**	**0.8**
Population*			0.8	0.5	1.3
Per capita GDP			0.1	0.4	-0.5

Source : S.Sivasubramonian (2000),*The National Income of India in the Twentieth Century,*Tables 7.3 and 7.13.
Note : 1.Growth rates are estimated by semi-log trend regressions.
* For population, growth rates are calculated from the decennial census data.

Of the three broad sectors, the primary sector, with a GDP share of 63 per cent in 1900-09, grew at a distressingly slow rate of 0.4 per cent per annum. Furthermore, the growth rate of the sector decelerated to 0.2 per cent per annum in the second sub-period. The agriculture sub-sector with a GDP share of 51.5 per cent displayed the same pattern of very slow growth as the primary sector.

The secondary sector with an initial share of 12.0 per cent in aggregate GDP, fared much better than the primary sector in regard to growth. Also its growth rate accelerated from 0.9 per cent in the first sub-period to 1.2 per cent in the second sub-period. Within the secondary sector, the (modern) manufacturing sub-sector with an initial share of 2.4 per cent in aggregate GDP fared quite impressively, growing at a rate of 3.8 per cent per annum, while the sub-sector of small-scale and cottage industries with an initial share of 9.2 per cent grew at the same rate (0.4 per cent) as the primary sector. Furthermore, while this sub-sector showed pronounced deceleration from 0.2 per cent to –2.9 per cent, the modern manufacturing sub-sector improved its growth rate sharply from 2.7 per cent to 7.0 per cent. In the process, the modern manufacturing sub-sector attained dominance over the other sub-sector in terms of its contribution to aggregate GDP.

The tertiary sector with an initial share of around 25 per cent in aggregate GDP grew fastest out of the three broad sectors, at a rate of about 1.7 per cent per annum. This sector gained in importance in terms of its contribution to aggregate GDP mainly at the expense of the Primary Sector, whose share came down from 63.1 per cent in 1900-1909 to 51.9 per cent in 1940-46.

As noted above, manufacturing sub sector registered accelerated growth after 1930. However, the impact of industrialisation in the pre-

independence period on occupational structure was negligible. The share of agriculture in the work force was around 75 per cent in 1921 as well as in 1951. The share of manufacturing was around 9 per cent only.[8]

To sum up, in respect of overall GDP growth performance, the Indian economy was characterised by stagnation or decline during 1900-01 to 1946-47. The dominant agriculture sub-sector was virtually stagnant. However, the modern manufacturing sub-sector fared much better in terms of growth and its acceleration without the benefit of protection. The small-scale and village industries sub-sector was stagnant in the first three decades of the twentieth century and declined sharply in the next two decades. The occupational structure of the work force changed little in spite of the progress in industrialisation after the first world war.

3.3 Planning for Industrialisation

3.3.1 Evolution of Thinking on Industrialisation

As documented in Section 2 above, under British rule the Indian economy languished and at the time of independence, India was predominantly agricultural and was one of the world's poorest countries.[9] There was a consensus among nationalist leaders, intellectuals and industrialists that laissez-faire and free trade were responsible for India's economic backwardness and poverty and rapid industrialisation on the basis of central planning was the panacea.

During the freedom struggle and especially during the 1930s and 1940s there was an extensive debate on the development strategy to be pursued in India after independence. The engineer-statesman

[8] Bhagwati and Desai (1970).
[9] Vaidyanathan (1982).

Visweswarayya was the first to suggest a blueprint for development in 1934. The Congress Plan prepared in 1938 by the broad-based National Planning Committee under the chairmanship of Jawaharlal Nehru, the Bombay Plan drawn up by prominent industrialists in 1944 and the People's Plan suggested by the Indian Federation of Labour in 1944 were all influential in this context. All these plans advocated rapid industrialisation and self sufficiency (import substitution) with a dominant role for the State.[10] Such a wide consensus was prompted by several factors; (a) the example of successful industrialisation in the Soviet Union under central planning, (b) the collapse of world trade in the inter-war period, (c) export pessimism highlighted by development economists like Prebisch, Nurkse and Sniger in a wider context, (d) association of free trade with colonial rule and, (e) the distrust of free markets.

Industrialisation, self-sufficiency, particularly in manufactured goods, and limiting foreign trade to the bare minimum were regarded as crucial to the attainment of rapid economic growth.[11]

As part of the Post War Reconstruction programme initiated in 1944, considerable preparatory work was done between 1944 and 1946 to formulate policies for developing major sectors of the economy. The 1945 Statement of Industrial Policy of the Government of India introduced the concept of industrial licensing and emphasised the development of heavy industry.

The Industrial Policy Resolution (IPR) of 1948 adopted by the Government of independent India assigned a major role to the government in initiating and regulating development in the industrial sector. The new

[10] Marathe (1986) and Srinivasan and Tendulkar (2001).
[11] Srinivasan and Tendulkar (2001).

Indian Constitution which came into force in 1950 defined the broad objectives of government's socio-economic policy.

The Planning Commission was set up in 1950 with Prime Minister Nehru as Chairman for coordinated planning of development programmes. The Commission played a major role in ensuring that the programmes of states and central ministries fitted into a coherent national plan.

The attainment of a high rate of growth was the primary goal of policy. Self-reliance, employment generation, reduction of income inequalities and balanced regional development were the other major objectives. Shortage of savings and foreign exchange were seen to be the critical constraints on growth. Domestic savings was to be stepped up by appropriate fiscal policy. Given the widely held belief in export pessimism, rapid import substitution in the intermediate and capital goods sectors was regarded as crucial for the long term balance of payments viability.

During the Second World War, an elaborate machinery for allocating scarce commodities and foreign exchange was established. When the planning process started in the early 1950s, the government had this system of administrative controls on the economy at its disposal. The system of controls was expanded and tightened over the years.

3.3.2 The First Five Year Plan (1951-56)

The First Five Year Plan (1951-56) was an indicative plan. It was a collection of investment projects already under implementation. Its analytics were based on the one-sector Harrod-Domar growth model. The plan focused on fiscal policy for raising domestic savings to the level required by the projected investment corresponding to the targetted income growth and the estimated marginal capital output ratio. The

targetted per capita growth rate was 2.13 per cent per annum and the target was achieved. It sought to raise the rate of investment from 4.9 per cent in the base year 1950-51 of the plan to 7.0 per cent in the terminal year of the plan and this target too was achieved. The plan's investment focus was on infrastructure (34.0% of the total outlay), irrigation (22.2%) and agriculture (14.7%). The plan addressed the problems of under-privileged groups and allocated a substantial proportion (21.1%) to social services. Industry and minerals sector received a paltry allocation of 4.9% of the total outlay (See Table 3.2). Thanks to the good performance of agriculture sector and export boom due to the Korean War, the First Plan was successfully implemented without any serious fiscal or balance of payments problem.

Table 3.2
Structure of Public Sector Outlays in the First Three Five year Plans

Head of Development	Five Year Plan		
	First 1951/56	**Second 1956/61**	**Third 1961/66**
(1)	**(2)**	**(3)**	**(4)**
I. Agriculture and Allied	14.7%	11.4%	12.8%
II. Irrigation and Flood Control	22.2	9.2	7.9
III. Energy	7.6	9.7	14.6
IV. Industry and Minerals	4.9	23.3	22.1
V. Transport and Communications	26.4	28.6	25
VI. Social Services	21.1	15.6	16.6
VII. Others	3.1	2.2	1.1
Total	**100**	**100**	**100**
Total Plan Outlay (Rs. Crore in the base year prices)	1960	4600	8577
Share of the Public sector in investment	46%	61%	58%
Share of External Assistance (in Per cent)	9.6	23.7	28.3
Rate of Gross Capital Formation (in Per cent)	9.8	13.5	14.6
GDP growth (in Per cent)	3.6	4.2	2.8

Source: Rakesh Mohan, "Industrial Policy and Controls" in B. Jalan (ed.) (1992), *The IndianEconomy:Problems and Prospects,* Viking Penguin.
J. Bhagwati and T.N. Srinivasan, Foreign Trade Regimes and Economic Development: India (1978).

3.3.3 The Strategy of Development : Heavy Industry and Public Sector Dominance

In December 1954, Parliament accepted the socialist pattern of society as the objective of social and economic policy. The 1945 Statement of Industrial Policy of the Government of India and the Industrial Policy Resolution of 1956 (which replaced the IPR of 1948) provided the framework for industrial policy followed in the successive development plans. Special emphasis was laid on the development of steel, heavy engineering, machine tools and heavy chemicals industries. A number of these industries were reserved for exclusive development in the public sector. However, IPR-1956 was flexible enough to allow important role for the private sector. It also stressed the role of cottage, village and small-scale industries. Thus development policies came to be formulated in a “mixed economy” framework, with public sector dominance.

A balanced and coordinated development of the industrial and agricultural economy in each region (state) was also an objective of the policy. The new development strategy with its emphasis on public sector and heavy industry was launched with the Second Five Year Plan (1956-61). Although some modifications were introduced in specific policies since then, the basic strategy remained intact until the reforms of 1991.

The Second Plan was conceived around the Feldman-Mahalanobis two sector closed economy growth model, the two sectors referring to capital goods and consumer goods. The model was used to provide the rationale for a general shift in investments to building up a capital goods base; Rapid long run growth could be achieved without much sacrifice of consumption in the short run by investing more in capital goods producing heavy industry. Current consumption demand would be met by employing abundant labour in manufacturing consumer goods through labour

intensive methods. Mahalanobis formulated also a four-sector model, the four sectors being (1) Capital goods, (2) Consumer goods produced in factories, (3) Consumer goods produced by households and (4) the sector providing services such as health, education, etc. The idea behind the four sector model was to combine high employment growth with building up of a capital goods base.

The development strategy was implemented through a policy regime with two major goals. The first goal was to gain control over the "Commanding heights" of the economy through increase in public ownership of means of production. Basic and heavy industries were exclusively reserved for development in the public sector. Fiscal and monetary policy instruments were deployed to mobilise private savings for public investment. The second goal was to get the private sector to conform to plan priorities through quantitative restrictions on private investment, capital issues, foreign collaborations, imports of technology, capital goods and intermediate inputs. Specific regulatory measures like licensing of industrial investments, export and import controls, price controls and system of taxes, subsidies and allocations were undertaken.

The Second Plan and the Third Plan (1961-66) emphasised (1) industrial targeting and licensing and (2) exchange control over all current transactions resulting in the licensing of imports of capital goods, intermediates and consumer goods. The structure of public sector outlays in the Second and Third Plans are shown in Table 3.2.

The increased role of the public sector in the Second and Third Plans is reflected in the rise in the share of the public sector in total plan outlay from 46% in the first Plan to 61% in the Second and 58% in the Third Plan. The share of Industry and Minerals in creased sharply form 4.9% in the First Plan to 23.3% in the Second and 22.1% in the Third

Plan. These increases were at the expense of Agriculture and Irrigation sectors.

3.4 The Strategy of Industrialisation at Work

In this section we shall examine as to how the development strategy outlined in Section 3 above worked on the ground. The behaviour of savings and investment, industrial diversification, GDP growth performance, productivity performance of organised industry, the status of the public sector, the progress of import substitution, and the balance of payments position over the period 1950-51 to 1966-67 are taken up for discussion.

3.4.1 Savings and Investment

The development strategy was premised on the assumption that the resources needed for investment could be met out of savings from domestic sources. However, this expectation was belied right from the beginning of the Second Plan (See Table 3.3).

Table 3.3
Rates of Saving and Investment: 1951/52 to 1966/67

	First Plan: 1951/52-55/56	Second Plan: 1956/57-60/61	Third Plan: 1961/62-65/66	1966/67
(1)	(2)	(3)	(4)	(5)
Total Gross Domestic Savings	**9.5**	**10.9**	**12.5**	**14.0**
Public	1.7	2.0	3.1	2.3
Private	7.7	9.0	9.4	11.7
Household	6.7	7.8	7.7	10.3
Corporate	1.0	1.2	1.7	1.4
Gross Investment*	**9.9**	**13.6**	**14.6**	**16.9**
Public	3.5	6.0	7.5	7.1
Private	6.4	7.7	8.0	9.5

Source: Economic Survey 2000-2001.
* Adjusted for Errors and Omissions.

While the record with regard to savings and investment during the entire period 1950/1 to 1966/7 was satisfactory, the investment-savings gap widened after the First Plan, and Public Savings which was low to start with (1.7 per cent) failed to improve appreciably. The gross domestic saving (GDS) rate increased from an average of 9.5 per cent in the First Plan to 10.9 per cent in the Second Plan, 12.5 per cent in the Third Plan and 14.0 per cent in the Annual Plan for 1966/7. The corresponding investment rates were 9.9 per cent, 13.6 per cent, 14.6 per cent and 16.9 per cent. Household sector was the major contributor to savings in all the Plan periods. The share of the public sector in total investment increased significantly in the Second and Third Plan periods reflecting the increased emphasis on the public sector in the development strategy. In

passing, it may be noted that the deficit of savings over investment was financed mostly from concessional foreign aid.

3.4.2 Industrial Diversification

A salient feature of Indian industrialisation was the achievement of rapid diversification of the industrial structure. Table 3.4 gives the value added shares of industries according to use-based classification for selected years from 1951 to 1970-71, and for Input-based classification for years 1960-61 to 1970-71.

Table 3.4
Value Added Shares of Use-based and Input-based Industry Groups: 1951- 70

A. Use – based classification	**1951**	**1956**	**1960-61**	**1965-66**	**1970-71**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
1. Basic goods	19.8	22.1	27.5	30.6	30.7
2. Capital goods	3.5	4.7	10.7	15.0	15.2
3. Intermediate goods	29.0	25.6	21.0	19.1	19.0
4. Consumer goods	47.6	48.4	40.8	35.4	35.1
a). Durables	…	…	2.5	2.8	3.7
b). Non-durables	…	…	38.3	32.6	31.4
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
B. Input-based classification					
1. Agro-based	…	…	43.7	36.4	33.6
2. Metal-based	…	…	15.8	20.7	21.3
3. Chemical –based	…	…	8.8	8.9	12.4

Sources: 1) I.J. Ahluwalia (1985), *Industrial Growth in India*,Table 2.1.
2) Rakesh Mohan (1992), "Industrial Policy and Controls" in B. Jalan (ed.), *The Indian Economy : Problems and Prospects.*

Compared to 1956, in 1960-61, the final year of the Second Plan, the basic and capital goods groups of industries improved their shares at the expense of the consumer and intermediates goods groups. There were further changes in the same direction by the year 1965-66, the final year of the Third Plan. In 1965-66, the combined share of basic and capital goods groups was 45.6 per cent, compared to a combined share of 23.3 per cent in 1951. The share of consumer goods industries declined from 47.6% in 1951 to 35.4% in 1965-66. Intermediate goods group too suffered a decline of a similar extent. The structure of industries did not change much after 1965-66.

Between 1960-61 and 1970-71, both the metal based and chemical based industry groups gained in importance at the expense of the agro-based industry group, whose value added share declined from 43.7 per cent to 33.6 per cent.

3.4.3 Growth Performance

The period 1951/2 – 1966/7 as a whole recorded a GDP growth rate of 3.4 per cent per year. The growth rate was highest in the Second Plan period (4.3 per cent) and lowest in the Third Plan period (2.8 per cent). The growth rate was as low as 1.0% in the year 1966/67, the first year in the three-year period of "plan holiday". In this year the growth rate of agriculture was negative (-1.3%) as a result of the severe drought in 1966 and the growth rates of industry and services sectors too were much lower compared to the growth rates achieved in the first three plans. (See Table 3.5).

The agriculture and allied sector fared reasonably well in the First and Second Plans, but showed a negative (-0.2%) growth rate in the Third Plan, due to droughts in the years 1965 and 1966. Expansion of cultivated

area, application of fertilisers, better arrangements for distribution of inputs, increased credit facilities, and countrywide network of extension services were the factors behind the growth of agricultural output.

Table 3.5

Average Annual (per cent) Growth Rates in Real GDP and Constituent Sectors

	First Plan: 1951/52-55/56	**Second Plan: 1956/57-60/61**	**Third Plan: 1961/62-65/66**	**1966/67**	**1951/52-1966/67**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Agriculture and Allied	2.9	3.3	-0.2	-1.3	1.8
Industry	6.0	6.6	6.9	3.3	6.3
Services	3.8	6.1	4.8	3.0	4.4
GDP (factor cost)	3.6	4.3	2.8	1.0	3.4
Population	1.8	2.0	2.3	1.9	2.0
Per Capita GDP	1.8	2.2	0.5	-0.8	1.4

Source: 1951-52 to 1992-93: CSO, National Account Statistics, Back Series 1950-51 – 1992-93, 2001.
1993-94 to 2000-01: Economic Survey, 2001-02.

Note: The sub-sectors constituting Industry and Services are as follows :
Industry:
Mining and Quarrying; Manufacturing
Electricity, gas and water supply; Construction
Services:
Trade, hotels, transport and communications
Financial, real estate and business services
Community, social and personal services

The industry sector grew at an average annual rate of 6.3 per cent over the period 1951-67, and growth accelerated from 6.0 per cent in the first plan period to 6.6 per cent in the second plan and to 6.9 per cent in the third plan. However there was marked deceleration in the year 1966-67. The services sector registered highest growth (6.1%) in the second plan period.

To sum up, the growth performance of the Indian economy was quite impressive, although it was below the targetted growth rate and inferior to growth rates recorded for some other developing countries. Also the growth rate showed deceleration from 1965-66. The growth performance in the three sectors was impressive compared to the performance in each of the pre-independence era. However, the performance of agriculture sector in the Third Plan period left much to be desired.

3.4.4 Pattern of Growth and Productivity in Organised Manufacturing

Data on the growth rates of organised manufacturing value added, capital intensity and productivity for the period 1951-65 are presented in Table 3.6. The growth in value added was of the order of 6.0 per cent per annum during 1951-65. There was a slight fall in the growth rate in the Second and Third Plan periods (1956-65) to 5.9 per cent per year compared to the growth rate of 6.2% in the First Plan period (1951-56). Capital intensity growth was much higher (7.8%) in the Second and Third plans (1956-65) compared to the First Plan period (1.0%). This increase was on expected lines. It is disconcerting to note that total factor productivity growth decelerated from 2.8% per annum in 1951-56 to 0.4% per annum in 1956-65, a period in which industrialisation gained momentum. For the period 1951-65 as a whole the average TFP growth was only (1.3%). Capital productivity growth was negative (-3.0%) in the Second and Third Plan periods, reflecting the massive increase in the capital intensity in several segments of manufacturing industry.

Table 3.6

Average Annual (per cent) Rates of Growth of Value Added, Labour, Capital and Total Factor Productivities in Manufacturing Industries: 1951 to 1965

Item	1951-56	1956-65	1951-65
(1)	(2)	(3)	(4)
Gross value added (GVA)	6.2	5.9	6.0
Labour productivity	3.3	4.1	3.8
Capital productivity	2.2	-3.0	-1.1
Total factor productivity (TFP)	2.8	0.4	1.3
Capital intensity	1.0	7.8	5.4
Contribution of TFP growth to growth of GVA	45.0	7.2	21.1

Source: Goldar (1986).
Data Source: The Census of Manufacturing Industries (CMI) for 1951 to1958 and Annual Survey of Industries (ASI) for 1959 to 1965.
Note : The data relates to registered large establishments.

Table 3.7 points to wide variations in the productivity performance of different industry groups during 1951-65. Two important groups, namely, “Metals” and “Chemicals”, with a combined value added share of nearly 40 per cent experienced high value added growth rates (8.6% and 13.4%) but experienced declines in TFP of the order of –3.3% and –1.0%, respectively. The “Metals” group included the Iron and Steel and Non-Ferrous Metals industries set up in the planning era. Capital intensity growth in the “metals” group (10.5%) “Chemicals” group (8.1%) was very high indeed.

The textiles group with a value added share of 39.0% registered comparatively satisfactory growth in TFP (2.2% per year). The “other industries” group, comprising sugar, cement, etc, with a value added share

of 20.0% too performed well in regard to TFP growth (2.3%) and value added growth (4.3%).

Overall, productivity growth performance of organised manufacturing during Second and Third Plan periods was quite disappointing. There was steep productivity decline during 1951-65 in two major branches of organised industry : Metals (-3.3%) per year and Chemicals (-1.0% per year).

Table 3.7

Average Annual (per cent) Rates of Growth of Value Added (GVA), Capital Intensity and TFP (Solow) by Industry Group: 1951 to 1965

Industry group	Weight (%)	GVA	Capital intensity	TFP
(1)	(2)	(3)	(4)	(5)
Textiles	39.0	3.4	0.4	2.2
Metals	21.1	8.6	10.5	-3.3
Chemicals	17.1	13.4	8.1	-1.0
Engineering	2.8	14.2	0.4	2.9
Other industries	20.0	7.5	4.3	2.3
All industries	**100.0**	**6.0**	**5.4**	**1.1**

Source: Goldar (1986).
Data Source: CMI and ASI.
Note: The Engineering group in the table excludes General Engineering and Electrical Engineering industries, for which a correspondence could not be easily established between the CMI and ASI classifications.

3.4.5 The Public Sector

Public sector was assigned a dominant role in the Indian development strategy. In pursuance of the Industrial Policy Resolution of 1956 and consistent with the development strategy, public sector undertook investments in steel, non-ferrous metals, fertilisers, energy and machine-building industries. The public sector's share in organised industrial sector investment was above 50 per cent in the second and third five year plans. The distribution by sector of cumulated investment in public sector projects in 1965-66 was as follows : 40.6 per cent for steel, 20.3 per cent for engineering, 9.1 per cent for chemicals, 12.2 per cent for petroleum and 7.5 per cent for mining and minerals; the remaining 10.3 per cent was accounted for by financial institutions, shipping, aviation and miscellaneous activities.

In 1950-51, public sector activity was confined to irrigation works, electricity, railways and communication, apart from defence, maintenance of law and order and general administration. Its importance in the economy was not substantial : government expenditure accounted for about 8 per cent of total national expenditure. The income generated in the public sector was about 7.5 per cent of NDP, and the share of public sector in total capital stock was estimated to be 18 per cent (See Table 3.8). There was a progressive increase in public sector's share in NDP, national expenditure, capital formation and capital stock, over the twenty year period 1950-51 to 1970-71. By 1970-71 all the magnitudes nearly doubled reflecting the growing dominance of the public sector in the economy. In 1960-61, the terminal year of the Second Plan, 55 per cent of the new investments, and one third of the country's capital stock were in the public sector. By 1970-71, the share of the public sector in the nation's capital stock increased to 44 per cent from 18 per cent in 1950-51.

Table 3.8

Place of Public Sector in the Indian Economy 1950-70

	1950-1	1960-1	1970-1
(1)	(2)	(3)	(4)
Share in NDP (per cent)	7.5	10.6	14.2
of which			
Administration	4.5	5.5	7.6
Enterprises	3.0	5.1	6.5
Share in national expenditure	8.3	13.0	18.5
Government revenues as % of NDP	6.6	10.2	13.9
Public investment as % of total	28	55	52
Share of public sector in total capital (percent)	18	33	44

Source: Vaidyanathan (1982), Table 13.1.

However, the increase in the share of public enterprises in NDP from 3.0 per cent in 1950-51 to 5.1 per cent in 1960-61 and to 6.5 per cent in 1970-71 was not commensurate with the investments in the public sector enterprises, reflecting the low capital productivity of the public sector enterprises.

Gross profit to capital employed ratio in respect of all central PSEs was low, 5.5 per cent in 1960/61. It declined further to 4.3 per cent in 1965/66 and to 4.0 per cent in 1970/71.[12]

[12] See Rakesh Mohan (1996). Profitability improved from 1975/76 onwards.

The average rate of return for 68 government companies in 1965-66 was merely 2.4 per cent.

Bhagwati and Desai (1970) after a detailed discussion of the available evidence on the economic efficiency of public sector enterprises conclude as follows:

"The overall dissatisfaction with the public sector's performance so far is therefore not entirely unjustified; and the prospects of its future performance are fairly dim, unless the political intrusions into its efficient working are removed".

3.4.6 Import Substitution

An important feature of industrial policy since the beginning of the Second Plan was the emphasis on import substitution (IS), which was regarded as an integral part of the strategy for self-reliance. IS policy was prompted also by continuing and acute shortage of foreign exchange. The shortage of foreign exchange became more acute in the early 1960s. Import substitution at any cost seems to have taken hold in terms of import licensing at this juncture. The main policy instruments of IS strategy were tariffs and quantitative restrictions on imports, supplemented by the scheme of foreign exchange allocation and industrial licensing.

Bhagwati and Desai (1970) report estimates of import substitution for three broad categories of industries. Their results show that while during 1951-57 a high degree of import substitution was achieved in the consumer goods industries, the subsequent period (1957-63) was marked by a high degree of import substitution in capital goods and intermediate

goods industries. Thus a movement towards the achievement of the objective of self-reliance was noticeable.

Ahluwalia (1985) presents import-availability ratios for the years 1959-60, 1965-66 and 1979-80 for two-digit industry groups and use-based and input-based categories. Her results show that import-availability ratios were lower in 1965-66 than in 1959-60 for all industry groups, suggesting that import-substitution occurred in all industry groups between 1959-60 and 1965-66. The degree of import substitution was highest (8.1 per cent per annum), for the intermediates goods group, followed by the basic goods group (5.7 per cent per annum).

Ahluwalia's calculations in the context of her analysis of deceleration of industrial growth suggest slowdown of import substitution after 1965-66 in a majority of two-digit industries. Non-electrical machinery, Electrical machinery, Transport equipment industries were characterised by fall in import-availability ratio in 1979-80, compared to 1965-66. This implies that in these industries the process of import substitution continued after 1965-66.

3.4.7 Balance of Payments

The BoP position was comfortable during the first plan period (1951-56), the average annual current account deficit (CAD) being as low as 0.1 per cent of GDP. Though the quantitative restrictions (QRs) inherited from the second world war were still in operation during this period, their scope was limited because of a comfortable foreign exchange position and a realistic exchange rate.

The period beginning 1956-57 was very difficult for India's BoP partly because of slow export growth relative to import growth and partly

because of adverse external factors. The period was marked by two wars, in 1962 with China and in 1965 with Pakistan, and two severe droughts of 1965-66 and 1966-67.[13]

The massive investment in heavy industry after the launch of the Second Plan led to a steep increase in imports and rapid depletion of foreign exchange reserves inspite of substantial foreign aid flows and precipitated a balance of payments crisis in early 1957. Nearly 50 per cent of the deficit was financed by external assistance. Quantitative restrictions were used to deal with the crisis. Industrial licensing became even more restrictive.[14] The current account deficit deteriorated to 2.4 per cent of GDP in the Second Plan compared to 0.1 per cent in the First Plan.

As a result of better export performance and decrease in import demand following import substitution measures, CAD improved to 1.8 per cent of GDP in the Third Plan (1961-66). (See Table 3.9). Export subsidisation of a wide range of exports was introduced in 1962. As a result, export performance showed considerable improvement until 1965 when a major drought affected traditional exports adversely. Import duties were deployed to mop up the import premia. Steps were taken to relax some of the industrial licensing restrictions. The period 1962-66 has been characterised as one of "partial liberalisation".

[13] Jalan (1992).
[14] Bhagwati and Srinivasan (1975) identified the period 1956-62 as a period of the most restrictive trade regime.

Table 3.9

Key Indicators of India's BOP: Plan-wise (Annual Averages) -- 1951-69

	1st Plan 1951-56	**2nd Plan 1956-61**	**3rd Plan 1961-66**	**Annual Plans 1966-69**
(1)	**(2)**	**(3)**	**(4)**	**(5)**
Growth Rates				
Exports : Dollar terms	0.6	0.0	4.7	3.7
Imports : Dollar terms	7.2	9.4	4.8	-5.8
Exports : Volume terms	1.1	-0.7	4.3	4.9
Imports : Volume terms	3.6	9.9	3.9	-0.2
As per cent of GDP				
Exports	6.1	4.6	3.5	3.7
Imports	7.2	7.9	5.7	5.9
Total Merchandise Trade	13.4	12.4	9.2	9.6
Trade Deficit	-1.1	-3.3	-2.2	-2.2
Current Account Deficit	-0.1	-2.4	-1.8	-2.1
Import Cover				
Import Cover of Foreign Currency Assets	13.1	3.5	1.7	2.1
Import Cover of Foreign CurrencyReserves	15.1	4.8	2.9	3.2

Source: M. Kapur (1997), RBI Occassional Papers, Volume 18, Nos 2 & 3.
Note : Export and import volume growth refer to DGCI&S trade data.

The most striking feature of the Indian economy at the end of the period under review, i.e. 1966-67 was the shortage of food. The scarcity was the result of a shortfall both in production and the import of food. Production fell due to the dependence of the traditional agricultural system on rain. The years 1965 and 1966 had witnessed two successive

monsoon failures. Declines of 17 per cent and 20 per cent in 1965-66 in agricultural output and foodgrain output, respectively, was followed by further declines in 1966-67. In the early phase of industrialisation, from the 1950s to the mid- sixties, India's growing demand for foodgrains had been met by increasing production through extensive cultivation and the import of wheat under PL 480 from the US. But because of the war with Pakistan and the international political situation, the US government refused to renew the PL 480 agreement in 1966 on a long term basis, and imports of foodgrains declined sharply.

Military conflicts with China in 1962 and with Pakistan in 1965 had pushed up defence spending, leading to an increase in the fiscal deficit to 7.4 per cent of GDP in 1966-67. As a consequence of both the agricultural supply shocks and the high deficits, the rate of inflation rose. Based on WPI-all and WPI-Primary inflation rose to 14 per cent while consumer prices rose by 13 percent in 1966-67.

The suspension of foreign aid has an adverse impact on the availability of foreign exchange. But the poor performance of exports from 1964-65 to 1966-67 had already created vulnerability on the external account. The dollar value of exports had declined for three consecutive years, while imports remained inelastic. The policies of import substitution had reduced imports to the bare essentials of capital goods, foodgrains, edible oils, petroleum and a few other such items. But the export capacity had not developed even to meet these minimum imports. The result was a sharp rise in the current account deficit.

The increasing overvaluation of the rupee in the first half of the 1960s was accompanied by attempts to subsidize exports. But as the pressure on the balance of payments mounted, this resulted in a decision to devalue the rupee in June 1966. The devaluation was intended to

restore parity and was accompanied by a removal of export subsidies. Further, it was a response to the precondition of the Aid-India Consortium for the resumption of aid.

On June 6, 1966 the rupee was devalued by 57.5 per cent vis-à-vis the US dollar. However, since at the time of devaluation a number of export subsidies were removed, the net effective devaluation adjusted for the simultaneous changes in trade taxes and subsidies was lower than the gross devaluation of 57.5 per cent. Bhagwati and Srinivasan have estimated that for total exports the net devaluation was 21.6 per cent while for imports it was 42.3 per cent. For the current account (including invisibles), Bhagwati and Srinivasan estimate the net devaluation to be 22.3 per cent for receipts and 44.8 per cent for payments.[15]

After two years of price rise of the order of 11 to 14 per cent, per year, prices began to fall in 1967-68, following a bumper crop. Although the crisis was over, it had long term consequences.[16] Dependence on food imports and failure of the World Bank prompted devaluation to produce beneficial results, reinforced an existing belief in self-sufficiency. Trade liberalisation measures introduced during 1962-66 were reversed. Fiscal policy remained deflationary for more than two years after the end of the 1965-67 crisis. Public fixed investment did not recover for many years. Industrial growth decelerated. This marks the beginning of a "dark" phase of slowdown in the economy.

3.5 Summing up

Indian economy was in a stagnant and impoverished state at the time of independence in 1947. There was a consensus among political

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[15] Bhagwati and Srinivasan ,1975, p.97

[16] Joshi and Little (1996).

leaders who guided the freedom movement, intellectuals, industrialists and labour leaders about the future development strategy.

Launched in 1956, the strategy emphasised self-reliant industrialisation and a dominant role for the public sector in a mixed economy framework. While economic growth was the major objective, generation of gainful employment and reduction of economic inequalities were also aimed at.

Shortage of savings and foreign exchange were seen to be the critical constraints on growth. Fiscal policy was to be deployed to step up the savings rate. Pessimism about export growth prompted the adoption of a policy of import substitution to deal with the balance of payments problem. The policy was implemented in conjunction with the policy of industrial licensing and other controls. Efficiency considerations received scant attention.

The performance of the economy during the period 1950-67 presented a mixed picture. The country experienced much higher growth in all the three broad sectors than in the first half of the twentieth century. But the growth rate was lower than that achieved in many other developing countries and the productivity performance was quite poor. ICOR increased from about 2.0 in the First Plan (1951-56) to 3.6 in the Third Plan (1961-66). The pace of growth decelerated significantly in the agriculture sector in the 1960s. After mid-1960s industrial growth too decelerated.

The economy remained quite vulnerable to foreign exchange shortages. India's exports grew considerably slower than world exports and her share in world trade declined steadily from about 2.0 per cent in 1946 to 0.7 per cent in 1970. The country failed to take advantage of the

boom in labour-intensive exports in the 1960s. This had adverse implications for employment generation and poverty reduction.

Although public saving as a proportion of GDP tended to increase over the period 1950-67, from an average of 1.7 per cent in the First Plan period to 3.1 per cent in the Third Plan period, the increase was not commensurate with the huge investments undertaken in the public sector. The rate of return in the public sector enterprises was found to be extremely low or even negative.

Bhagwati (1998) draws a contrast between the economic performance of India and East Asia. In his judgement, which is shared by many development economists, the critical difference was in the strategy adopted. East Asia's success was attributable to its adoption of the export promotion (EP) strategy. India's lack of success was attributable to its persistence with the import substitution (IS) strategy. Early attention to human development in East Asia was also a factor behind East Asia's success.

India should have switched from IS strategy to EP strategy in the mid 1960s, when external environment was favourable. Why India did not make such a switch was a puzzle.

Chapter 4

Inward Orientation and Industrial Stagnation: 1967-1980

4.1 Initial Conditions

The most striking features of the Indian economy at the beginning of the period 1967-1980 were the shortage of food and the foreign exchange crisis. The green revolution strategy and the devaluation of the rupee mentioned in the previous chapter were the major policy initiatives addressing these problems. Along with the devaluation changes were made to the trade regime. However, as we shall show below, policy changes such as the removal of the export subsidy and the import entitlement schemes, were short-lived. The period 1966-70 was characterised by a steady growth of export subsidisation of a largely ad hoc nature that had many of the features of the pre-devaluation regime.

4.2 Policy changes during the period

4.2.1 Trade Policy

The period from the late 1960s to the late 1970s was a period of more restrictive trade policies and increasing protectionism in response to the foreign exchange shortages that prevailed. In the wake of the food and foreign exchange shortages, the response of the policy makers was to further restrict imports rather than enhance the export earning capacity of the economy. This resulted in deepening of the process of import substitution.

The import licencing regime, whose origins lay in the Imports and Exports (Control) Act of 1947 and the Import Trade Control Order of 1955, encompassed all imports. An elaborate bureaucratic apparatus

evolved that provided physical allocations of imports by type of product, e.g. capital goods, raw materials etc., and by type of user, i.e., established importers, actual users etc. In the case of raw materials and components, the policy indicated the lists of banned and restricted items. Those items that were not specified on these lists were on Open General Licence (OGL). The implementation of import controls was mainly through a system of quantitative restrictions.

As there was demand for easier access to imported inputs from indigenous industry, this provided a constituency for import liberalisation for intermediate inputs and capital goods. Import licences went to both "Established Importers" who were mainly traders and "Actual Users" for the import of intermediates and capital goods. During the 1950s and the 1960s the proportion of licences going to traders steadily diminished from 61 per cent in 1951-52 to less than 3 percent in 1970-71.[17] The quantitative restrictions on imports were used increasingly to protect domestic producers of import-substitutes of final products.

In industry, foreign competition from imports was restricted by policies of high and rising tariffs. As table 4.1 shows the import duty collection rates on manufactured products increased sharply from 33.2 per cent in 1970-71 to nearly 55 per cent in 1979-80.

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[17] Bhagwati and Srinivasan, 1975.

Table 4.1

Import Duty Collection Rates (%)

Year	Primary Imports	Manufactured Imports	Total Imports
1967-68	5.48	28.05	20.33
1968-69	6.89	25.21	19.59
1969-70	7.59	27.00	20.67
1970-71	7.37	33.21	25.90
1971-72	15.44	41.74	35.09
1972-73	21.70	49.17	42.49
1973-74	8.52	48.51	31.54
1974-75	4.89	46.56	27.34
1975-76	5.18	48.66	25.83
1976-77	5.42	54.56	28.70
1977-78	6.38	46.46	27.32
1978-79	9.21	50.82	32.33
1979-80	6.98	54.77	31.19

Source: Revenue Budget, Ministry of Finance, Report on Currency and Finance, RBI, various issues.

4.2.2 Industrial Policy

As diversification of the industrial sector was being attempted in the initial years of planning, a case could be made for protection on the grounds of the infant industry argument. The infant industry argument provides a rationale for accepting a degree of additional short-term cost in return for the future benefits of establishing a dynamic industrial sector. The argument suggests that domestic infant industries need to be protected from the competition of imports through setting up high tariff rates or quota restrictions. The duration of infant industry protection as well as the rates at which protection is provided then become part of the instruments of planning.

A major weakness of the trade policy regime in India in the 1960s and the 1970s was the complete disregard of the infant industry argument for protection and the neglect of domestic vs foreign relative costs in planning for import substitution. In the face of recurrent foreign exchange crises, the decade of the sixties and the first half of the seventies saw an indiscriminate rise in tariffs and quantitative restrictions resulting in turn in inefficient import substitution.

If the planners had explicitly talked in terms of infant industry protection, they would have been compelled to spell out the degree of protection and recommend phasing of protection for different industries in order to establish some limits on the extent of economic inefficiency to be tolerated in the process. This aspect went largely unnoticed until the late seventies. The Sixth Plan (1980-85) was the first plan to make reference to the importance of "efficient" import substitution.[18]

In the earlier phase of industrialisation, the poicy favoring small scale industries was designed to encourage diffusion of entrepreneurship and promote employment. In 1969, for the first time the policy towards the small scale sector became more protective than promotional, i.e. the small scale units were to be protected from competition from large scale units within the Indian economy. Thus came a policy to "reserve" certain items for production in small-scale firms.

The industrial licensing policy had all along been used to attain the objective of regional diversification of industry. So was freight equalisation policy which resulted in an economically inefficient allocation of resources by creating disincentives for locating industry closer to the availability of basic materials. Fiscal concessions were used to attract location of industries in backward areas. As these areas

[18] Ahluwalia, I.J. (1994)

were typically devoid of infrastructure, this amounted to putting the cart before the horse, and indeed, very often the incentives were misused.

In the late 1960s, additional instruments such as the Monopoly and Restrictive Trade Practices Act and Foreign Exchange Regulation Act were introduced. Following reports by the Monopoly Inquiry Commission (1964) and the reports by Hazari (1967) and the Industrial Licencing Policy Enquiry Committee (1969) in 1969 the Monopolies and Restrictive Trade Practices (MRTP) Act was passed. The MRTP Act sought to check the expansion of large industrial houses with gross assets exceeding Rs 20 crores in interlinked undertakings of ‘dominant’ undertakings with assets over Rs 1 crore, the definiton of dominance being a share in market exceeding 33 per cent (until 1982). The system was grossly manipulated to ensure that potential entrants were kept away. The policies essentially created barriers to entry into individual industries.

The policy towards foreign investment was contained mainly in the Foreign Exchange Regulation Act (FERA) of 1973. The Act laid down the guidelines for companies with majority equity interest held by foreign nationals. In general the policy encouraged the outright purchase of technology through a one time payment of technical know-how fees or royalty payments rather than induction of technology purchased with foreign investment. Lists were put out periodically to announce the areas in which foreign collaboration will be permitted. The thrust of the policy remained restrictive and protectionist in nature.

The development of factor markets such as the market for labour and land was further constrained by the rigidities introduced by the legal system and the development of vested interests that prevented changes in the legal setup. During the 1970s especially, the rigidities in factor markets increased and laws were made even more restrictive.

The Industrial Disputes Act was amended in 1976 so that firms employing more than 300 workers had to get government permission before they could lay off workers. Earlier this number was 1000. However, government permission was seldom forthcoming. Later the Act was amended again. The 1982 amendment of the Industrial Disputes Act provided that a firm employing more than 100 workers (reduced from more than 300) needed permission from the state government to lay-off or retrench workers.

The Industrial Disputes Act has discouraged investment in labour intentive industry. Consequently, investment in manufacturing has been capital intensive and employment of labour in the organised sector has been restricted. The impact on factor mobility within manufacturing has been very negative as firms are unable to layoff workers and shut down production even though it may be unprofitable to continue.

The Urban Land Ceiling Act,1976 imposed a ceiling on both ownership and possession of vacant land in urban agglomerations. The Act granted discretionary powers to States Governments for granting exemptions. It failed to provide a mechanism for vacant land to enter the land market. The Act hampered the growth of a land market, made residential land highly expensive, restricted the supply of land for meeting various needs and resulted in corruption in the system.

4.2.3 Agricultural Policy

India's large shortages of food grains and the lack of support from the rest of the world propelled her towards a policy of attaining self sufficiency in foodgrains. The Green Revolution began after 1966-67 with the agenda of enhancing productivity in the principal foodgrain, wheat. In course of time the strategy embraced other foodgrains, i.e. rice and oilseeds. Over the years, the basket of goods for which self- sufficiency was sought, was expanded to edible oils and oilseeds, pulses, maize and sugar.

India's strategy of development ignored the linkages between agriculture and industry. While emphasis on industry was seen as a means to modernisation and rapid growth, agriculture, on which two-thirds of the population depended for its livelihood, received residual attention. As industry was provided high levels of protection, private investments were drawn towards industry rather than agriculture. Further, the emphasis on heavy industry resulted in growth in the industrial sector which had little backward linkages with agriculture. A protective trade regime as well as the emphasis on heavy industries militated against the natural tendency of Indian industry to invest in labour intensive techniques of production. Consequently, the pressure of population on agriculture failed to recede, leading to problems such as disguised unemployment and the subdivision of holdings to unviable sizes.

4.2.4 Physical Infrastructure

The crucial importance of infrastructure, the bulky nature of investments and the long gestation lags of projects warranted a heavy involvement of the public sector in this field during the 1960s and 1970s. Demand linkages existed with heavy industries while supply linkages affected industries across the board. The alternative of private investment playing a major role in this area arose only in the 1980s when technological breakthroughs and institutional evolution made the involvement of private sector in infrastructure a realistic possibility.

An analysis of the trends in public investment shows a significant slowdown during the 15-year period after the mid-sixties. The brunt of the slowdown was borne by the infrastructure sectors, especially railways and power. The share of infrastructure in the total public investment also declined from 36 per cent in the first half of the sixties to 29 per cent in the following decade (1966-67 to 1975-76), as

infrastructure investment which had grown at an annual rate of almost 17 per cent in the first half of the sixties decelerated to a bare 2 per cent per annum. There was some pick-up in the late 1970s but growth was still only 8.3 per cent per annum from 1975-76 to 1980-81.

Evidence of the declining importance of railways can be seen from its share in planned outlay falling from 23 per cent in the Second Five Year Plan to 5 per cent in the Sixth Five Year Plan. Also, actual expenditures typically fell short of planned outlays. The under-investment in railways was associated with gross neglect of the maintenance of the existing capital stock, with adverse impact on efficiency.

The growth of real investment in electricity also suffered a marked slowdown in the decade following the mid-sixties, though the slowdown was not as marked as in the case of railways.

4.2.5 Financial Infrastructure

A dominant role for the public sector in development required a strategy for resource mobilisation. While the traditional instruments of taxation were expected to be supplemented by surpluses generated by the public sector undertakings, by 1967-68 it was becoming clear that some other major sources will have to be tapped. Building and expanding financial infrastructure through public sector banks provided an alternative.

A network of government-owned Development Financial Institutions (DFIs) was set up to provide long term credit to industry. The institutional system for industrial finance was dominated by the - The Industrial Development Bank of India (IDBI), The Industrial Credit and Investment Corporation of India (ICICI) and The Industrial Finance Corporation of India (IFCI); and supported by state and

regional level financing corporations. The institutions provided financial assistance by direct lending, subscribing to shares and debentures of companies, underwriting of capital issues and by providing guarantees. In addition, financing bodies were created for the development of specific economic sectors like tourism, small-scale industry, venture capital and international trade. Agricultural credit was largely provided by co-operative bodies. The Unit Trust of India (UTI) created in 1964 promoted and channelised household savings into the capital markets. The insurance segment was run by the public duopoly of the Life Insurance Corporation (LIC) and the General Insurance Corporation (GIC), subsequent to the nationalisation of the life and general insurance businesses in 1956 and 1973 respectively.

In 1967-68 the share of bank credit going to industry was higher than to any other sector. In 1968 industry accounted for over 67 per cent of bank credit, 80 per cent of which was for the corporate sector. Agriculture received a little over 2 per cent. Against this background the National Credit Council was established in February 1968. In July 1968 the National Credit Council suggested that commercial banks should increase their involvement in the financing of priority sectors, viz., agriculture and small scale industries. The description of the priority sectors was later formalised in 1972 on the basis of the report submitted by the Informal Study Group on Statistics relating to advances to the Priority Sectors constituted by the Reserve Bank in May 1971. On the basis of this report, the Reserve Bank prescribed a modified return for reporting priority sector advances and certain guidelines were issued in this connection indicating the scope of the items to be included under the various categories of priority sectors. Although initially there was no specific targets fixed in respect of priority sector lending, in November 1974 banks were advised to raise

the share of these sectors in their aggregate advances to the level of 33.3 percent by March 1979.[19]

The changing political scenario with the slogan of socialism, the need for political support from the left parties and the need to find resources to finance the planning effort led to the nationalisation of banks in July 1969. The latter was mainly motivated by political considerations (Patel, 2002). Ostensibly the move was designed " to control the commanding heights of the economy and to meet progressively the needs of development of the economy in conformity with national policy and objectives".

From the time when the RBI was established on 1 April 1935 all scheduled commercial banks were required to maintain a minimum cash reserve of 5 per cent of their demand liabilities and 2 per cent of their time liabilities. This was referred to as the Cash Reserve Ratio (CRR). In addition, banks were required to maintain liquid assets in cash, gold or government securities amounting to not less than 20 per cent of demand and time liabilities, the Statutory Liquidity Ratio (SLR). In 1962 this ratio was raised to 25 per cent over and above what was held as CRR.

As mentioned above the SLR was the proportion of net demand and time deposits that banks were required to maintain as cash, gold or unencumbered approved securities. These were mainly securities of central and state governments and bonds issued by term-lending institutions like IDBI, IFCI and State Finance Corporations. So besides providing a captive market for government securities the SLR also diverted funds to development financial institutions. As table 4.2 shows the SLR requirement was raised from 25 per cent in 1964-65 to 34 per cent in 1978-79. Also, as can be seen in table 4.3 the CRR was

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[19] Master Circular- Lending to Priority Sector, RBI, 1 August 2001

raised from 3 percent in 1966-67 to 7.5 per cent in 1981-82. In this way an increasing proportion of bank deposits financed government deficits. The fiscal deficit to GDP ratio rose from 2.9 per cent in 1969-70 to 5.3 per cent in 1979-80. The government used the banking sector as a captive source of funds by means of the (SLR).

Table 4.2

Statutory Liquidity Ratio

Year	SLR
1964-5	25
1970-1	28
1972-3	30
1973-4	32
1974-5	33
1978-9	34

Source: Report on Currency and Finance, RBI, various issues.

Table 4.3

Cash Reserve Ratio

Year	CRR
1962-3	3
1973-4	7
1974-5	4
1976-7	6
1981-2	7.5

Source: Report on Currency and Finance, RBI, various issues.

One of the objectives of nationalisation was the spread of banking to rural and semi-urban areas through a network of bank branches. Indeed, there was widespread growth of bank branches between 1969 and 1984. The expansion was, as desired, mainly in rural and semi-urban areas. Attention was focussed on a geographical spread of banking both as an instrument of deposit mobilisation and for provision of credit to agriculture. Over this period deposits rose from

13 percent of GDP in 1969 to 38 per cent in 1991 while advances rose from 10 per cent to 25 per cent. A large proportion of the incremental deposits came from the new branches. The increase in rural deposits as a proportion of total deposits rose from 3 per cent of the total to 15 per cent.

Till the early 1980s, the equity market played a negligible part in mobilizing savings for the corporate sector. The office of the Controller of Capital Issues controlled the volume and pricing of equity issues. In general markets were unregulated and non-transparent.

4.2.6 Rethinking on Policies

Slow growth, poor industrial productivity and a declining share of India in world exports dominated the period 1967-1980. Recognizing that something could be wrong with India's development strategy, the period of the second half of the seventies was characterized by "official reflection". The various committees that were set up to review different aspects of policy included (1) the Committee on Imports-Exports Policies and Procedures, headed by P.C. Alexander, Ministry of Commerce (1978), (2) the Committee on Controls and Subsidies, headed by V. Dagli, Ministry of Finance (1979) ; (3) the Committee on Export Strategy, headed by P. Tandon, Ministry of Commerce (1980); (4) the National Transport Policy Committee, headed by V. G. Rajadhyaksha, Ministry of Energy and Coal (1980).

The recommendations of these committees included rationalisation and simplification of procedures. and reduction in red-tapism. Consequently, as we shall see later the implementation of the recommendations of these committees in the 1980s resulted in changes in the policy environment. Import controls began to be relaxed and

restrictions on selected imports were eased. The industrial sector also saw deregulation and more flexibility.

4.2.7 Oil Price Shocks and Adjustment

The inward looking trade and industrial policies of the 1970s were largely responsible for the developments in the economy in this period. In addition to these policies the exogenous shocks that hit the economy also helped shape medium term growth patterns in the economy. The impact of the oil price shocks of 1973 and 1979 on inflation and on the current account resulted in adjustment policies such as expenditure reduction that had consequences for medium term growth in the economy.

In 1972-73 foodgrain output fell due to severe drought. Further, inaccurate assessments led to delays in imports and mismanagement of food supplies. The Wholesale Price Index accelerated from a growth of 5.6 per cent per annum in 1971-72 to 10, 20.2 and 25.2 percent respectively in the following 3 years. Then between 1972-73 and 1975-76 the price of oil rose sharply. Cuts in public investment were undertaken. The cuts were mainly in public administration and defence.

Ahluwalia, M.S., (1986) explains how in 1974-75 the government took a series of measures to reduce private disposable income. The measures included the freezing of all wage increases and half of additional cost-of-living increases in the public sector, limitations on dividend distributions by companies, and a new scheme of compulsory deposits on the basis of a graduated “slab” for all income tax payers, increase in excise duties and raising railway freight rates. These measures reduced disposable income by about 1 per cent of GDP. Money supply growth was also restricted to 11 per cent in 1974-75 compared to 18 per cent in the previous two years. These policies succeeded in controlling prices (Ahluwalia, M. S., 1986). The

rate of inflation fell from 20.2 per cent in 1973-74 and 25.2 per cent in 1974-75 to –1.1 per cent in 1975-76. (see Annexure 18).

As a result of the fiscal crunch faced by the government there was a decline in public investment. While the growth of public investment in the decade ending 1965-66 was over 10 per cent per annum, in the following decade it decelerated to 4.5 per cent per annum. The main sectors that were hurt from the cuts in expenditure on the public sector were railways and infrastructure. The share of power, railways and coal in total public investment declined from 36 percent in the first half of the sixties to 28 percent in the first half of the seventies.[20]

The decline in public investment resulted in a reduction in the demand for capital goods and these industries faced a marked decline in capacity utilization. The inability of the economy to utilize the growing capacities in heavy industries and the mounting losses of public sector enterprises were a result of the public investment led heavy industry strategy of industrialization followed since the second five year plan. The combined impact of the more inward looking and restrictive policies and the decline in public investment was a slowing down of growth. While in the period 1956-57 to 1965-66 value added in industry grew in real terms at 6.5 percent per annum, in the period from 1966-67 to 1979-80 growth fell to 4.5 percent per annum. (Ahluwalia, I.J., 1986).

The balance of payments position had improved after the 1966-67 crisis years but it worsened due to the rise in import prices following the oil price shock. First external aids and loans helped. Later it was growth of remittances from abroad. Exports rose from 3.1 per cent in GDP in 1970-71 to 5.2 per cent of GDP in 1979-80 (See

[20] Table 6, Ahluwalia, I.J.1986

Annexure 15). The current account was in surplus in 1976-77 and 1977-78 and a small deficit in 1978-79.

The next shock to hit the economy, again a combination of a bad harvest and an oil price hike, was in 1979 to 1981. Import prices rose by as much as 50 per cent between 1977-78 and 1980-81. The current account deficit rose from 0.46 per cent of GDP in 1979-80 to 1.54 per cent in 1980-81 and remained at 1.7 per cent of GDP in the following two years.

Prices increased by 17 and 18 per cent in 1979-80 and 1980-81. But owing to adequate food stocks the rise in food prices was not as much as in the 1973 episode. It was mainly manufactured goods and fuel whose prices rose sharply. However, growth in money supply in 1979-80 remained high at 17.7 per cent and in 1980-81 at 18.1 per cent even though prices rose at 17.1 per cent and 18.2 per cent respectively in these years. The price rise was combated with better food management. By 1980-81 the inflation rate had come down to 9.3 per cent and by 1981-82 to 5 per cent.

Table 4.4

Growth of Public Sector Investment in Infrastructure

Year	
1971	-1.08
1972	25.37
1973	-26.19
1974	-1.21
1975	23.17
1976	16.59
1977	21.13
1978	-8.53
1979	2.62
1980	26.70

Source: National Accounts Statistics, (Central Statistical Organisation; Ministry of Statistics and Programme Implementation).

4.3 Growth Performance

Growth in GDP increased from 3.4 per cent in the period 1950-67 to 3.8 per cent in the period 1967-1980. Growth in agriculture accelerated sharply contributing to this small increase, but industry slowed down significantly. The growth in services fell from 4.8 per cent to 4.3 per cent (Annexure 1).

Agricultural growth was higher at 3.3 per cent compared to 1.8 per cent in the period 1950-1967. This was mainly due to an increase in wheat production. As the rate of growth of yield for wheat doubled from 1.5 to 3, the rate of growth of production nearly doubled from 3.6 per cent to 6.6 per cent. (Annexure 7) While agricultural growth picked in 1969-70 and 1970-71 to 6.4 per cent and 7.1 per cent respectively owing to the green revolution, it declined sharply after that.

(Table 4.5) The years 1971 and 1972 saw a fall in agricultural production as the country was hit by a severe drought. For the next four years the production in agriculture followed the pattern of one good year and one bad year. In 1979-80 there was again a severe drought that pulled agricultural production down to a negative 12.7 per cent (Annexure 10).

Industrial growth declined sharply from 6.3 per cent in the pre-1967 period to 4.2 per cent in this period. Investment in industry, as a proportion of total investment remained roughly the same at 35 per cent. Investment in manufacturing rose from an average of 26 per cent in the period before 1967 to 27 per cent in the years 1967-80 (Annexure 3).

The industrial slowdown can be attributed to a number of factors. The increasingly inward looking policies affected efficiency and productivity in the organised industrial sector. In addition during this period the economy was effected by the oil price hike that led to a severe curtailment of imports. The droughts during this period impacted upon agricultural growth which pulled down demand in the economy. In the first half of the seventies growth was slow with an average of less than 2.2 per cent over the period 1970 to 1975. The years 1973-74 and 1974-75 were particularly bad as the oil price hike led to a sharp curtailment of imports and a decline in public spending. The period after 1975 saw a pick up in industrial growth. However 1979-80, the year of the second oil price shock again saw a decline in industrial production and growth fell to –3.1 per cent (Annexure 10).

Table 4.5: Sectoral Growth Rates

(Per cent)

Year	Agriculture	Industry	Services	GDP
1967-68	14.7	3.0	3.8	8.1
1968-69	-0.1	5.0	4.4	2.6
1969-70	6.4	8.0	4.8	6.5
1970-71	7.1	1.0	4.5	5.0
1971-72	-1.8	2.6	3.1	1.0
1972-73	-4.9	3.7	2.9	-0.3
1973-74	7.1	1.1	3.0	4.6
1974-75	-1.4	1.6	4.5	1.2
1975-76	12.8	6.6	7.3	9.0
1976-77	-5.7	8.8	4.8	1.2
1977-78	9.8	6.9	5.1	7.5
1978-79	2.3	7.5	6.6	5.5
1979-80	-12.7	-3.1	1.3	-5.2
1980-81	12.7	4.7	4.1	7.2
Average (1967-68 to 1980-81)	3.3	4.1	4.3	3.8

Source: 1951-52 to 1992-93: CSO, National Account Statistics, Back Series 1950-51 – 1992-93, 2001.

Table 4.6

Foreign Trade (US dollars, growth in per cent)

Year	Export	Import
1968-69	8.51	-13.10
1969-70	2.74	-12.06
1970-71	0.91	15.90
1971-72	12.28	13.31
1972-73	21.54	1.34
1973-74	16.21	30.40
1974-75	33.67	54.14
1975-76	20.57	10.27
1976-77	19.05	-1.61
1977-78	10.50	15.65
1978-79	7.29	34.90
1979-80	14.67	26.96
Average (1968-69 to 1979-80)	14.0	14.7

Source : Handbook of Statistics, RBI.

As can be seen in table 4.6 the devaluation of 1966 did not have an immediate impact and export growth remained slow until 1970-71. Over the period 1967-80 exports grew at an average rate of 15.7 per cent in US dollar terms. Growth of imports in US dollars was high due to the increase in oil prices and imports grew at an average of 20.12 per cent over the period 1967-1980. The current account deficit

remained small and worsened from an average of 0.3 to 0.5 per cent of GDP from the first period to the second.

With the expansion of bank branches the rate of savings in the economy rose sharply. Gross domestic saving rose from 11.1 per cent of GDP in the previous period to 16.6 per cent of GDP in this period. Household savings rose from 7.5 per cent to 11.7 per cent. At the same time corporate savings rose from 1.3 to 1.5 per cent. The total private savings rate rose from 8.8 per cent to 13.2 per cent (Annexure 2).

Investment during this period rose from an average of 12.7 per cent of GDP in the previous period to 17.1 per cent in this period. Both public and private investment rose. Gross domestic capital formation by the public sector rose from 5.6 percent to 7.7 per cent while private capital formation rose from 7.5 per cent to 9.9 per cent (Annexure 2).

In summary, the period from the late 1960s to the end of the 1970s was principally driven by the objective of tightening the trade policy regime and making domestic regulation more restrictive. The objective was to attain a more "desired" pattern of industrialisation. The policy instruments used were oriented towards physical controls. The role of the market was increasingly reduced. In the process issues related to market efficiency and productivity were neglected. The above policy environment combined with exogenous shocks such as the oil price hikes and the impact of the droughts led to a significant slowdown in industrial growth in this period.

Chapter 5

Deregulation, Fiscal Expansion and Growth: 1980-1990

5.1 Introduction

The decade of the 1980s was a turning point in the history of policy making in India even though it is only in 1991 that economic reforms truly began. Raj Krishna had coined the expression Hindu rate of growth to describe the *kaalchakra* in which the Indian economy was stuck over the thirty year period 1950-1980. The stagnant growth at 3.6 per cent or so per year was what evoked the symbolism. The slow growth persisted despite the increase in the gross domestic investment rate from 12.7 per cent during 1950-67 to 17.1 per cent during 1967-80. Since the gains in resource mobilisation and investment were offset by losses on the productivity front, a major inheritance for the period of the 1980s was poor productivity performance.

By the mid-1970s it was clear that productivity was a problem. By the end of the 1970s, a number of official committees and expert committees after applying their mind to the problem had concluded that the policy regime had an adverse effect on productivity performance of the industrial sector. In agriculture, while productivity and yields had improved as part of the Green Revolution since the late 1960s, the new agricultural strategy was dependent on input subsidies. As the latter imposed budgetary burden on the system, infrastructure investments were being crowded out by the subsidies with its consequent adverse impact on productivity in the economy. Throughout this period, however, macro-economic management remained prudent.

The policy regime during the 1980s began the process of addressing the long-standing problem of productivity in the industrial

sector. On macro-economic management, on the other hand, there was distinct deterioration so that the gains from the reorientation of the industrial and trade policy regime could not be sustained.

5.2 Initial Conditions

Poor and declining productivity of the manufacturing sector and severe infrastructure constraints were the dominant features of the Indian economy at the beginning of the 1980s. In the first period, 1967-80 food and foreign exchange shortages had been the major constraints.

Ahluwalia's study had shown that total factor productivity in the manufacturing sector had declined at the rate of –0.8 per cent per annum during the 1960s and the 1970s. Efficiency indicators in infrastructure sectors had also worsened over this period (Ahluwalia, 1985). The delusion that the increase in the capital output ratio in the manufacturing sector was because of higher weight of the capital-intensive sectors over time (owing to the heavy industries strategy of Indian industrialisation) was shattered when data showed that the capital-output ratios had increased in industry groups across the board within the manufacturing sector.

5.3 Policy Changes during in the eighties

5.3.1 Domestic Deregulation of Industry

Deregulation of industry had started in a limited way in the mid-seventies when in 1975 fifteen engineering industries were allowed automatic increase in licensed capacity up to a maximum of 25 per cent in a five-year period.

In the 1980s a number of policy initiatives were taken. These included delicensing of a number of industries and giving greater

flexibility to firms to produce similar products. The asset threshold limit for MRTP houses was raised. This enabled a larger number of companies to operate without the restrictions of the Act. Avenues were also opened to exploit economies of scale by expanding the role of large enterprises by broadening the list of industries open to them. Import of foreign technology for purposes of modernisation and upgradation of quality was made easier during the 1980s.

The government also controled prices of a range of commodities. These included petroleum products, coal, electricity, fertilizers, iron and steel products, drugs and medicines, paper, newsprint and cement. A break from the administered price policy for the industrial sector was seen in 1977 when the government introduced changes in the determination of cement prices by introducing a formula for setting the price. In 1982 there was a move to a uniform price for all units combined with partial decontrol from prices and distribution of cement meant to encourage investment in the industry.

5.3.2 Policies for Infrastructure

Infrastructure continued to be dominated by the public sector. In the Sixth Plan in the first half of the 1980s, keeping with the thrust on productivity, emphasis was placed on balancing investments to improve the utilisation of existing assets and bring about better co-ordination among the sub-sectors of infrastructure.

Though the trend in investment in railways was reversed in the late seventies when between 1976-77 and 1980-81, real investment in railways increased at the rate of 20 per cent per annum, during the sixth plan efforts were made at improving operational efficiency in railways. This resulted in a steady improvement in the net tonne kilometres per tonne of wagon capacity.

In the power sector, the problem was not only of inadequate investment but also its imbalanced distribution between generation and distribution of electricity. Emphasis was laid on balancing investments to improve efficiency in factor use. Efforts were also made at improving the operational efficiency of thermal power plants. The plant load factor in these plants, which had declined to as low as 44.5 per cent at the end of the 1970s, showed a steady increase after that, reaching a level of 50 per cent in 1984-85 (Ahluwalia, 1991).

5.3.3 Agricultural Policy

The green revolution strategy was intensive in the use of manufactured inputs such as fertilizers and pesticides. To encourage the use of the technology the government provided subsidies inputs to farmers. These consisted mainly of subsidised irrigation, electricity, fertiliser and credit. Input subsidies in agriculture increased at an annual growth rate of 9 per cent during the period 1981-82 and 1992-93 (Gulati and Sharma, 1995). Among these electricity subsidy grew the fastest at 20 per cent per annum. Fertiliser subsidy grew at over 16 per cent and credit and irrigation subsidy at 5.5 and 4.8 per cent per annum.

Table 5.1

Subsidies and Expenditure on Agriculture

Year	Input Subsidies (Rs. Crore)	Expenditure on Agriculture (Rs. Crore)	Input Subsidies as per cent of Expenditure
1980-81	15.15	29.65	51.1
1981-82	16.78	33.36	50.29
1982-83	20.83	37.01	56.28
1983-84	27.06	42.28	64.01
1984-85	36.54	49.02	74.54
1985-86	42.87	50.65	84.65
1986-87	50.77	59.66	85.1
1987-88	65.71	67.67	97.11
1988-89	75.91	74.21	102.29
1989-9	86.34	75.35	114.58
1990-91	101.62	83.66	121.47
1991-92	118.67	91.5	129.69
1992-93	141.29	99.46	142.05
Compound Growth	**12.61**	**2.87**	

Source: Gulati and Sharma (1995)

The high growth of input subsidies was in marked contrast to the total investment in the agricultural sector. The total combined plan expenditure on agriculture, irrigation incurred by the centre and states during the 1980s grew at a rate of less than 3 per cent per annum. Consequently, while during 1980 to 1983 input subsidies constituted at least 52.6 per cent of the total expenditure incurred on agriculture, during 1990 to 1993 the proportion was 131 per cent. The impact of high input subsidies was that investment in agriculture remained stagnant in the 1980s. While in the 1970s public investment in agriculture grew at 9.6 per cent per annum, in the 1980s it witnessed negative growth of 4.3 per cent per annum (Gulati and Sharma, 1995).

The stated objective of the price policy for agricultural products was to provide remunerative prices for farmers, to facilitate procurement and to bring about the requisite inter-crop parity. Revisions were made to minimum support prices and procurement prices based on the recommendations of the Agricultural Prices Commission which took into account changes in the cost of production as well as the terms of trade between agriculture and other sectors of the economy. In practice this led to the creation of strong vested interests in the agricultural sector.

The first half of the 1980s saw major upward revisions in procurement prices. During 1980-85 the procurement price of wheat was raised by 32.2 per cent, of paddy by 44.2 per cent and of coarse grains by 36.8 per cent. The minimum support prices of pulses, oilseeds and cotton were raised between 37 and 86 per cent. The price increase was being implemented despite the fact the prices of fertilisers has not changed between 1982-83 and 1984-85. The policy of raising procurement prices continued during the Seventh Plan period in the second half of the 1980s.

The government's food policy also aimed to supply selected commodities at reasonable prices through the Public Distribution System. Foodgrains were procured from farmers by the Food Corporation of India at pre-committed procurement prices. In addition during drought years such as in 1988 when food stocks fell, limited imports of wheat and rice were undertaken to supplement availability.

5.3.4 Trade Policy

The 1980s saw the beginning of the process of simplification and rationalisation of India's trade policy. This was first seen in the import policy for 1978-79. The new policy was not intended to liberalise

imports and did not seek to abandon or significantly curtail the system of import licensing. It was, however, a step towards simplification of procedures and rationalisation of import licensing. There was some reduction in the restrictiveness of the import control regime, especially with respect to imported intermediate inputs into industry.

A major change in the policy was a shift from a system with positive lists of permitted imports to a single negative list in which whatever was not specifically restricted was allowed to be freely imported. Even though this policy was accompanied by an extensive list of imports subject to licence, the framework was more liberal than in the past and provided more flexibility to producers for obtaining access to imports. (Ahluwalia, M.S., 1986).

The effect of the protective regime in discriminating against exports was analysed, among others, by the Tandon Committee (1980). The trade regime with its high protective wall provided protection in import competing industries while exports received no comparable protection. The inefficiency in the import substituting industries in the capital and intermediate goods section pushed up the general cost structure of industry. While in the domestic economy there was no fear of competition and higher costs could be passed on as higher prices, exports that had to face international competition suffered. To offset the negative effective protection to exports various incentives were provided to exports. These included duty-free imports, duty drawbacks and even cash compensation.

Total export subsidies (not including the gems and jewelry sector) increased sharply over the 1980s from $ 922 million in 1980-81 to $1594 million in 1987-88. As a proportion of exports, these subsidies rose from 20.15 per cent in 1979-80 to 24.56 per cent in 1987-88 (Ahluwalia, 1994). But these incentives did not fully offset the disadvantages of the high cost structure. As long as import

substitutes benefited from positive effective protection they were more attractive than exports.

In the first half of the 1980s India's export performance was very poor and export earnings stagnated. This was caused both by the slowdown in world trade and incomes of industrial countries and by the appreciation of the real exchange rate. Since the late seventies the trade policy regime was somewhat streamlined with a view to providing access to raw materials, intermediates and components. The recommendation of the Committee on Trade Policies (1984) headed by Abid Hussain helped to take this process further.

In general, in the 1980s, in contrast to the previous decade, the response to a slower growth in exports was not to attempt to restrain imports further. The attempt was to consciously link imports to exports to try to improve export performance. To facilitate quicker access to imported inputs, the category of automatic licenses were abolished and replaced by an import-export passbook scheme for manufacturer-exporters. In addition to linking imports to exports, the policy also liberalized the import of capital goods. Over 200 items of industrial machinery were included in the list of capital goods allowed for import under OGL. In addition, tariff rates on import of capital goods under "Project Imports" were lowered from 105 per cent ad valorem to 45 per cent.

The second half of the 1980s witnessed an improvement in India's export performance. In addition to the incentives given to exports the exchange rate had depreciated 45 per cent in real effective terms during the 1980s which provided a strong stimulus to export growth (Chopra, et.al 1995).

However, though the eighties saw some trade policy liberalization it consisted mainly of easier access to imported inputs. This was provided by reducing the quantitative restrictions on imports

and placing more items on the OGL list. But this was normally accompanied by tariffs replacing quantitative restrictions. For the decade as a whole there was a clear increase in the incidence of custom tariffs.

Import growth slowed down significantly in the 1980s - from 19 per cent per annum in the 1970s to 5 per cent per annum in the 1980s. While in the first half of the 1980s imports fell in volume and value terms, in the second half the volume of oil imports grew rapidly as Indian oil production was no longer growing sharply. Oil prices fell but as volumes grew the dollar value of imports did not fall. Even though non-petroleum import growth fell from 15 per cent to 10 per cent per annum over this period and the ratio of imports to GDP declined from 10 per cent in 1980-81 to 9 per cent in 1989-90, and exports performed well after 1985-86, the current account situation worsened.

One of the reasons for the increase in imports was the rise in defence imports. Imports according to RBI data (that included military imports and other items such as oil off shore rigs that do not go through customs) increased much more than imports according to DGCI&S data. While in the first half of the 1980s such imports were of the order of Rs 500 crore, in 1989-90 the magnitude had risen to Rs 5760 crore.

5.3.5 Fiscal Policy

The 1980s was a decade of high and rising fiscal deficits financed by both external and internal debt. Inflation did not go up significantly (there were no important droughts or oil shocks i.e. supply shocks) so there was little pressure to cut public expenditure, unlike in the seventies.

The fiscal situation started deteriorating in 1979-80. There was a sharp increase in government expenditure, mainly current expenditure. Subsidies on food, fertilisers and exports grew rapidly. Public employment, wages, interest payments rose. Revenue grew very slowly throughout the decade. In the second half of the eighties direct tax revenue fell and but custom duties increased as there was an increase in tariff rates and liberalisation of import quotas. Current expenditures rose sharply while capital expenditures fell.

Table 5.2

Fiscal Deficit (Centre)

Year	Fiscal	Primary	Revenue
1980-81	5.8	4.0	1.4
1981-82	5.1	3.2	0.2
1982-83	5.6	3.6	0.7
1983-84	5.9	3.8	1.2
1984-85	7.1	4.7	1.7
1985-86	7.9	5.2	2.1
1986-87	8.5	5.5	2.5
1987-88	7.6	4.5	2.6
1988-89	7.3	3.9	2.5
1989-90	7.3	3.7	2.5
1990-91	7.8	4.1	3.3

Source: Handbook of Statistics on Indian Economy, RBI

While the central government budgets of the 1970s had seen revenue surpluses, the 1980s saw a persistent increase in revenue deficits. Revenue expenditures rose faster than revenue receipts. Expenditure on subsidies and defense rose. So while in the first half of the 1980s revenue deficits averaged 1.1 per cent of GDP, in the second half of the eighties they averaged 2.6 per cent of GDP. In other words,

the government was now increasingly borrowing to finance its current consumption expenditure.

Reflecting all these developments the gross fiscal deficit of the central government rose from 4 per cent in the mid-1970s to 6.3 per cent in the first half of the 1980s to 8.2 per cent in the second half of the 1980s. As a result public debt rose. The internal debt of the central government rose from 35.6 per cent at the end of 1980-81 to 53.5 per cent at the end of 1990-91. As the burden of debt service mounted, interest payments increased from 2 per cent of GDP and 10 per cent of total central government expenditure to 4 per cent of GDP and 19 per cent of total central government expenditure over this period. External debt rose from 14.3 per cent of GDP at the end of 1980-81 to 22.8 per cent of GDP at the end of 1990-91. This pushed up the debt service burden from 14.6 per cent of export earnings to 29.8 per cent of export earnings over this period.

Public savings consisting of savings by government administration, saving by government departments or departmental undertakings, and savings by public enterprises fell during the 1980s. Up to the end of the seventies the dominant components of public saving was savings on government administration account. In the eighties this was negative and savings from departmental enterprises became even smaller. Profits from public sector enterprises were at 3.8 per cent of GDP. And if the petroleum and power sectors were excluded then net profits of the remaining public sector enterprises were –0.8 per cent.

Table 5.3

Gross Domestic Savings as a per cent of GDP

Year	GDS	Private	Household	Pvt. Corp	Public
1980-81	18.9	15.4	13.8	1.6	3.4
1981-82	18.6	14.1	12.6	1.5	4.5
1982-83	18.3	13.9	12.3	1.6	4.3
1983-84	17.6	14.3	12.8	1.5	3.3
1984-85	18.8	15.9	14.3	1.6	2.8
1985-86	19.5	16.3	14.3	2.0	3.2
1986-87	18.9	16.2	14.5	1.7	2.7
1987-88	20.6	18.4	16.7	1.7	2.2
1988-89	20.9	18.8	16.8	2.0	2.1
1989-90	22.0	20.3	17.9	2.4	1.7
1990-91	23.1	22.0	19.3	2.7	1.1

Source: Economic Survey, various issues.

5.3.6 Financial Sector Policies

The eighties witnessed a sharp increase in the diversion of financial resources to the government. By 1989 RBI regulation on required the banking sector to channel 38 per cent of deposits to the government. In addition, 40 per cent of advances were to be lent to priority sectors, mainly agriculture and small scale industry. An additional 10 per cent went to export credit. Thus over 80 per cent of portfolio allocations were fixed in broad terms.

Table 5.4

Statutory Liquidity Ratio

Year	SLR
1981-2	35
1984-5	36
1985-6	37
1987-8	38
1990-1	38.5

Source: Report on Currency and Finance, RBI, various issues.

At the beginning of the 1980s the savings of the household sector in corporate securities were about 3.2 per cent. Beginning in 1984 the government introduced fiscal and financial measures aimed at encouraging the flow of funds into investment in shares. The corporate sector was encouraged to step up its efforts to raise additional resources from the capital markets by certain measures such as allowing industrial firms to raise their debt-equity levels up to 2:1. In addition, the rate of interest of convertible and non-convertible debentures was increased and authorisation was given to companies issuing such debentures to have a buyback arrangement.

As a result of these measures and improved industrial performance active growth was seen in capital markets in the 1980s. The market capitalisation of companies registered in the BSE rose from 5 per cent of GDP in 1980 to 13 percent of GDP in 1990. But companies wishing to access the capital market still needed prior permission of the government which also had to approve the price at which new equity could be raised. While new issues were strictly controlled, there was inadequate regulation of stock market activity and also of various market participants including stock exchanges, brokers, mutual funds etc. (Alhuwalia, M.S., 1999)

All capital issues were still governed by the Capital Issues (Controls) Act (1947). All companies which made an issue of capital

in India required the consent of the Controller of Capital Issues (CCI) which regulated the timing of issue, the price of new issues and the interest rates payable on debentures. The Act was repealed in 1992 when the Securities and Exchange Board of India that had been set up in 1988 was made the regulatory authority for new issues of companies.

5.3.7 Growth Outcomes

The 1980s was a decade of high growth in contrast to the previous three decades. GDP growth rose from an average of below 4 per cent to 5.6 per cent. The sharp acceleration in industrial growth was largely responsible for this increase. It rose from 4.1 per cent in the period 1967-80 to 7.1 per cent in the 1980s. Agriculture also performed reasonably well growing at 3.5 per cent during the 1980s. Growth in services rose to 6.8 per cent compared to an average growth of 4.3 per cent in the period from the mid sixties till the end of the seventies. Growth in per capita GDP more than doubled from 1.5 per cent to 3.4 per cent (Annexure 1).

As seen in Annexure 2, public investment was stepped up significantly after the second oil price shock. There was an increase in investment in infrastructure compared to the period from the mid-sixties to the mid-seventies.

Table 5.5

Sectoral Growth Rates (Percent)

Year	Agriculture	Industry	Services	GDP
1980-81	12.7	4.7	4.1	7.2
1981-82	5.3	7.9	5.9	6.0
1982-83	-0.7	3.7	6.2	3.1
1983-84	9.6	8.1	5.9	7.7
1984-85	1.5	5.8	5.9	4.3
1985-86	0.7	4.8	8.1	4.5
1986-87	-0.6	6.9	7.1	4.3
1987-88	-1.3	6.6	6.0	3.8
1988-89	15.5	9.2	7.5	10.5
1989-90	1.5	10.3	9.0	6.7
Average (1980-81 to 1989-90)	3.5	7.1	6.8	5.6

Source: 1951-52 to 1992-93: CSO, National Account Statistics, Back Series 1950-51 – 1992-93, 2001.

However the growth in revenue failed to keep up with the growth in public expenditure and consequently the fiscal deficit rose sharply from 4 per cent of GDP in the previous period to 7 per cent in the 1980s. The primary deficit rose sharply from 2.4 per cent to 4.2 per cent. The increase in interest payments and subsidies led to a sharp increase in the revenue balance, which changed from a surplus of 0.2 per cent in the period 1967-80 to a deficit of 2 per cent in the 1980s.

The average current account deficit rose sharply from 0.5 per cent in the period 1967-80 to 2 per cent of GDP in the 1980. This was mainly because of acceleration in imports. The ratio of imports to GDP rose from less than 6 per cent in the seventies to 8 per cent in the 1980s. Export growth at 8.3 percent in dollar terms was not adequate to meet the increase in trade deficit due to the growth in imports at 7.8 per cent in US dollar terms as imports grew over a higher base. This

pushed the trade deficit up to an average 3.1 per cent of GDP in the 1980s.

Table 5.7

External Balance

Year	Export Growth (Us$)	Import Growth (Us$)	Trade Balance (% Of Gdp)	Current Account Balance (%Of Gdp)
1980-81	8.03	35.09	-4.32	-1.54
1981-82	2.98	-2.11	-3.85	-1.68
1982-83	9.12	3.12	-3.57	-1.74
1983-84	3.91	0.65	-3.15	-1.51
1984-85	2.03	-5.19	-2.74	-1.17
1985-86	-5.96	10.05	-3.45	-2.14
1986-87	10.06	2.52	-3.01	-1.87
1987-88	21.43	11.75	-2.62	-1.78
1988-89	12.76	19.21	-3.22	-2.75
1989-90	18.92	3.36	-2.55	-2.34
Average (1980-81 to 1989-90)	8.3	7.8	-3.2	-1.9

Source : Handbook of Statistics, RBI

GDP grew at an average of over 5.6 per cent in the 1980s, a clear increase over the 1970s growth rate of 3.8 per cent. A combination of strong domestic demand, significant export growth and more liberal supply-side policies was behind this acceleration. The fiscal deficits remained high in the 1980s. This may be partly due to the fact that the economy in the 1980s did not witness any serious shocks of the kind it did in the 1970s – oil shocks, droughts or wars. In addition, import substitution in the petroleum sector slowed down. Remittances grew slowly in the 1980s. There was a worsening in net factor incomes because of interest payments on the increased external borrowing from the IMF and other sources. Export growth did not offset the increase in outflows and the current account deficit rose from 1.7 per cent of the GDP in the first half to 3 per cent of the GDP in the second half of

the eighties. Since India was receiving very little foreign aid, she resorted to commercial borrowing including inflows of short-term deposits by non-resident Indians. Consequently, there was a sharp rise in the external debt service burden. Over this period the ratio of interest to exports rose drastically from 3.7 to 17.4. By 1991 this created a confidence crisis in the ability of the country to repay its external obligations.

Chapter 6

Economic Reforms, Growth and Slowdown: 1991-2001 *

The 1990s saw far-reaching changes in India's economic policy. A severe balance of payments crisis at the beginning of the decade triggered wide ranging reforms in economic policy during the early nineties. These reforms brought about a swift turnaround in India's external sector and catalysed an unprecedent spurt in economic growth during the five years 1992-97, coincident with the Eighth Plan period. Unfortunately, the programme of policy reforms lost momentum after 1995 and the early partial success with fiscal consolidation was reversed after 1996. Coupled with some deterioration in the international economic environment in the final years of the decade, these factors contributed to a clear deterioration in economic performance, especially growth, in the last four years 1997-2001.

This section seeks to improve our understanding of the fascinating story of crisis, reforms and growth in India during the nineties.

6.1 Initial Conditions: 1991 Crisis and Policy Response

The deep-seated roots of the 1991 crisis in fiscal laxity, growing reliance on external borrowing, a weakening financial sector and heavy-handed regulation of trade and industry are well known.[21] The proximate trigger was the Gulf War in the second half of 1990-91, which jacked up international oil prices (and India's oil import bill) and reduced remittance inflows from the Gulf. This happened in the context of unstable coalition politics in India in the period between the end of the Rajiv

* Parts of this section draw on a recent larger work on India's macroeconomic policies and performance, Acharya (2002 a).

[21] For detailed accounts, see the Government's *Economic Surveys* for 1991/92, 1992/93 and 1993/94, Ahluwalia (2000), Chopra et.al (1995), Government of India (1993) and Joshi and Little (1996).

Gandhi Congress government in late 1989 and the assumption of power by the Narasimha Rao Congress government in June 1991. The increase in doubts about India's ability to manage the current account pressures triggered adverse effects in the capital account, which compounded the external sector problem. By September 1990 net inflows of non-resident Indian (NRI) deposits had turned negative and access to external commercial borrowings was becoming costly and difficult. By December 1990 even short-term credit was becoming expensive and elusive. Foreign currency reserves fell sharply and dipped below $ 1 billion in January 1991.

By March, the current account deficit in the balance of payments had touched a record level of nearly US$ 10 billion for the fiscal year 1990/91 or over 3 per cent of GDP. Exports were falling. The foreign borrowing spree had taken the ratio of short term external debt to foreign currency reserves to an astronomical 380 per cent. The debt service ratio soared to a new peak of 35 per cent. Foreign currency reserves skated close to a pitiful billion dollars throughout the spring and summer of 1991.

The initial responses to the mounting external payments crisis were "traditional". They included recourse to IMF financing ($ 1.8 billion was drawn in January 1991 under the Compensatory and Contingency Financing Facility and a First Credit Tranche arrangement) and a series of measures to reduce imports, including high and rising cash margin requirements, a surcharge on petroleum product prices, a surcharge on interest on bank finance for imports and a tightening of import licensing. The severity of import compression may be gauged from the fact that in 1991/92 imports fell by 25 per cent in dollar terms (Table 6.1). As the *Economic Survey* (Part I, p.8) for the year observes, "Import compression had reached a stage when it threatened widespread loss of production and employment, and verged on economic chaos".

Table 6.1
External Sector Performance

	Average of (1985-90)	1990/91	1991/92	1992/93	1993/94	1994/95
Export Growth (% in US$)	11.4	9.0	-1.1	3.3	20.2	18.4
Import Growth (%in US $)	9.4	14.4	-24.5	15.4	10.0	34.3
Trade Deficit (% of GDP)	3.0	3.0	1.0	2.3	1.5	2.8
Current Account Deficit (% of GDP)	2.2	3.1	0.3	1.7	0.4	1.0
Foreign Investment ($ million)	279.2	103	133	557	4,235	4,807
(a) Direct		[97]	[129]	[313]	[668]	[983]
(b) Portfolio (Flls+GDR & others)		[6]	[4]	[244]	[3,567]	[3,824]
Capital Account Surplus ($ million)	5,097.4	8,402	4,563	4,224	9,882	8,013
Foreign Currency Reserves ($ million)	5,022	2,236	5,631	6,434	15,068	20,809
Change in Foreign Currency Reserves ($ million)	-423	-1,132	3,395	803	8,634	5,741
Exchange Rate (Rs. / US $)	13.82	17.94	24.47	30.65*	31.37	31.40

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

Source: Reserve Bank of India, *Handbook of Statistics on the Indian Economy, 2001*.

Note: 1. Foreign currency reserves position from 1990-91 onwards is for end of the financial year i.e. 31st March of the respective year
2. Exchange rates are period average.

Despite these harsh measures, NRI deposit outflows accelerated in the second quarter of 1991 and foreign exchange reserves continued to fall after a brief respite from IMF-financing. To quote the *Economic Survey* again, "By June 1991, the balance of payments crisis had become overwhelmingly a crisis of confidence – of confidence in the Government's ability to manage the balance of payments. … A default on payments, for the first time in our history had become a serious possibility in June 1991."

Faced with this prospect, the new Congress government of June 1991, with Manmohan Singh as Finance Minister, acted quickly to stabilize the macroeconomic situation and initiate long overdue structural reforms to restore economic health. In July 1991 the rupee was devalued by 18 per cent and the new Budget for 1991/92 cut the fiscal deficit by 2 per cent of GDP. The transition to a market-determined exchange rate system was begun through the induction of a system of tradable import entitlements called "Eximscrips". Industrial licensing was virtually abolished and clearances under the Monopolies and Restrictive Trade Practices (MRTP) Act dispensed with. For the first

time, foreign investment up to 51 per cent equity was automatically allowed in a wide range of industries. A programme of disinvestment of government equity in public sector enterprises was begun. To accommodate a revival in imports and industry, further multilateral, balance of payments financing was secured from the IMF, World Bank and Asian Development Bank.

Other important reforms which ensued in the next twenty months included (see Table 6.2 for more details):

- Transition to a market-determined exchange rate by March 1993;
- Phased reduction of India's absurdly high peak custom duties (ranging up to 300 per cent in 1990/91) with a view to reducing the heavy anti-export bias in the trade policy regime;
- Virtual abolition of import licensing controls for capital goods, raw material and intermediates;
- Reduction in and strict controls over short term external borrowing and imposition of prudential caps and minimum maturity requirements for medium term external commercial borrowing;
- New policies to attract foreign portfolio investment into Indian stock markets;
- Legislative empowerment of the capital market regulator, Securities and Exchange Board of India (SEBI) and removal of government controls over capital issues;
- Establishment of a new, state-of-the-art National Stock Exchange.
- Phasing in of Basle prudential norms in the banking sector with regard to income recognition, capital adequacy, provisioning, etc.
- Reduction of reserve requirements, especially the statutory liquidity ratio (SLR);
- Gradual freeing of interest rates.

Table 6.2
Main Economic Reforms of 1991-93

Fiscal

- Reduction of fiscal deficit.
- Launching of reform of major taxes.

External Sector

- Devaluation and transition to a market-determined exchange rate.
- Phased reduction of import licensing (quantitative restrictions).
- Phased reduction of peak custom duties.
- Policies to encourage direct and portfolio foreign investment.
- Monitoring and controls over external borrowing, especially short-term.
- Build-up of foreign exchange reserves.
- Amendment of the Foreign Exchange Regulation Act (FERA) to reduce restrictions on firms.

Industry

- Virtual abolition of industrial licensing.
- Abolition of separate permission needed by “MRTP houses”.
- Sharp reduction of industries “reserved” for the public sector.
- Freer access to foreign technology.

Agriculture

- More remunerative procurement prices for cereals.
- Reduction in protection to manufacturing sector.

Financial Sector

- Phasing in of Basle prudential norms.

- Reduction of reserve requirements for banks, notably the cash reserve ratio (CRR) and the statutory liquidity ratio (SLR).
- Gradual freeing up of interest rates.
- Legislative empowerment of the Securities and Exchange Board of India (SEBI).
- Establishment of the National Stock Exchange (NSE).
- Abolition of government control over capital issues.

Public Sector

- Disinvestment programme begun.
- Greater autonomy / accountability for public enterprises.

6.2 Bust to Boom in the External Sector

The fruits of these policy thrusts soon became apparent in the external sector accounts (Table 6.1). Export growth zoomed up to 20 per cent (in US dollar terms) in 1993/94 and the two years thereafter as exporters responded to the substantial depreciation of the real effective exchange rate (see Figure 1), the reduction in anti-export bias of the trade policy regime and the deregulation of domestic industry. Largely in response to the new exchange rate policy, inward remittances by non resident Indians quadrupled from $ 2 billion in 1990/91 to $ 8 billion in 1994/95 and rose further to exceed $ 12 billion in 1996/97. The current account deficit in the balance of payments came down and stayed well below 2 per cent of GDP. Portfolio foreign investment responded smartly to the new initiatives and climbed quickly to $ 3.8 billion in 1994/95. Direct foreign investment rose more slowly but steadily and by 1994/95 foreign investments totalled almost US $ 5 billion compared to hardly US $ 100 million in 1990/91.

Foreign exchange reserves climbed steeply from the precarious levels of 1991 to over US $ 25 billion at the end of 1994/95. The debt service ratio and the debt stock to GDP ratio both improved quickly (Table 6.3). The critical ratio of short term external debt to foreign currency reserves plummeted from the stratospheric height of 1991 to a very safe 20 per cent by March 1995.

Figure 6.1 A

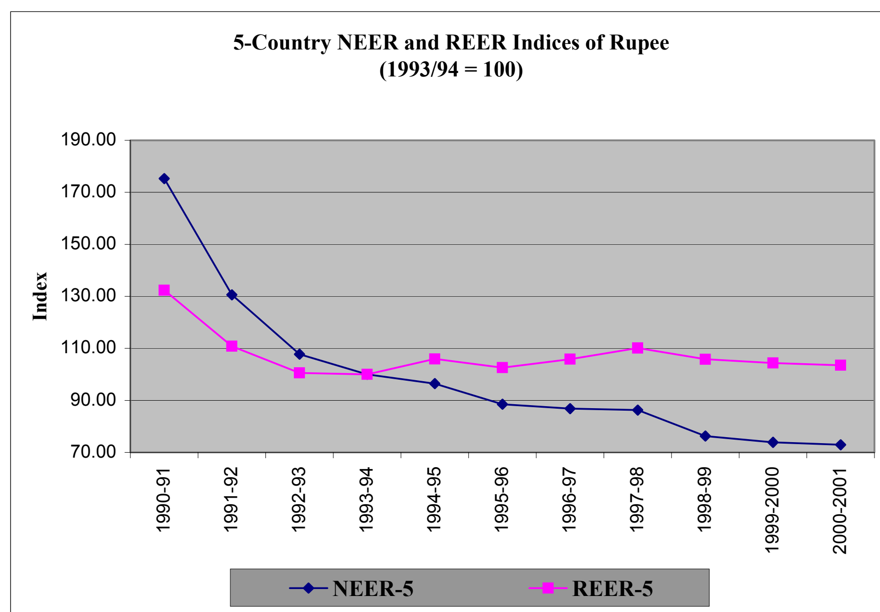


Figure 6.1 B

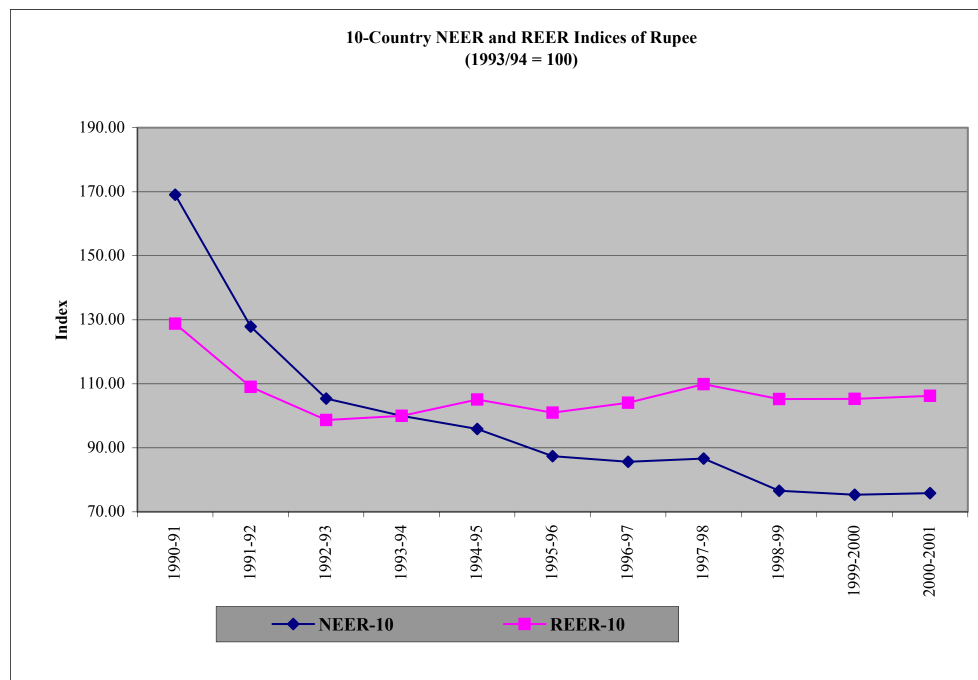


Table 6.3: External Debt Indicators

(percent)

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

Sources: RBI, *Handbook of Statistics on Indian Economy, 2000* and *India's External Debt, A Status Report,* Government of India, Ministry of Finance, Department of Economic Affairs, May, 2000.
Note: Flows relate to fiscal year indicated; stocks pertain to the end of the year indicated.

Taken as a whole, the first half of the nineties saw a remarkable turn around in India's external sector. This was attributable to the range and depth of reforms pertaining to the external sector. Indeed, the rapid turn around in external sector fortunes posed an unexpected new problem of a surge in foreign capital inflows. While this released external sector constraints and led to swift build up of foreign exchange reserves, it also fuelled rapid monetary growth and kept inflation close to double digits in the first half of the decade.

Although merchandise export growth performance slackened after 1995/96 and foreign investment flows plateaued after 1997/98, the continued strength of remittance inflows and the boom in software exports in the second half of the decade helped to keep the current account deficit well below 2 per cent of GDP and facilitated a sustained build-up of foreign exchange reserves throughout the decade (Table 6.17). Even the contagion effects of the 1997-98 Asian financial crisis caused only temporary stress to India's external finances.[22]

6.3 Partial Success with Fiscal Consolidation

It is widely agreed that a series of large fiscal and revenue deficits is detrimental to macroeconomic performance. Such deficits tend to crowd out private investment, increase inflationary potential, weaken the balance of payments, render financial sector reform more difficult and impose a serious burden of adjustment on future generations. The series of high fiscal deficits in the late eighties were clearly a major cause of the 1991 economic crisis in India.

The efforts at fiscal consolidation met with partial success in the first half of the nineties. Tables 6.4, 6.5 and 6.6 and Figure 6.2 present time series for fiscal, primary and revenue deficits of Centre-States consolidated, the Centre (separately) and States (separately), respectively. The following trends are noteworthy regarding the consolidated picture:

[22] For a detailed account of external sector challenges and policy responses, see Acharya (2002 b).

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

- There was a reduction of over 2 per cent of GDP in the gross fiscal deficit in 1991/92, brought about essentially by the Central budget of that year (Table 6.5) and in the context of an IMF loan programme initiated to help cope with the balance of payments crisis of 1991.

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

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

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

Table 6.4

Consolidated Deficits of Central and State Governments

(As percent of GDP at current market prices)

	Fiscal Deficit	Primary Deficit	Revenue Deficit
1980/81	7.5	5.4	0.4
1981/82	6.3	4.1	-0.6
1982/83	5.9	3.4	0.2
1983/84	7.3	4.8	1.1
1984/85	9.0	6.2	2.1
1985/86	8.0	4.9	1.9
1986/87	9.9	6.5	2.4
1987/88	9.2	5.5	2.9
1988/89	8.5	4.6	2.9
1989/90	8.9	4.6	3.3
1990/91	9.4	5.0	4.2
1991/92	7.0	2.3	3.4
1992/93	7.0	2.1	3.2
1993/94	8.3	3.3	4.3
1994/95	7.1	1.9	3.7
1995/96	6.5	1.6	3.2
1996/97	6.4	1.3	3.6
1997/98	7.3	2.2	4.1
1998/99	9.0	3.7	6.3
1999/2000	9.5	3.9	6.3
2000/2001	9.7	3.6	6.3
Averages			
1980/81-1983/84	**6.8**	**4.4**	**0.3**
1984/85-1990/91	**9.0**	**5.3**	**2.8**
1991/92-1996/97	**7.1**	**2.1**	**3.6**
1997/98-2000/01	**8.9**	**3.4**	**5.8**

Source: Reserve Bank of India (RBI) Annual Reports

Note: For 1998/99 onwards the RBI data have been adjusted for revision of GDP estimates published by the Central Statistical Organisation (CSO) in January 2002. For 2000/01 the Central Government fiscal accounts have been used.

Table 6.5

Deficits of Central Government

(As percent of GDP at current market prices)

	Fiscal Deficit	Primary Deficit	Revenue Deficit
1980/81	5.4	3.6	1.4
1981/82	5.2	3.3	0.2
1982/83	5.6	3.6	0.7
1983/84	6.3	4.1	1.2
1984/85	7.1	4.7	1.7
1985/86	7.9	5.2	2.1
1986/87	8.5	5.5	2.5
1987/88	7.6	4.5	2.6
1988/89	7.3	3.9	2.5
1989/90	7.3	3.7	2.5
1990/91	6.6	2.8	3.3
1991/92	4.7	0.7	2.5
1992/93	4.8	0.6	2.5
1993/94	6.4	2.2	3.8
1994/95	4.7	0.4	3.1
1995/96	4.2	0.0	2.5
1996/97	4.1	-0.2	2.4
1997/98	4.8	0.5	3.1
1998/99	5.1	0.7	3.8
1999/2000	5.4	0.7	3.5
2000/2001	5.7	0.9	4.1
	Averages		
1980/81-1983/84	**5.6**	**3.7**	**0.9**
1984/85-1990/91	**7.5**	**4.3**	**2.5**
1991/92-1996/97	**4.8**	**0.6**	**2.8**
1997/98-2000/01	**5.3**	**0.7**	**3.6**

Sources: *Economic Survey* (various issues), and Budget documents.

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

Table 6.6

Deficits of State Governments

(As percent of GDP at current market prices)

	Fiscal Deficit	Primary Deficit	Revenue Deficit
1980/81	2.6	1.7	-1.0
1981/82	2.4	1.6	-0.8
1982/83	2.6	1.7	-0.5
1983/84	2.9	2.0	-0.1
1984/85	3.3	2.3	0.4
1985/86	2.7	1.6	-0.2
1986/87	3.0	1.7	-0.1
1987/88	3.2	1.8	0.3
1988/89	2.8	1.4	0.4
1989/90	3.2	1.7	0.8
1990/91	3.3	1.8	0.9
1991/92	2.9	1.2	0.9
1992/93	2.8	1.0	0.7
1993/94	2.4	0.6	0.4
1994/95	2.7	0.8	0.6
1995/96	2.6	0.8	0.7
1996/97	2.7	0.9	1.2
1997/98	2.9	0.9	1.1
1998/99	4.3	2.2	2.5
1999/2000 P	4.7	2.4	2.8
2000/2001 RE	4.5	2.0	2.5
Averages			
1980/81-1983/84	**2.6**	**1.8**	**-0.6**
1984/85-1990/91	**3.1**	**1.8**	**0.4**
1991/92-1996/97	**2.7**	**0.9**	**0.8**
1997/98-2000/01	**4.1**	**1.9**	**2.2**

Source: RBI, *Handbook of Statistics on the Indian Economy, 2000* and RBI *Annual Report, 2000-01* for state fiscal data and CSO for GDP estimates

Notes: 1. Data for 1999/2000 are provisional.
2. RE: Revised Estimate

Figure 6.2A

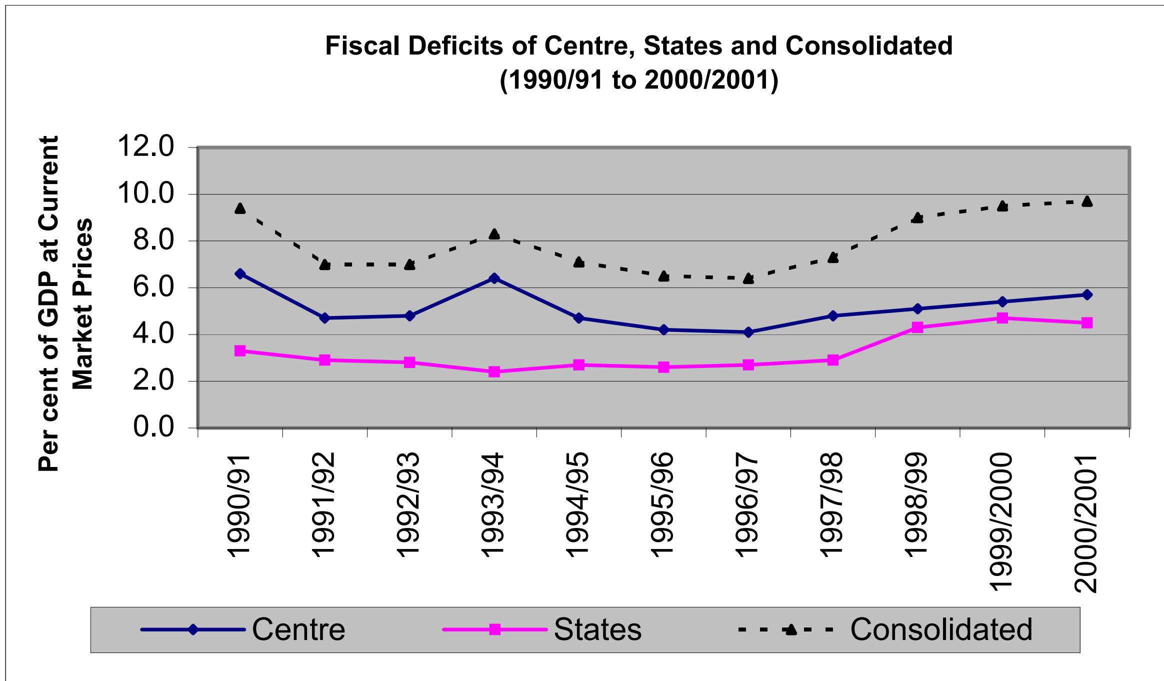
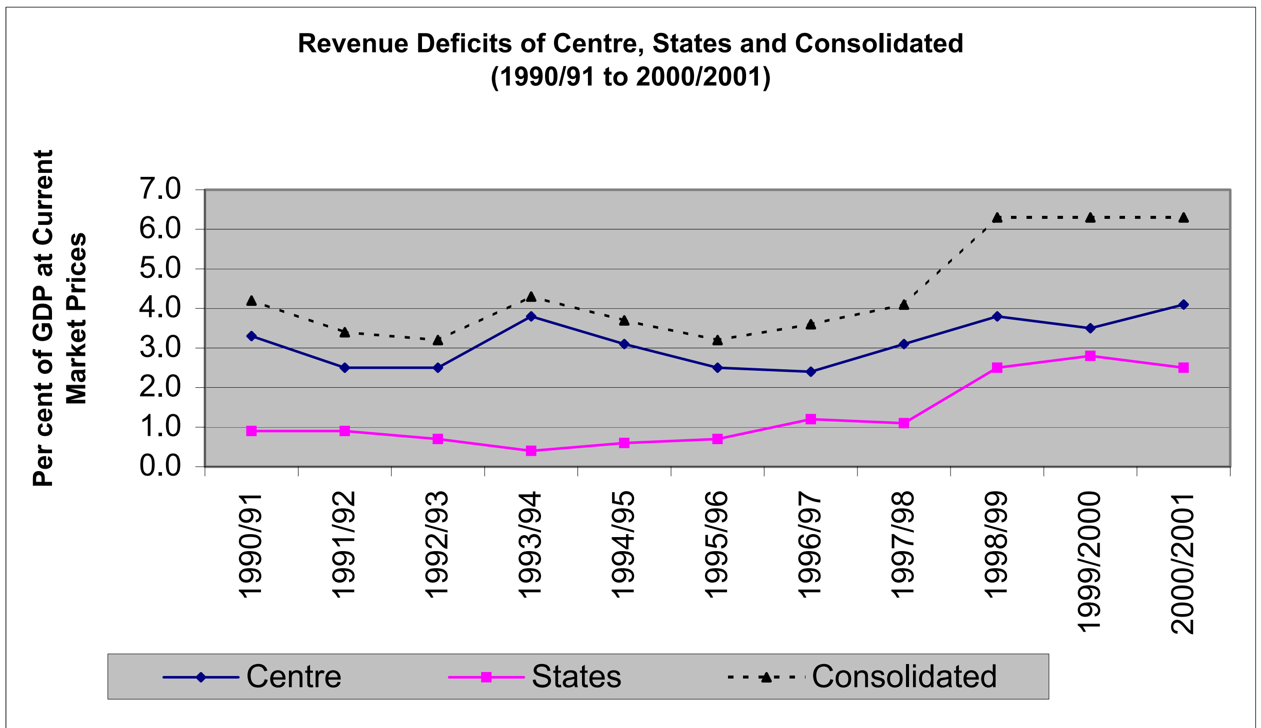


Figure 6.2B



This is not the place for a detailed decomposition of the factors explaining the trends in deficits over the decade of the nineties. However, tables 6.7 and 6.8 bring out a couple of broad points. First, revenue receipts (tax and non tax) did not contribute to the improvement in the Centre's fiscal position between 1990/91 and 1996/97. In fact there was some decline in the ratios to GDP. Of particular concern was a decline in the ratio of tax revenues to GDP. Second, the entire improvement in the Centre's fiscal situation up to 1996/97 is attributable to a reduction in the expenditure to GDP ratio from 17.3 per cent of GDP in 1990/91 to 13.9 per cent in 1996/97, with most of the reduction being concentrated in capital expenditure.

Table 6.7

Centre's Fiscal Position: A Summary View

(As percent of GDP at current market prices)

	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/2000	2000/2001
1. Revenue Receipts	9.7	10.1	9.9	8.8	9.0	9.3	9.2	8.8	8.6	9.4	9.2
2. Tax Revenue (Net to Centre)	7.6	7.7	7.2	6.2	6.7	6.9	6.8	6.3	6.0	6.6	6.6
3. Non-Tax Revenue	2.1	2.4	2.7	2.6	2.3	2.4	2.4	2.5	2.6	2.8	2.7
4. Expenditure	17.3	16.2	15.8	15.9	14.9	14.2	13.9	14.2	14.7	15.4	15.6
5. Revenue Expenditure	12.9	12.6	12.4	12.6	12.1	11.8	11.6	11.8	12.4	12.9	13.3
6. Capital Expenditure	4.4	3.6	3.4	3.3	2.9	2.4	2.3	2.4	2.2	2.5	2.3
7. Revenue Balance (1-5)	**-3.3**	**-2.5**	**-2.5**	**-3.8**	**-3.1**	**-2.5**	**-2.4**	**-3.1**	**-3.8**	**-3.5**	**-4.1**
8. Fiscal Balance	**-6.6**	**-4.7**	**-4.8**	**-6.4**	**-4.7**	**-4.2**	**-4.1**	**-4.8**	**-5.1**	**-5.4**	**-5.7**

Sources: *Economic Survey* (various issues), and Budget Documents.

Table 6.8

States' Fiscal Position: A Summary View

(As percent of GDP at current market prices)

	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/2000	2000/2001 RE
1. Revenue Receipts	11.7	12.3	12.2	12.3	12.1	11.5	11.2	11.2	10.0	10.6	11.4
2. Tax Revenue (Net to Centre)	7.8	8.1	8.1	8.0	8.0	7.8	7.8	8.0	7.3	7.5	7.9
3. Non-Tax Revenue	3.9	4.3	4.1	4.3	4.1	3.7	3.4	3.2	2.7	3.1	3.5
4. Expenditure	16.0	16.5	15.9	15.7	16.0	14.9	14.8	15.0	15.1	16.3	16.9
5. Revenue Expenditure	12.6	13.2	12.9	12.7	12.7	12.2	12.3	12.3	12.5	13.3	13.9
6. Capital Expenditure	3.4	3.3	3.1	2.9	3.3	2.7	2.5	2.7	2.6	2.8	2.8
7. Revenue Balance (1-5)	**-0.9**	**-0.9**	**-0.7**	**-0.4**	**-0.6**	**-0.7**	**-1.1**	**-1.1**	**-2.5**	**-2.7**	**-2.5**
8. Fiscal Balance	**-3.3**	**-2.9**	**-2.8**	**-2.4**	**-2.7**	**-2.7**	**-2.7**	**-2.9**	**-4.2**	**-4.7**	**-4.4**

Source: RBI, *Handbook of Statistics on Indian Economy 2001.*
Notes: RE: Revised Estimate

The improvement in the fiscal balances in the first half of the decade was significant, if partial. The decline in the consolidated fiscal deficit by 3 per cent of GDP between 1990/91 and 1995/96 made room for the investment boom of 1993-96, which, as we shall see, took aggregate domestic investment from a decadal low of 22.6 per cent of GDP in the crisis year of 1991/92 to a very healthy peak of 26.9 per cent of GDP in 1995/96. Of course, other factors, such as deregulation of industry and foreign trade, strong export performance and the overall reform momentum were also driving investment higher. But it does seem likely that the reduction in the fiscal deficit in the first half of the decade helped to nurture the rise in gross savings and investment, which, in turn, helped propel India's growth to 7 per cent plus for three successive years in the mid-nineties.

6.4 Strong Response of Growth and Investment

Against the background of improvements in external and fiscal balances noted above, the real economy responded strongly to the wide range of reform measures undertaken in the early nineties. GDP growth had collapsed to 1.3 per cent in 1991/92 as the balance of payment crisis of 1991 took its toll. In the subsequent nine years, 1992/93 to 2000/01, GDP growth averaged an unprecedented 6.1 per cent. The trend in decadal growth rates looks even better when we focus on per capita GDP growth, which accelerated to an average of 4.0 per cent in these nine years from under 1 per cent as recently as the seventies decade.

The strong growth of the 1990's, coming on top of the growth acceleration that occurred in the eighties, placed India among the ten fastest growing countries in the world in the final two decades of the twentieth century. Virmani (1999) ranks India sixth in the world growth league after China, Korea, Thailand, Singapore and Vietnam (Table 6.10). This is certainly a far cry from the conventional image of the Indian economy as a lumbering, shackled giant trailing far behind most significant emerging market economies in the growth race. Even more heartening is Virmani's finding that India retains sixth position when the ranking is redone in term of per capita GDP growth.

Table 6.10

Growth Trends for Medium and Large Countries: 1980-2000

(percent)

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

Source: Virmani (1999)

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

Closer examination of growth trends during the decade reveals some interesting patterns, especially if we subdivide the nine years following the 1991 crisis into an initial high growth period of five years (corresponding to the Eighth Plan) and the subsequent four years up to 2000/01 (Table 6.11). First, comparing performance in the last nine years to the pre-crisis decade, it is interesting that the acceleration of GDP growth (from 5.6 to 6.1 per cent) is entirely attributable to the services sector where growth surged to 7.8 per cent from an already high 6.7 per cent in the eighties. Indeed, the growth of both agriculture and industry averages a little lower in the post-crisis nine years compared to the pre-crisis decade. Second, focussing now on the post-crisis quinquennium, the acceleration of GDP growth to 6.7 per cent from the pre-crisis decadal average of 5.6 per

cent is quite encouraging. Third, it is noteworthy that in this high growth Eighth Plan period all the major sectors (Agriculture, Industry, Services) grew noticeably faster than in the pre-crisis decade. The acceleration in the growth of agricultural value added is particularly interesting in the light of oft-repeated criticism that the economic reforms of the early nineties somehow neglected the agriculture sector.

Table 6.11
Growth of GDP and Major Sectors

	Share in Real GDP 1993-94 prices (%)	Average Annual Growth Rates			
	Average of 1994/95 - 1996/97	1981/82 - 1990/91	1992/93 - 2000/01	1992/93 - 1996/97	1997/98 - 2000/01
	(1)	(2)	(3)	(4)	(5)
1. Agriculture	28.9	3.5	3.2	4.7	1.2
2. Industry	27.6	7.1	6.4	7.6	4.8
3. Services	43.5	6.8	7.8	7.6	8.1
4. GDP (factor cost)	**100.0**	**5.6**	**6.1**	**6.7**	**5.4**

Source: Central Statistical Organisation

It is also interesting to note that, by the yardstick of overall economic growth, India's recovery from the 1991 crisis compares very favourably in international comparisons with other developing countries undertaking post-crisis reform programmes. As Table 6.12 shows, average economic growth in the first three years after the start of the reform / adjustment programme was over 6 per cent in India as compared to an average of only 2.2 per cent for thirty developing countries surveyed in one study.

Table 6.12

Average Economic Growth in First 3 Years after start of Reform/Adjustment Programme

(per cent)

India (1991-92)	**6.1**
Average of 30 Developing Countries	2.2
Kenya (1981)	2.4
Nigeria (1983)	2.1
Mexico (1983)	0.6
Thailand (1983)	5.1
Turkey (1980)	4.1

Source: CSO for India. For other countries, "Macroeconomic Performance under Adjustment Lending" in Thomas, Chhibber, Dailami and de Melo (eds). *Restructuring Economics in Distress, Policy Reforms and the World Bank*, Oxford University Press, 1991.

Note: Year in parenthesis indicates year reform or adjustment programme was launched.

These initial post-crisis years also witnessed a strong positive response from aggregate investment and savings. We have already noted the surge in gross domestic investment between 1991/92 and 1995/96. Gross domestic savings also increased significantly to attain a peak level of 25.1 per cent of GDP in 1995/96 (Table 6.13). It would be reasonable to infer that during this high growth period there was a mutually supportive interaction between economic growth on the one hand and aggregate savings and investment on the other.

Table 6.13

Savings and Investment

(As percent of GDP at current market prices)

	GDCF	GDS	Public Savings	Private Savings	Household Savings	Corporate Savings
Average 1985-90	22.7	20.4	2.4	18.0	16.0	2.0
1990/91	26.3	23.1	1.1	22.0	19.3	2.7
1991/92	22.6	22.0	2.0	20.1	17.0	3.1
1992/93	23.6	21.8	1.6	20.2	17.5	2.7
1993/94	23.1	22.5	0.6	21.9	18.4	3.5
1994/95	26.0	24.8	1.7	23.2	19.7	3.5
1995/96	26.9	25.1	2.0	23.1	18.2	4.9
1996/97	24.5	23.2	1.7	21.5	17.0	4.5
1997/98	24.6	23.1	1.3	21.8	17.6	4.2
1998/99	22.7	21.7	-1.0	22.6	18.9	3.7
1999/2000	24.3	23.2	-0.9	24.0	20.3	3.7
2000/2001 Q	24.0	23.4	-1.7	25.1	20.9	4.2

Source: *Economic Survey, 2001-2002*
Notes: Q: Quick Estimate
GDCF: Gross Domestic Capital Formation
GDS: Gross Domestic Saving

National accounts data on trends in gross fixed capital formation (at constant prices) also shows very strong growth of over 40 per cent between 1993/94 and 1995/96. The fixed investment surge is particularly strong in the industrial sector, especially manufacturing (Table 6.14).

What are the factors which explain the remarkable and broad-based growth surge in the period 1992-97? In the absence of authoritative research, we can suggest the following factors:

- Productivity gains resulting mainly from the deregulation of trade, industry and finance, especially in the sectors of industry and some services;
- Reform-assisted surge in export growth;
- The investment boom of 1993-96, which exerted expansionary influences on both supply and demand, especially in industry.
- The investment boom itself was probably driven by a combination of factors including unleashing of "animal spirits" by economic reforms, the swift loosening of foreign exchange bottlenecks, confidence in broadly consistent governmental policy signals and easier availability of investible funds (both through borrowing and new equity issues);
- The partial success in fiscal consolidation, which kept a check on government borrowings and facilitated expansion of aggregate savings and investment;
- Improvement in the terms of trade for agriculture resulting from a combination of higher procurement prices for important crops and reduction in trade protection for manufactures.
- Availability of capacity in key infrastructure sectors, notably power.
- A buoyant world economy which facilitated expansion of foreign trade and private capital inflows.

Table 6.14

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

Base: 1993-94 = 100

	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000
1. Agriculture etc.	**100.0**	**108.3**	**114.1**	**115.3**	**115.6**	**120.2**	**133.6**
2. Industry	**100.0**	**116.3**	**158.2**	**159.5**	**152.9**	**143.8**	**139.8**
2.a. Manufacturing	100.0	114.7	186.0	194.4	179.4	165.1	153.4
2.b. Mining and Quarrying	100.0	193.8	123.4	76.8	77.4	70.4	79.8
2.c. Electricity, Gas and Water	100.0	91.4	86.2	94.1	94.4	101.7	112.5
2.d. Construction	100.0	164.4	244.2	130.3	277.9	238.4	252.2
3. Services	**100.0**	**123.5**	**131.2**	**124.3**	**116.0**	**119.2**	**131.0**
3.a. Trade, Hotels and Restaurants	100.0	146.2	189.6	133.3	119.2	118.8	116.9
3.b. Transport, Storage and Communication	100.0	123.8	131.0	131.3	106.0	101.2	118.3
3.c. Financing, Insurance, Real Estate and Business Services	100.0	118.7	124.8	119.4	121.1	119.8	121.6
3.d. Community, Social and Personal Services	100.0	123.1	121.8	119.8	119.6	142.4	168.8
4. Total (1+2+3)	**100.0**	**118.5**	**143.9**	**141.9**	**135.2**	**132.1**	**135.8**

Source: Central Statistical Organisation

6.5 Post-1997 Deceleration : A Macro View

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

Economic growth fell to 4.8 per cent in 1997/98, 4.3 per cent if the "Pay Commission effect" is netted out (see below). Agriculture recorded negative growth in value added, while the growth of manufacturing slumped to 1.5 per cent from 9.7 per cent in the previous year. Only services boomed at 9.8 per cent. Although industrial expansion remained subdued , GDP growth recovered smartly in 1998/99 thanks to a strong rebound in agriculture and continued buoyancy in services. Growth was sustained in 1999/2000 by a temporary recovery in industry. In 2000/01, renewed industrial deceleration and virtual stagnation in agriculture pulled GDP growth down to 4.0 per cent.

As a, result average GDP growth dropped to 5.4 per cent in the last four years, 1997/98-2000/01 (Table 6.11). Much more disquieting is the collapse of agricultural growth to 1.2 per cent (from nearly four times that rate in the Eighth Plan period) and the significant fall in industrial growth down to 4.8 per cent. Indeed, the drop in GDP growth in these four years would have been much steeper but for the extraordinary buoyancy of services which averaged growth of 8.1 per cent. This growth in services was much faster than industry, a pattern which is quite different and novel compared to India's past experience and, at the very least, raises questions of sustainability.

A part of the services sector growth in the last four years was "spurious" in the sense that it simply reflected the revaluation of the value added in the subsector "Public Administration and Defence" because of higher pay scales resulting from decisions on the Fifth Pay Commission. It is a peculiarity of national income accounting conventions that value added in non-marketed services is estimated on the basis of cost. These Pay Commission effects (including knock- on effects in States) were spread mainly over three years, 1997/98, 1998/99 and 1999/2000, when 'real' growth of 'Public Administration and Defence' soared to 14.5 per cent, 10.3 per cent and 13.2 per cent, respectively, compared to an average growth in the previous five years of less than 4 per cent. Subtracting the trend growth from the exceptionally high reported growth rates gives a measure of the "spurious" (or Pay Commission effected) growth in these years, which we also subtract from overall GDP growth in the relevant years. This adjustment reduces GDP growth by 0.5 per cent in 1997/98 and 1999/2000 and by 0.4 per cent in 1998/99. The adjusted (net of Pay Commission effect) GDP growth becomes 4.3 per cent in 1997/98, 6.1 per cent in 1998/99 and 5.6 per cent in 1999/2000. As a result of these adjustments, the average GDP growth in the last four years 1997/98 to 2000/01 drops to 5.0 per cent, which is noticeably below the 5.6 per cent average for the pre-crisis decade and substantially lower than the 6.7 per cent achieved in the post-crisis quinquennium.[23]

From a macroeconomic perspective, 1997 witnessed negative developments in three key areas of exports, investment and fiscal balance. Export growth in dollar terms dropped to 5 per cent from 20 per cent in the previous three years, partly because of the real appreciation of the rupee between 1993 and 1995 and partly because of the surge in Chinese exports to the world, which took away market share from all other Asian competitors. Industrial investment stalled for several reasons. First, the investment boom of the previous three years had built up large capacities, which discouraged further expansion. Second, real interest rates had risen in 1995/96 because of a sharp decline in inflation and a temporary rise in nominal interest rates, driven by Reserve Bank interventions in the foreign exchange market to stabilise a suddenly wobbly rupee. Third,

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

the advent of coalition governance had probably heightened uncertainty and damped business confidence. Fourth, and related, the reform programme lost momentum and consistency after the mid-nineties.

On the fiscal front, after 1996/97, the consolidated fiscal and revenue deficits deteriorated steadily, with about half the worsening due to the phasing in of increases in government pay scales following the Fifth Pay Commission. Both the fiscal deficit and the revenue in deficit increased by about 3 per cent of GDP between 1995/96 and 1999/2000 (Table 6.4). This sharp widening in deficits was fully reflected in the decline of public savings from plus 2 per cent of GDP in 1995/96 to *minus* 1 per cent in 1998/99. This, in turn, largely explained the drop in gross domestic savings from its peak of 25.1 per cent of GDP in 1995/96 to 21.7 per cent in 1998/99. Over this period, there was a decline of similar magnitude in gross domestic investment, partly for reasons noted above and partly because of continued high real interest rates shored up by growing fiscal deficits.

From India's perspective the international economic environment also weakened after 1997. The Asian crisis of 1997-98 hurt exports and private capital inflows. The problems were compounded by the economic sanctions which followed the nuclear tests in May 1998. In the next two years the surge in international oil prices (much of it passed on after lags to Indian energy users) exerted negative effects. Finally from the last quarter of 2000 the global economic slowdown took its toll of India's economic performance.

Other, more structural factors influenced the deceleration of growth. This probably included the petering out of productivity gains from economic reforms, which clearly slowed after 1995. Although reforms continued throughout the decade, they never regained the breadth and depth of the early nineties. Key reforms in the financial sector, infrastructure, labour laws, trade and industrial policy and privatization remained unfinished or undone. Second, despite good intentions, the bottlenecks in infrastructure became worse over time, especially in power, railways and water supply, reflecting slow progress in reforms of pricing, ownership and the regulatory framework. Third, the low quality and quantity of investment in rural infrastructure combined with distorted pricing

of some key agricultural inputs and outputs to damp the growth of agriculture. Fourth, the continuing decline in governance and financial discipline in (especially, but by no means exclusively) the populous States of the Gangetic plain constrained growth prospects for over 30 per cent of India's population.

It is worth emphasizing that the coincidence of slowing economic growth and rising fiscal deficits is placing serious strain on public finances and highlighting issues of sustainability of public debt ratios. Between March 1991 and March 1997 the Central Government's debt-GDP ratio had fallen by almost 6 percentage points reflecting high growth and partial fiscal consolidation. In the next four years the ratio deteriorated (increased) by 7 percentage points, reflecting opposite trends in deficits and growth. Between March 1997 and March 2002 the ratio of the combined debt of the Centre and States to GDP increased by 13 percentage points from 56.5 per cent to 69.7 per cent. The need for reversing this trend is obvious.

6.6 Sectoral Perspectives

6.6.1 Problems in Agriculture

Much is being made of the strong growth of agriculture in fiscal 2001/02. According the Advance Estimates of National Income published in February 2002, the agriculture sector (broadly defined) is projected to grow by a very healthy 5.7. Indeed, without this buoyancy in agriculture, overall GDP growth would have been well below 5 percent. However, the current revival masks some worrying longer-term trends. For a start, it comes after two successive years of poor performance, including negative growth in 2000/01. In a somewhat longer perspective, in the nine years after the crisis of 1991/92 the growth of agricultural value added averaged 3.2 percent, slightly slower than the 3.6 percent achieved in the eighties. What's more, while the first five post-crisis years, 1992-97, saw agriculture boom at an average growth of 4.7 percent per year, the next four years, 1997-2001, recorded a dismal average of only 1.2 percent. Even if we add the very preliminary estimate for 2001/02, the Ninth Plan average annual growth is only 2.1 percent, less than half the Eighth Plan average of 4.7 percent. No wonder GDP growth in the Ninth Plan has averaged barely 5 percent per year, once we adjust for the "spurious"

growth attributable to government pay increases. Experience from all over the world (and India's own Eighth Plan experience) suggests that for a country to sustain economic growth at around 7 percent or higher, agriculture has to grow at 4 percent or more.

Similar concerns emerge if we look at the growth of production and yield in principal crops which account for about 70 percent of value added in the "Agriculture and Allied" sector (the rest is attributable to livestock, dairying, fishing and forestry). Table 15 presents comparative data for the eighties and nineties. It is quite striking that the average growth rate of crop production has almost halved from 3.2 percent a year in the eighties to 1.7 percent in the nineties. And the decline is entirely due to the sharp fall in yield growth from 2.6 percent per year in the eighties to 1.0 percent in the nineties. Furthermore the deceleration in production and yield affect both foodgrains and nonfood crops (each accounting for about half of crop production). Foodgrain growth has dropped below the rate of population growth, while the nonfood growth rate has halved from 3.8 percent in the eighties to 1.9 percent in the nineties. Growth of foodgrain yields has halved and that of nonfood crops has plummeted to only a quarter of the eighties rate. Assuming (reasonably!) good correlation between the value added data and the crop production data, it would be reasonable to infer that most of the observed deceleration in the growth of production and yield has occurred in the period 1997-2001; indeed the Eighth Plan period may have seen some acceleration.

Table 6.15

Principal Crops : Growth of Production and Yield

(% per annum)

	Production		**Yield**	
	1980/81-1989/90	**1990/91-2000/01**	**1980/81-1989/90**	**1990/91-2000/01**
Foodgrains	2.85	1.66	2.74	1.34
Non-Food Crops	3.77	1.86	2.31	0.59
All Crops	3.19	1.73	2.56	1.02

Source: Economic Survey, 2001/02

So what's amiss? Since agriculture accounts for 60 percent of India's labour force and a quarter of GDP, one might have expected intense scholarly research to yield an authoritative answer to this question. Although there has been a fair amount of research, the answers are still tentative.[24] In the absence of definitive answers to the puzzle of the agricultural slowdown, the following likely reasons can be put forward.

First, real public investment in agriculture (mostly in major and medium irrigation projects) has actually fallen by a fifth between 1994/95 and 2000/01. Over the same period there has been a 25 percent increase in real private investment (in mainly farm equipment and minor irrigation), taking the share of *private* investment in total to over three-quarters. The rise in total real investment has been modest, reflected in the fall in the ratio of agricultural investment to agricultural value added to a meagre 5 percent or so.

Second, the operation and maintenance (O&M) of irrigation systems in most states has deteriorated, partly because of very weak cost recovery as well as widespread entropy in the effectiveness of irrigation departments. The post Pay Commission pay increases have starved departments of funds for non-salary inputs for O&M. As a result, the management and distribution of the critical resource of water has probably worsened.

Third, in most states the rural roads and state highways programmes have not gone anywhere fast for much same reasons that bedevil irrigation departments. Yet the creation and sustenance of road linkages is crucial for the development of well-functioning agricultural markets.

Fourth, the systems of agricultural research, development and extension services (which played such a crucial role in the Green Revolution of the seventies and eighties) are generally perceived to have become bureaucratic, unaccountable (to farming needs) and unmotivated. The Pay Commission effect of starving non-salary inputs has also taken its toll.

[24] See, for example, Bhalla (2001), Gulati and Bathla (2001), Radhakrishna (2001) and Vaidyanathan (2000).

Fifth, although the terms of trade have remained favourable to agriculture as a whole, the natural and necessary diversification away from wheat and rice has been retarded by the pattern of inappropriately high procurement price increases for these crops (they have also created the costly food mountains in public godowns).

Sixth, there is growing evidence that high levels of urea subsidy for many years has distorted the use patterns of nitrogen-phosphates-potassium in a way which has been cumulatively detrimental to soil fertility.

Seventh, especially in the more populous states, agricultural productivity has been hurt by continuing fragmentation of land holdings arising partly from India's peculiarly slow shift of labour force from agriculture to non-agriculture. This peculiarity, in turn, is largely attributable to rigid labour laws (in the organized sector) and small scale industry reservations, which have seriously damaged the expansion of employment in manufacturing (we have only to compare with the much better experience of East Asian countries).[25]

If these are the right reasons, the solutions to the problems are implicit and clear. But they will not be easy to implement.

6.6.2 Industrial boom--shortlived

Industrial growth was very strong between October 1993 and September 1996, with annualized growth rates for manufacturing (accounting for almost four-fifths of the index of industrial production) close to or exceeding double digits in every quarter (Table 16). The deregulation of industry and foreign trade, combined with the momentum of overall reforms and good agricultural performance, clearly spurred strong growth of industrial production and investment during this triennium (Table 14). Growth faltered in September 1996, recovered in

[25] See Mohan (2002) for a persuasive account of the damage done by small scale industry reservations policy to growth of manufacturing output, exports and employment.

October and then suddenly plummeted in the last five months of fiscal 1996/97. What is worse, industrial growth remained sluggish throughout 1997/98 and 1998/99. Although there was some pickup in 1999/2000, it was shortlived and ran out of steam by the end of 2000.

Table 6.16

Growth Rates for Manufacturing

(Figures in %)

Index of Industrial Production

	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/2000	2000/2001
Q1	0.1	9.8	12.7	14.3	4.8	4.2	6.9	6.5
Q2	6.3	10.2	14.7	8.1	7.3	3.9	7.2	5.9
Q3	9.0	9.6	14.0	5.4	8.8	3.2	7.7	5.7
Q4	8.5	9.7	15.0	2.8	5.7	5.1	8.0	3.5

Source: Index of Industrial Production, CSO

It is quite remarkable that after August 1996 there has been only one solitary month (November 1997) in which either the overall index for industry or the component for manufacturing has registered double digit growth from a year ago. Moreover, except for the welcome partial recovery of 1999/2000, there is not one instance, since September 1996, of three successive quarters registering more than six percent growth.

What accounts for this dismal outcome after the manifest boom of the previous three years? A popular contemporary explanation among many industrialists was the “credit squeeze” of 1995/96. However, this mistook the unexpected and temporary tightening of liquidity in money markets, resulting from the large dollar sales by the Reserve Bank in support of a suddenly wobbly rupee-dollar exchange rate, as an expression of deflationary credit policy. As the Reserve Bank’s annual report for the year was at pains to point out, monetary policy was steadily loosened from November 1995 onwards with successive reductions in the cash reserve ratio (CRR). With non-food bank credit growing by over 22 percent in

1995/96, it would be hard to reconcile this with any simple "credit squeeze" view.

We may be on firmer ground if we seek answers to the industrial slowdown puzzle in the sharp deceleration in 1996/97 in two major components of industrial demand, exports and investment. Export growth in dollars dropped to 5 percent from around 20 percent in the previous three years, partly because of the real appreciation of the rupee between 1993 and 1995 and partly because of the surge in Chinese exports to the world which took away market share from all other Asian competitors. The investment hiatus was equally pronounced, with real gross fixed investment in industry declining in each of the three years following 1996/97 (Table 14). Investment stalled for several reasons. First, the investment boom of the previous three years had built up large capacities, which discouraged further expansion. Second, real interest rates had risen in 1995/96 because of the drop in inflation and a temporary rise in nominal interest rates. Third, the advent of coalition governance had probably heightened uncertainty and damped business confidence.

If these were the reasons for the initial industrial slowdown, what explains its persistence for several years? Export growth remained low in 1997/98 and 1998/99 as the Asian crisis took its toll. That crisis and the post-nuclear-tests sanctions also depressed investor confidence. Even more damaging to business sentiments may have been the stalling of reforms in key areas such as infrastructure, labour laws and the financial sector and the continuing uncertainties of coalition governance. The somewhat ambivalent approach to reduction in trade protection may have also played a role.

In 1999/2000, fuelled by the strong rebound in agriculture in the preceding year, the recovery in exports and the budget for the year,

industrial growth showed promising recovery. But it proved temporary as investment failed to revive and rising energy costs and the onset of global slowdown in late 2000 depressed both business confidence and industrial growth to new lows. By the spring of 2001 the global recession and India's financial sector problems were important new negatives weakening industrial performance.[26] Manufacturing production grew less than 3 per cent in 2001/02.

6.6.3 Infrastructure Constraints

India's infrastructure problems are legendary. There is little doubt that past economic performance has been constrained by weaknesses in the availability and quality of infrastructure services, even if rigorous studies of the timing and severity of such constraints are hard to come by. There is some qualitative evidence to suggest that in key sectors such as electric power, roads and railways the situation may have worsened in recent years because of mounting fiscal pressure on budgets of public sector entities, continuing problems of chronic under-pricing and economically unsound cross-subsidization policies and insufficient progress with regulatory reforms. The real issue is what are the prospects for the medium-term?

The answer probably varies substantially across the various infrastructure sectors. The outlook is most promising for the telecom sector, which has made the most progress in the transition from a public monopoly paradigm to a model where public and private service providers compete in the same market subject to an independent regulator. After a somewhat tortuous process of reform of the regulatory and investment framework, the telecom sector is now benefiting from substantial new investments and productivity gains from new technology and competition. This process should continue in the medium term, bringing widespread

[26] In a recent paper, Bhattacharya and Patel (2002) argue that growing weaknesses in India's financial system have contributed significantly to the industrial slowdown of recent years.

benefits from better tele-connectivity, including for the allied information technology sector.

Connectivity will also improve from growing investments in the national highway network, especially "the Golden Quadrilateral", although the old problems of maintenance and upkeep remain challenging. The outlook for state highways and rural roads is more problematic. There has been much less progress in railways, which remain a public monopoly, burdened by unrealistically low tariffs, massively uneconomical cross-subsidization of passengers by freight, insufficient investment in track and rolling stock and declining safety performance. Despite several high-level reviews and reports, the prospects for early corrective action are not bright.[27]

Progress has been slowest in the sector of electric power, even though it is the sector in which it is most urgently needed.[28] The problems are well-known and include grossly inefficient State Electricity Boards (SEBs), a long history of massive under-pricing to agricultural users, very high levels of power theft, cross-subsidies which hit large and medium-scale industry, declining levels of investment in generation and transmission and widespread incidence of brownouts and blackouts. One recent survey of over a thousand industrial firms in India found the average cost of power to users (after allowing for blending from the public grid and private generators) to be over four rupees per unit, compared to less than two rupees in North America and around Rs. 2.50 in Korea and Taiwan.[29] Seventy percent of survey respondents had to resort to running their own generator sets! Although there has been some reform of the regulatory environment, the basic problems of inefficient, loss-making

[27] The most recent comprehensive survey is provided by the report of the Expert Group on Indian Railways (2001).
[28] For a recent survey of power sector problems, see Parikh and Parikh (2002).
[29] See Dollar, Goswami et.al (2002).

SEBS and unsustainable pricing and distribution policies remain far from being solved.

Taken together, the summary, medium-term outlook for the electric power sector is not promising. It is even possible that the constraints might get worse before they get better.

6.7 Concluding Remarks

At the beginning of the new millennium the Indian economy was at an intriguing juncture. Having notched up two decades of good economic growth there was genuine reason for satisfaction, especially when the performance is viewed in the context of international comparisons. At first glance the external sector also looked strong , at least in terms of the usual criteria of forex stockpiles, external debt ratios, current account deficits and so forth. Inflation was well under control. Despite the statistical controversies the incidence of extreme poverty was at its lowest point ever.

But the economic sky was darkening with clouds. Growth had clearly slowed in recent years both in aggregate and for all major sectors. The fiscal position had worsened substantially and was posing new problems of debt sustainability. Reforms continued but at an uneven pace. The financial sector was under renewed stress. Weak infrastructure, especially power, was taking its toll of economic performance. Agriculture had lost momentum. There were growing signs of weakness in international competitiveness, especially in the crucial segment of manufacturing. Export growth was weak. State finances were under exceptional strain, severely limiting the states' capacity to undertake productive development programmes, especially in the crucial areas of education, health and economic infrastructure. Regional disparities were sharpening. Good governance and administrative efficiency were at a premium.

Put simply and bluntly the outlook for sustained, broad-based growth was weak unless major corrective measures were put in place[30]. It is easy to compile another list of what is often called "second generation reforms". Here we limit ourselves to five pressing priorities. First, the fiscal deficits of the central and state governments have to be reduced through a combination of higher tax yields, greater cost recovery (lower subsidies) and tight control of establishment expenditures. Second, the electric power sector has to be transformed through aggressive privatisation of power distribution. Third, the financial sector has to be overhauled, including privatisation of government-controlled banks and financial institutions. Fourth, to drive faster growth of industrial investment, output and employnent the announced reforms of rigid labour laws and bankruptcy provisions need to be implemented swiftly. Finally, trade policy reforms need to pursued resolutely through reductions in import duties in line with pronouncements made in recent budget speeches.

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[30] See also Acharya (2002 c).

Table 6.17
Balance of Payments Indicators

(As per cent of GDP at current market prices)

	1985-90 (Average)	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-2001
Exports, f.o.b.	4.8	5.8	6.9	7.3	8.3	8.3	9.1	8.9	8.7	8.2	8.4	9.8
Imports, c.i.f.	7.7	8.8	7.9	9.6	9.8	11.1	12.3	12.7	12.5	11.4	12.4	13.0
Trade Balance	**-3.0**	**-3.0**	**-1.0**	**-2.3**	**-1.5**	**-2.8**	**-3.2**	**-3.9**	**-3.8**	**-3.2**	**-4.0**	**-3.1**
Invisibles, net	0.79	-0.1	0.7	0.6	1.1	1.8	1.6	2.7	2.4	2.2	3.0	2.6
Current Account Balance	**-2.2**	**-3.1**	**-0.3**	**-1.7**	**-0.4**	**-1.0**	**-1.7**	**-1.2**	**-1.4**	**-1.0**	**-1.1**	**-0.5**
Capital Account Surplus	**2.2**	**2.3**	**1.5**	**1.6**	**3.5**	**2.8**	**1.3**	**3.0**	**2.4**	**2.0**	**2.3**	**2.0**
of which:												
Foreign Investment	0.10	0.03	0.05	0.23	1.55	1.53	1.38	1.60	1.31	0.58	1.17	1.11
External Assistance,net	0.68	0.70	1.13	0.77	0.69	0.48	0.28	0.29	0.23	0.20	0.20	0.10
Commercial Borrowings,net	0.57	0.71	0.58	-0.15	0.22	0.32	0.38	0.73	0.96	1.06	0.07	0.90
NRI Deposits, net	0.67	0.48	0.15	0.82	0.44	0.05	0.32	0.87	0.28	0.23	0.35	0.51
IMF, net	-0.26	0.38	0.32	0.45	0.07	-0.35	-0.48	-0.25	-0.15	-0.09	-0.06	-0.01

Table 6.17
Balance of Payments Indicators (continued)

Memo Items

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

* The average official exchange rate for the year 1992-93 was 25.97.
Sources: RBI, Handbook of Statistics on Indian Economy, 2000 , RBI Annual Report 2000-01, and DGCIS (for non-oil imports).

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Annexure 1

Sectoral Annual Growth Rates of Real GDP at Factor Cost

(1993-94 prices)

(per cent)

	1950/51 to 1966/67	1967/68 to 1980/81	1981/82 to 1990/91	1991/92 to 2000/01*
Agriculture	1.8	3.3	3.5	2.7
Industry	6.3	4.1	7.1	5.7
Services	4.8	4.3	6.8	7.6
Total	3.4	3.8	5.6	5.6
Per Capita GDP	1.4	1.5	3.4	3.5

Source: 1951-52 to 1992-93: CSO, National Account Statistics,
Back Series 1950-51 – 1992-93, 2001.
1993-94 to 2000-01: Economic Survey, 2001-02.

Note: The sub-sectors constituting Industry and Services are as follows :

Industry:
Mining and Quarrying
Manufacturing
Electricity, gas and water supply
Construction

Services:
Trade, hotels, transport and communications
Financial, real estate and business services
Community, social and personal services

* Data for 2000/01 are Quick Estimates.

Annexure 2

Rates of Saving and Investment

(per cent of GDP)

	1950/51 to 1966/67	1967/68 to 1980/81	1981/82 to 1990/91	1991/92 to 2000/01
GDS	11.1	16.6	19.8	23.1
Private	8.8	13.2	17.0	22.4
Household	7.5	11.7	15.2	18.6
Private Corporate	1.3	1.5	1.9	3.8
Public	2.3	3.4	2.8	0.7
GDCF (adjusted)	12.7	17.1	21.8	24.2
Public	5.6	7.7	10.1	7.6
Private	7.5	9.9	12.5	15.2
GFCF	12.0	15.6	20.7	22.2
Public	5.2	6.8	9.7	7.5
Private	6.8	8.8	11.0	14.7

Source: Economic Survey 2001-2002

Notes: GDS: Gross Domestic Savings

GDCF (adjusted): Gross Domestic Capital Formation adjusted for Errors and Omissions

GFCF: Gross Fixed Capital Formation

Annexure 3

Gross Capital Formation by Sector (per cent)

	1960/61 to 1966/67	1967/68 to 1980/81	1981/82 to 1990/91	1991/92 to 1999/2000
Agriculture	23.7	16.5	11.0	7.6
Industry	16.3	35.4	51.4	54.5
Manufacturing	26.3	27.4	31.8	39.0
Mining and Quarrying	2.6	2.4	5.7	3.5
Electricity, Gas and Water	10.3	9.6	12.3	10.3
Construction	3.5	1.7	1.6	1.6
Services	60.0	48.1	37.6	38.0
Trade, Hotels and Restaurants	2.3	5.5	4.2	3.4
Transport, Storage and communication	20.7	14.4	11.2	11.4
Financing, Insurance, Real estate and Business services	18.4	15.8	11.1	14.1
Community, Social and Personal Services	18.5	12.3	11.1	9.1
Total	100	100	100	100

Source: 1960-61 to 1969-70 : 'India Database', H.L. Chandhok and The Policy Group.
1970/71 to 1999-2000 : RBI, Handbook of Statistics of Indian Economy, 2001.

Annexure 4

Deficit (Centre) as per cent of GDP

	1960/61 to 1966/67	1967/68 to 1980/81	1981/82 to 1990/91	1991/92 to 2000/01
Fiscal deficit	5.7	3.9	7.0	5.7
Primary deficit	4.3	2.4	4.2	1.3
Revenue deficit	-0.9	-0.2	1.9	3.1

Source: 1960-61 to 1969-70 : 'India Database', H.L. Chandhok and The Policy Group.
1970/71 to 1999-2001 : Economic Survey, 2001-02.

Note: Fiscal deficit = Total expenditure - revenue receipts.
Primary deficit = Fiscal deficit - interest payments

Annexure 5

Consolidated Deficits of Central and State Governments

(As per cent of GDP)

	1981/82 to 1990/91	1991/92 to 2000/01
Fiscal Deficit	8.2	7.8
Primary Deficit	5.0	2.6
Revenue Deficit	2.0	4.4

Source: Reserve Bank of India, Annual Reports

Annexure 6

Balance of Payments Indicators (per cent of GDP)

	1950/51 to 1966/67	1967/68 to 1980/81	1981/82 to 1990/91	1991/92 to 2000/01
Exports f.o.b.	4.3	4.2	4.9	8.4
Imports c.i.f.	5.6	5.7	8.0	11.3
Trade Balance	-1.4	-1.5	-3.1	-2.9
Invisibles, net	1.1	0.9	1.1	1.9
Current Account	-0.3	-0.5	-2.0	-1.0

Source: RBI, Handbook of Statistics of Indian Economy, 2001.

Annexure 7

Foodgrains: Growth in Production and Yield

	1960/61 to 1966/67	1967/68 to 1980/81	1981/82 to 1990/91	1991/92 to 1999/2000
Production				
Rice	3.2	2.7	3.8	1.9
Wheat	3.6	6.6	3.7	3.1
Foodgrains	2.6	2.8	2.9	1.7
Yield				
Rice	1.9	1.9	3.2	1.4
Wheat	1.5	3	3.1	1.5
Foodgrains	1.5	2.3	3.1	1.9

Source: Statistics at a Glance, Ministry of Agriculture, Government of India, 2001.

Annexure 8

Growth in Monetary Aggregates (per cent)

	1960/61to 1966/67	1967/68 to 1980/81	1981/82 to 1990/91	1991/92 to 1999/2000
Reserve Money	5.8	13.7	16.4	13.4
Narrow Money	7	12	14.9	15.3
Broad Money	8.1	16.2	16.9	17.3

Source: 1960-61 to 1969-70 : 'India Database', H.L. Chandhok and The Policy Group.
1970/71 to 1999-2000 : RBI, Handbook of Statistics of Indian Economy, 2001.

Annexure 9

Inflation

	1960/61 to 1966/67	1967/68 to 1980/81	1981/82 to 1990/91	1991/92 to 1999/2000
GDP Deflator	3.9	7.4	8.6	8.3
WPI (All Commodities)	3.8	8.7	7.2	7.8
Primary	3.8	8.2	7.6	8.4
Fuel and energy	3.9	11.4	7.9	12.2
Manufactured Products	3.7	8.6	6.8	6.6
CPI (Industrial Workers)	7.9	7.2	9.1	8.7

Source: 1960-61 to 1969-70 : 'India Database', H.L. Chandhok and The Policy Group.
1970/71 to 1999-2000 : RBI, Handbook of Statistics of Indian Economy, 2001.

Annexure 10

Sectoral Growth Rates of Real GDP at factor cost (1993-94 prices)

Year	Agriculture	Industry	Services	Total	Per Capita GDP
1951-52	1.5	5.3	2.7	2.3	0.7
1952-53	3.1	0.3	3.5	2.8	0.9
1953-54	7.6	5.8	2.8	6.1	4.1
1954-55	3.0	8.2	4.8	4.2	2.4
1955-56	-0.8	10.3	5.1	2.6	0.7
1956-57	5.4	8.5	4.3	5.7	3.6
1957-58	-4.4	-0.3	3.1	-1.2	-3.1
1958-59	10.0	6.7	4.1	7.6	5.3
1959-60	-1.0	7.0	4.8	2.2	0.3
1960-61	6.7	11.1	14.1	7.1	5.1
1961-62	0.1	6.8	5.5	3.1	0.8
1962-63	-2.0	7.0	5.1	2.1	-0.1
1963-64	2.4	9.9	5.5	5.1	2.8
1964-65	9.1	6.8	5.3	7.6	5.3
1965-66	-10.8	3.9	2.8	-3.7	-6.0
1966-67	-1.3	3.3	2.7	1.0	-0.8
1967-68	14.7	3.0	3.8	8.1	5.8
1968-69	-0.1	5.0	4.4	2.6	0.2
1969-70	6.4	8.0	4.8	6.5	4.3
1970-71	7.1	1.0	4.5	5.0	2.7
1971-72	-1.8	2.6	3.1	1.0	-1.4
1972-73	-4.9	3.7	2.9	-0.3	-2.6
1973-74	7.1	1.1	3.0	4.6	2.2
1974-75	-1.4	1.6	4.5	1.2	-1.1
1975-76	12.8	6.6	7.3	9.0	6.5
1976-77	-5.7	8.8	4.8	1.2	-0.9
1977-78	9.8	6.9	5.1	7.5	5.1
1978-79	2.3	7.5	6.6	5.5	3.2

Annexure 10 (Contd...)
Sectoral Growth Rates of Real GDP at factor cost (1993-94 prices)

Year	Agriculture	Industry	Services	Total	Per Capita GDP
1979-80	-12.7	-3.1	1.3	-5.2	-7.5
1980-81	12.7	4.7	4.1	7.2	4.8
1981-82	5.3	7.9	5.9	6.0	4.0
1982-83	-0.7	3.7	6.2	3.1	0.7
1983-84	9.6	8.1	5.9	7.7	5.5
1984-85	1.5	5.8	5.9	4.3	2.1
1985-86	0.7	4.8	8.1	4.5	2.2
1986-87	-0.6	6.9	7.1	4.3	2.2
1987-88	-1.3	6.6	6.0	3.8	1.6
1988-89	15.5	9.2	7.5	10.5	8.1
1989-90	1.5	10.3	9.0	6.7	4.5
1990-91	4.1	7.7	6.0	5.6	3.4
1991-92	-1.5	-0.6	5.2	1.3	-0.7
1992-93	5.8	4.0	5.4	5.1	3.2
1993-94	4.1	5.2	7.7	5.9	3.6
1994-95	5.0	10.2	7.1	7.3	5.2
1995-96	-0.9	11.6	10.5	7.3	5.1
1996-97	9.6	7.1	7.2	7.8	6.0
1997-98	-2.4	4.3	9.8	4.8	2.5
1998-99	6.2	3.7	8.3	6.5	4.4
1999-00	1.3	4.9	9.5	6.1	4.2
2000-01Q	-0.2	6.3	4.8	4.0	2.1

Source: 1951-52 to 1992-93: CSO, National Account Statistics,
Back Series 1950-51 – 1992-93, 2001.
1993-94 to 2000-01: Economic Survey, 2001-02.

Note: The sub-sectors constituting Industry and Services are as follows :

Industry: Mining and Quarrying; Manufacturing
Electricity, gas and water supply; Construction

Services:
Trade, hotels, transport and communications
Financial, real estate and business services
Community, social and personal services

* Data for 2000/01 are Quick Estimates.

Annexure 11

Saving and Investment

Year	GDS	Private	Household	Pvt. Corp.	Public	GDCF (adj.)	Public	Private	GFCF	Public	Private
1950-51	8.9	7.1	6.2	0.9	1.8	8.7	2.8	7.7	8.9	2.4	6.5
1951-52	9.3	6.8	5.5	1.3	2.5	11.1	3.0	7.8	9.2	2.6	6.6
1952-53	8.3	6.7	6.1	0.6	1.5	8.0	2.6	6.2	8.6	2.9	5.8
1953-54	7.9	6.6	5.8	0.8	1.3	7.8	2.8	4.6	8.0	3.1	4.9
1954-55	9.4	7.8	6.7	1.1	1.6	9.6	4.5	5.5	9.7	3.9	5.8
1955-56	12.6	10.8	9.6	1.2	1.7	13.0	4.8	7.7	11.9	5.1	6.8
1956-57	12.2	10.3	9.1	1.2	1.9	15.0	5.3	9.2	12.7	4.9	7.7
1957-58	10.4	8.4	7.5	0.9	2.0	13.9	6.4	8.2	12.8	5.0	7.8
1958-59	9.5	7.7	6.8	0.9	1.7	12.0	5.7	6.0	11.6	4.9	6.7
1959-60	11.2	9.5	8.3	1.2	1.7	12.6	5.9	7.5	12.1	5.8	6.2
1960-61	11.6	8.9	7.3	1.6	2.6	14.4	6.9	7.8	12.7	6.4	6.4
1961-62	11.7	8.8	7.0	1.8	2.9	13.6	6.5	8.4	13.4	6.3	7.1
1962-63	12.7	9.6	7.8	1.8	3.1	14.9	7.6	8.0	13.8	6.9	6.9
1963-64	12.3	9.0	7.2	1.8	3.3	14.2	7.7	7.8	14.2	7.2	7.0
1964-65	11.9	8.7	7.2	1.5	3.3	14.2	7.7	7.9	14.1	7.2	7.0
1965-66	14.0	10.9	9.4	1.5	3.1	16.2	8.2	8.1	15.1	7.6	7.5
1966-67	14.0	11.7	10.3	1.4	2.3	16.9	7.1	9.5	14.9	6.8	8.1
1967-68	11.9	9.9	8.8	1.1	2.0	14.2	6.6	8.6	14.0	5.7	8.3
1968-69	12.2	9.7	8.6	1.1	2.4	13.2	5.8	8.6	14.0	5.7	8.3
1969-70	14.3	11.7	10.4	1.3	2.6	14.8	5.5	9.8	14.0	5.4	8.6
1970-71	14.6	11.6	10.1	1.5	2.9	15.4	6.4	9.4	14.0	5.5	8.5
1971-72	15.1	12.3	10.7	1.6	2.8	16.0	7.0	9.9	14.7	6.0	8.7
1972-73	14.6	11.9	10.4	1.5	2.7	15.1	7.2	9.0	15.3	7.0	8.3
1973-74	16.8	13.9	12.2	1.7	2.9	17.4	7.5	9.2	14.0	6.3	7.7
1974-75	16.0	12.3	10.4	1.9	3.7	16.8	7.4	10.9	14.4	5.8	8.6
1975-76	17.2	13.0	11.7	1.3	4.2	17.1	9.4	9.6	16.2	7.0	9.2

Annexure 11 (Contd...)

Saving and Investment

Year	GDS	Private	Household	Pvt. Corp.	Public	GDCF (adj.)	Public	Private	GFCF	Public	Private
1976-77	19.4	14.5	13.2	1.3	4.9	17.9	9.8	9.3	17.3	8.1	9.2
1977-78	19.8	15.5	14.1	1.4	4.3	18.4	8.0	10.7	17.2	7.8	9.3
1978-79	21.5	16.9	15.4	1.5	4.5	21.6	9.2	11.5	17.4	7.9	9.5
1979-80	20.1	15.8	13.8	2.0	4.3	20.6	10.0	11.3	17.9	8.5	9.3
1980-81	18.9	15.4	13.8	1.6	3.4	20.3	8.4	10.3	18.5	8.4	10.1
1981-82	18.6	14.1	12.6	1.5	4.5	20.1	10.1	12.3	18.9	8.9	10.1
1982-83	18.3	13.9	12.3	1.6	4.3	19.6	10.7	11.0	19.2	10.1	9.1
1983-84	17.6	14.3	12.8	1.5	3.3	18.7	9.7	10.0	18.8	9.5	9.3
1984-85	18.8	15.9	14.3	1.6	2.8	20.1	10.4	11.2	19.6	9.7	9.9
1985-86	19.5	16.3	14.3	2.0	3.2	21.7	10.8	12.9	20.6	10.1	10.5
1986-87	18.9	16.2	14.5	1.7	2.7	21.0	11.2	12.0	21.1	10.9	10.2
1987-88	20.6	18.4	16.7	1.7	2.2	22.5	9.5	12.6	21.5	10.0	11.5
1988-89	20.9	18.8	16.8	2.0	2.1	23.8	9.5	14.2	21.6	9.6	12.0
1989-90	22.0	20.3	17.9	2.4	1.7	24.5	9.5	14.1	22.4	9.2	13.2
1990-91	23.1	22.0	19.3	2.7	1.1	26.3	9.3	14.7	22.9	9.0	13.9
1991-92	22.0	20.1	17.0	3.1	2.0	22.6	8.8	13.1	22.0	9.2	12.9
1992-93	21.8	20.2	17.5	2.7	1.6	23.6	8.6	15.2	22.4	8.2	14.2
1993-94	22.5	21.9	18.4	3.5	0.6	23.1	8.2	13.0	21.4	8.0	13.4
1994-95	24.8	23.2	19.7	3.5	1.7	26.0	8.7	14.7	21.9	8.8	13.2
1995-96	25.1	23.1	18.2	4.9	2.0	26.9	7.7	18.9	24.4	7.7	16.7
1996-97	23.2	21.5	17.0	4.5	1.7	24.5	7.0	14.7	22.8	6.9	15.9
1997-98	23.1	21.8	17.6	4.2	1.3	24.6	6.6	16.0	21.7	6.4	15.3
1998-99	21.7	22.6	18.9	3.7	-1.0	22.7	6.6	14.8	21.5	6.5	15.1
1999-00	23.2	24.0	20.3	3.7	-0.9	24.3	7.1	16.1	21.6	6.4	15.2
2000-01 Q	23.4	25.1	20.9	4.2	-1.7	24.0	7.1	15.8	21.9	6.8	15.1

Notes: GDS: Gross Domestic Savings; GDCF (adjusted): Gross Domestic Capital Formation adjusted for Errors and Omissions; GFCF: Gross Fixed Capital Formation

Source: Economic Survey 2001-2002

Annexure 12

GFCF by industry of use as % of total GFCF

Year	Agriculture etc.	Industry	Manufacturing	Mining and Quarrying	Electricity, Gas and Water	Construction
1960-61	25.6	13.3	27.7	2	6.5	4.8
1961-62	23.2	14.4	20.4	2.2	10	2.1
1962-63	23.1	16	25	2.7	10.4	2.9
1963-64	22.4	19.5	24.4	3	11.8	4.7
1964-65	23.9	18.5	25.8	3.7	11.3	3.5
1965-66	25	16.6	28.4	1.7	11.7	3.2
1966-67	22.7	16.1	32.2	2.6	10.4	3.1
1967-68	23.6	15.4	29.6	2.3	10.2	2.9
1968-69	23.7	15.4	25	1.8	10.7	2.9
1969-70	24.8	16.9	25.6	2.8	11.2	2.8
1970-71	14.6	38.2	27	1.2	8.7	1.4
1971-72	14.7	35.9	24.6	1.7	8.1	1.5
1972-73	13.9	38	24.7	1.3	10.6	1.4
1973-74	14	35.3	25.1	1.8	7.1	1.4
1974-75	13.2	38.8	28.8	1.7	7.1	1.2
1975-76	12.7	46.1	33.2	2.6	9.1	1.1
1976-77	15.2	42.9	27.3	4.1	10	1.5
1977-78	14.7	44.4	28.1	4.1	10.7	1.5
1978-79	14.9	44.8	30.5	2.6	10.3	1.3
1979-80	16	41.9	27.1	2.9	10.5	1.4
1980-81	15	41.8	26.5	3.2	10.6	1.5
1981-82	12	51	34.7	3.8	10.8	1.7
1982-83	13.3	51.6	30.3	7	12.3	2
1983-84	13.7	50	29.3	6.5	12.6	1.8
1984-85	11.7	52.7	35.5	5.2	10.5	1.5
1985-86	10.2	53.5	35.4	6	11	1.1

Annexure 12 (Contd...)

GFCF by industry of use as % of total GFCF

Year	Agriculture etc.	Industry	Manufacturing	Mining and Quarrying	Electricity, Gas and Water	Construction
1986-87	9.8	54.9	34	6.1	13.6	1.3
1987-88	11.3	48.6	25.7	6	15.3	1.6
1988-89	9.9	50.7	31.4	5	12.9	1.4
1989-90	8.5	51.5	32	5.8	11.8	1.8
1990-91	10	49.4	29.9	5.5	12.4	1.6
1991-92	8.4	51.6	33.4	4.1	13	1.1
1992-93	9.3	50.5	32.3	4	12.8	1.4
1993-94	8.1	52.1	34.3	4.1	12.6	1.1
1994-95	7.4	51.1	33.2	6.7	9.7	1.5
1995-96	6.4	57.2	44.3	3.5	7.5	1.9
1996-97	6.6	58.5	46.9	2.2	8.4	1
1997-98	6.9	58.9	45.5	2.3	8.8	2.3
1998-99	7.3	56.7	42.8	2.2	9.7	2
1999-00	7.9	53.6	38.7	2.4	10.4	2.1

Source: 1960-61 to 1969-70 : 'India Database', H.L. Chandhok and The Policy Group.
1970/71 to 1999-2000 : RBI, Handbook of Statistics of Indian Economy, 2001.

Annexure 13

Deficit (Centre)

Year	Fiscal Deficit	Primary Deficit	Revenue Deficit	Fiscal Deficit	Primary Deficit	Revenue Deficit
	Absolute figures (in Rs. Crore)			as per cent of GDP		
1950-51	4	-67	-54	--	--	--
1951-52	0	0	0	--	--	--
1952-53	0	0	0	--	--	--
1953-54	0	0	0	--	--	--
1954-55	0	0	0	--	--	--
1955-56	160	64	-42	--	--	--
1956-57	0	0	0	--	--	--
1957-58	0	0	0	--	--	--
1958-59	0	0	0	--	--	--
1959-60	0	0	0	--	--	--
1960-61	728	534	-50	4.85	3.56	-0.33
1961-62	713	498	-125	4.46	3.12	-0.78
1962-63	993	748	-113	5.81	4.37	-0.66
1963-64	1219	941	-188	6.20	4.79	-0.95
1964-65	1345	1028	-274	5.84	4.46	-1.19
1965-66	1342	971	-320	5.57	4.03	-1.33
1966-67	2060	1597	-229	7.45	5.77	-0.83
1967-68	1593	1091	-104	4.93	3.38	-0.32
1968-69	1102	574	-81	3.31	1.73	-0.24
1969-70	1076	511	-125	2.92	1.39	-0.34
1970-71	1409	803	-163	3.08	1.76	-0.36
1971-72	1727	1056	100	3.53	2.16	0.20
1972-73	2179	1403	15	4.04	2.60	0.03
1973-74	1733	851	-237	2.64	1.30	-0.36
1974-75	2302	1301	-765	2.97	1.68	-0.99
1975-76	3029	1802	-886	3.64	2.16	-1.06
1976-77	3802	2314	-298	4.24	2.58	-0.33

Annexure 13 (Contd...)

Deficit (Centre)

Year	Fiscal Deficit	Primary Deficit	Revenue Deficit	Fiscal Deficit	Primary Deficit	Revenue Deficit
	Absolute figures (in Rs. Crore)			as per cent of GDP		
1977-78	3680	2034	-430	3.62	2.00	-0.42
1978-79	5710	3726	-292	5.18	3.38	-0.27
1979-80	6392	4100	694	5.29	3.39	0.57
1980-81	8299	5695	2037	5.77	3.96	1.42
1981-82	8666	5471	392	5.14	3.24	0.23
1982-83	10627	6689	1308	5.64	3.55	0.69
1983-84	13030	8235	2540	5.94	3.75	1.16
1984-85	17416	11442	4225	7.09	4.66	1.72
1985-86	21858	14346	5889	7.86	5.16	2.12
1986-87	26342	17096	7777	8.47	5.49	2.50
1987-88	27044	15793	9137	7.63	4.46	2.58
1988-89	30923	16645	10515	7.34	3.95	2.49
1989-90	35632	17875	11914	7.33	3.68	2.45
1990-91	44632	23134	18562	7.85	4.07	3.26
1991-92	36325	9729	16261	5.56	1.49	2.49
1992-93	40173	9098	18574	5.37	1.22	2.48
1993-94	60257	23516	32716	7.01	2.74	3.81
1994-95	57703	13644	31029	5.70	1.35	3.06
1995-96	60243	10198	29731	5.07	0.86	2.50
1996-97	66733	7255	32654	4.88	0.53	2.39
1997-98	88937	23300	46449	5.84	1.53	3.05
1998-99	113349	35467	66976	6.51	2.04	3.85
1999-00	104717	14468	67596	5.43	0.75	3.50
2000-01 RE	111972	11305	77369	5.36	0.54	3.71

Source: 1960-61 to 1969-70 : 'India Database', H.L. Chandhok and The Policy Group.
1970/71 to 1999-2001 : Economic Survey, 2001-02.

Note: Fiscal deficit = Total expenditure - revenue receipts.
Primary deficit = Fiscal deficit - interest payments

Annexure 14

Consolidated Deficits of Central and State Governments

(As per cent of GDP)

	Fiscal Deficit	Primary Deficit	Revenue Deficit
1980-81	7.5	5.4	0.4
1981-82	6.3	4.1	-0.6
1982-83	5.9	3.4	0.2
1983-84	7.3	4.8	1.1
1984-85	9.0	6.2	2.1
1985-86	8.0	4.9	1.9
1986-87	9.9	6.5	2.4
1987-88	9.2	5.5	2.9
1988-89	8.5	4.6	2.9
1989-90	8.9	4.6	3.3
1990-91	9.4	5.0	4.2
1991-92	7.0	2.3	3.4
1992-93	7.0	2.1	3.2
1993-94	8.3	3.3	4.3
1994-95	7.1	1.9	3.7
1995-96	6.5	1.6	3.2
1996-97	6.4	1.3	3.6
1997-98	7.3	2.2	4.1
1998-99	9.0	3.7	6.3
1999-00	9.5	3.9	6.3
2000-01	9.7	3.6	6.3

Source: Reserve Bank of India, Annual Reports

Annexure 15

Balance of Payments
(Rs. Crore)

Year	Exports f.o.b.	Imports c.i.f.	Trade Balance	Invisibles, net	Current Account	Exchange Rate*
1950-51	647	650	-3	42	39	--
1951-52	730	964	-234	71	-163	--
1952-53	602	633	-31	91	60	--
1953-54	540	592	-52	100	48	--
1954-55	597	690	-93	99	6	--
1955-56	640	773	-133	140	7	--
1956-57	635	1102	-467	154	-313	--
1957-58	669	1233	-564	133	-431	--
1958-59	576	1029	-453	126	-327	--
1959-60	633	932	-299	113	-186	--
1960-61	631	1106	-475	83	-392	--
1961-62	668	1006	-338	31	-307	--
1962-63	681	1097	-416	62	-354	--
1963-64	802	1245	-443	94	-349	--
1964-65	801	1421	-620	152	-468	--
1965-66	785	1368	-583	73	-510	--
1966-67	1087	1991	-904	61	-843	--
1967-68	1260	2062	-802	-5	-807	--
1968-69	1367	1792	-425	15	-410	--
1969-70	1405	1576	-171	-63	-234	--
1970-71	1418	1826	-408	-37	-445	7.6
1971-72	1581	2055	-475	-24	-499	7.5
1972-73	1994	2161	-168	-144	-312	7.7
1973-74	2357	2867	-510	1646	1135	7.8
1974-75	3195	4482	-1287	331	-956	7.9
1975-76	4180	5362	-1183	1005	-178	8.7

Annexure 15 (Contd...)

Balance of Payments
(Rs. Crore)

Year	Exports f.o.b.	Imports c.i.f.	Trade Balance	Invisibles, net	Current Account	Exchange Rate*
1976-77	5140	5450	-310	1204	894	9.0
1977-78	5440	6038	-597	1722	1124	8.6
1978-79	5594	7806	-2212	1974	-238	8.2
1979-80	6313	9753	-3440	2887	-553	8.1
1980-81	6666	12877	-6211	4000	-2214	7.9
1981-82	7766	14260	-6494	3656	-2839	9.0
1982-83	9137	15857	-6719	3438	-3280	9.7
1983-84	10169	17093	-6925	3610	-3316	10.3
1984-85	11959	18680	-6721	3850	-2873	11.9
1985-86	11578	21164	-9586	3630	-5956	12.2
1986-87	13315	22669	-9354	3524	-5830	12.8
1987-88	16396	25693	-9296	3006	-6293	13.0
1988-89	20647	34202	-13556	1976	-11580	14.5
1989-90	28229	40642	-12413	1026	-11389	16.6
1990-91	33153	50086	-16934	-433	-17367	17.9
1991-92	44923	51417	-6494	4259	-2235	24.5
1992-93	54761	72000	-17239	4475	-12764	30.6
1993-94	71146	83869	-12723	9089	-3634	31.4
1994-95	84329	112749	-28420	17835	-10585	31.4
1995-96	108481	146542	-38061	18415	-19646	33.4
1996-97	121193	173754	-52561	36279	-16283	35.5
1997-98	132703	190508	-57805	36922	-20883	37.2
1998-99	144436	199914	-55478	38689	-16789	42.1
1999-00	162753	240112	-77359	57028	-20331	43.3
2000-01	205287	270663	-65376	53945	-11431	45.7

Source: RBI, Handbook of Statistics of Indian Economy, 2001.

Annexure 16

Growth in Production and Yield of Foodgrains

	Rice		Wheat		Foodgrains	
	Production	Yield	Production	Yield	Production	Yield
Year	Million Tonnes	Kg./Hec.	Million Tonnes	Kg./Hec.	Million Tonnes	Kg./Hec.
1950-51	20.58	668	6.46	663	50.82	522
1951-52	21.3	714	6.18	653	51.99	536
1952-53	22.9	764	7.5	763	59.2	580
1953-54	28.21	902	8.02	750	69.82	640
1954-55	25.22	820	9.04	803	68.03	631
1955-56	27.56	874	8.76	708	66.85	605
1956-57	29.04	900	9.4	695	69.86	629
1957-58	25.53	790	7.99	682	64.31	587
1958-59	30.85	930	9.96	789	77.14	672
1959-60	31.68	937	10.32	772	76.67	662
1960-61	34.58	1013	11	851	82.02	710
1961-62	35.66	1028	12.07	890	82.71	706
1962-63	33.21	931	10.78	793	80.15	680
1963-64	37	1033	9.85	730	80.64	687
1964-65	39.31	1078	12.26	913	89.36	757
1965-66	30.59	862	10.4	827	72.35	629
1966-67	30.44	863	11.39	887	74.23	644
1967-68	37.61	1032	16.54	1103	95.05	783
1968-69	39.76	1076	18.65	1169	94.01	781
1969-70	40.43	1073	20.09	1209	99.5	805
1970-71	42.22	1123	23.83	1307	108.42	872
1971-72	43.07	1141	26.41	1380	105.17	858
1972-73	39.24	1070	24.74	1271	97.03	813
1973-74	44.05	1151	21.78	1172	104.67	827
1974-75	39.58	1045	24.1	1338	99.83	824

Annexure 16 (Contd...)
Growth in Production and Yield of Foodgrains

	Rice		Wheat		Foodgrains	
	Production	Yield	Production	Yield	Production	Yield
Year	Million Tonnes	Kg./Hec.	Million Tonnes	Kg./Hec.	Million Tonnes	Kg./Hec.
1975-76	48.74	1235	28.84	1410	121.03	944
1976-77	41.92	1088	29.01	1387	111.17	894
1977-78	52.67	1308	31.75	1480	126.41	991
1978-79	53.77	1328	35.51	1568	131.9	1022
1979-80	42.33	1074	31.83	1436	109.7	876
1980-81	53.63	1336	36.31	1630	129.59	1023
1981-82	53.25	1308	37.45	1691	133.3	1032
1982-83	47.12	1231	42.79	1816	129.52	1035
1983-84	60.1	1457	45.48	1843	152.37	1162
1984-85	58.34	1417	44.07	1870	145.54	1149
1985-86	63.83	1552	47.05	2046	150.44	1175
1986-87	60.56	1471	44.32	1916	143.42	1128
1987-88	56.86	1465	46.17	2002	140.35	1173
1988-89	70.49	1689	54.11	2244	169.92	1331
1989-90	73.57	1745	49.85	2121	171.04	1349
1990-91	74.29	1740	55.14	2281	176.39	1380
1991-92	74.68	1751	55.69	2394	168.38	1382
1992-93	72.86	1744	57.21	2327	179.48	1457
1993-94	80.3	1888	59.84	2380	184.26	1501
1994-95	81.81	1911	65.77	2559	191.5	1546
1995-96	76.98	1797	62.1	2483	180.42	1491
1996-97	81.74	1882	69.35	2679	199.44	1614
1997-98	82.53	1900	66.35	2485	192.26	1552
1998-99	85.99	1928	70.78	2583	203.61	1627
1999-00	88.55	1985	70.1	2621	208.87	1697

Source: Statistics at a Glance, Ministry of Agriculture, Government of India, 2001.

Annexure 17

Growth Rates of Monetary Aggregates - Selected Items (per cent)

	Reserve Money	Narrow Money	Broad Money	Net RBI Credit to Central Govt.	RBI Credit to Commercial sector	Net Foreign Exchange Assets of the banking sector
1951-52	-10.1	--	--	--	--	--
1952-53	-1.7	-2.6	-0.7	--	--	--
1953-54	5.0	3.6	3.7	--	--	--
1954-55	6.8	6.9	8.1	--	--	--
1955-56	17.7	13.4	12.8	--	--	--
1956-57	2.6	5.6	6.9	--	--	--
1957-58	3.2	3.0	10.3	--	--	--
1958-59	7.2	4.7	9.9	--	--	--
1959-60	8.6	7.7	11.7	--	--	--
1960-61	8.2	5.5	2.1	--	--	--
1961-62	5.0	6.2	7.1	--	--	--
1962-63	8.2	8.7	7.3	--	--	--
1963-64	9.8	13.4	10.6	--	--	--
1964-65	5.8	8.7	9.2	--	--	--
1965-66	9.5	11.0	11.6	--	--	--
1966-67	6.4	9.3	11.1	--	--	--
1967-68	5.9	8.1	9.4	--	--	--
1968-69	10.0	8.0	11.3	--	--	--
1969-70	13.3	13.1	16.0	--	--	--
1970-71	9.6	12.0	13.7	--	--	--
1971-72	11.6	12.9	15.2	15.9	75.8	12.3
1972-73	12.1	16.5	18.3	28.5	14.7	-5.8
1973-74	20.6	15.5	17.4	11.6	110.5	13.7
1974-75	4.6	6.9	10.9	8.7	18.4	-37.6
1975-76	2.7	11.3	15	-4.4	10.7	126.8
1976-77	25.5	20.3	23.6	12.9	22.3	169.3
1977-78	11.7	-10.2	18.4	-3.6	6.2	75.8

Annexture 17 (Contd…)

Growth Rates of Monetary Aggregates - Selected Items (per cent)

	Reserve Money	Narrow Money	Broad Money	Net RBI Credit to Central Govt.	RBI Credit to Commercial sector	Net Foreign Exchange Assets of the banking sector
1978-79	28.7	20.2	21.9	31.8	31	20.1
1979-80	17.7	15.7	17.7	29.2	23.7	0.1
1980-81	17.4	17.1	18.1	30.3	10	-11.5
1981-82	7.9	6.5	12.5	21	20.2	-41.5
1982-83	10.1	14.4	16.6	18.2	-5.8	-34
1983-84	25.5	17	18.2	18.1	23.6	-10
1984-85	21.5	19.5	19	23.5	15.6	90.4
1985-86	8.4	10.5	16	19.4	10.9	23.5
1986-87	17.4	16.8	18.6	18.6	11.2	24.4
1987-88	19.4	13.7	16	14.5	11.7	17.8
1988-89	17.7	14.1	17.8	12.6	45.8	19.9
1989-90	23.2	21.4	19.4	23.7	14.9	0.3
1990-91	13.1	14.6	15.1	20.5	-0.1	55.2
1991-92	13.4	23.2	19.3	6.3	14.5	100.6
1992-93	11.3	8.4	14.8	4.6	-14.3	15.2
1993-94	25.2	21.5	18.4	0.3	3.6	123.4
1994-95	22.1	27.5	22.4	2.2	2.3	44.7
1995-96	14.9	11.7	13.6	20.1	4	3.9
1996-97	2.8	12	16.2	1.6	-8.9	28.4
1997-98	13.2	11.3	18	10.7	31	30.9
1998-99	14.5	15.4	19.4	8.8	49.4	28.8
1999-00 P	8.2	10.6	14.6	-3.8	24.9	15.6
2000-2001P	8.1	11.1	16.7	4.8	-13	21.5

Source: 1960-61 to 1969-70 : 'India Database', H.L. Chandhok and The Policy Group.
1970/71 to 1999-2000 : RBI, Handbook of Statistics of Indian Economy, 2001.

Annexure 18

Inflation

Year	WPI (AC)	WPI (PA)	WPI (FPLL)	WPI (MP)	CPI (IW)
	Base 1970/71=100				
1951-52	6.1	6.1	3.3	7.8	--
1952-53	-12.5	-12.5	6.7	-9.3	--
1953-54	4.6	4.8	-0.4	4.9	--
1954-55	-6.7	-6.9	0.0	-3.3	--
1955-56	-5.2	-5.1	-2.4	-5.1	--
1956-57	13.8	14.0	7.3	11.6	--
1957-58	2.9	3.0	8.9	2.6	--
1958-59	4.2	4.0	2.4	1.8	--
1959-60	3.7	3.8	1.0	5.2	--
1960-61	6.7	6.6	2.7	8.2	--
1961-62	0.2	0.2	1.8	1.2	4.0
1962-63	4.1	3.8	3.4	4.3	3.8
1963-64	6.2	6.3	14.4	5.7	4.6
1964-65	11.0	10.8	1.6	5.4	14.2
1965-66	7.6	7.7	3.1	6.3	7.8
1966-67	13.9	13.9	7.8	12.1	12.9
1967-68	11.6	11.6	5.8	11.2	11.5
1968-69	-1.1	-1.2	4.8	0.1	-0.6
1969-70	3.7	3.8	4.2	0.3	1.7
1970-71	5.6	5.5	4.1	7.4	5.1
1971-72	5.6	0.9	5.9	9.5	3.2
1972-73	10.0	9.7	4.0	11.3	7.8
1973-74	20.2	28.1	18.7	14.4	20.8
1974-75	25.2	25.2	45.4	21.0	26.8
1975-76	-1.1	-6.6	15.4	1.4	-1.3
1976-77	2.1	0.8	5.2	2.3	-3.8
1977-78	5.2	9.9	1.5	2.3	7.6
1978-79	0.0	-1.3	4.4	0.1	2.2

Annexure 18 (Contd...)

Inflation

Year	WPI (AC)	WPI (PA)	WPI (FPLL)	WPI (MP)	CPI (IW)
	Base 1970/71=100				
1979-80	17.1	13.7	15.6	20.1	8.8
1980-81	18.2	15.1	25.3	19.4	11.4
1981-82	9.3	11.3	20.6	5.2	12.5
1982-83	4.9	6.7	6.5	3.5	7.8
1983-84	7.5	10.8	5.6	6.1	12.6
1984-85	6.5	6.2	4.3	7.0	6.3
1985-86	4.4	0.2	10.7	6.0	6.8
1986-87	5.8	9.1	6.8	3.8	8.7
1987-88	8.1	11.3	3.4	7.2	8.8
1988-89	7.5	4.9	5.5	9.4	9.4
1989-90	7.5	2.2	3.6	11.3	6.1
1990-91	10.3	13.0	12.3	8.4	11.6
1991-92	13.7	18.1	13.2	11.3	13.5
1992-93	10.1	7.4	14.1	10.9	9.6
1993-94	8.4	6.9	15.5	7.8	7.5
1994-95	12.5	15.7	8.9	12.2	10.1
1995-96	8.1	8.3	5.1	8.6	10.2
1996-97	4.6	8.4	10.4	2.1	9.4
1997-98	4.4	2.7	13.8	2.9	6.8
1998-99	5.9	12.0	3.2	4.4	13.1
1999-00	3.3	1.1	9.0	2.7	3.4
2000-01	7.2	2.9	28.5	3.3	3.8

Source: 1960-61 to 1969-70 : 'India Database', H.L. Chandhok and The Policy Group.
1970/71 to 1999-2000 : RBI, Handbook of Statistics of Indian Economy, 2001.