

CHAPTER 2

MACROECONOMIC DIMENSIONS

2.1 The Tenth Five Year Plan aims at achieving an average growth rate of the Gross Domestic Product (GDP) of 8 per cent per annum over the period 2002 to 2007. It also seeks to create the conditions for a further acceleration in the growth rate over the Eleventh Plan period (2007-12) in order to achieve a doubling of per capita income of the country over the next ten years. These are no doubt ambitious targets, but the Tenth Plan is predicated on the belief that the country has the potential to meet these expectations, provided that the appropriate policy measures and institutional changes are implemented expeditiously and effectively.

2.2 Economic growth should not be seen as an end in itself. Its true importance lies in the central role that it plays in realising the core objectives of all planning and public policy, such as providing adequate and decent work opportunities, eradicating poverty, reducing disparities and, in general, improving the quality of life of the people. Therefore, the growth strategy needs to embed these concerns and wherever trade-offs are involved, to explicitly indicate the preferred choice. Seen in this light, the growth rate is both a target and an instrument. However, it must also be recognised that the growth rate of the economy is probably the most important summary measure of the degree of success of the development strategy and macroeconomic management, and of the extent to which the recommended measures have been implemented.

2.3 The purpose of this chapter is to indicate the targets that will have to be set for the various macroeconomic variables and parameters which would be consistent with the overall growth target. The strategies for attaining these macroeconomic targets and their implications will also be discussed in some detail.

THE CONTEXT AND THE STRATEGIC APPROACH

2.4 The 8 per cent average growth target set for the Tenth Plan period appears ambitious when juxtaposed with the growth performance of the economy in the very recent past. However, a more optimistic picture emerges if a longer historical context is considered. Table 2.1 gives the growth performance of the Indian economy, relative to the targets set in the various Plans right since the inception of planning in India. As can be seen, the economy has performed better than the target in five of the nine previous plans, and even in the Second Plan, the gap was not large. As far as the Third and Fourth Plans were concerned, the shortfalls were largely due to severe exogenous shocks that could not possibly have been predicted. The Third Plan witnessed the drought years of 1965 and 1966, which were possibly the worst droughts in recent history, and also the Indo-Pakistan War of 1965. The Fourth Plan experienced three consecutive years of drought (1971-1973) and the first oil-price shock of 1973. More importantly, it may be noted that since the Fourth Plan, the growth rate of the economy had improved steadily until the Ninth Plan, when it received a set-back. Thus, there is evidence that the track record of planning in India is reasonably good, and indeed tends to err on the side of caution. Moreover, the evidence also suggests that there has been a steady improvement in the growth potential of the economy, and no reason to believe that this trend has actually reversed of late.

2.5 Nevertheless, the set-back suffered during the Ninth Plan period needs to be addressed right at the outset. The growth rates of GDP and its broad constituent sectors during the Eighth and the Ninth Plans are presented in Table 2.2. It may be seen from the table that the rate of growth of GDP during

Table 2.1:
Growth Performance in The Five Year Plans

(per cent per annum)

		Target	Actual
1	First Plan (1951-56)	2.1	3.60
2	Second plan (1956-61)	4.5	4.21
3	Third Plan (1961-66)	5.6	2.72
4	Fourth plan (1969-74)	5.7	2.05
5	Fifth Plan (1974-79)	4.4	4.83
6	Sixth Plan (1980-85)	5.2	5.54
7	Seventh Plan (1985-90)	5.0	6.02
8	Eighth Plan (1992-97)	5.6	6.68
9	Ninth Plan (1997-02)	6.5	5.35

Note : The growth targets for the first three plans were set with respect to National Income. In the Fourth Plan it was Net Domestic Product. In all Plans thereafter it has been Gross Domestic Product at factor cost.

the Eighth Plan was close to 6.7 per cent per annum, which has dropped to 5.3 per cent during the Ninth Plan, as per the latest estimates available from the Central Statistical Organisation (CSO). This was as against the target of 6.5 per cent for the Ninth Plan period. The causes of this decline can be traced through the sectoral structure of the growth rates.

Table 2.2
Recent Growth of the Indian Economy

(Per cent per annum)

	Eighth Plan	Ninth Plan
Agriculture	4.69	2.06
Manufacturing	7.58	4.51
Services	7.54	7.78
Total	6.68	5.35

2.6 During the Ninth Plan, the rate of growth has declined particularly in the agriculture and manufacturing sectors, as compared to the Eighth Plan; whereas in the services sector there has been marginal increase in the growth rate. Insofar as agriculture is concerned, three of the five years of the Ninth Plan witnessed poor performance as a result of weather-related shocks. In this respect, the Eighth Plan had been more fortunate. Following the Asian crisis in 1997 and subsequent reduction in the growth rates in the other parts of the world,

there was a slow-down in the Indian economy as well. The slow-down in the world economy also affected the level of exports. This, coupled with lower than expected public investment as well as the relatively poor performance in Agriculture sector in three of the five years of the Ninth Plan, led to a reduced demand for industrial goods and consequent reduction in the growth rate in the industrial sector. Some other developments, e.g. cyclone in Orissa, earthquake in Gujarat, Kargil war, etc., also resulted in diversion of resources from investment and consequent decline in the growth rates.

2.7 The rate of investment in the economy during the Ninth Plan was 24.2 per cent of GDP at market prices. The investment rate during different years of the Ninth Plan, as can be seen from Table 2.3, was in the range of 23.4 per cent and 24.6 per cent. Public investment accounted for nearly 29.5 per cent of total investment, the balance 70.5 per cent being accounted for by private investment.

Table 2.3
Total and Public Investment in the Ninth Plan

	Total Investment (% of GDPmp)	Public Investment (% of Total Investment)
1997-98	24.5	27.7
1998-99	23.4	30.4
1999-00	24.6	29.2
2000-01	24.3	30.0
2001-02	24.4	30.0
IX Plan	24.2	29.5

2.8 The rate of savings in the economy during the Ninth Plan works out to 23.3 per cent of GDP. The bulk of the savings was accounted for by the private sector. In fact, there were dissavings in the public sector to the tune of (-)0.8 per cent. Within the private sector, the household sector and private corporate sector accounted for 80 per cent and 20 per cent of the savings respectively. On the other hand, within the public sector, the savings of the public sector undertakings (PSUs) were 3.5 per cent of GDP while government savings were (-) 4.3 per cent of GDP. The excess of investment over savings resulted in a current account deficit of 0.9 per cent for the Ninth Plan. This deficit was met from external sources.

2.9 For the Ninth Plan as a whole, gross investment was targeted at Rs. 2,171 thousand crore (at 1996-97 prices) and public sector investment was targeted at Rs. 726 thousand crore. It is estimated that for the Ninth Plan, while the actual total investment was Rs. 2,050 crore, i.e. a shortfall of around 5.5 per cent, the private sector exceeded the targeted investment by 2.7 per cent, but public investment fell short of the targeted investment by nearly 22 per cent. Part of the investment requirement of the public sector was to be met from own savings, which were targeted at Rs. 127 thousand crore, while the rest of the investment requirement was to be met from borrowings. However, actual public savings missed the target by a substantial margin. Instead of positive savings, the public sector ended up with dissavings or negative savings to the tune of nearly Rs. 67 thousand crore during the Ninth Plan, the indications of which were mentioned in the Mid-term Appraisal of the Ninth Plan. The fiscal position of both Central and State Governments worsened on account of the lower than expected generation of internal resources by the public sector as well as a decline in the tax-GDP ratio. With very little scope for reducing government expenditure, there was an increase in government borrowings. The tax-GDP ratio declined from around 14.7 per cent in the Eighth Five Year Plan to 14.2 per cent in the first four years of the Ninth Plan. On the other hand, the government expenditure to GDP ratio was 23.5 per cent in 1996-97. Even for the Eighth Plan as a whole, it was 24.8 per cent. It was expected to be 26.7 per cent during the Ninth plan, with 28.5 per cent projected for the year 2001-02. The combined fiscal deficit of Central and State Governments increased from 6.3 per cent of the GDPmp in 1996-97 to 8.7 per cent of GDPmp in 2001-02 (as per the Budget Estimates).

2.10 It may also be noted that while public expenditure (including larger burden of subsidies) as a ratio of GDP has increased, there has been a cutback in public capital formation, especially in infrastructure, in order to control the fiscal deficit. The presence of growing food-stocks along with rising foreign exchange reserves also point towards a demand deficiency in the system. Furthermore, there has been a decline in bank credit to the commercial sector and banks have been holding

SLR securities in excess of the stipulated minimum requirement. In addition, there has been a failure of the capital market, more so in the latter half of 1990s, to provide finance for domestic capital formation.

2.11 It is thus clear that in the Ninth Plan the economy achieved a much lower growth rate of 5.35 per cent despite higher levels of investment, i.e. 24.2 per cent, as compared to the Eighth Plan, when the investment ratio and the growth rate were 22.4 per cent and 6.5 per cent respectively. This implied that the incremental capital output ratios (ICOR) for the Eighth and Ninth Plans were 3.43 and 4.53 respectively. This increase in ICOR is not necessarily a reflection of the greater inefficiency in the economy, but could be on account of a slow-down in the demand, thus resulting in the existence of excess capacity in the economy.

2.12 The deficit in demand was seen not only in the domestic sector but also in the performance of the external sector. It may be noted that during the Ninth Plan, exports had increased by 5.6 per cent as against the target of 11.8 per cent. On the other hand, imports had increased by 4.1 per cent as against the target of 10.8 per cent. The trade deficit for the Plan as a whole was US\$ 74 billion, or an average annual trade deficit of around US\$ 15 billion. However, despite trade deficits of such magnitude, the foreign exchange reserves increased from US\$ 26.4 billion in 1996-97 (i.e. the base year of the Ninth Plan) to US\$ 54.2 billion in 2001-02, i.e. the base year of the Tenth Plan. This has been on account of large net inflow of invisibles and foreign investment. The Ninth Plan ended with a surplus in the current account, to the tune of nearly US\$ 1.35 billion, or around 0.3 per cent of the GDPmp.

2.13 The Tenth Plan has been prepared against the backdrop of the performance of the Indian economy during the Eighth and Ninth Plan periods, during which many of the commonly held beliefs regarding the potentialities and constraints governing the operation of the economic system have been brought into question. Although much of this has been covered in some detail in the Ninth Five Year Plan document and the Mid-term Appraisal of the Ninth Plan, it is nevertheless useful

to briefly outline a few of the developments that have taken place in the Indian economy during the past decade in order to lay the groundwork for the macroeconomic strategy being proposed for the Tenth Plan and beyond. There are indeed four major features of the experience of the immediate past, which need to be highlighted.

2.14 First and foremost, there is now clear evidence that the growth rate of the Indian economy may no longer be constrained by the availability of savings or, more generally, investible resources. All previous Plans have been based on the implicit, and often explicit, assumption of a binding savings constraints. In other words, it has been assumed that the demand for investible resources always exceeds the supply, which implies a belief that the total level of investment in the economy is determined uniquely by the availability of savings. This assumption was questioned for the first time in the Ninth Five Year Plan, where it was pointed out that there was a strong likelihood that investment demand in the country may not be able to fully absorb the resources available. For this reason it was proposed that public investment may have to be increased sufficiently to make up for this lack of private investment demand, if growth opportunities were not to be missed. Subsequent experience during the course of the Ninth Plan appears to have borne out this contention.

2.15 The clearest evidence that savings or investible resources have not been the primary limitation on investment in the country is given by the persistent difference between the external capital inflows and the current account deficit (CAD) that has existed through much of the 1990s. Theoretically, the CAD represents the excess of total investment in the country over domestic savings, while external capital flows represent the inflow of potential savings from abroad. The excess of the latter over the former is therefore an indication of the failure of investment demand to absorb foreign savings. The position in this regard is shown in Table 2.4. It can be seen that, with the exception of a few years, the economy has been unable to absorb the external resources that, have become available.

2.16 Of course, not all external capital inflows can be treated as potential savings. There is sometimes need to borrow abroad for balance of payments reasons. Normally, therefore, an assessment of excess savings in an economy is measured by the excess of voluntary capital inflows over the CAD. Such voluntary inflows would exclude extraordinary external finance (such as from the IMF) and much of government borrowings. In the Indian context, however, such a separation is not easy to carry out. On the one hand, government borrowings from multilateral

Table 2.4
Absorption of External Resources

(US\$ billion)

	Current Account Balance	Capital Account(Net)	Foreign Investment	Reserves to Imports Ratio (Months)
1990-91	-9680	7188	103	2.51
1991-92	-1178	3777	133	5.25
1992-93	-3526	2936	557	4.85
1993-94	-1158	9695	4235	8.64
1994-95	-3369	9156	4807	8.42
1995-96	-5910	4689	4805	5.96
1996-97	-4619	11412	6153	6.48
1997-98	-5500	10011	5390	6.88
1998-99	-4038	8260	2312	8.20
1999-2000	-4698	11100	5117	8.24
2000-01	-2579	8435	4588	8.56
2001-02	1351	10406	5286	11.27

aid agencies, such as the World Bank and the Asian Development Bank, or bilateral donors are almost always determined ex-ante and therefore cannot be treated as involuntary or as being for balance of payments purposes. On the other hand, since the Indian government does not directly engage in sovereign external debt, some part of its extraordinary financing can be, and sometimes is, carried out through public sector entities, particularly the banks. During the 1990s, such financing was carried out in the early years, in order to restore the heavily depleted foreign exchange reserves after the 1991 crisis. In addition, the Resurgent India Bonds (RIBs) of 1997 and Millennium Deposit Bonds (MDBs) of 1999 could also possibly be classified in this category. Despite these complexities, it is perfectly clear from the table that since 1993, by which time the level of foreign exchange reserves was adequate, 'voluntary' external inflows have consistently exceeded the CAD in all years except one (1995-96), and often by a large magnitude. To further underscore this point, it may be noted that foreign investment flows alone exceeded the CAD in six of the nine years. Thus, it can be unequivocally stated that during the Eighth and the Ninth Plan periods, availability of investible resources was not the primary constraint to growth and investment in India, and that the reasons would have to be sought elsewhere.

2.17 The literature offers a number of alternative constraints to growth and investment. In brief, there are six : (a) the foreign exchange constraint, or the adequate availability of foreign exchange for ensuring balance of payments (BOP) sustainability ; (b) the agricultural constraint, which arises from the insufficiency of 'wage goods', on one hand, and the lack of a widely dispersed distribution of purchasing power, on the other; (c) the fiscal constraint, or the availability of sufficient resources with the government to meet the development objectives in a fiscally sustainable manner; (d) the infrastructural constraint, which arises from the lack of adequate infrastructure for sustaining a high level of capacity utilisation in the rest of the economy; (e) the financial intermediation constraint, where weaknesses in the financial system prevents savings from being translated

into investment; and of course (f) the general aggregate demand constraint in which there is a basic imbalance between the productive capacity of the economy and the level of aggregate demand.

2.18 Although each of these constraints is conceptually distinct, it is difficult to identify what exactly is the binding constraint with any degree of quantitative precision on the basis of ex-post data. The reason for this is that most of these constraints eventually manifest themselves either as an investment rate lower than the total savings rate (inclusive of foreign savings) or a rising rate of inflation. Nevertheless, it is important to identify at least which are the proximate constraints, since it has a crucial bearing on the macroeconomic strategy and conduct of policy. From the recent economic experience it is evident that neither the foreign exchange constraint nor the agricultural constraint provides an adequate explanation, since both foreign exchange reserves and food-stocks have been rising steadily and the rate of inflation has come down significantly. All the other four are, however, candidates, and none can be excluded on a-priori grounds. Therefore, the strategy has to address the likelihood of each of them being a contributory factor to the lower than potential growth performance.

2.19 The second issue that needs to be highlighted is the fact that the growth rate of the economy is no longer being driven entirely by the level of investment activity in the country. The most compelling proof of this assertion is available from the observed growth rates during the Eighth and Ninth Plan periods. A statement of the year-wise investment rates and the associated rates of private savings is given in Table 2.5. It may be seen that the real investment rate has been consistently higher during the Ninth Plan period as compared to the Eighth, with the exception of one year (1995-96). On the average, the Ninth Plan recorded a real investment rate of 26.3 per cent of GDP as compared to 24.9 per cent during the Eighth Plan. Nevertheless, the rate of growth during the Eighth Plan was significantly higher at 6.7 per cent per annum on the average as against 5.3 per cent during the Ninth Plan.

Table 2.5
Investment and Private Savings Ratios

(as % of GDPmp)

Years	Investment Real*	Ratios Nominal	Private savings
1991-92	22.0	22.6	20.1
1992-93	22.9	23.6	20.2
1993-94	23.1	23.1	21.9
1994-95	26.4	26.0	23.2
1995-96	27.2	26.8	23.1
1996-97	25.1	24.5	21.5
1997-98	26.4	25.0	22.0
1998-99	25.4	23.0	23.0
1999-2000	26.7	24.3	24.1
2000-01	26.3	24.0	25.0
2001-02	26.4	24.4	25.2
Eighth Plan (1992-97)	24.9	24.8	22.0
Ninth Plan (1997-02)	26.3	24.3	23.6

* at 1993-94 prices

2.20 Although it is tempting to infer a dramatic fall in the efficiency of capital from these figures (Table 2.5), the real explanation lies elsewhere. This is the third feature which needs to be noted. It may be seen from the second column of the table that the investment ratios, when measured in nominal terms, actually decline during the Ninth Five Year Plan. A further point of interest that should be noted is that in four of the five years of the Ninth Plan period, the nominal investment rate has been at or below the private savings rate. This has never happened before in India. The inference that can be drawn from the differential behaviour of the investment rate when measured in real terms and in nominal terms is that while the pace of capacity creation in the economy actually rose during the Ninth Plan period, the role of investment as a component of aggregate demand actually declined. As a consequence, the evidence suggests that the Ninth Plan period was characterised by a steady decline in the levels of capacity utilisation. This conclusion is borne out by exercises carried out in the Planning Commission which indicate that the capacity utilisation in a number of sectors did decline in the Ninth Plan period, especially in manufacturing in which the assessed level of excess capacity at the end of the Ninth Plan was about 21 per cent of the actual production.

2.21 The fourth feature of the change that has taken place in the Indian economy over the years and which needs to be factored into the growth strategy is the role of agriculture. In the past, when the share of agriculture in the Indian economy was high, the growth rate of GDP was strongly influenced by the growth of agriculture through its direct contribution to the GDP. Over the years, however, the share of agriculture in GDP has fallen significantly and, as a result, the aggregate GDP has become relatively less sensitive to fluctuations in agricultural performance. This factor is of course well recognised, but the role of agriculture, and particularly agricultural incomes, in influencing GDP growth indirectly through the demand side is less well understood. Table 2.6 presents the share of agriculture in GDP and the share of non-food consumption in rural expenditures over the last three decades. As can be seen, while the share of agriculture in GDP has fallen from 44 per cent in 1973-74 to 27 per cent in 1999-2000, non-food expenditure has risen from 25 per cent in 1973-74 to nearly 41 per cent in 1999-2000. In other words, a 1 per cent change in the growth rate of agriculture would have affected the GDP growth rate by 0.44 per cent in 1973-74 but only by 0.27 per cent in 1999-2000. On the other hand, the indirect effects of change in agricultural growth through the demand for non-agricultural goods and services has actually gone up from a little under 12 per cent of total aggregate demand in 1973-74 to nearly 14 per cent in 1999-2000. In the future, as average agricultural incomes increase, this indirect effect of agricultural incomes on non-agricultural growth will become progressively stronger as the bulk of the incremental income in rural areas will be spent on non-agricultural goods and services and not on food.

Table 2.6
Role of Agriculture in Growth

(per cent)

	Share of Agriculture in GDP	Share of Non-food in Rural Expenditures
1973-74	44.0	25.1
1983	38.7	34.4
1993-94	32.9	36.8
1999-2000	26.9	40.6

2.22 Keeping in mind these features of the Indian economy as they obtain at the end of the Ninth Plan, the growth strategy for the Tenth Plan period has to be decided. The most important feature that needs to be taken into account is the existence of large excess capacities, especially in the manufacturing sector. The existence of such unused capacity presents both an opportunity and a problem for accelerating the growth in the Tenth Plan. On the one hand, if much of these capacities can be brought into productive use, it would be possible to accelerate the rate of growth significantly without a commensurate increase in the rate of capacity creation through fresh investment. Thus, the aggregate investment rate can be significantly lower than would have been otherwise. On the other hand, the existence of large unutilised capacities is likely to curb the desire to invest by the private sector. Thus, the strategy will have to be developed in a manner in which these idle capacities are progressively brought into production during the early years of the Plan on the basis of demand generated from the non-private investment components of aggregate demand, with strong growth of private investment driving the growth process in the later years.

2.23 The other major components of aggregate demand are private consumption, public expenditure on goods and services, and exports. Of these three, the immediate prospects of export growth cannot be relied upon due to the conditions prevailing in the international economy. Although India is a small country in terms of total world trade, and therefore it is possible to increase exports through improvements in market share, the task will be a difficult one. Growth in private consumption demand has more or less kept pace with the growth rate of per capita disposable incomes, and it would not be desirable to try and push this up too aggressively since the relatively high level of savings of households will continue to be needed in the future in order to step up the rate of investment. Thus, the principal responsibility for raising the level of aggregate demand, and thereby improving utilisation of existing capacities, will rest primarily on public expenditures at least in the initial years. In doing so, however, it further needs to be recognised that different components of public expenditure have very different multiplier effects

on the rest of the economy. The strongest effect is through public investment, and the weakest through subsidies and transfers. It is, therefore, necessary to ensure that the growth in public expenditure comes about mainly through increases in public investment and not through a rise in current outlays, particularly on subsidies and other transfers.

2.24 It is estimated that the growth revival function of public investment will have to continue for at least the first two years of the Plan before private investment starts growing strongly enough to take up a major portion of the growth impetus. However, it should not be thought that public investment can be curtailed sharply thereafter. It must be remembered that private investment activity is extremely sensitive to the perceived trends in aggregate demand conditions. Since public investment is an important component of aggregate demand, abrupt reductions will inevitably lead to a loss of private investor confidence and a slow-down in the overall investment activity. Moreover, it should also be emphasised that public investment needs to be made in the infrastructure sectors in order to ensure that the availability of infrastructural facilities is commensurate with the demands of the economy. As mentioned earlier, there is evidence that the infrastructural constraint to growth is a distinct possibility and, therefore, care should be taken to relax this constraint as expeditiously as possible.

2.25 In stepping up the pace of public investment, it is necessary to take into account two important facets of the role of public investment and public borrowings on the economy. On the one hand, efforts to increase the share of public expenditure in GDP through enhanced borrowings tend to reduce private investment by pre-empting investible funds and causing what is known as 'crowding out'. On the other hand, as has been argued above, private investment can be positively influenced by public investment, both through its demand-generating role and through creation of infrastructure. Thus, under certain circumstances, public investment can actually lead to 'crowding in' of private investment. An objective appraisal of the Indian economy suggests that the danger of crowding out is practically non-existent at the present time. The excess of ex ante savings over

investment demand implies that not only will public borrowing not lead to an effective reduction in resources available to the private sector, but that it may actually be necessary to absorb the excess savings and thereby prevent the emergence of deflationary pressure. Over the longer run, however, as private investment demand begins to grow strongly, the danger of "crowding out" can come into existence unless appropriate measures are taken. It is, therefore, extremely important that the increase in public investment that is being proposed during the latter half of the Plan be financed to the extent possible through corresponding increases in public savings.

2.26 The need to maintain a relatively high level of private consumption demand for non-agricultural goods and services demands that attention be paid to the growth and stability of rural incomes. Since 65 per cent of our population lives in rural areas, the potential and prospect of sustained growth in demand through enhancement of rural incomes are substantial. Mention has already been made of the growing share of non-food consumption in rural areas, and this process needs to be encouraged. In this context it needs to be pointed out that the stability of rural incomes is just as important as its growth. High variability in agricultural production has the potential of introducing large cyclical changes in the demand for industrial products, and possibly even to a relatively slow growth in consumption due to the uncertainty associated with lifestyle changes. Therefore, an important cornerstone of the growth strategy of the Tenth Plan is the need to bring about both growth and stability in rural incomes, particularly in agriculture.

GROWTH TARGETS, INVESTMENT NEEDS AND RESOURCES

2.27 Taking into account the above factors, the macroeconomic requirements for achieving the target rate of growth have been projected on the basis of the planning model that is used for such purposes. The parametric requirements of the economy are presented in Table 2.7. As can be seen, the achievement of the Tenth Plan targets hinges critically upon an expected reduction in the incremental capital output ratio from 4.53 during the Ninth Plan to 3.58 in the Tenth Plan. Although the factors, which lead to this reduction, are discussed in more detail later, it may be mentioned at this stage that the measured ICOR was even lower during the Eighth Plan period at 3.43.

2.28 It can be seen that even with this reduction in the ICOR, the investment rate will have to be stepped up by more than 4 percentage points of GDP during the Tenth Plan period, and also conditions will have to be created for further increase of nearly 8 percentage points during the Eleventh Plan. In order to finance the increased investment requirement, the domestic savings rate is targeted to increase by 3.5 percentage points of GDP, and external savings, in the form of the current account deficit, to make up the rest. It is further expected that the rate of growth of imports will average more than 17 per cent per annum during the Tenth Plan, which arises partly out of the increased demand generated by the higher growth rate and partly from the planned reduction in the average level of tariffs. A detailed analysis of import demand and other external sector issues is provided in chapter 4.

Table 2.7
Macro Parameters for the Tenth Plan (2002-2007)

	IX Plan	X Plan	Post Plan
1 Domestic Savings Rate (% of GDPmp)	23.31	26.84	33.01
2 Current Account Deficit (% of GDPmp)	0.91	1.57	3.13
3 Investment Rate(% of GDPmp)	24.23	28.41	36.14
4 ICOR	4.53	3.58	3.84
5 GDP Growth Rate (% per annum)	5.35	7.93	9.40
6 Export Growth Rate(% per annum)	6.91	12.38	*****
7 Import Growth Rate(% per annum)	9.80	17.13	*****

Fortunately, it is expected that invisibles will continue to perform strongly and, therefore, the rate of growth of exports is determined more by supply side conditions than by the need to fulfill an exogenously set balance of payments target. Therefore, exports are expected to grow at the rate of 12.4 per cent on the basis of the projections made.

2.29 The macroeconomic aggregates arising from the Tenth Plan growth target are presented in Table 2.8. As can be seen, the size of national investment is required to rise substantially from Rs.2,507 thousand crore during the Ninth Plan to Rs. 4,082 thousand crore in the Tenth Plan at constant 2001-02 prices, i.e. by over 62 per cent. For this to be realised, investments in the economy will have to increase at an annual growth rate of slightly above 14 per cent. This is a fairly daunting task, since the long-run growth rate of investment in India has averaged around 6.5 per cent per annum. Nevertheless, there have been instances when investments have grown at over 20 per cent, and hence the task is not an impossible one. Private

consumption expenditure, which is a measure of the economic well being of the population, is expected to grow at a rate of 6.9 per cent per annum, which implies a per capita consumption growth of about 5.3 per cent per annum. At this rate, the per capita consumption level in the country will double in about 13 years.

2.30 In order to appreciate the magnitude of the efforts that will be required to attain the Tenth Plan growth target, it may be more instructive to examine the macroeconomic aggregates as percentages of GDP. This information is presented in Table 2.9. As may be seen, the average investment requirement of 28.4 per cent of GDP involves a sharp acceleration in the investment rate from 24.4 per cent in the base year to 32.3 per cent in the terminal. Of this nearly 8 percentage points increase, more than five would be in the private sector and about 2.6 in the public. In order to finance an increase in the investment rate of this magnitude, domestic savings would have to rise by about 6 percentage points and the current account deficit

Table 2.8
Macro Economic Aggregates for the Tenth Plan (2002-2007)

		(Rs crore at 2001-02 prices)			
		IX Plan	2001-02	2006-07	X Plan
1	GDP at Factor Cost	9419756	2080255	3047183	13007735
2	GDP at Market Prices	10347259	2288281	3373828	14366893
3	Gross Domestic Savings	2412189	538111	992353	3856657
	of which:				
	3a. Private	2497308	577158	922174	3793027
	3b. Public	-85119	-39047	70179	63630
4	Total Consumption	8125505	1789247	2449365	10783641
	of which:				
	4a. Private	6759161	1464086	2041209	8907184
	4b. Public	1366343	325161	408156	1876458
5	Gross Capital Formation	2506658	558684	1088506	4081670
	of which:				
	5a. Private	1767214	391079	754505	2868867
	5b. Public	739445	167605	334001	1212803
6	Public Borrowings	824563	206652	263822	1149173
7	Current Account Deficit	94470	20573	96153	225012
8	Exports	912861	213964	383600	1539347
9	Imports	1145770	285742	629917	2353568

by nearly 2 percentage points of GDP. Over the course of the Tenth Plan the size of the external sector is expected to expand substantially from under 27 per cent of GDP in 2001-02 to over 35 per cent by the end of 2006-07.

2.31 One of the most significant features of the Eighth Plan period was the sharp increase that occurred in domestic private savings. In the Seventh Plan, the private savings rate was 18 per cent, and it was expected to improve to 19.6 per cent. In actuality, however, it turned out to be around 22 per cent. This upward trend in the private savings rate continued in the Ninth Plan, albeit at a slower pace, with the average for the period being 24.1 per cent. Domestic private savings can be divided into two main components: (a) savings by household sector; and (b) savings by the private corporate sector.

2.32 It may be noted that in the classification used by the Indian statistical system, the household sector comprises not only of households in the common understanding of the term, but also of all unincorporated enterprises. Thus, the savings

behaviour of the household sector is determined both by the level and growth of personal disposable income, and by the profitability and share in GDP of unregistered enterprises. Much of the increase in the savings rate of this sector during the Eighth and Ninth Plans has been the consequence of a higher growth in disposable incomes than of GDP arising out of the steady reduction in the tax/GDP ratio. In addition, during the Ninth Plan, the share in GDP of the unincorporated sector has gone up. During the Tenth Plan period, however, fiscal imperatives demand that the tax/GDP ratio be stepped up significantly, which would tend to reduce household savings. On the other hand, the rapid increase in incomes arising from higher growth will tend to raise it. On the balance, therefore, it is expected that the household savings rate will tend to decline during the Tenth Plan period.

2.33 The gross savings of the private corporate sector primarily comprises the depreciation reserve and retained earnings of corporate entities. The savings rate of this sector, therefore, depends upon its share in GDP, its profit rate and its capital intensity. This rate has registered a steady and sustained

Table 2.9
Macro Economic Aggregates for the Tenth Plan (2002-2007)

(Percent of GDPmp)

	IX Plan	2001-02	2006-07	X Plan
1 Gross Domestic Savings of which:	23.31	23.52	29.41	26.84
1a. Private	24.13	25.22	27.33	26.40
1b. Public	-0.82	-1.71	2.08	0.44
2 Total Consumption of which:	78.53	78.19	72.60	75.06
2a. Private	65.32	63.98	60.50	62.00
2b. Public	13.20	14.21	12.10	13.06
3 Gross Capital Formation of which:	24.23	24.42	32.26	28.41
3a. Private	17.08	17.09	22.36	19.97
3b. Public	7.15	7.32	9.90	8.44
4 Public Borrowings	7.97	9.03	7.82	8.00
5 Current Account Deficit	0.91	0.90	2.85	1.57
6 Exports of Goods & Non Factor Services	12.34	12.43	15.11	14.24
7 Imports of Goods & Non Factor Services	15.09	15.04	19.98	17.71

increase since the 1970s, and accelerated during the 1990s, particularly during the Eighth Plan. In the Ninth Plan, however, due to severe compression in profit rates during the later years, the savings rate of the corporate sector has shown a decline. During the Tenth Plan, as capacity utilisation in this sector increases and thereby improves both profitability and GDP share, it is expected that the savings rate of this sector will rise strongly.

2.34 The overall picture regarding the magnitude and pattern of domestic savings during the Tenth Plan is presented in Table 2.10. On the basis of the savings behaviour of households and the corporate sector as discussed above, private savings are projected to rise by just over 2 percentage points of GDP. Thus, as can be seen, in order to meet the domestic savings rate target, a fair proportion of the additional savings required will have to come from the public sector, which would be required to increase its savings rate from -0.8 per cent to 0.4 per cent, i.e. an increase of over 1.2 per cent of GDP. The required degree of correction is, however, much larger. As can be seen from Table 2.9, public savings has to rise from -1.7 per cent of GDP in the base year to nearly 2.1 per cent in the terminal - a total turn around of 3.8 per cent of GDP.

2.35 It may further be seen that the overall improvement in the public savings rate obscures the nature of the correction that is to be effected. The savings rate of public enterprises is actually expected to decline quite significantly during the Tenth Plan period. This is the result of two conflicting forces. On the one hand, the share of public enterprises in GDP is expected to decline due to the disinvestment process; and, on the other

hand, the profitability of the remaining enterprises, particularly the State Electricity Boards, is expected to improve. It should be noted, however, that it was not possible to fully take into account the impact of disinvestment on the share of public enterprises in GDP because of the uncertainties involved in the process, and therefore, these are only indicative calculations. This should not create too many problems in the macroeconomic sense since any additional disinvestment will only result in a further decline in the share of public enterprises, which is exactly balanced by an increase in the share of the private corporate sector.

2.36 The more important issue that emerges is that the government sector will be required to reduce its dissavings by nearly 2 percentage points of GDP over the Tenth Plan period in order to meet the aggregate domestic savings target. In the absence of such an improvement, it is very unlikely that the growth target for the Plan will be achieved primarily due to a resource constraint towards the latter part of the Plan.

2.37 In this context, it may be desirable to briefly touch upon the extent of foreign savings that is planned. An average CAD of 1.6 per cent of GDP may appear low in comparison to the potential of the economy to absorb larger volumes of external resources and the observed trends in external capital inflows. It may, therefore, be tempting to infer that the government savings target can be relaxed with greater recourse to external funds. This would, however, be a dangerous view to take. The Tenth Plan is based upon a gradual acceleration in the growth rate of GDP with the objective of attaining an over 9 per cent average growth during the

Table 2.10
Composition of Domestic Savings

(per cent of GDPmp)

	VIII th Plan	IXth Plan	Xth Plan
1. Public Sector Of which:	1.57	-0.82	0.44
1.1 Government Sector	-1.50	-4.29	-2.41
1.2 Public Enterprises	3.06	3.47	2.85
2. Private Corporate Sector	3.95	4.90	6.10
3. Household Sector	18.11	19.23	20.30
4. Gross Domestic Savings	23.63	23.31	26.84

Eleventh Plan period. As a result, the CAD will have to rise steadily in order to provide the necessary resources for the growth acceleration. By the end of the Tenth Plan, therefore, the CAD is likely to rise to 2.85 per cent of GDP, as can be seen from Table 2.9. Balance of payments sustainability considerations demand that at the projected rates of growth of exports, the CAD should not exceed 3 per cent of GDP for any length of time. Thus, by the end of the Plan period, the CAD will be approaching the sustainable maximum, and any further expansion of the CAD during the Plan period runs the risk of leading to a violation of prudential considerations.

2.38 The sectoral pattern of investment and the necessary resource flows arising out of the Tenth Plan target and the sectoral projections are presented in Table 2.11. It may be seen, despite the considerable fiscal correction that is envisaged in the Plan, the government will still be placing a considerable draft on private savings. The reason for this is that the "borrowings" of the government as shown in the table includes disinvestment proceeds, which for all practical purposes has the same effect on investible resources available to the private sector as public debt. Thus, it is being assumed that all disinvestment is made to domestic buyers. If, however, disinvestment is made to foreigners, there will be a decrease in this figure with a corresponding increase in the funds received from external sources. The second point to note is that the private corporate sector is expected to receive more than 1 per cent of GDP from external sources. This figure contains not only the external commercial borrowings of Indian companies, but foreign investment as well.

2.39 The most critical, and perhaps the most contentious, element of the macroeconomic projections made for the Tenth Plan is the investment requirement that has been specified. After the experience of the Ninth Plan, there may be some scepticism about the possibility of raising the growth rate of the economy by nearly 2.6 percentage points with an increase in the investment rate of just above 4 percentage points. These figures taken in isolation would appear to indicate that the incremental capital-output ratio (ICOR) being used for the additional growth is only about 1.6. Such an interpretation would, however, be completely wrong. It may, therefore, be desirable to spell out with some clarity the nature of the relationship between growth and investment that is being contemplated for the Tenth Plan.

2.40 The incremental capital-output ratio (ICOR) is a summary expression for the existing technical conditions and structural configuration of the economy which captures the relationship between investment and additional productive capacity. The first point that needs to be made is that the ICOR relates investment to capacity and not to output. The difference between the two is the level of capacity utilisation. Although ICORs are usually estimated by using output data, it is implicitly assumed that the level of capacity utilisation remains unchanged or appropriate corrections are made. Second, the ICOR is an a-priori technical construct, and not a figure that arises in an ex-post sense. It is therefore meaningless to refer to increases or decreases in the ICOR on the basis of short-

Table 2.11
Inter-Sectoral Flow of Funds

(% of GDPmp)

	Government	PublicEnterprises	PrivateCorporate	Household	Total
Gross Investment	4.64	3.80	10.37	9.60	28.41
Financed by:					
Own Savings	-2.41	2.85	6.10	20.30	26.84
Borrowings	7.05	0.95	4.27	-10.70	1.57
From:					
Households	6.55	0.95	3.20	-10.70	0.00
External Source	0.50	0.00	1.07	0.00	1.57

period changes in growth rates or investment rates. Third, the aggregate ICOR for the whole economy is a weighted average of sectoral ICORs, which can be very different from sector to sector. Indeed, for anything other than discursive purposes, it makes more sense to estimate ICORs at the sectoral level than for the GDP as a whole. Thus, the aggregate ICOR depends crucially upon the sectoral composition of growth and investment. The sectoral structure of growth, in turn, depends upon a number of factors such as pattern of demand, the nature of inter-sectoral linkages, and the possibilities offered by trade. These complexities are best handled by the use of planning models which are designed to capture the linkages and constraints.

2.41 Recent theoretical research suggests that the relationship between the investment rate and the growth rate of capacity is not constant (see Box 2.1). As a result, rates of growth that are significantly higher than experienced in the past require investment rates which are proportionately not as high. In addition, adjustment has to be made for the availability of excess capacities, which can be brought into use to raise the growth rate, which further reduces the required investment. As has already been mentioned, there is substantial excess capacity available in the Indian economy, particularly in manufacturing, in the base year of the Tenth Plan. These factors have been taken into account while working out the sectoral structure of growth during the Tenth Plan and the sectoral ICORs. This information is presented in Table 2.12. As may be seen, the implicit sectoral ICORs, which have been computed as the ratio of actual sectoral investment rates to actual sectoral growth rates, have varied significantly between the Eighth and the Ninth Plans. Neither of the two sets of ICORs represents the true underlying technical relations because in the Eighth Plan capacity utilisation went up sharply, while in the Ninth it declined in most sectors. The ICORs for the Tenth Plan, by and large, lie between these two sets, and represent a possibly more

justifiable estimate of the true ICORs, suitably corrected for the improved capacity utilisation that is expected during the Tenth Plan period.

Box 2.1
Incremental Capital Output Ratio :
An Alternative Interpretation

The Incremental Capital Output Ratio is commonly measured as the ratio of investment rate to growth rate for a particular period. Some of the standard assumptions in the traditional Harrod-Domar framework of calculating ICOR included, inter-alia, (a) the economy is on a steady growth path, (b) there is no lag between investment and setting up of additional capacity, i.e. investment instantaneously translates into additional capacity, (c) there is a continuous full capacity utilization, (d) unchanging sectoral structure of the economy.

These are rather strong assumptions and are often violated in real life situation. For the Tenth Plan, an attempt was made to overcome some of these problems by computing the investment requirement of the economy based on what has been termed as 'net ICOR'. The long-term net ICOR have been estimated taking into account the lag structure of Investment, the average capital output ratio and the depreciation of capital stocks. From this approach, it follows that the investment requirement is lower for growth rates higher than the historical growth rates and vice-versa for lower growth rates.

Net ICORs were used to compute the potential output of each sector. The difference between actual and the potential output give the slack in the system for each sector for the base year, 2001-02. It was found that the slack varied across sectors and was 8 per cent in the aggregate. Sectors with slack implied that investment has already been made and capacity had been created. This existence of excess capacity could be used to generate higher output if utilised efficiently.

Table 2.12
Sectoral Growth Rates and ICORs

SECTORS	Eighth Plan		Ninth Plan		Tenth Plan	
	Growth Rate (%)	ICOR	Growth Rate (%)	ICOR	Growth Rate (%)	ICOR
1 Agriculture & Allied activities	4.69	1.59	2.06	4.05	3.97	1.99
2 Mining & Quarrying	3.59	10.74	3.81	5.44	4.30	7.99
3 Manufacturing	9.77	6.67	3.68	18.37	9.82	7.77
4 Elect, Gas& Water Supply	5.50	18.00	6.46	15.43	7.99	14.97
5 Construction	3.56	1.74	6.82	1.00	8.34	0.99
6 Trade	9.06	0.54	5.86	1.09	9.44	0.91
7 Rail Transport	1.95	27.94	4.70	9.87	5.40	14.66
8 Other Transport	8.42	4.41	5.63	6.09	7.54	5.37
9 Communication	14.31	7.25	17.14	5.28	15.00	8.33
10 Financial Services	10.21	2.23	8.93	1.35	11.69	1.56
11 Public Administration	3.91	7.82	9.21	4.09	6.43	5.45
12 Other Services	6.22	4.19	8.19	3.70	9.26	3.53
Total GDPfc	6.54	3.43	5.35	4.53	7.93	3.58

2.42 It should perhaps be mentioned that the ICORs computed for the Tenth Plan period do not capture the significant improvement in efficiency that is sought to be brought about by policy and procedural reforms, and through better governance. It is expected, therefore, that if the policy and the governance imperatives that have been detailed in the Plan are carried out, there could be a further reduction in the ICORs.

2.43 As far as the sectoral growth rates are concerned, specific mention needs to be made of four sectors that are critical for generating the desired growth in employment with relatively low capital investment requirements. These are agriculture, construction, other transport, and other services. The targeted growth rate in agriculture is significantly higher than in the Ninth Plan, but not as high as was recorded during the Eighth Plan. The reason for this is that the public investment rate in agriculture has dropped steadily over the past two decades and, as a result, this sector continues to be sensitive to weather-related fluctuations. It is hoped that the strategy and measures detailed in the Plan will reduce the vulnerability of the sector during the course of the

Tenth Plan and set the stage for higher growth in the future. The growth rate of the construction sector has improved significantly during the Ninth Plan, and this acceleration is expected to continue into the Tenth. Even faster growth can possibly be achieved if the various land-related suggestions made in the Plan are implemented expeditiously. It is realised, however, that these are sensitive issues, and progress may not be as rapid as desired. The growth rate of other transport too is targeted to be significantly higher than in the Ninth Plan, although not as high as in the Eighth. In this case as well, even faster growth can be achieved if the requisite policy changes permitting greater involvement of the private sector are implemented. The potential of tourism has not been adequately harnessed by India, and it is expected that progress will be made in this direction during the Tenth Plan. This, coupled with expected high growth rates in the information, communication and entertainment (ICE) sectors, should lead to an acceleration in the growth of other services, of which these sectors are a part. Finally, there are segments within manufacturing which are also important as far as employment generation is concerned. Encouragement to these segments is an integral

component of the Plan, without which the target growth rate of the manufacturing sector is unlikely to be achieved.

2.44 The sectoral structure of the Indian economy that will emerge from these targeted growth rates is shown in Table 2.13. As may be seen, despite the higher growth rate targeted for agriculture, its share in GDP is expected to fall over this period. The sectors, which are expected to record an increase in the share of GDP, are manufacturing and some of the services, especially other services for reasons mentioned above.

2.45 The sectoral target growth rates and the estimated ICORs yield the investment requirements of each sector for achieving the growth targets. The main challenge facing the planning and economic administration system of the country is to devise strategies by which the investment programme envisaged in the Plan are realised. Even in the past, when there was considerable degree of governmental control over the pattern of investment through a high share of public investment, on the one hand, and industrial licensing, on the other, the sectoral pattern of investment tended to be somewhat different from the planned. With the substantial reduction in the share of public

investment in recent years and the almost complete deregulation of private investment, the uncertainties involved in determining the likely pattern of investment have increased manifold.

2.46 In the Ninth Plan, a start was made in evolving a new method of investment planning, which explicitly recognised the uncertainties involved by determining the Central Government's sectoral investments residually from the desired investment programme. It involved estimation of the likely pattern of private investment, assessing the states' desired investment pattern, and then deriving the Central investment strategy as the difference between the desired sectoral investment programme and the sum of private and State investment estimates. The advantage of this method of planning is that it first of all explicitly recognises that the Central Government bears the residual responsibility for meeting the Plan objectives since both the private sector and the State Governments may have objectives and incentive structures which may not necessarily be coincident with the national Plan. Second, it allows identification of sectors that may receive excessive or insufficient investment even after best efforts are made in suitably reorienting the Central investment structure. This information gives valuable pointers

Table 2.13
Sectoral Structure of GDP at factor cost

(percent)

SECTORS	Ninth Plan	2001-02	2006-07	Tenth Plan
1 Agriculture & Allied Activities	25.7	24.7	20.5	22.2
2 Mining & Quarrying	2.4	2.3	1.9	2.1
3 Manufacturing	15.5	15.3	16.7	16.1
4 Elect, Gas & Water Supply	2.8	2.8	2.8	2.8
5 Construction	6.0	6.0	6.1	6.1
6 Trade	12.8	12.7	13.6	13.3
7 Rail Transport	0.9	0.9	0.8	0.8
8 Other Transport	4.8	4.9	4.8	4.8
9 Communication	1.4	1.7	2.3	2.1
10 Financial Services	6.2	6.3	7.5	7.0
11 Public Administration	6.4	6.6	6.1	6.4
12 Other Services	15.0	15.8	16.8	16.4
Total	100.0	100.0	100.0	100.0

to the nature of policy changes that may be necessary to alter the investment pattern of the private sector through the market mechanism. This methodology of investment planning has been found to be very useful, and is continued in the Tenth Plan as well.

2.47 Before going into the detailed exercise, a few important limitations need to be mentioned. First, although the projection of aggregative private investment demand can be made with a certain degree of confidence, the same cannot be said of the sectoral pattern. Since projections are necessarily based on certain observed regularities in behaviour, it is difficult to make projections for sectors, which have experienced structural changes in the recent past. Since the inception of reforms, there are a number of sectors that witnessed such regime change. Moreover, there are other sectors in which the investment behaviour does not display any systematic and stable behavioural pattern even though they may not have undergone any systemic change. The problem becomes more acute when the economy has just passed through a business cycle, which affects different sectors differently. In the Ninth Plan it was found that only about 77 per cent of the total targeted private investment could be sectorally allocated on the basis of past behaviour. In the Tenth Plan the situation has improved somewhat, and it has been possible to allocate nearly 86 per cent.

2.48 Second, even the sectoral allocation of public investment is not entirely deterministic. In particular, public investment pattern is determined to a large extent by estimates of the internal resource generation of the various public enterprises, both departmental and non-departmental, and the extent to which these resources are re-deployable. These estimates are themselves contingent not only upon the performance of the enterprises, but also upon certain policy decisions being taken at the appropriate time. Both of these factors are subject to uncertainties arising partly out of market conditions and partly out of political compulsions. Moreover, much of the resources of public enterprises are not re-appropriable under law, since they form the depreciation reserve of the concerned enterprises.

2.49 Third, it must also be recognised that there are limitations to the extent that even the government's fiscal resources can be allocated. Five Year Plans are not written on a clean slate, and each Plan has to take into account the committed expenditure legacies left by earlier Plans. As a consequence, only a minor part of the gross budgetary support (GBS) allotted to a particular Plan can be used flexibly to bridge the gaps left by private and State Government investments.

2.50 Despite these limitations, the exercise is a useful one, and its results are presented in Table 2.14. As may be seen, given the limitations mentioned above, it has not been possible to arrive at an exact balance between the sectoral investment requirements as emanating from the Plan model and the deployment of the resources available with the public and private sectors, despite the overall resource balance that has been assumed. For most sectors, the discrepancies are not large and are within statistically acceptable limits.

2.51 There are, however, a few areas of significant mismatch, which need to be noted and discussed. First and foremost, there are three sectors - Agriculture and Allied activities, Mining and Quarrying, and Construction - which apparently are likely to receive excess investments. Such an interpretation needs to be made with a great deal of caution, since they may reflect more the inherent limitations of the formal planning model than anything else. There are two main limitations. First, the inter-sectoral balancing is done mainly on the basis of past experience. As a result, sectors which have been under-emphasised in the past, tend also to receive less emphasis in the future projections. Although some corrections are made in the light of the objectives of the Plan, these are based on heuristics and can seriously underestimate the true level of correction required. This is probably the case with both Mining and Quarrying and Other Transport. Second, the ICORs used to estimate the investment requirements are based on the investments made in the recent past, and may not fully reflect the needs of the future. This is probably true in the case of Agriculture, where the bulk of the investment in the recent past has been by the private sector in low capital intensive, short gestation investments, particularly in irrigation and

Table 2.14
Investment Requirements and Projected Sources

(Rs. '000 crore at 2001-02 prices)

Sectors	Investment Required	Projected Private	Public		Additional Requirement
			Centre	State	
1.Agriculture & Allied	219.6	174.0	34.0	98.2	-86.6
2. Mining & Quarrying	89.4		103.0	3.4	-17.0
3.Manufacturing	1476.9	1330.7	80.4	16.8	49.0
4.Electricity ,Gas & Water Supply	412.5	68.0	149.9	101.7	92.9
5.Construction	61.0	38.9	59.9	11.5	-49.4
6.Trade	136.6	106.0	4.5	14.4	11.6
7.Rail Transport	81.9		60.6	0.0	21.3
8.Other Transport	237.6	184.3	24.4	56.3	-27.4
9.Communications	296.4	74.1	91.0	0.0	131.3
10.Financial Services	151.2		26.5	0.0	124.7
11.Public Administration	273.1		30.6	125.7	116.8
12.Other Services	645.3	499.9	79.3	40.5	25.6
Total	4081.7	2476.1	744.1	468.7	392.8

Note : -ve sign indicates an excess of projected investment over the required

mechanisation. The irrigation technologies have been mainly extractive, such as tube-wells, and are not sustainable unless appropriate public investments are made in rain-water harvesting and recharging of ground-water sources. Moreover, the remaining potential of major and medium irrigation has been untapped due to inadequacy of public investment. On the whole, therefore, it is felt that the "excess" investment that these sectors may receive is probably desirable to meet the Plan objectives.

2.52 As far as major shortfalls are concerned, there are four sectors, which need to be considered - the utilities sector of Electricity, Gas and Water Supply, Communications, Financial Services, and Public Administration and Community Services. In the first, although public investment, both by the Centre and the States, is proposed to be stepped up sharply as compared to the Ninth Plan, resource constraints place a limitation to what is possible. The gap will, therefore, have to be filled through greater private participation than has been estimated. In the Ninth Plan, there was high expectation that the private sector would come in

to generation in a big way, which was belied. In the Tenth Plan, however, the focus has shifted to privatisation of distribution, which holds out better hope for higher private investment.

2.53 As far as communication is concerned, the estimates made for private investment is probably on the lower side due to the fact that private participation in this field is of relatively recent origin, and there have been a number of teething problems in the policy framework. Most of these have been ironed out, and there are expectations that private investment will accelerate sharply during the Tenth Plan and thereby bridge the differential. A similar situation obtains in the financial sector as well, and private participation in insurance should improve the investment level. It should, however, be mentioned that although the bulk of the financial sector is in the public sector, it does not fall under the purview of the public sector plan. There is some concern that unless the ability of the public sector banks to increase their capital base is enhanced, there could be a problem for them to enhance their lending ability due to capital adequacy constraints. This can be done in two ways - either through the

government increasing its equity contribution or by greater private participation in ownership. In principle, it has been decided to lower the government's share-holding to 33 per cent, but little progress has been seen in this regard in recent years. In view of the acceleration in the growth rate that is being proposed for the Tenth Plan, there is considerable urgency in taking the necessary steps.

2.54 The investment requirement for Public Administration and Community Services tends to be somewhat understated by the conventional planning methodology since the planning model does not adequately capture the non-economic benefits of public health and education expenditure and entirely misses both the economic and non-economic contribution of law and order and justice. It is quite clear that the transition to a fully functioning market economy will be retarded unless adequate provision is made for these functions of the State. Unfortunately, fiscal constraints prevent further allocations in these areas, and every effort will need to be made by both the centre and the states to find additional resources for investment, since these are functions which cannot be taken up in the private sector.

2.55 Finally, mention must be made of Rail Transport, which too is likely to receive less than adequate investment during the Tenth Plan. The main problem here is the inability of the Indian Railways to raise sufficient internal resources to fund its investment needs, despite the existence of potential. Further subventions from the government will not be possible, given the competing claims, and every effort will need to be made by the railways to improve internal resource generation through the measures that have been proposed in the appropriate section of this Plan document.

REGIONAL BALANCE AND POVERTY

2.56 An important objective of the various Plans in the past has been balanced regional development. However, the Tenth Plan differs from the earlier Plans in one major respect and that is that it specifies targets for the growth rate for each State in consultation with the state governments. As has already been mentioned, such a break-

down is necessary to ensure that there is non-trivial consistency between the national target and the State-wise growth rates.

2.57 During the Eighth and Ninth Plan periods the rate of growth in the better off States (i.e. States with higher per capita SDP), viz. Gujarat, Maharashtra, etc., have generally been higher than the States with lower level of per capita income like Bihar, Orissa and Uttar Pradesh. Such a phenomenon has resulted in higher income differences in the States. According to some studies, the regional disparities tended to increase gradually in the 1980s followed by a relatively steep increase in the early years after the reforms were launched, and a gradual increase through the 1990s. That different States have performed differently, despite the 'regionally unbiased' nature of economic reforms that have been pursued, can perhaps be attributed to the fact that some of the better off States have generally had better governance and followed growth-enhancing policies more effectively than others. The poorer States would have to raise their rates of growth to bridge this gap.

2.58 The achievement of rate of a growth of 8 per cent during the Tenth Five Year Plan will critically hinge on the achievement of higher rates of growth in the GSDP vis-à-vis the growth rates achieved during the Eighth and the Ninth Plans. It may, however, be mentioned that even if all the States perform as targeted, the inter-State income disparities are unlikely to decline. The Tenth Plan aims at reversing the pace of increase in inequality, and creating the necessary pre-conditions to help the worse-off States to catch up. The reduction in regional disparities could perhaps follow in the subsequent plans. Raising the growth rates is also important from the point of view of reducing the poverty levels prevailing in the country.

2.59 As against the overall growth rate of 6.7 and 5.4 per cent respectively in the Eighth and the Ninth Plans for the economy as a whole, the growth rates in the Gross State Domestic Product (GSDP) of different States are given in Table 2.15. The targets for the Tenth Plan are also placed alongside for ease of comparison, and for giving a feel for the magnitude of efforts that will be needed in the different States.

Table 2.15
Growth Rates in State Domestic Product in Different Plans

(percent per annum)

SI. No.	State/UT	Eighth Plan	Ninth Plan	Tenth Plan
1.	Andhra Pradesh	5.4	4.6	6.8
2.	Arunachal Pradesh	5.1	4.4	8.0
3.	Assam	2.8	2.1	6.2
4.	Bihar	2.2	4.0	6.2
5.	Goa	8.9	5.5	9.2
6.	Gujarat	12.4	4.0	10.2
7.	Haryana	5.2	4.1	7.9
8.	Himachal Pradesh	6.5	5.9	8.9
9.	Jammu & Kashmir	5.0	5.2	6.3
10.	Karnataka	6.2	7.2	10.1
11.	Kerala	6.5	5.7	6.5
12.	Madhya Pradesh	6.3	4.0	7.0
13.	Maharashtra	8.9	4.7	7.4
14.	Manipur	4.6	6.4	6.5
15.	Meghalaya	3.8	6.2	6.3
16.	Mizoram			5.3
17.	Nagaland	8.9	2.6	5.6
18.	Orissa	2.1	5.1	6.2
19.	Punjab	4.7	4.4	6.4
20.	Rajasthan	7.5	3.5	8.3
21.	Sikkim	5.3	8.3	7.9
22.	Tamil Nadu	7.0	6.3	8.0
23.	Tripura	6.6	7.4	7.3
24.	Uttar Pradesh	4.9	4.0	7.6
25.	West Bengal	6.3	6.9	8.8
26.	A & N Islands	10.3	3.7	6.6
27.	Chandigarh		9.5	10.6
28.	Delhi	4.3	9.4	10.6
29.	Pondicherry	7.7	12.5	10.7
30.	Chhattisgarh			6.1
31.	Jharkhand			6.9
32.	Uttaranchal			6.8

Note : The growth rate for the Tenth Plan in respect of Bihar, Madhya Pradesh and Uttar Pradesh do not include Jharkhand, Chhattisgarh and Uttaranchal respectively.

2.60 Although the aggregate growth rates are no doubt important, the real value of such an exercise lies in the broad sectoral break-up of the state-wise growth rates. Such a sectoral break-up necessarily has to be based on an appraisal of the potential of each State in terms of the different sectors on the basis of the conditions that prevail at the beginning

of the Plan. As a result, it focuses attention on the difference between the actual performance of the sector and its assessed potential. This comparison can lead to an understanding of the measures that are necessary to bridge the gap. The state-wise sectoral break-down of the growth targets is presented in Table 2.16.

Table 2.16
Statewise Growth Target for the Tenth Five Year Plan

(Annual Average in %)

	States/UTs	Statewise Growth Target			GSDPGrowth
		Agriculture	Industry	Services	
1	A&N island	1.00	10.41	7.97	6.6
2	Andhra Pradesh	3.05	8.01	8.39	6.8
3	Arunachal Pradesh	4.00	8.90	10.50	8.0
4	Assam	3.82	5.00	9.00	6.2
5	Bihar	3.75	6.00	8.00	6.2
6	Chandigarh	-2.00	10.41	10.96	10.6
7	Chhattisgarh	3.00	7.50	7.00	6.1
8	Delhi	-12.21	6.90	12.01	10.6
9	Goa	-0.90	6.25	12.36	9.2
10	Gujarat	4.03	12.23	10.44	10.2
12	Haryana	4.07	9.56	10.33	7.9
13	Himachal Pradesh	4.55	12.49	8.26	8.9
14	J&K	4.20	5.21	8.00	6.3
11	Jharkhand	3.00	7.44	8.00	6.9
15	Karnataka	4.99	11.34	12.51	10.1
16	Kerala	3.05	5.89	8.17	6.5
17	Madhya Pradesh	4.00	7.75	9.00	7.0
18	Maharashtra	3.56	8.22	8.09	7.4
19	Manipur	3.59	8.33	7.39	6.5
20	Meghalay	4.00	6.87	7.05	6.3
21	Mizoram	2.00	4.16	6.84	5.3
22	Nagaland	4.00	7.29	5.78	5.6
23	Orissa	4.07	4.88	8.73	6.2
24	Pondicherry	1.10	13.01	9.19	10.7
25	Punjab	4.07	8.06	8.00	6.4
26	Rajasthan	4.50	10.06	9.63	8.3
27	Sikkim	5.00	5.21	10.36	7.9
28	Tamil Nadu	3.54	7.37	9.77	8.0
29	Tripura	3.90	9.37	8.43	7.3
30	Uttaranchal	3.50	7.00	8.70	6.8
31	U.P	4.67	11.05	7.92	7.6
32	W.B.	5.09	9.15	10.76	8.8
	All India	4.0	8.9	9.4	8.0

2.61 Given the vast variations that exist in the country, the incidence of poverty has to be treated as a region-specific issue. The overall growth of the economy cannot and should not be directly related to poverty, since it is entirely possible that the growth process may pass those regions in which the poor are concentrated. Therefore, the methodology of poverty assessment in the country focuses on the State-level incidence, and builds up the national aggregates from these. The projections for poverty, therefore, also need to take into account the likely growth rates of the different States of the country.

2.62 Consistent with the target for the growth rate of GSDP during the Tenth Five Year Plan, the State-wise incidence of poverty by the end of the Plan, i.e. 2007, has been projected, keeping in view the trajectory that the following variables are likely to take.

- Per capita income of the State;
- Agriculture yield (output per hectare of food-grains) in the State;
- Per capita plan expenditure incurred by the State; and
- Poverty line of the State.

2.63 The per capita income represents the amount of resources available for consumption and is expected to be inversely related to the poverty ratio. Poverty line is a summary statement of the level of prices in the State for a given basket of goods and services. Higher poverty line would be associated with a higher poverty ratio. Thus, a high per capita income may not necessarily translate to low poverty, if the poverty line is also high. Agriculture productivity affects poverty in a number of ways. First, since poverty in India is predominantly a rural phenomenon, this variable captures rural incomes. Furthermore, since the rural areas are an important source of demand for urban products, an increase in rural incomes would have an impact both on rural and urban poverty. Second, it is not just the level of rural incomes, which is important for the incidence of poverty, but its potential distribution as well. Third, in the Indian context, consumer prices, both in rural and urban

areas, are driven predominantly by the price of food, which is determined by agricultural performance. Of course, the poverty line would reflect to some extent this effect, but the latter is also sensitive to government actions in the field of food security and therefore captures an additional effect. It is expected that agricultural productivity will be inversely related to poverty.

2.64 One measure to capture the effect of government actions is the per capita State plan expenditure. It is expected that this variable will be inversely related to the incidence of poverty. It has been observed that the per capita GSDP growth is extremely important for poverty reduction and every Rs.1,000 increase in annual real per capita GSDP results in 1.6 percentage point reduction in the poverty ratio in the rural areas and 2 percentage points in the urban areas.

2.65 Based on econometric exercises, it is observed that every 5 percentage point increase in real GSDP, resulted in about 3 per cent increase in per capita terms, which would further reduce the poverty ratios by 0.33 and 0.42 percentage points in rural and urban areas respectively. However, if the inflation rate for the basket of goods and services consumed by the poor is 2.5 and 0.5 percentage points higher in the rural and urban areas respectively than the general inflation rate, then the income growth effect will be neutralised and there will be no decrease in the poverty ratio. Another point to be noted is that the per capita State plan expenditure tends to affect poverty in both rural and urban areas and in almost equal measure. Reduction in such expenditures may seriously affect the process of poverty eradication. Agricultural productivity, as expected, does reduce poverty both in rural and urban areas, with an obviously larger effect in rural areas, and therefore, must form a central focus of our development strategy.

2.66 Based on these exercises and certain assumptions regarding the likely growth path for these variables during the Tenth Five Year Plan, the incidence of poverty for the year 2007 was projected.

- per capita gross State domestic product for the year 2007 is estimated applying State-specific growth targets.

- the growth in the agriculture sector would be due only to the growth in yield.
- Per capita plan expenditure in the State for the year 2007 has been kept fixed at 1999-2000 level.
- Poverty line is kept fixed in real terms.

2.67 The number and proportion of people living below poverty is reported in Table 2.17. Given that the targeted macroeconomic and sectoral projections of the rate of growth during the Tenth Plan are achieved, the poverty ratio in India is expected to decline to about 19.2 per cent in 2006-07 as compared to 36 per cent in 1993-94. However, most of the poor would be concentrated in only a few States - Bihar, Madhya Pradesh, Orissa, Uttar Pradesh, West Bengal and the North-Eastern States. Some pockets of poverty will also remain in Andhra Pradesh, Karnataka, Maharashtra and Rajasthan. With the overall growth target of around 8 per cent accompanied by a high growth in agriculture in some of the States, the States of Haryana, Himachal Pradesh, Goa, Gujarat, Punjab, Chandigarh, Dadra and Nagar Haveli, Daman and Diu and Delhi, are likely to register negligible levels of poverty ratio. To take into account the migration factor from the relatively poorer States to these better-off states, the poverty level in some States has been kept at 2 per cent.

2.68 Finally, it should be noted that these projections are based on two key assumptions, other than the growth projections. First, it has implicitly been assumed that the inflation rates applicable to the GSDP and the poverty line will be the same. Historical experience, however, suggests that this assumption is unlikely to be valid and the inflation rate applicable to the poor is likely to be higher than that applicable to the general income. In such a situation, given the parameter estimates on these two variables, the rate of decline of poverty will be less than projected. Second, per capita State plan expenditures have been held constant in real terms, which implies that the share of the State plan expenditure in GSDP will decline rapidly over the Tenth Plan period. It is quite likely that the real per capita State plan expenditure will increase for most States. This

should lead to a faster decline in poverty in these States than projected.

ISSUES IN AGGREGATE DEMAND MANAGEMENT

2.69 As has already been mentioned, one of the key differences between the Tenth Plan and earlier Plans is the attention that needs to be brought to bear on issues of demand management, which had earlier been neglected by the planning process. The Tenth Plan, however, requires a careful balancing between the demand and supply processes of the economy if the desired pace of acceleration of growth is to be achieved and the growth target met. There are a number of uncertainties regarding the generation of adequate aggregate demand, which need to be explicitly addressed if proper corrective measures are to be taken.

2.70 First, as far as private consumption demand is concerned, by and large there is little cause for concern since it has behaved fairly predictably in the past and there is reason to believe that any major change will occur in the future. There is, however, one aspect, which needs to be highlighted. As has been mentioned, the role of the agricultural incomes in supporting the growth and diversification of non-agricultural goods and services has been increasing and is expected to continue to do so in the future as the average income growth in this sector will be spent mainly on non-food consumption expenditure. Nevertheless, it must be borne in mind that increased consumption of industrial products frequently involves life-style changes, and that such change may not be undertaken if there are large uncertainties regarding the possibility of maintaining the altered life-style in the future. It is, therefore, imperative that steps be taken to bring about greater stability to agricultural incomes. Indeed, in one sense, stability may be more important than the growth rate of agricultural incomes. In order to do so, emphasis must be placed on reducing the vulnerability of Indian agriculture to weather-related shocks through a much more intensive effort at drought-proofing, especially the rain-fed areas.

Table 2.17
Poverty Projection for 2006-07

S.No.	States/UTs	Rural		Urban		Combined	
		%age of Poor	No. of Poor (lakh)	%age of Poor	No. of Poor (lakh)	%age of Poor	No. of Poor (lakh)
1.	Andhra Pradesh	4.58	26.97	18.99	41.75	8.49	68.72
2.	Arunachal Pradesh	37.89	3.54	4.48	0.14	29.33	3.68
3.	Assam	37.89	95.36	4.48	1.78	33.33	97.14
4.	Bihar	44.81	482.16	32.69	54.74	43.18	536.91
5.	Goa	2.00	0.13	2.00	0.16	2.00	0.29
6.	Gujarat	2.00	6.88	2.00	4.38	2.00	11.25
7.	Haryana	2.00	3.30	2.00	1.51	2.00	4.81
8.	Himachal Pradesh	2.00	1.18	2.00	0.14	2.00	1.32
9.	Jammu & Kashmir	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
10.	Karnataka	7.77	28.66	8.00	16.34	7.85	45.00
11.	Kerala	1.63	4.03	9.34	8.01	3.61	12.04
12.	Madhya Pradesh	28.73	192.07	31.77	74.46	29.52	266.54
13.	Maharashtra	16.96	101.61	15.20	72.68	16.18	174.30
14.	Manipur	37.89	8.10	4.48	0.27	30.52	8.37
15.	Meghalaya	37.89	7.99	4.48	0.24	31.14	8.23
16.	Mizoram	37.89	1.88	4.48	0.23	20.76	2.12
17.	Nagaland	37.89	8.01	4.48	0.21	31.86	8.22
18.	Orissa	41.72	139.12	37.46	23.57	41.04	162.69
19.	Punjab	2.00	3.40	2.00	1.95	2.00	5.35
20.	Rajasthan	11.09	54.41	15.42	23.44	12.11	77.86
21.	Sikkim	37.89	2.08	4.48	0.03	33.78	2.12
22.	Tamil Nadu	3.68	12.46	9.64	31.61	6.61	44.07
23.	Tripura	37.89	10.70	4.48	0.28	31.88	10.98
24.	Uttar Pradesh	24.25	373.16	26.17	111.25	24.67	484.41
25.	West Bengal	21.98	137.53	8.98	22.21	18.30	159.73
26.	A & N Island	3.68	0.10	9.64	0.14	5.82	0.24
27.	Chandigarh	2.00	0.02	2.00	0.19	2.00	0.21
28.	Dadra & Nagar Haveli	2.00	0.04	2.00	0.02	2.00	0.06
29.	Daman & Diu	2.00	0.03	2.00	0.01	2.00	0.04
30.	Delhi	2.00	0.19	2.00	3.18	2.00	3.38
31.	Lakshadweep	1.63	0.01	9.34	0.02	4.59	0.03
32.	Pondicherry	3.68	0.13	9.64	0.70	7.72	0.83
	All India	21.07	1705.26	15.06	495.67	19.34	2200.94

2.71 Strong and sustained growth of private investment is at the heart of the Tenth Plan strategy, and there are a number of issues that have to be addressed in this regard. The first point that needs to be recognised is that the Indian policy and procedural framework continues to be excessively investor-unfriendly. This is applicable as much to informal activities as to the corporate. There are too many hurdles that an entrepreneur has to clear before undertaking any productive activity. Even after doing so, he is not immune to further harassment by various public functionaries. While there is good reason to enforce the laws of the land, this duality of control, which is exercised both at the point of entry and during operations, is completely unnecessary in most instances. Therefore, it is suggested that most rules, regulations and procedures which have to be complied with prior to investment or the entry point, should be scrapped, and greater emphasis placed on post-operation enforcement.

2.72 The corporate sector in India has not shown the kind of dynamism that had been expected of it at the start of the reform process. No doubt the policy and procedural rigidities mentioned above have contributed to this, but it is not a sufficient explanation. The growth dynamics of private corporate investment in India, as assessed by the Planning Commission, suggests that it is driven more by internal resource accruals than by any other factor. Perhaps this is a reflection of the desire of Indian corporate promoters not to dilute ownership control, even if it involves loss of opportunities. This lack of entrepreneurial dynamism is most disturbing, especially at a time when the government is in the process of privatising most public sector enterprises. It should be remembered that in many of the areas where the public sector dominated, non-corporate entities will simply not be able to shoulder the burden of creating new capacities, and the onus will have to be on the corporates. If the corporate sector does not fill the breach adequately, the economy runs the risk of serious imbalances emerging in certain key industries. Of course, with greater trade openness, this will not necessarily impede the growth of down-stream industries, since imports can bridge the difference between supply and demand, but valuable opportunities may be lost.

2.73 The projections made for the Tenth Plan on the basis of the past behaviour of the corporate sector suggest that unless steps are taken, private investment demand will fall significantly short of the target requirements. Removal of hurdles to the investment activity is clearly a crucial step, and this would have to be done within the first two years of the Tenth Plan, if it is to have the desired effect within the Plan period. Changes in labour laws too are likely to help in imparting more dynamism to this sector. It is equally important to realise that some of the lack of corporate dynamism, especially in recent years, can be traced to the huge excess capacities that exist in a number of industries. The principal responsibility for reducing this excess capacity through increased aggregate demand during the first two years of the Plan rests with the government, which will have to engage in an aggressive fiscal policy stance.

2.74 Another method of overcoming the weaknesses observed in corporate investment behaviour, primarily as a complementary measure, would be to encourage foreign direct investment (FDI), especially in those areas for which Indian corporates have shown little appetite. Indeed, it is suggested that, in the current context, the role of FDI in boosting corporate investment demand is probably far more important than its role as a support to balance of payments. This change should get reflected in the approach taken to FDI.

2.75 As far as the private unincorporated sector is concerned, there is fortunately no lack of entrepreneurial dynamism. This sector has played a key role in keeping the growth rate of the economy up when both public and corporate investments were stagnating. There are two important points that need to be made in the context of encouraging this sector to grow even faster, other than the general point made regarding policy and procedural barriers to entry. First, the principal hurdle in expansion of the investment activity in this sector lies in its access to investible resources, especially from the formal financial sector institutions. The availability of long-term funds has always been a problem, and recourse has been taken to funds raised from the informal financial institutions. In recent years, even access to short-term bank finance has become problematic as commercial

banks have turned excessively risk-sensitive and the brunt of this has fallen on the non-corporates. The approach proposed to address this problem has been given in some detail later in this chapter.

2.76 The second issue relates to the nature of competition faced by this sector. There is a common perception that the main threat to the non-corporate sector comes from the corporates. While this may be true in some cases, it is equally true that a major vehicle for expanding the small-scale sector is ancillarisation by the corporates. There are policy hurdles in expanding the scope of ancillarisation, which have been mentioned before. These need to be corrected expeditiously. More importantly, it is suggested that the real barriers to entry for new small-scale entrepreneurs are the existing small-scale producers. Since the small-scale units generally address a relatively small localised market, they are much more sensitive to the emergence of new competitors than the corporates. As a result, incumbent small firms tend to protect their turfs much more aggressively. The solution to this problem would be through an evolutionary process, whereby existing small firms grow into medium and eventually large firms, vacating space for new entrepreneurs. Unfortunately, in India this process is severely retarded because of the nature of policy protection given to small units, which prevents them from graduating without incurring heavy costs. This is one of the main reasons why it is proposed that the entire policy framework for small units should be thoroughly overhauled. The policy must recognise that dynamism involves both the growth of existing firms and emergence of new ones.

2.77 The importance of public investment, both as a component of aggregate demand and as a facilitator of private investment, has already been discussed. There are, however, serious concerns regarding the ability of the government to carry out public investment in the manner envisaged in the Tenth Plan. Insofar as the Centre is concerned, the principal vehicles for undertaking public investment were the central public sector enterprises. These not only generated their own resources through internal accruals and market borrowings, but were also conduits through which budgetary resources were transformed into

investment. With the commencement of the disinvestment and privatisation process, both the ability and the willingness of these enterprises to undertake investment activities has reduced considerably. The net result is a situation where not only are budgetary resources not utilised to create new capacity, even the internal accruals are being kept in liquid form and not put into productive use. This is an inevitable consequence of the disinvestment process, and should not be taken to imply that the process should be either stopped or retarded. On the contrary, the logic of the reform process demands that the pace of disinvestment be stepped up so that the currently idle resources can be used to create productive capacities, even if it is by the new private ownership.

2.78 The main problem, however, lies in the fact that the Central Government has not yet created sufficient alternative institutions through which public investment can be made, especially in the infrastructure sectors. The existing central public institutions, which are actively carrying out investment, have physical limitations on their ability to expand their investment programmes. It is apprehended that unless new institutional capacities are created in the appropriate areas, it may not be possible for the Centre to carry out the public investment programme even if the financial resources for doing so are available.

2.79 By and large, the institutional capacity of State Governments to undertake public investment today is better than that of the Centre. Although many of these institutions can improve their functioning quite significantly through better governance systems, most of them are limited in their activities by the availability of resources. As a result, the overall level of public investment in the country may be held back by a mismatch between the availability of resources and the availability of institutional capacity. The Central Government is likely to have a sufficiency of resources and a lack of institutions, whereas the position of the State Governments would be exactly the reverse. In recognition of this reality, the nature of the relationship between the Centre and States will have to undergo a change, with the Centre playing a progressively more important role in the funding of what are essentially State level public investments.

The modalities of this change would need to be worked out expeditiously so that unnecessary friction between these two arms of the Government does not take place.

2.80 There is, however, one particular area of the institutional capacity of the State Governments which is a cause for worry. The Tenth Plan envisages not only the use of its financial resources but also its food stocks for augmenting investment in rural infrastructure. The Food for Work Programme is, therefore, being viewed not only as a device for bringing relief to disaster affected areas, but also as a major instrument of public investment. It is also central to the Plan for generating additional employment, especially for landless labour. Unfortunately, the public work structure in many State Governments have more or less ceased to undertake public work programmes directly. Most of them are today no better than contract awarding organisations. The success of the Food for Work Programme and of the Rural Employment Generation Programmes hinge critically upon revitalising the public work systems at the State level so that its traditional functions of design and implementing rural public works directly is restored. Without this, it is feared that the desired level of public investment may not materialise since it would get confined only to financial resources available with the Government.

2.81 Finally, in view of the importance of public investment in attaining the Tenth Plan growth target, some mention needs to be made of the conduct of macroeconomic policy, particularly as it relates to the expenditure side. It must be realised that public expenditure on goods and services, especially public investment, is the only component of aggregate demand that is not behaviourally linked to the macroeconomic variables. These are policy decisions, and are therefore based on an appreciation of the role that such expenditures play in generating and maintaining the growth momentum of the economy. It therefore provides a degree of stability to the economic system and forms an important component of generating the required degree of confidence among private investors. It is, thus, essential that the public investment programme, once determined, should be adhered to unless there are compelling reasons

to do otherwise. The Five Year Plans were designed essentially to subserve this objective, but over the years the significant changes that are brought about through the Annual Plans has made the process much less effective. In view of the proposed acceleration in growth during the Tenth Plan, and the importance of public investment in the process, a greater degree of commitment in maintaining the required levels of public investment is essential. For this reason, a detailed analysis of the likely fiscal position of the government during the Tenth Plan period is carried out in the next section in order to ensure that the public investment needs can be met with fiscal sustainability.

FISCAL BALANCES AND SUSTAINABILITY

2.82 Attainment of the projected growth target of such a high magnitude, which technically rests on an investment parameter of 28.4 percent, would require an equally high level of public investment, comprising investment by Central government, State governments and Public Sector Undertakings (PSUs). The declining trend in the share of public sector in Gross Domestic Capital Formation, as experienced in the past decade, would have to be reversed to reach a level of 9.9 per cent of GDP by end of the tenth plan from the present level of about 7.3 per cent. While the magnitude of public investment is crucial in bringing the desirable acceleration in the economic growth, the macro economic impact of these investments would depend on the structural pattern of public investment, the extent of utilisation of capacity created through such investment, and reaction of private sector to the fiscal position of the government in terms its expenditure management and revenue collection effort.

2.83 Prudent fiscal management in this context would be to increase the public investment by increasing government savings and internal resources of the public sector. This would imply compression of the consumption expenditure of government and PSUs both at the Centre and the State level, in addition to mobilisation of additional revenue resources. But if the investment is to be resourced by borrowing, i.e. by increased fiscal deficit and extra budgetary resources of the PSUs, then the public sectors' draft on private savings is

going to be substantial, which could result in crowding out of investible resources from more productive use by the private sector. It is possible to offset the crowding out effect of public investment by allocating the resources to more productive use like infrastructure development and capacity building, which would be instrumental in promoting and sustaining private investment at the desirable level. More important than the crowding out effect of government borrowing is its fiscal implication in terms of the outstanding debt position of the Government. The Ninth plan experienced a phenomenal increase in the Government Debt to GDP ratio, despite a decline in the public sector share in aggregate investment. The combined debt to GDP ratio of the Centre and State governments increased to 72.5 per cent in 2002, from a little above 56 per cent in 1997. A fresh effort to provide a substantial step up to the public investment could negate the very rationale of fiscal consolidation. This needs to be considered carefully in the context of an accelerated growth target for the Tenth plan.

2.84 At present, the public sector claims a substantial proportion of private savings to finance not only its investment requirement, but a sizable part of its consumption expenditure. To understand the nature and extent of the public sectors' draft

on private savings during the Ninth plan, it would be useful to examine the nature and composition of the gross fiscal deficit of government, which is the single major component of such draft, extra budgetary resources (EBR) of PSUs and Government's disinvestments being the other two constituents of the public sector draft. Table 2.18 presents different measures of fiscal deficit realised during the Ninth plan. As can be seen, gross fiscal deficit of both the Centre and the States have deteriorated substantially during this period with a 3 percentage point increase in the combined fiscal deficit. The difference between the fiscal deficit and the revenue deficit is the approximate measure of government investment, which remained at an annual average of 3 per cent of GDP during the Ninth plan, despite 3 percentage point increase in the fiscal deficit of both Centre and States. The entire increase in the government borrowing as reflected in the burgeoning fiscal deficit, is explained by the increase in revenue deficit of the same magnitude, which has catered to the consumption requirement of the Government.

2.85 As may be observed, both the Centre and the States have witnessed significant increase in their revenue deficit during the Ninth plan. The impact of the fiscal consolidation effort, initiated in

Table 2.18
Measures of Deficit of the Government

(as percent of GDP)

	1996-97	1997-98	1998-99	1999-2000	2000-01*	2001-02**
1 Combined Centre and States:						
(a) Gross Fiscal Deficit	6.8	7.7	9.3	10.1	10.2	10.0
(b) Net Fiscal Deficit	5.8	6.7	8.4	9.0	9.1	9.1
(b) Revenue Deficit	3.6	4.1	6.4	6.3	6.4	6.3
2 Centre:						
(a) Gross Fiscal Deficit	4.1	4.8	5.1	5.4	5.7	5.9
(b) Revenue Deficit	2.4	3.1	3.8	3.5	3.9	4.2
3 States:						
(a) Gross Fiscal Deficit	2.7	2.8	4.2	4.7	4.5	4.1
(b) Revenue Deficit	1.2	1.1	2.5	2.8	2.5	2.1

Note : Net Fiscal Deficit is calculated by adding gross fiscal deficit of both Centre and States and subtracting there from the gross loans from centre to States and UTs

* RE for States, provisional Accounts for Centre

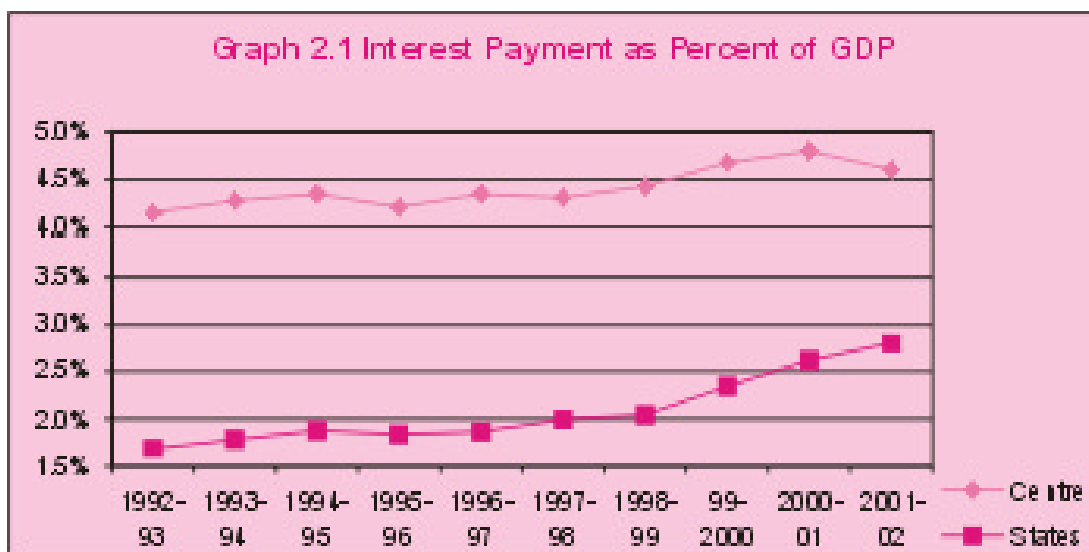
** BE for States and provisional Accounts for Centre

the early 1990s, was reflected in compression of public investment rather than improving the deficit position as was expected. The initiatives to curtail Government expenditure led to a shortfall in public sectors' contribution to gross domestic capital formation, since the compulsion to maintain the publicly provided services in the social sector made the Government consumption expenditure rigid downward. The position got further accentuated due to absence of the revenue neutral impact of tax reform measures introduced during the last decade. It needs to be emphasised that the implementation of the Fifth Central Pay Commission (FCPC) award in the first three years of the Ninth Plan and its implications in terms of higher fiscal deficit and resultant higher interest burden on the government in the subsequent years, contributed significantly to this sudden upsurge in the revenue deficit from the base year level of the plan.

2.86 The interest burden, estimated as percentage of GDP, has increased steadily during the Eighth Plan and the first four years of the Ninth plan for the Centre. In the terminal year of the Ninth Plan, the positive impact of the reduction in interest rate is evidenced for the Centre as shown in Graph 2.1. The interest liability of the Centre has increased at an annual average rate of about 12 per cent during the Ninth plan against a 17.5 per cent annual increase during the Eighth plan. Thus, interest payment to GDP ratio for the Centre moved up from 4.3 per cent by the end of Eighth Plan to 4.6 per cent by end of Ninth Plan, reaching the peak at 4.8 per cent in the year 2000-01. All the States together

seem to have suffered much more on account of interest payment liability, which has increased at an annual average rate of about 15 per cent and 20 per cent during the Eighth and Ninth Five Year Plans respectively. The interest burden has steadily increased for the States from about 1.7 per cent of GDP in the beginning of the Eighth Plan to 2.8 percent by the end of the Ninth plan. In fact, the maximum increase in the interest burden for the States is evidenced during the Ninth plan.

2.87 The increase in the interest liability of the government in the past decade can be explained by the existence of high rates of interest as well as huge debt stock of the government in the past, caused by an uninterrupted increase in the fiscal deficit. The impact of successive reduction in the nominal interest rate during the last two years of the Ninth Plan has started showing results for the Centre, but has been more than offset by the accumulated high cost debt of the past for the States. To understand this problem better, it may be interesting to examine the average rate of interest paid on Government outstanding liability measured by the implicit interest rate, which is different from the prevailing rate of interest. Graph 2.2 presents the implicit rate of interest for the Centre and the States. For the Centre, the rate has increased from 8.8 per cent in the year 1992-93 to 9.8 per cent in the year 1996-97. The increasing trend in the implicit interest rate continues for the Centre during the first three years of the Ninth Plan and crosses 10 per cent. The last two years of the Plan witnesses a downtrend in the implicit interest rate for the

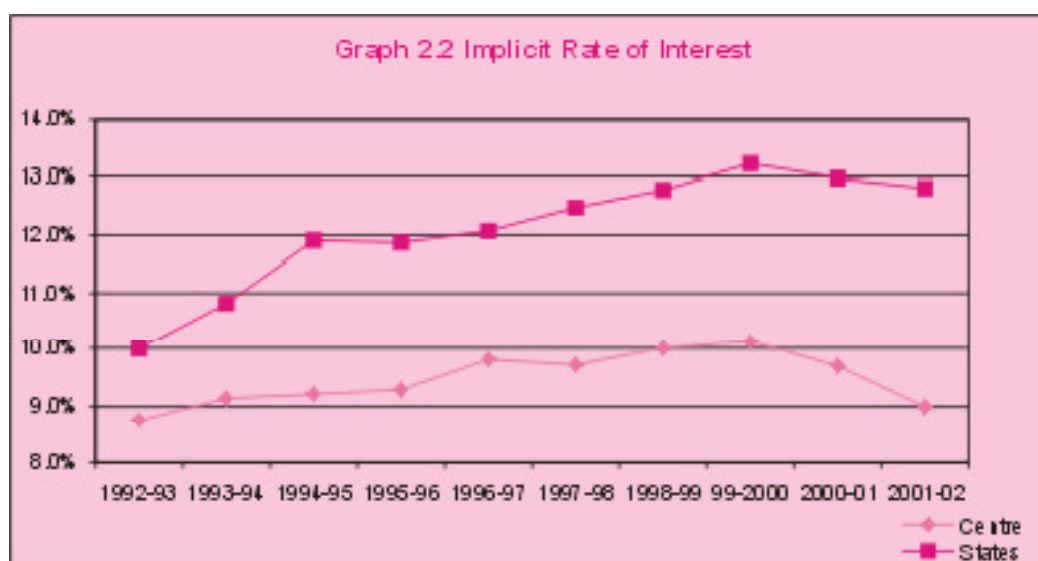


Centre, reflecting the impact of the reduction in the nominal interest rate, which is market determined at present and has come down substantially. However, it is evident that the increase in the implicit interest rate has been phenomenal for the States during this period. Starting from a figure of about 10 per cent in the beginning of the Eighth Plan, the average rate of interest paid by the States on their outstanding liability reached a level of more than 13 per cent during the Ninth Plan. The rate has come down to marginally less than 13 per cent for the States in the last year of the Ninth Plan.

2.88 One interesting point to be noted here is the difference between the implicit interest rates applied to Centre and the States. It is evident that the States are borrowing at an interest rate, which is much higher than the interest rate paid by the Centre. The reasons for this differential interest rate payment by the two agencies of government could be: (a) the varying conditions of borrowing by two levels of government, (b) the exchange risk coverage by the Central government and (c) difference in the composition of the debt stock. Although the premise under which the differential interest rate operates is appreciated, the magnitude of this difference merits consideration. As can be seen, the gap between implicit interest rate paid by the Centre and the States is quite high and has steadily increased to reach about 3.8 percentage points by the end of Ninth Plan, from a level of about 1.2 percentage points in the beginning of the Eighth Plan. This would have implications for future

interest liability of the States. Given the requirement of meeting investment obligations in the Tenth Plan, interest liability of the States would be influenced by: (a) the future interest rate; (b) capacity of State Governments to contain fiscal deficit at a manageable level; (c) the structure and composition of the State Governments' new borrowings; and (d) the extent to which the State Governments would be in a position to swap the past high cost debt with the currently available low cost borrowing from market. Going by the current trend in the financial sector reforms, it is not likely that the downturn in interest rate would be reversed. This is one aspect, which would influence the government fiscal position positively, and would contribute towards gradual convergence of the deficit to a level which is sustainable.

2.89 Before detailing on the issue of fiscal corrections that would be required during the Tenth Plan, it would be appropriate to assess the resource requirements of the government to finance the Plan. The size of plan has to be determined by two compelling factors: (a) the necessity to provide substantial step-up to public investment, which is essential for maintaining the macroeconomic balance between the government fiscal actions and target growth rate of the economy; and (b) the need to carry out fiscal correction by compressing governments' unproductive consumption expenditure and increasing its revenue earnings, in order to contain the revenue deficit at a level at which the government can generate savings to



finance a portion of its investment demand. The resource flows required to meet the desired level of investment and the allocation of investment responsibilities between various agents of the governments are presented in Table 2.19. It may be observed that the governments' commitment to meet the public investment target would be significant.

2.90 State Governments would require to bear about 29 per cent of the total public investment, the

Centre having only a 15 per cent share on the investment outlay of the public sector. The inclusion of Central Government support to PSUs would increase the central share in public investment to 21 per cent. The public sector undertakings as a whole would have a lower share than in the past due to ongoing disinvestments and privatisation in this sector. Since State governments have to play a predominant role in making investment decisions,

Table 2.19
Structure of Outlays and Resources of the Public Sector

(Tenth Plan target at 2001-02 prices)

	Rs. Crore	Per cent of GDP
Centre		
Central Plan Outlay	706000	4.92
of which		
(a) Support to State Plans	300265	2.09
(b) Support to CPSEs	76250	0.53
(c) Support to Ministries	329485	2.29
(i) Investment	181217	1.26
(ii) Current Outlay	148268	1.03
Financed by:		
(a) Borrowings	678574	4.72
(b) Other Resources	27426	0.19
States		
State Plan Outlay	588325	4.10
of which		
(i) Investment	357096	2.49
(ii) Current Outlay	231229	1.61
Financed by:		
(a) Central Support	300265	2.09
(b) Borrowings	300951	2.10
(c) Other Resources	-12891	-0.09
PSEs:		
Outlay/Investment	674490	4.70
Financed by:		
(a) Central Support	76250	0.53
(b) Savings (IR)	401240	2.79
(c) Borrowings (EBR)	197000	1.37
Total Budgetary Resources	994060	6.92
Total Investment : Centre + State + PSEs	1212802	8.44

Notes:

- (1) All Union Territories (UTs) are clubbed with the States.
- (2) A part of the investment outlay of the States will be towards budgetary support to State PSEs for investment purposes. Since this quantum is not yet known, it is being carried in the State budgets.
- (3) The 'borrowings' of PSEs include all market related funds including new equity issues, if any.
- (4) 'Other resources' of the Centre and the States include balance on current revenues (BCR), miscellaneous capital receipts (MCR) and external grants, less non-Plan capital expenditures
- (5) PSEs includes both Central PSEs and State PSEs

particularly in infrastructure development, it is important to ensure that the States attain sufficient efficiency gains from investment.

2.91 The budgetary resources required to support the public investment plan, estimated at Rs. 9,94,060 crore at constant 2001-02 prices, are to be financed almost entirely by borrowing. The net borrowing requirement of the Centre is estimated to be Rs.6,78,574 crore during the five-year period, implying an average borrowing of Rs.1,35,715 crore annually. This compares well with the Centre's base year borrowing of Rs.1,36,211 crore. States' own borrowings requirements are estimated at Rs.60,190 crore on an average per year at 2001-02 prices, in addition to loan from the Centre obtained by States as a part of Central support to States for Plans. It has been envisaged that during the Tenth Plan, budgetary support to States' Plan from the Centre would constitute about 42.5 per cent of the Gross Budgetary Support to Central Plan, estimated at Rs.7,06,000 crore at 2001-02 prices. The grant and loan component of the Central support to States' plan are contemplated to be in the ratio of 50:50. After netting out the borrowing of States from Centre, the government as a whole would need to raise about 6.8 per cent of GDP as borrowing during the Tenth Plan, as compared to 9.1 per cent in the year 2001-02. This projection of Government borrowing is based on the premise that there would be considerable improvement in the fiscal discipline to be followed by all the government agencies. The borrowings may exceed the target level, unless there is significant improvement in the government savings.

2.92 Throughout the Ninth Plan, government savings have not only remained negative but also exhibited a declining trend. The measures to bring about fiscal discipline during the Tenth Plan would primarily aim at arresting the declining trend in government savings by containing the revenue deficit. The government savings, theoretically, are directly linked to the combined revenue deficit of the Central and State Governments, although the correspondence is not exact. The reason for the discrepancy between the two being the non-uniformity in classification and definition used by the two authorities namely Central Statistical Organisation, which measures the government

savings by using an economic classification of government expenditure, and the government budget departments which provide the measure for revenue deficit by using an accounting classification. In the absence of an exact relationship between revenue deficit and Government savings, it is possible to derive the measure for government savings from the revenue deficit through the observed relationship between the two.

2.93 It need hardly be reiterated that the ideal fiscal position would be to finance government investment by increasing government savings to the maximum possible extent. But going by the past trend, it does not seem likely in the medium term, to have surplus realisation on the revenue account of the government. Hence, investment has to primarily rely on borrowing, a sizeable part of which would still continue to finance Government consumption expenditure. It is important in this context to understand the long-term implications of continued dependence on borrowing. Conventional wisdom justifies the borrowing so long as the return from investment financed by such borrowing exceeds the cost of borrowing. But, India's public finance inherits the consequence of fiscal mismanagement in the past, as reflected in the already existing high debt/GDP ratio. Table 2.20 presents outstanding debt position of the Centre and the States since the year 1992-93.

2.94 As may be seen, both the Centre and the States experienced a declining trend in the outstanding debt to GDP ratio during the Eighth Five Year Plan. However, during the Ninth Plan the debt to GDP ratio increased very sharply by more than 8 percentage points for the Centre and by the same magnitude for the States. The combined outstanding liability of the Centre and the States during the Ninth Plan increased from 56.3 per cent of GDP to 72.6 per cent of GDP. An analysis of the debt position of the Centre highlights an increasing dependence of the Central Government on domestic borrowing, which constitutes more than 95 per cent of the total debt liability of the Centre. The share of external debt in the total Central Government borrowing seems to have been declining over time, from 5.6 per cent of GDP in the year 1992-93 to 2.6 per cent in the year 2001-02.

Table 2.20
DEBT POSITION OF THE CENTRE AND THE STATES

(Rs. Crore)

	Amount outstanding at the end of March									
	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	99-2000	2000-01 (RE)	2001-02 (BE)
A. Centre (1+2)	401924	477968	538610	606232	675676	778294	891806	1021029	1163635	1315949
(as % of GDP)	53.7	55.6	53.2	51.0	49.4	51.1	50.7	52.9	55.7	57.5
1. Internal liabilities (a+b)	359655	430623	487682	554983	621437	722962	834552	962592	1105207	1256356
(as % of GDP)	48.1	50.1	48.2	46.7	45.4	47.5	47.5	49.9	52.9	54.9
2. External debt*	42269	47345	50928	51249	54239	55332	57254	58437	58428	59593
(as % of GDP)	5.6	5.5	5.0	4.3	4.0	3.6	3.3	3.0	2.8	2.6
B. States (1+2)	142178	160076	184528	212227	243526	281207	341978	420133	504247	591831
(as % of GDP)	19.0	18.6	18.2	17.9	17.8	18.5	19.4	21.8	24.1	25.9
1. Loans from Central Govt	92412	101945	116705	131506	149053	172729	203786	216194	230195	247030
(as % of GDP)	12.3	11.9	11.5	11.1	10.9	11.3	11.6	11.2	11.0	10.8
2. Other Loans	49766	58131	67823	80721	94473	108478	138192	203939	274052	344801
(as % of GDP)	6.6	6.8	6.7	6.8	6.9	7.1	7.9	10.6	13.1	15.1
of which NSSF								26416	59229	92870
(as % of GDP)								1.4	2.8	4.1
Combined Liability	451690	536099	606433	686953	770149	886772	1029998	1224968	1437687	1660750
(as % of GDP)	60.4	62.4	59.9	57.8	56.3	58.2	58.6	63.5	68.9	72.6

Note : 1. Outstanding external debt has been converted into rupees at historical exchange rate
2. Combined liability is net of inter-governmental loan.

Source : Indian Public Finance Statistics, Ministry of Finance, Government of India

It is worth mentioning here that the external debt component of the Government's borrowing has been understated to some extent, since the conversion of the past debt stock under this head from million dollars to rupees crore has been based on the historical exchange rate. However, the repayment of such debt would have to be made after conversion at the current exchange rate. It would, therefore, be appropriate to assess the external borrowing liability of the Government at the current exchange rate. Thus, a realistic assessment of the external debt component of the total government liability evaluated at current exchange rate, would push up the ratio to more than 8.5 per cent of GDP, instead of 2.6 percent as reported in the table. The overall debt position of the Central Government would also be pushed up by an equal magnitude.

2.95 Composition of the past debt stock of the State Governments indicates a gradual reduction in the dependency of the States on the Centre for their borrowing requirements during the Eighth Plan. During the Ninth Plan, the share of the Centre in the total debt stock of the States had increased in the first two years and started declining thereafter. This decline during the last three years of the Ninth Plan could be explained by the exclusion of the States' borrowing against small savings from the non-plan account of the Central Government budget. Since the year 1999-2000 the States borrowings from the Centre mostly constitutes the loan component of the normal Central assistance to States under Plan. It is evident that the Central Government still remains the major creditor for the States, accounting for a share of more than 40 per cent of the total debt stock of the State Governments.

2.96 The issue of long-term fiscal sustainability has been examined against the backdrop of the existing high debt to GDP ratio. Fiscal sustainability, which measures the capacity of the Government to service and sustain its debt burden comprising the debt stock of the past and the new borrowings, has been estimated by drawing upon the standard formulation of Joshi & Little. The approach aims at deriving the level of fiscal deficit as a percentage of GDP, which would stabilise the government debt to GDP ratio at the existing level. The modification applied to the standard formulation relates to the assumption on interest rate. It is generally assumed that the interest rate applied to the Government borrowing remains stable in the medium term, so that no distinction is made between past debt stock and new borrowings of Government, so far as interest payment is concerned. In India, however, there has been a significant difference between the average interest rate paid on existing Government debt, which was about 9.9 per cent in 2000-01 for the Central Government and has come down to 9 per cent in the year 2001-02, which is the maximum rate of interest that the Centre would

pay on new borrowing. The average interest rate paid by the State Governments on existing debt is about 12.8 per cent in the year 2001-02. As regards new borrowings, the rate of interest applicable to borrowings of States from the Centre is 11.5 per cent in the year 2002-03, and the cost of borrowing from the market is even lower.

2.97 Table 2.21 presents the estimates of sustainable fiscal deficit for the Centre and States during the Tenth Five Year Plan. In deriving the values of sustainable fiscal deficit of Government, the following assumptions have been made. First, the nominal interest rate on the new debt of the Central Government has been assumed to be in the range of 8.5 per cent to 9.0 per cent during the Tenth Plan. This would imply a real interest rate of 3.5 to 4 per cent, if the rate of inflation can be contained at 5 per cent on an average annually. Second, the nominal interest rate for States have been assumed to be about 2 percentage points higher than that for the Centre. Third, the annual rate of repayment of the existing debt has been assumed to be 14.3 per cent for the Centre and 8.3 per cent for the States.

Table 2.21
Fiscal Sustainability of the Tenth Plan

(Gross Fiscal Deficit (GFD) as percentage of GDP)

Sustainable Fiscal Deficit	Combined	Centre	States
1. Scenario 1	8.6	5.2 (7.1)	3.4
2. Scenario 2	7.4	4.4 (6.2)	3.0
Fiscal Deficit (2001-02)	9.3	4.9 (5.9)	4.5
<p>NOTES: (1) The standard analysis defines fiscal sustainability as the level of fiscal deficit at which the Debt/GDP ratio remains constant. The relevant formula is:</p> $f = b.(g + I - r_n - a.(r_n - r_e)) + \text{int}$, where: f = fiscal deficit/GDP ratio b = total government debt/GDP ratio g = growth rate of GDP I = inflation rate a = rate of repayment of existing debt r_e = interest rate on existing debt r_n = interest rate on new debt int = interest payment on public debt/GDP ratio <p>(2) Scenario 1 assumes GDP growth rate at the Tenth Plan target of 8 per cent Scenario 2 assumes GDP growth rate of 6.5 per cent</p> <p>(3) The GFD of the Centre is defined as net of the loans and advances to the States. Figures in brackets are the corresponding Gross Fiscal Deficits.</p>			

2.98 The sustainable fiscal deficit, as presented in the table, has a direct relationship with the country's economic growth, and inverse relationship with the rate of interest. In other words, higher growth rate in the gross domestic product would sustain higher fiscal deficit *ceteris paribus*. It can be noted that the Centre and States together are experiencing a level of fiscal deficit at present, which is not at all sustainable even under an accelerated growth scenario. While the fiscal deficit position of the Centre seems to be within the sustainable limit, the States are operating at a level of fiscal deficit, which is about 1 percentage point higher than the sustainable limit. Thus, it is apparent from the fiscal sustainability analysis that the fiscal correction effort would need to be much more intense at the State level than that at the Centre. It is worth mentioning here that a lower than targeted growth would put higher pressure on the Government finances, since the sustainable fiscal deficit would be much lower as indicated under Scenario-2.

2.99 There are two issues worth mentioning in the context of the study on fiscal sustainability. First, The estimation of sustainable fiscal deficit is based on the assumption of a steady state growth path for the economy. But, the growth target contemplated for the Tenth Five Year Plan is not based on a steady state path. The implicit assumption in the growth projection, as has been discussed earlier, is that the growth rate would gradually accelerate, and would reach more than 9 per cent by the end of Tenth Plan. It may, therefore, be possible that even if the sustainable fiscal deficit is maintained, the debt to GDP ratio would go up in the first three years of the Tenth Plan and then would start converging to the base level ratio. Second, maintaining the debt liability of the Government at the base year level, which has already reached a very high proportion, is not a desirable fiscal position. Although a normative assessment of the optimum debt to GDP ratio has not been attempted, it would be ideal to bring down the ratio to 50 per cent for the Centre and 25 per cent for the States. The effort of the Government in the long run should therefore be to contain the fiscal deficit at a level which is below the ceiling imposed by the

sustainability criteria for the Tenth Plan. It may be argued that the need to reduce the fiscal numbers to less than the prescribed ceiling may hinder the attainment of the target growth by disturbing the saving-investment balance. In this context it would be useful to examine the projected fiscal balance position of both the Centre and the State Governments, which have been arrived at under the macroeconomic consistency framework.

2.100 Table 2.22 presents the combined deficit position of the Centre and the States for the Tenth Five Year Plan. The fiscal compulsion of supporting higher public investment during the Tenth Plan is revealed by an overall fiscal deficit position of 6.8 per cent of GDP for the Centre and the States combined. The gross fiscal deficits, separately for the Centre and the States,

Table 2.22
Tenth Plan Deficits and Savings of States and Centre

(as a % of GDP)

	Base Year 2001-02	Terminal Year 2006-07	Tenth Plan Average
States			
Gross Fiscal Deficit	4.5	2.2	3.2
Revenue Deficit	2.5	0.2	1.3
Centre			
Gross Fiscal Deficit	5.9	4.3	4.7
Revenue Deficit	4.2	2.2	2.9
Combined Centre and States			
Gross Fiscal Deficit	10.4	6.5	7.9
Net Fiscal Deficit	9.3	5.4	6.8
Revenue Deficit	6.7	2.4	4.2
Government Savings	-4.7	-0.5	-2.4
IR (CPSUs & SLPEs)	3.0	2.6	2.8
Pub. Savings	-1.7	2.1	0.4

Note : Net Fiscal Deficit is calculated by adding gross fiscal deficit of both Centre and States and subtracting there from the gross loan from Centre to states.

The measures of deficit for the year 2001-02 for Centre is provisional and for states, estimated by the Planning Commission.

are estimated at 4.7 per cent and 3.2 per cent of GDP on an average respectively. All these projected fiscal numbers are within the sustainable limit. It is important to examine the degree of fiscal correction required by each level of government to achieve the desired fiscal position. The Centre and all the States together would have to cut down their combined fiscal deficits to GDP ratio by more than 4 percentage points during the Tenth Plan. The States would be under pressure to achieve the fiscal consolidation by reducing their fiscal deficit from 4.5 per cent of GDP in the base year to 2.2 per cent in the terminal year of the Tenth Plan, necessitating a 2.3 percentage point decline. The Central Government would require to bring down its fiscal deficit by 1.5 percentage points during the Plan.

2.101 The gross fiscal deficit position of the Government reflects their net borrowing requirement for the Tenth Plan. The entire borrowing does not get translated to investment due to a sizeable deficit on the revenue account. During the Tenth Plan it would be necessary to reduce the revenue deficit of the Government substantially so as to ensure a larger flow of borrowed funds to the Governments' investment expenditure. Accordingly, the combined revenue deficit would need to come down by 4 percentage points from the present level of 6.5 per cent to 2.4 per cent by the end of Tenth Plan. This would ensure substantial improvement in Government savings, which would still remain negative during the Tenth Plan, averaging at about (-) 2.4 percent of GDP. In brief, any effort to realise the desired level of government savings will require tremendous pressure on the government to compress the revenue expenditure to the bare minimum level.

2.102 However, the Central Government has instruments available to it, which have not been taken into account in making the above calculations on fiscal sustainability. These instruments lie in the domain of monetary policy, and need to be considered and applied cautiously. Nevertheless, under plausible assumptions of future needs of sterilizing inflows of foreign exchange to prevent exchange rate appreciation, an 8 per cent GDP growth target, and without adverse impact on the expected level of inflation, it is likely that around 1.5 per cent of GDP would be available annually in the later years of the Tenth Five Year Plan through monetary measures. To the extent that such

monetary resources would actually be accessed, needs of borrowing would be reduced.

2.103 A comparison of the projected deficits of the government with the fiscal sustainability analysis places the Central Government at a comfortable position. The Central Government would be in a position to bring down its indebtedness by the end of Tenth Plan to a manageable level by containing the fiscal deficit at the target level. However, the targeted fiscal deficit for States is only marginally lower than the sustainable limit. Thus, even if all the States together contain the deficit at the target level, their outstanding liability would be lowered only marginally, which may still be unmanageable. Further, the States together, have accumulated a debt stock of more than 25 per cent of GDP by the end of the Ninth plan, with wide variation of this ratio across the States. Hence, any improvement in the overall fiscal position of all the States taken together would only be a partial success story. It is important to note here that the fiscal position of all the States assessed together conceals more than what it reveals. The inter-State variation in the governments' fiscal position is enormous. Therefore, it would be useful to look into the fiscal sustainability position of individual States separately.

2.104 The State-wise sustainable fiscal deficit, as indicated in Table 2.23, ranges from about 1.7 per cent of Gross State Domestic Product for Delhi to more than 10 per cent for Sikkim. It is interesting to note here that higher level of sustainable fiscal deficit for a State is associated with higher indebtedness of that State in the base year. Thus, the State's future fiscal consolidation effort would be influenced to a great extent by their present indebtedness. States with very high debt/GSDP ratio would have to contain their fiscal deficit at a level much below their prescribed sustainable limit, so as to bring down their respective outstanding liability to a manageable level. In the earlier paragraph a manageable debt to GDP ratio for the States has been referred to be around 25 per cent. It would, therefore, be essential to look into the extent to which the existing debt to GSDP ratio of individual States exceeds the benchmark of 25 per cent or falls short of it. In case of States where the existing debt ratio is substantially higher than the benchmark, the gross fiscal deficit of those States would require to be reduced by equal proportion. The States enjoying a debt ratio lower than the

Table 2.23
State-wise Sustainable Fiscal deficit for Tenth Plan
 (as % of GSDP)

	Debt/ GSDP 2001-02	Sustainable Fiscal Deficit	GFD 2001-02
1 Andhra Pradesh	30.7	3.8	6.0
2 Arunachal Pradesh	69.8	8.1	8.2
3 Assam	36.9	4.3	7.9
4 Bihar	46.8	4.7	5.5
5 Delhi	11.9	1.9	1.2
6 Goa	28.1	3.8	4.4
7 Gujarat	30.6	4.5	7.5
8 Haryana	27.1	3.7	4.1
9 H. P.	75.5	11.0	14.5
10 J&K	58.5	6.1	4.6
11 Karnataka	23.7	3.5	4.3
12 Kerala	34.1	3.2	4.2
13 M.P.	27.2	3.2	4.0
14 Maharashtra	18.3	2.6	2.3
15 Manipur	48.3	4.8	7.8
16 Meghalaya	34.2	4.3	9.3
17 Mizoram	83.6	8.3	11.9
18 Nagaland	76.7	7.4	10.1
19 Orissa	58.7	7.5	7.7
20 Punjab	44.2	4.0	6.0
21 Rajasthan	41.4	5.6	5.7
22 Sikkim	76.2	10.5	3.0
23 Tamil Nadu	22.6	2.6	4.0
24 Tripura	53.9	5.3	13.7
25 U.P	36.4	6.9	4.9
26 W.B.	35.7	5.4	6.6

Note: Debt/GSDP ratio stands for the Outstanding liability of State as percent of respective GSDP, which has been estimated for the year 2001-02.

benchmark would have some scope to operate at a level of fiscal deficit higher than the target fixed by the sustainability criteria. However, it would be advisable for these States to contain the deficit at the prescribed sustainable limit for reasons of prudence.

2.105 It is important to mention here that the debt ratio of individual States are over-estimated to some extent due to a data gap in the estimates of GSDP, which is used as denominators for estimating such ratios. The GSDP of individual

States, which are estimated by concerned State Directorates of Economics and Statistics, do not add up to the all India GDP, which is estimated by the CSO. The gap between the two at present is more than 9 per cent of GDP. If this gap is prorated to adjust the GSDP of the individual States, then debt to GSDP ratio of the individual State could come down from the present level.

2.106 The examination of government's fiscal sustainability position as explained highlights the extent of fiscal discipline that would have to be followed by both Centre and the States during the Tenth Plan. After examining the magnitude of fiscal correction required to be undertaken by the Centre and the States, it would be important to analyse the component-wise projection of Government finances for the Tenth Plan and the emerging policy implications. Table 2.24 indicates such projection for the Central Government. As is observed, the budgetary support for Plan under Central government finances increases to 5.4 percent of GDP in the terminal year of the Tenth Plan, the average for the Tenth Plan being estimated at 4.9 per cent of GDP, compared to the base year level of 4.4 percent. This step-up in the gross budget support to Plan under Central Government finances is necessary to support the required government investment expenditure, which is covered under plan finance. To sustain this plan size, it would be essential to cut down the growth of non-plan expenditure of the government, which mostly constitutes the committed liability of the government.

2.107 The single largest component of this committed liability is the interest payment by the government, which is determined by the past debt stock, the fiscal deficit of the previous year, and the past and prevailing interest rates. Following financial sector reform, the interest rate is now market determined and has reached a comfortable level of about 9 per cent for the Central Government. Cost of borrowing in future is expected to decline further, at least by 0.5 percentage point. This is consistent with the steady reduction in government borrowings that is being projected. It is also believed that the rate of growth of private investment, necessary to support 8 per cent growth of GDP, will not put significant upward pressure on interest rates. Containing the interest liability of the government at a sustainable level would, therefore, depend upon the attainment of a manageable fiscal deficit. It

should further be pointed out that, if the assumption of a lower interest rate regime in the Tenth Plan period is realised, then the actual growth of interest payments is likely to be even lower than projected, since some of the relatively high-cost past debts will be replaced by lower-cost borrowings in the future.

2.108 Expenditure to be incurred on defence services has been projected to be maintained at little over 2.5 per cent of the GDP. In the past, this component of expenditure has shown a gradual decline both as a share of non-plan expenditure and as per cent of GDP. Another major component of non-plan expenditure is the pay and allowances of government employees, which has become the central point for discussion in the context of administrative and public expenditure reforms. The estimation of Central Government finances for the Tenth Plan assumes a 5 per cent annual increase in salary head. The implicit assumptions, having policy implications, are: (a) reduction in the strength of Central Government employees by 2 per cent

annually; and (b) not more than 2 per cent annual increase in average basic salary of government employees.

2.109 Other non-plan (ONP) expenditure needs to be contained at the base year level in real terms. The other non-plan expenditure constitutes pension, subsidy, administrative overheads, law, order and justice among others. Within this group it would be necessary to provide importance to law, order and justice. Hence, the Tenth Plan would contemplate some increase in this expenditure in real terms. Our projection indicates that the pension liability of the Central Government would increase faster than 6 per cent per year during the Tenth Plan. Therefore, adjustments would have to be made in the other two components of ONP. Particularly, the expenditure on subsidies has to be reduced substantially. Inclusion of the pension bill of the Central Government employees and expenditure on maintenance of law and order in the ONP head may push this component up marginally. But the

Table 2.24
Tenth Plan- Central Government Finances

(as a % of GDP at current prices)

	Base year 2001-02	Terminal year 2006-07	Average Tenth Plan
Budget Support to Plan	4.4	5.4	4.9
Total Non-Plan	11.3	9.9	10.7
Of which			
Interest payments	4.6	4.0	4.3
Defence	2.5	2.5	2.5
Pay & Allowances	1.3	0.9	1.0
Other Non-Plan	2.9	2.5	2.8
Total Expenditure	15.7	15.3	15.6
Gross Tax (excluding Cess)	8.2	9.9	9.4
Less: Share of States	2.4	2.9	2.7
Net Tax to Centre	5.8	7.4	7.1
Non-tax Revenue	3.0	2.6	2.7
Disinvestment	0.2	0.3	0.4
Total Non-debt receipts	9.7	11.0	10.9
Fiscal Deficit (new method)	5.9	4.3	4.7
Revenue deficit	4.2	2.2	2.9

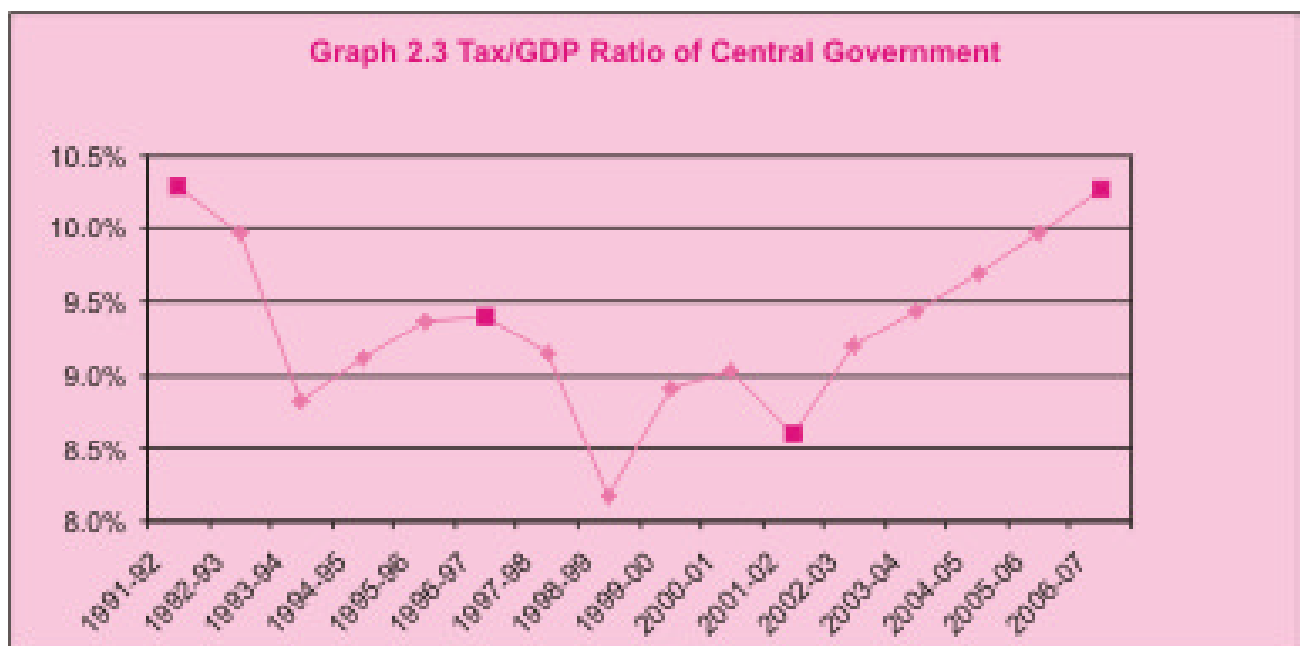
Note : Net tax revenue includes cess on diesel and petroleum surcharge, which are not part of the divisible pool. Inclusion of cess and surcharge to the gross tax would raise the ratio to 8.6 per cent, 10.3 per cent and 9.8 per cent respectively for the base year, terminal year and average of the Tenth Plan.

annual rate, at which the non-plan expenditure other than interest payment, defence and governments' wage bill is expected to grow during the Tenth Plan, does not exceed 6 per cent.

2.110 Mobilisation of adequate revenue resources is crucial to any fiscal reforms initiative. The fiscal reforms initiated during the early 1990s have led to a broad-based direct tax structure, with scaling down of the peak rate and introduction of reforms in tax administration. The reforms in indirect tax structure included reduction in the tax rates, reduction in number of slabs and introduction of Modified Value Added Tax (MODVAT)/ Central Value Added Tax (CENVAT). The overall impact has been revenue loss to the government during the decade of reforms. The gross tax revenue of the Central Government as per cent of GDP has dropped from 10.3 per cent in 1991-92 to 9.5 per cent in 1996-97, and further to 8.6 per cent in the year 2001-02. The past trend and future projection of the gross tax to GDP ratio of the Central Government is presented in Graph 2.3, which reveals a secular decline in the gross tax revenue collection of the Central Government during the Eighth and the Ninth Five Year Plans. Against this backdrop, it is envisaged to increase the tax revenue collection of the Central Government to 10.3 per cent of GDP by the end of the Tenth plan.

2.111 An analysis of the Central tax revenue collection in the last decade reveals a substantial improvement in direct tax revenues. As per cent of GDP, direct tax collection of the Centre increased from 2.4 in the base year of the Eighth plan to 2.8 in the base year of the Ninth Plan, and then to 3.2 in the terminal year of the Ninth plan. However, improvement in direct tax revenue has been more than offset by a steep fall in the collection of indirect tax during the same period. The gross tax revenue under indirect tax has declined from 7.5 per cent of GDP in 1991-92 to 6.6 per cent in 1996-97 and further to 5.4 per cent in 2001-02 (Revised Estimate), a reduction by 2.8 percentage points. The declining trend in the collection of indirect tax is accounted for by a fall in both excise and customs revenue.

2.112 Table 2.25 indicates the implicit buoyancy of Central tax revenue for direct tax, indirect tax, Custom revenue and Excise revenue. As can be seen, reforms and innovation in tax structure have kept direct tax buoyancy at a level around 1.3. However, tax reforms under customs and excise, which have lowered both the tax rates and the number of slabs, have affected the tax buoyancy adversely. The buoyancy has come down to 0.7 and 0.6 during the Eighth and the Ninth Plans from a level of 1.2 during the



Eighties. The buoyancy of custom revenue has been worst affected.

Table 2.25
Buoyancy of Central Tax Revenue

	Direct Tax	Indirect Tax	Custom Revenue	Excise Revenue	Total
Eighth Plan	1.3	0.7	0.9	0.6	0.9
Ninth Plan	1.3	0.6	0.1	1.0	0.8
Tenth Plan	1.5	1.1	0.96	1.16	1.26

2.113 The reasons for this steep fall in the indirect tax revenue are obvious. The structural and administrative reforms in the Indian tax system during the Nineties characterised by scaling down of the tax rate, reduction in number of slabs, introduction of modified value added tax system, etc, among others, were not necessarily aimed at raising revenue productivity. Rather, the purpose was to improve efficiency in production and trade by removing market distortion. The analysis of data in the post-reform period exposes several issues worth mentioning. First, the value of imports has not responded to tariff reduction in equal proportion, i.e. import elasticity with respect to tariff has not been very high. Second, a host of tariff exemptions still exists on substantial proportion of imports ranging from 60 per cent to 80 per cent. Third, the excise duty has not been structured to lead to a revenue-neutral tax system under MODVAT/CENVAT. Fourth, the tax base for excise revenue (manufacturing sector) is gradually shrinking as a proportion of GDP. Our projections of the tax buoyancy for the Tenth plan have considered all these issues.

2.114 The improvement in direct tax collection which has been experienced despite the scaling back of income tax rates in India during the post-reform period, could be attributed to expansion in the tax base through introduction of innovative schemes, extension of the base for tax deduction at source and improvement in direct tax administration etc. Continuous efforts towards improvement in the direct tax administration and its re-structuring, and introduction of information technology on a large scale to facilitate tax administration are expected to further enhance revenue collection under direct tax. Thus, attaining a buoyancy of 1.5 under direct tax appears to be

feasible. However, the target of increasing the tax to GDP ratio of the Central Government by more than 1.5 percentage points would require substantial improvement in the excise revenue and the custom revenue collection. It needs to be reiterated that the process of liberalisation would be irreversible in the near future and would continue to be so during the Tenth Plan to scale down the import tariff. Chapter 4 on External Sector elaborates upon the possible import tariff regime and the corresponding import implications during the Tenth Plan. The projection of buoyancy under custom revenue is based on the premise of (a) gradual reduction in the average import tariff to about 18 per cent and (b) complete withdrawal of tariff exemptions, except on strategic imports which are assumed to account for about 25 percent of such exemptions.

2.115 Equal emphasis needs to be given on the improvement of the Central tax revenue on account of Central excise. Introduction of CENVAT, scaling down of excise duties and the gradual shrinking of the share of manufacturing sector in GDP have all contributed to the decline in excise revenue. Exclusive dependence on the manufacturing sector for raising indirect tax revenue would not be desirable in the long run. The future growth pattern envisages a faster expansion of the services sector than any other sector. It could be necessary to expand and extend the tax base to the services sector on a large scale, in order to attain a tax buoyancy of 1.16 as projected.

2.116 It has been realised that the States have to undergo the exercises of fiscal correction with higher intensity. In this context, it would be necessary to examine the implications of the projection of State Government finances during the Tenth Plan. Table 2.26 highlights the projection of the major components of State Government finances during the Tenth Plan. As can be seen, the budget support for Plan under State finances is contemplated to be stepped up to 4.2 per cent of GDP by the end of the Tenth Plan from a base year figure of 3.8 per cent. This is consistent with the requirement of higher public investment, envisaged to come from the States sector during the Tenth Plan. It would be essential on the part of the States to support this Plan size through increased dependence on their own resources, the details of

which are discussed in the next chapter. However, it is important to note that the States would be under tremendous pressure to compress their non-plan expenditure so as to generate more resources for financing Plan.

2.117 A component-wise break up of the non-plan expenditure of the States indicates that the interest liability of the States would be increasing for the initial years of the Tenth Plan and come down to the base year level of 2.9 per cent of GDP by the end of Tenth Plan. However, the average interest payment to GDP ratio for the States would remain at 3 per cent. This is due to the fact that the cost of borrowing by the States is still higher. The lending rate of the Centre, which is the major creditor of States, is still 2.5 per cent higher at 11.5 per cent. In addition, States have accumulated a large stock of past debt with higher rate of interest. It would be almost impossible for the States, in the medium term, to reduce the interest burden to the base year level, even with the optimistic fiscal deficit position as targeted.

2.118 The next single major item under non-plan head is the salary and wage bill of the government. It does not seem feasible for the States in the near future to succeed in compressing this expenditure in real terms. States, the major public service provider, would be liable to expand their social infrastructure base; which would necessitate expansion of public service network and hence hike in the salary bill of the Government by more than that caused by inflation. It is envisaged that there would be a net addition to the employees' strength of the State Governments at an annual rate of 2 per cent during the Tenth Plan. This along with an assumed annual inflation of 5 per cent and annual increase in the average salary amounting to 2 per cent, would compel the salary bill of the State Government finances to increase at an annual rate of 9 per cent during the Tenth Plan. This is a very optimistic estimate so far as State Government finances is concerned. The State Governments have to maintain utmost restraint in recruiting manpower, which need to be guided by the condition of governance in the individual State. It is needless to reiterate that inter-State variation should be the highest guiding principle in recruiting additional employees. However, the rate of increase in

average salary bill of all States taken together, being less than the target rate of growth in nominal terms, the salary bill as percentage of GDP would come down from 3.6 per cent to 3 per cent of GDP by the end of the Tenth Plan.

2.119 It would be equally important for the States to raise their revenue base substantially during the Tenth Five Year Plan. The projection of Central Government finances envisages a 0.5 percentage point increase in the share of States from the gross tax revenue of the Centre as percentage of GDP. States' own tax revenue collection would also need to be raised from the base year figure of 5.9 per cent of GDP to 6.6 per cent of GDP by the terminal year of the plan. In this context, a move to a unified value-added tax (VAT) covering all goods and services takes the highest urgency.

ISSUES IN FINANCIAL INTERMEDIATION

2.120 The Tenth Plan recognises that the financial system continues to play a crucial role in mobilization of the available savings and allocating them to the most productive uses. An efficient and market oriented financial system is thus a complement to market based decision-making in the real sector. The extent of transformation of desired savings into investments is largely determined by the process of financial intermediation and the ability of the financial sector to not only mobilise resources but also to channelise them in a manner desired by the investors. This function becomes increasingly more important and demanding as an economy grows in complexity. In addition, the efficiency of the financial intermediation process can also affect the desired level of savings in the economy by altering the expected returns to savings. The allocation of scarce capital between competing sectors is a crucial function that has to be performed in the economy. When the financial sector performs the allocative function efficiently, scarce capital should be allocated to those sectors, which have the highest marginal productivity of capital. Efficient financial markets continually exert a disciplinary effect on enterprises and constantly monitor the utilisation of capital.

2.121 A strong and efficient financial system which is widespread and functionally diversified is

Table 2.26
Tenth Plan State Government Finances

(as % of GDP at current prices)

	2001-02	2006-07	Average Tenth Plan
States Plan Expenditure	3.8	4.2	4.1
Total Non-Plan Expenditure	13.3	11.5	12.4
Of which			
(a) Interest Payment	2.9	2.9	3.0
(b) Pay & Allowances	3.6	3.0	3.2
(c) Pension & other retirement benefits	1.2	1.0	1.1
(d) Debt repayments	0.7	0.8	0.8
Total Expenditure	17.2	15.9	16.5
Tax Revenue	8.2	9.5	9.0
Of which			
(a) State Own Tax Revenue	5.9	6.6	6.3
(b) Share from Centre	2.4	2.9	2.7
Non-tax Revenue	3.6	3.2	3.3
States' own Non Tax Revenue	1.4	1.2	1.3
Total Revenue Receipts	11.8	12.7	12.3
Total Revenue Expenditure	14.3	12.9	13.6
Total Non-Debt receipts	12.0	12.9	12.6
Gross Fiscal Deficit	4.5	2.2	3.2
Revenue Deficit	2.5	0.2	1.3

Note : Budget figure for the year 2001-02 is estimated by the Planning Commission

essential for providing an impetus to a competitive economy for supporting higher investment levels and increasing growth. The financial sector in India has developed quite substantially in both size and sophistication during the past three decades. The nationalisation of the commercial banks in 1969 led to a rapid growth and spread of banking services all over the country. The sharp increase in financial savings by households, during the 1970s can be largely traced to the spread of banking in the economy. A further fillip was given by the emergence of the non-bank financial companies (NBFCs) in hire purchase and leasing finance, and the boom in the stock markets in the early 1990s arising out of the liberalisation of the financial sector. Despite these favourable developments, it is becoming increasingly apparent that the financial sector in India needs to develop further and faster if the growth rate of the economy of 8 per cent

per annum and more is to be attained during the Tenth Plan and sustained thereafter.

2.122 Financial sector management and the reform process must progress in tandem with the reforms in the real sector. An important outcome of financial sector reforms is that it contributes to greater flexibility in the factor and product markets. With the real sector becoming increasingly market-driven and engulfed by a competitive environment, there is need for a matching and dynamic response from the financial sector. Banks and financial institutions are now required to not only enhance their business volumes and range of services, but also operate in an increasingly technologically sophisticated environment, even while keeping abreast of developments in both the internal and international economy.

2.123 It was recognised that the financial system itself needs to tone up its productivity and efficiency and improve its health. Its critical nature promoted the Government to set up Committees on the Financial System in 1991 and on Banking Sector Reforms in 1998 (Narasimham Committees) to examine all aspects relating to the structure, organisation, functions and procedures of the financial system. The deliberations of the Committee were guided by the demands that would be placed on the financial system by the economic reforms taking place in the real sectors of the economy, and by the need to introduce greater competition through autonomy and private sector participation in the financial sector. Despite the fact that the bulk of the banks were, and are likely to remain, in the public sector, and therefore with virtually zero risk of failure, the health and financial credibility of the banking sector was an issue of paramount importance to the Committees.

2.124 While the first Committee focused on arresting the qualitative deterioration in the functioning of the financial system, the second Committee offered recommendations on the strengthening of the system within the framework of purposive regulation and a strong and effective legal system. The Committees felt that the core issue is the improvement in the quality of the banks' assets portfolios. Banks have a responsibility, as repositories of the public's savings, to deploy them in a manner which ensures their soundness and contributes to national wealth creation. Many of the measures suggested by the two Committees have been accepted by the Government and implemented to a large extent.

2.125 The financial sector reform process has witnessed the adoption of several significant measures since its inception to enable it to meet the challenges of increasing deregulation and emergence of more competitive conditions. But despite this, some areas of concern remain to be addressed. The main area of concern relates to the ability of the financial sector in its present structure to make available investible resources to the potential investors in the forms and tenors that will be required by them in the coming years. In a very stylised sense, the requirement of investment funds for productive investment can be divided into three

broad categories - equity, long-term debt, and medium- and short-term debt. The proportion in which different forms of funds are required depends on the nature of the activity and the sector in which the investment is proposed to be made as well as on the perceptions regarding the future developments in the financial sector. Although there is some flexibility in these proportions, by and large, not too much variation in the debt equity ratio or the term structure of debt appropriate for the particular industry is either possible or desirable, from the point of view of both the lenders and the borrowers. Thus, the desired sectoral and institutional investment pattern in the country gives rise to a particular structure in which investible funds would need to be made available. If the financial sector is unable to provide the funds in the three broad categories in more or less the same proportions as required by the demand, the possibility is that there could simultaneously exist excess demand and excess supply in different segments of the financial market. In such a situation, the segment facing the highest level of excess demand would prove to be the binding constraint to investment activity and effectively determine the actual level of investment in the economy. It is therefore entirely possible that the level of aggregate investment could fall short of the aggregate supply of investible resources not because of a lack of investment demand, but because of a mismatch between the structures of the demand for and the supply of investment funds arising from an inadequately developed financial sector. In such a situation, the growth process could be inhibited.

2.126 Movements of funds between different financial institutions and various type of instruments tend to resolve much of these problems in an efficient and integrated financial market. Portfolio reallocation by the savers who constantly respond to differential movements in the returns to the alternative financial instruments, also facilitates free flow of funds. Frequently, new instruments are also developed to meet specific investment needs. Even in relatively efficient markets, aberrations can arise due to the fact that the rates of return in financial markets, unlike prices in goods markets, have to be qualified by risk factors, and are therefore susceptible to problems arising out of asymmetric information and speculative behaviour. Issues of

adverse selection and moral hazard, characteristic of imperfect information and incomplete markets, are present even in the most developed and sophisticated financial systems. The Indian financial sector, however, has yet to attain this degree of integration and maturity, and can be characterised as a fragmented market. By and large, there is very little movement of funds between the various segments of the Indian financial sector in response to the discrepancies in the demand and supply positions. To make matters worse, most segments of the Indian financial sector are specialised in providing only a limited component of the investment portfolio and are either restricted from or technically incapable of addressing the demand for other components. As a result, both the quantum and pattern of investment in the economy are determined primarily by the portfolio decisions of the savers, and it would be entirely fortuitous if the savings portfolio more or less matches the desired structure of investment.

2.127 As a situation of pervasive excess demand existed in all segments of the market earlier, the potential mis-match between the patterns of demand and supply of investible funds was not of much significance. Such excess demand arose primarily out of the high level of pre-emption of financial savings by the Government together with a substantial portion of directed lending. With the considerable expansion and liberalisation of the financial markets in recent years, both through higher rates of savings and external capital flows, and through reduction in the pre-emptive and directive role of the government, the problems arising out of the non-integration of the financial sector are likely to become increasingly more acute. Unless efforts are made to identify the emerging structure of the investment demand, particularly from the private sector, and to reorient the functioning of the financial sector accordingly, not only might there be a problem in attracting investment in those areas which are of national importance, but the possibility also exists of an inadequate utilisation of investible resources, leading to a slower rate of growth than would be potentially justified by extant savings. In addition, an excess supply of funds in one segment of the financial sector carries the danger that such funds may be used for speculative purposes in foreign

exchange, real estate or commodities, which create their own problems in economic management.

2.128 Private participation in economic infrastructure sector and basic industries continues to be of critical importance and needs to be increased significantly. These activities tend to be characterised by heavy investments, long gestation lags and long pay-back periods, which require the commitment of long-term funds, both as equity and long-term debt. In the past, since these sectors were predominantly catered to by public investment, the need to develop appropriate financing mechanisms was not felt. As a result, the Indian financial sector is heavily biased towards short and medium-term debt, whether it be the commercial banking sector or the development finance institutions (DFIs). Unless the availability of equity and long-term debt to the private sector is increased substantially in the coming years, the likelihood of adequate private investment in these sectors appears to be remote.

2.129 The provision of equity funds is fundamental to all investment activity and its likely availability needs careful consideration. Although India has a fairly well developed secondary market in shares, the primary issues market has traditionally been fairly small and sluggish, except for a short period of intense activity during the early and mid-1990s. One of the reasons for the slow growth in the primary market has been the tendency for the major corporates to rely more on internal accruals for providing equity funds than to dilute shareholdings through public issues. There is no reason to believe that this pattern will change in the near future. Even foreign companies in India tend to hold their shares quite closely and therefore do not contribute in any meaningful manner to the development of the equity market. Rapid growth in the infrastructure sectors will therefore require that relatively new firms enter the market by raising sizeable equity from the public, unless the existing corporate sector becomes considerably more aggressive in its expansion plans. In the alternative, excessive reliance may have to be placed on attracting foreign equity inflows to bridge this shortage.

2.130 In the recent past, equity markets have been rather listless with an insignificant number of

new issues seeking funds. The small investor has lost confidence in the market, which has been buffeted by a series of questionable deals and scams. The mutual funds that afforded a safe conduit to the equity market for the retail investor, have been adversely affected by the lack-lustre markets, and have been displaying dwindling net asset values (NAVs).

2.131 There have been several measures taken by the stock exchanges and SEBI to streamline the functioning of the markets and provide a greater degree of transparency to its operations. Disclosure norms are constantly being made more stringent and investor grievance redressal machinery has been geared up. Issues of insider trading, mergers, acquisitions and takeovers, share buy-backs, etc., are being addressed and suitable guidelines issued. The bourses have adopted modern technology including screen-based trading, and settlement periods are getting shorter. These have been positive developments but have not been able to prevent malpractices completely.

2.132 A feature of the equity markets has been the narrowness of the secondary market in equities and the excessive influence of foreign institutional investors (FIIs). The FIIs, driven by the comparative risk perception of equity markets around the world tended to create substantial volatility in the bourses as the attractiveness level changed. This was often countered by some of the domestic institutions like Unit Trust of India (UTI) whose large-scale market operations enabled it to play a stabilising role. Given the current state of health of the UTI, such a function would now be beyond its capabilities.

2.133 Insofar as long-term debt is concerned, at present the Government monopolises practically all sources of long-term funds, such as insurance, pension and provident funds. Earlier, there was certain logic to this in the sense that since the government was practically the only investor in capital-intensive long gestation projects; its need for such funds was of overriding importance. With the desired shift in investment responsibilities, it has become necessary for the government to vacate some of this space for the private sector. In addition, there is need to create conditions whereby savers are attracted towards investing in long-term debt

instruments, which are practically non-existent today.

2.134 The insurance sector has been an important source of low-cost long-term funds all over the world. This is permitted by the fact that most insurance companies operate in only two major areas - risk cover and annuities - which do not require payment of interest or repayment of the principal respectively. In the Indian context, however, the insurance companies, particularly in life insurance, also tend to act as investment funds in the sense that they not only provide risk cover but are also committed to repayment of the principal with interest, although with long maturities. One of the reasons that this has happened is that the average premium charged by the insurance companies in India tends to be relatively high due to obsolete and rigid actuarial practices and inefficient operations. There is a pressing need to reorient the insurance sector in India in a manner that it fulfills its principal mandate of providing the risk cover.

2.135 A positive development in the insurance sector has been its opening up to the domestic and foreign private sector insurance companies. This has led to increased competition and innovation in this sector. The users of insurance products and services both in the life as well as non-life segment would benefit from the advent of international practices even though pricing of insurance products would continue to be administered by the insurance regulator. The process of liberalisation of the investment guidelines has also begun, although the rate of progress in this area is significantly constrained by the budgetary position of the Central and State Governments. But further deregulation, gaining from the experience of the opening up of the sector, would increase the flow of funds into the sector and improve the availability of long-term funds for industry and infrastructure.

2.136 International experience shows that an important source of long term funds has been the various forms contractual savings such as pension and provident funds. In India, although the quantum of resources available in such funds is quite considerable, they have not played their legitimate role in providing finances for growth and

development in an adequate manner. The attitude towards such funds in India has been excessively focused on safety and security rather than on returns. As things stand today, the responsibility of the management of such funds is either that of the Government or of the employer. This, coupled with the regulatory framework, has led to a situation where such funds have been deployed only in Government securities or in trustee bonds, which are generally also public debt instruments. As a result, the returns to the employees, who are the legitimate owners of these funds, is determined primarily by the interest on Government debt. In a situation where efforts are sought to be made towards lowering the interest on public debt, such restrictions would reduce the returns to these funds. However, efforts at widening the portfolio of these funds are unlikely to be successful unless the pattern of management and responsibility is changed significantly. In the present situation, where either the Government or the employers, in the form of trustees, are responsible for the deployment of these funds, risk-averse behaviour is only to be expected, and merely enabling a more diversified portfolio may not be of much significance. It is suggested therefore that in the case of organised labour, which are the groups presently covered under such schemes, the responsibility for management of provident and pension funds should be vested in associations of employees that may be deemed appropriate. Since a direct nexus would thereby be drawn between the management of these funds and the beneficiaries, the likelihood of taking greater risks for higher returns would be increased. Typically, such arrangements also involve professional asset management companies that provide the expertise for obtaining the best returns for their clients. Such arrangements also need to be encouraged. The Government's efforts in this direction should be redirected to providing the prudential guidelines and supervisory functions, on one hand, and to widen the coverage of contractual savings by bringing unorganised labour also within the ambit of such schemes, on the other.

2.137 As far as the creation of a debt market is concerned, particularly for long-term debt, much more concerted efforts need to be made. At present,

in the absence of such a market, practically all debt instruments are held to maturity, and this illiquidity reduces the attractiveness of debt instruments, particularly those of longer maturity. The efforts at creating a debt market need to be revived with full vigour. The National Stock Exchange should be further encouraged to increase its involvement in debt instruments, as the government now issues public securities of appropriately low denominations. This would help to generate a healthy debt market in the country in which not only financial institutions but also other companies and even individuals can participate. More importantly, once the interest rate on public debt instruments becomes the reference rate, it would considerably enhance the effectiveness of monetary policies in the country, and the dependence on the CRR as an instrument of monetary control can be reduced.

2.138 At present, much of the trading in debt instruments in the secondary markets is confined to government securities, treasury bills, PSU bonds and small amounts of commercial paper. Private corporate debt trading is negligible since there is very little floating stock, as tradable debt issues by the corporate sector have not found favour. Unless an active debt market develops, the issuers in the private corporate sector would not feel encouraged to bring out public offerings in tradable debt. Private placement by corporate continues to be the principal mode of mobilising funds through the debt route.

2.139 The debt market in India lacks transparency and the settlement system needs to be improved. It is necessary to develop a nationwide debt market for all debt securities including all government bonds and treasury bills. For this, an infrastructure for trading, clearing and settlement, similar to the one obtaining in the equity market, is essential. Such a mechanism would enable the formation of a unified debt market, catering to participants of various sizes. An active and deep market in government securities is a pre-condition for the system to throw up a dependable benchmark yield rate.

2.140 Until the secondary debt market becomes sufficiently active so as to be able to absorb debt instruments of various maturities, there is a case for the Central Government to move its debt

portfolio towards the shorter end of the maturity spectrum, which would increase the liquidity in the debt market. This would be consistent with the recommendation for the Centre to vacate more space in SLR placements in favour of States and PSEs. Since there is an integral relationship between the emergence of the treasury bill rate as a credible instrument of monetary policy and the reduction in the CRR, it is suggested that the banks should be permitted to utilise a part of the CRR funds for investment in the secondary T-bill market once the institutional arrangements have been established, instead of depositing these with the RBI. Over time, these funds can be gradually released for more diversified investment, thereby achieving the target CRR level in a phased manner. The government can also utilise the debt of PSEs held by it both to activate the debt market and to provide investible funds for public investment. In order to do so, the government would have to securitise its loans to PSEs, which could then be floated in the market. The advantage of such instruments is that they not only would be relatively risk-free, since they are implicitly guaranteed by the government, but would also carry interest rates which would be sufficiently high so as to make trading feasible for the market-makers.

2.141 With the abandoning of the administered interest rate regime, the lending rates of banks have been freed and banks can now fix these rates on the basis of their asset-liability mix and the desired spread. They, however, need to announce their prime lending rates (PLR) as well as the maximum margin or band over this rate, and the applicable interest rates would essentially depend on their risk perception of borrower's venture. The Reserve Bank of India (RBI) has recently permitted the banks to quote sub-PLR rates to deserving borrowers who can be construed as prime risk. This concession has been given to banks to enable them to match the lower rates of interest at which prime borrowers are able to access funds from extra-banking sources, primarily through commercial paper, non-convertible debentures and external borrowing.

2.142 In fact, these guidelines to banks have removed the floor from their lending rates, leaving it to the judgement of the individual banks as regards credit risk. The intention is that banks

would now have discretion and adopt a selectively preferential approach towards their prime borrowers while retaining the PLR plus rates for their normal customers. A possible danger in sub-PLR lending is that it could trigger off a competitive spiralling of interest rates downwards, with banks attempting to secure additional business. This would be detrimental to the banking industry in the long run. Further, the risk-weighted returns of banks would be adversely affected, thereby impacting on their profitability and capital adequacy.

2.143 It may be true that the lending rates continue to be high, tending to make industry uncompetitive. However, the ability of banks to reduce their interest rates further is limited, notwithstanding the present high real interest rates. Banks are burdened with a large volume of non-performing assets (NPAs) with no returns, which have to be provisioned for or written off, placing considerable strain on their profitability. This position could get worse with stricter NPA norms in place in the coming years. High NPA levels also contribute to the risk-averse nature of banks and propel them towards the safety of investments in government securities, even though returns offered are much lower. NPA levels can be brought down significantly by streamlining the legal system and procedures in the country that tend to be lender-unfriendly. The recent ordinance promulgated on the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest will go a long way in allowing the banks to take control of the assets of willful defaulters without going through cumbersome and time-consuming litigation.

2.144 Another reason for the banks' inability to reduce lending rates is the unduly high spread required for their operations. In addition to the burden of NPAs, it is the high transaction cost which prevents reduction of spreads. With a large branch network and low level of computerisation and networking, the efficient use of funds remains a problem. Asset-liability mis-matches tend to get more pronounced, which has a bearing on the bank's cost of funds. The lending rates could of course be reduced by lowering the deposit rates while retaining the spreads. However, bank deposit rates necessarily have to move in tandem with the rates applicable on competing deposit schemes, like the small savings and post office deposits.

2.145 The interest rates paid by the borrowers, however, though based on the deposit rates, are also determined by the level of efficiency of the financial system. The spreads between the deposit and lending rates in India are much too high by international standards and reflect both the constraints faced by and the relatively low level of efficiency in the financial intermediation system. Long-run competitiveness of the economy cannot be ensured unless these spreads are brought down to at or near international levels. Although in recent years there has been considerable liberalisation of the banking sector, along with a tightening of prudential norms and practices which have led to an improvement in the health of the banking sector, there are some areas of concern which need to be examined.

2.146 The banking industry is carrying a heavy burden of non performing assets which raise the cost of bank operations and consequently the spread, and efforts need to be made to bring these down. However, a balance has to be drawn between the reduction in NPAs, on one hand, and ensuring adequate supply of credit to the economy, on the other. Excessive pressure on banks to reduce NPAs is likely to lead to a high degree of selectivity in the credit disbursement process. As a result, it may well be possible that the total level of credit issued by the banking system may fall short of the levels dictated by the growth in deposits. While this would no doubt reduce the level of NPAs, it would also have the effect of raising the average cost of credit actually disbursed. As a result, the spreads would be affected by two contradictory influences and, in the short run, it is likely that the latter effect would dominate so that either the spreads would actually rise or the health of the banking sector would be adversely affected. An increase in spreads through an increase in the lending rates would be self-defeating for the banking sector in view of the fact that the prime borrowers also have access to international sources of funds and are likely to switch if domestic interest rates are raised in any significant manner, thereby raising the average level of risk exposure in the lending portfolios of banks.

2.147 There are a number of considerations, which enter into determining the effects of policy on banking spreads. First, the level of the cash

reserve ratio (CRR) that is to be maintained by the Indian banks is considerably higher than the international levels that are specified for prudential reasons. While such a target for the CRR is eventually desirable for the health of the banking sector and a reduction in the spreads, it needs to be seen in the context of the immediate policy imperatives. A decrease in the CRR enables the banking system to generate a higher level of credit from the same deposit base, which implies an increase in the money multiplier. Thus, in view of a given inflation target, a decrease in the CRR would require a corresponding decrease in the rate of growth of base money, which would reduce significantly the extent of seignorage available to the Government. In view of the relatively high level of fiscal deficits that are likely to obtain during the Ninth Plan period, it does not appear desirable to reduce the potential seignorage excessively. Sharper decreases in the CRR can be brought about once the fiscal deficit of the government has been brought to about 3.5 per cent of GDP and the revenue account comes into surplus. Secondly, with the greater importance of monetary policy in macroeconomic management, the CRR will continue to be an important instrument until such time as the interest rate on treasury bills and the bank rate become credible instruments of monetary control. This is unlikely to happen until an active market in treasury bills is created and the treasury bill rate becomes a commonly accepted reference rate for the structure of interest rates in the country.

2.148 Policy intervention by the Government in the operation of the banking system also takes place through the medium of the statutory liquidity ratio (SLR) where it is mandatory for the banks to hold Government and public sector securities. The negative effects of the SLR have been mitigated to a considerable extent in recent years both by a reduction in the SLR from 38.5 per cent of the total net demand and time liabilities (NDTL) of banks to 25 per cent, and by having market determined rates of interest on public debt instead of rates prescribed by the government. However, in the absence of an active debt market in government securities, the SLR is characterised both by a certain degree of illiquidity with the banks and an interest rate on public debt which is not determined in a truly competitive market. These factors will become increasingly more

important during periods of relatively tight liquidity. On the whole, however, the SLR is desirable both as a prudential measure and in view of the need to generate debt resources for the government. The latter rationale will be obviated once a proper debt market comes into existence and the creditworthiness of the public sector, particularly States and PSEs, improves adequately. It would be desirable for the Centre to gradually vacate the space for long-term debt and make these available to the States and public sector enterprises which have the most pressing needs for long-term funds.

2.149 The third area that needs examination is the directed lending for priority sectors. The role that priority sector lending has played in making credit available to sectors, which are of national importance in terms of their effects on employment and poverty alleviation, such as agriculture and small-scale industries, and which have strong externalities cannot be gainsaid. The Indian economy is still not in a position in which the sectors with access to organised sector credit will be able to take care of these objectives. Since pure price rationing in the sense of using the interest rate as a single allocation device is neither feasible nor desirable in the presence of incomplete information and adverse selection possibilities, and since a comprehensive portfolio balancing approach is administratively difficult in a widely dispersed banking network, there is a high probability that smaller borrowers would be systematically discriminated against in terms of credit allocation. This would be contrary to the interests of both the nation and even the banking sector itself. The institutional mechanism for making available credit to the priority sectors needs to be revised. Since most new banks do not have the capacity to either appraise or effectively supervise lendings in the priority sectors, specialised institutions may have to be developed not only on a sectoral basis but perhaps also on a regional basis. In this context institutions such as National Bank for Agriculture and Rural Development (NABARD), Small Industries Development Bank of India (SIDBI), local area banks (LABs), regional rural banks (RRBs) and cooperative financial institutions need to be strengthened and professionalised, and the linkages between themselves and with the commercial banking sector established on a firmer

and more formal footing. It should be ensured that with greater autonomy and private participation in public sector banks, the institutional structure of branch networks, which are critical for effective implementation of priority sector lending, is not diluted. In the case of banks without such wide-spread infrastructure and non-bank financial institutions, the funds may have to be routed through the specialised institutions. In such cases care would have to be taken that the rate of interest paid by the specialised institutions is no higher than the risk weighted interest received by the public sector banks on their direct loans to the priority sectors. Further, the recent tendency for inclusion of various activities under priority sector needs to be curbed, since it tends to diffuse the focus from those sectors which have high externalities and which need to be supported in a distinct and focused manner. Therefore, not all infrastructure should be categorised as priority sector, but only those that have high social returns and long pay-back periods.

2.150 Credit to the small industrial sector, along with agriculture has always enjoyed special attention both in policy formulation and institution building efforts in view of their importance with regard to employment potential, income redistribution and support to the balance of payments. Credit flows to small-scale industries have been a part of priority sector directives; but despite this, complaints continue regarding inadequacy of bank credit. Suggestions have been made to enhance credit flows to this sector by liberalising credit appraisal norms. While banks and other credit institutions need to devise appraisal criteria to suit this sector and be responsive to their genuine requirements for credit, their approach should not sacrifice sound canons of banking prudence.

2.151 The experience of banks in small scale industry financing has not been wholly satisfactory in view of the high incidence of sickness in this sector. The banks often find it difficult to monitor the credit flows closely and diversion of the credit funds is not often checked in time. The channelising of bank credit through local ground level informal finance agencies like chit funds, nidhis and money lenders is one way of ensuring that credit delivery is focused and diversion of funds does not take

place. As these local finance agencies are already an integral part of the community in their sphere of influence, banks can benefit from their information gathering system and their ability to recognise signals of potential sickness and take corrective measures at the incipient stage.

2.152 An important area of priority sector lending involves credit to the social sectors and activities which may not be 'bankable' in the usual sense of the term, but which may have high social returns. Micro-credit is well established as an area of focus not only in India but in a number of other countries as well, and a number of experiments have been successfully tried. It has been found that the loan servicing experience with micro-credit can be as good or even better than credit to formal sectors if it is implemented through appropriate mechanisms such as group lending. The experience of public sector banks in providing credit through self-help groups has been excellent and this lending activity needs to be expanded to cover a wider clientele.

2.153 Apart from directed credit, provision of long and medium term credit to industry has always been considered as an important element in the process of industrialisation. Among the large number of specialised institutions which were set up to provide finance to different sectors of the economy in the post-independence period, a well-knit structure of development financial institutions (DFIs) was set up for meeting the requirements of medium and long-term finance of all range of industrial units. Realising the significance of these all-India and State-level financial institutions, the government and RBI provided various types of financial incentives and other supportive measures. It was accepted that these institutions would provide long-term finance to industry, as commercial banks were not able to fill this gap in the economic growth process due to asset-liability mismatch fears.

2.154 To encourage investment in industry at that time, it was decided that the DFIs should provide long-term finance at interest rates, which were softer than those being charged by banks on their advances. To enable the DFIs to finance industry at concessional rates of interest, low-cost funds were made available to them by the government and RBI through bonds with

government guarantee, budgetary support etc. Banks were also not permitted to provide term loans to large industries and such loans became the exclusive domain of the DFIs.

2.155 However after the economic liberalisation and financial sector reforms were initiated, the protection available to the DFIs was no longer there, and with it the concessional funds, thereby forcing them to compete with the commercial banks whose cost of funds was much lower on account of their branch network. Furthermore, the level of NPAs of DFIs rose considerably on account of global competition faced by industrial units financed by them due to import liberalisation and the consequent adverse effect on their profitability. Moreover, with commercial banks now entering into term financing, the viability of DFIs suffered much more.

2.156 The changed business environment compelled the DFIs to re-engineer themselves and identify new areas of operations or convert themselves into commercial banks or universal banks. The traditional business of DFIs of providing long-term finance to industry and infrastructure is dwindling, as it is becoming increasingly difficult for them to provide funds at interest rates, which are low enough to make these long-gestation projects viable. But the financial institutions still possess rich expertise in project appraisal systems and an in-depth knowledge of the various industrial sectors, which should be profitably utilised. Commercial banks are yet to acquire this expertise as well as experience in term lending.

2.157 As the creation of infrastructure facilities in the economy continues to be a priority, and large industrial projects require a heavy component of medium to long-term funds, it is necessary that long-term funds, which are low cost, are made available to financing institutions. With the systems and appraisal skills already in place with DFIs, such funds should flow through these institutions and there is a case for SLR funds and government guaranteed bonds being provided to them. However, it must be ensured that the DFIs are managed professionally with the latest system of credit appraisal, delivery and recovery so that NPAs are kept to the minimum. Spreading the financing over a wider spectrum of industrial sectors and size of industrial units would also help in mitigating risk of over-exposure.

2.158 Banks, particularly the public sector banks have traditionally concentrated in industrial, trade and agricultural advances and personal segment loans have not been favoured much by them. This trend has changed in the last few years. When banks have been aggressively enhancing their personal loans portfolio by marketing housing loans, vehicle loans, educational loans etc. Of these, housing loans form the largest chunk. Earlier, banks were not lending to the housing segment directly. Housing finance companies used to borrow from banks and lend to the retail customer at a good margin. However, with sluggish industrial growth, banks have been finding profitable investments difficult. Returns from government securities have gone down, not justifying the cost of funds. These factors have led the banks to shift focus on the housing loan segment, which offers good returns and where potential NPAs are low. The encouragement of home loans by banks coupled with the low rates of interest at present would witness a spurt in house building activity and become one of the drivers in the process of development.

2.159 In addition to the above policy influences on the performance of the banking sector, the vulnerability of financial institutions, particularly banks, has increased on account of the much larger range of activities that they need to undertake and for which they may not be adequately prepared. Especially in the nationalised banking sector, each bank is presently undertaking the full range of banking and other services for which they may not be fully competent. Some of the areas where such shortcomings are becoming increasingly apparent are project appraisal skills, particularly for non-industrial activities, treasury and portfolio management skills, merchant banking skills and skills in operating in the foreign exchange and derivatives markets.

2.160 Assessing and managing a variety of risks is the core activity in banking. The whole spectrum of risk management functions has become far more complex in recent times as the business environment in the real sector has turned more dynamic and competitive. Bankers must be competent to assess and manage a wide variety of risks like credit risks, market risks, interest and

foreign exchange risks, liquidity risks and operational risks. Another factor adding to the complexity of managing banking business is the growing use of information and communication technologies. These technologies are being deployed for developing a whole range of newer products and services in an increasingly competitive environment, which goes beyond national borders.

2.161 There is a need to upgrade the level of such skills in all segments of the financial sector, and most particularly in the nationalised banks. While formal training in these areas is necessary, it is not sufficient. In order to develop most of these skills there has to be a considerable amount of learning by doing experience, which can be acquired only gradually. In the private financial sector some of these problems have been addressed by hiring professionals with the requisite skills and qualifications. In the nationalised sector however, there are policy and other barriers to taking recourse to such solutions. This would put the nationalised banks at a disadvantage and, given the dominance of this sector in the Indian economy, harm the interest of their customers.

2.162 Human resource policies of public sector banks have to now take into consideration age and skill profiles of banking personnel and turn to the open market for recruitment. While the voluntary retirement scheme launched in the banking industry two years ago has addressed the first issue to some extent, merit-based recruitment is skill not practiced. Banks need to top up their skill base by resorting, on an ongoing basis, to lateral induction of experienced and skilled personnel, particularly for quick entry into new activities and areas.

2.163 One characteristic feature of the organised financial sector in India, which is a cause of considerable concern, is the lack of free flow of information within the financial system regarding the creditworthiness of borrowers and solvency of institutions. The high level of existing NPAs can in some measure be traced to this lacuna. Unless information sharing and early warning systems are instituted, the dangers to the financial system will get multiplied as the level of complexity of financial transactions in the economy increases.

2.164 Information management is an area where, globally, technology has played a very active role and lack of readily available verifiable information proves to be a handicap for banks in risk assessment. It is essential to have a broad information infrastructure that captures not only individual and corporate information but also transactional information. This requires a new industry of information service providers that would develop and maintain relevant corporate and personal information that is easily accessible to all authorised users. This calls for an environment that facilitates the collection of accurate credit information on a transparent basis. Banks would then have an easily accessible matrix for risk assessment that will enable them to benchmark their risk-reward position with the rest of the system. The formation of the Credit Information Bureau is a positive step in this direction and efforts should be made to equip it sufficiently in order to fulfill its desired objective.

2.165 Finally, the liberalisation of the Indian economy, particularly with respect to foreign investment and external flow of funds, is exposing the Indian financial sector to issues that have not been of great significance earlier. In particular, the Indian markets have extremely slow operational and reaction speeds in comparison to the international market. Unless the speed of transaction in the Indian system is increased significantly, it would expose the Indian financial institutions to vulnerabilities arising out of arbitrage and speculative behaviour. The introduction of modern banking and money management systems has to be of the highest priority before further liberalisation of international financial flows can be contemplated.

2.166 Information technology and electronic funds transfer system have emerged as the twin pillars of modern banking development. Products offered by banks have moved way beyond conventional banking, and access to these services has become round-the-clock. Banks can now be accessed on phone, internet and through ATMs

for most of the services required by customers. This indeed is a revolution in Indian banking but some systemic changes are urgently required. Cyber laws and other procedures which are commensurate with modern technology-based banking have to be put in place urgently and sufficient regulatory mechanism has also to be instituted so that the fast strides in banking automation does not go on undesirable lines.

2.167 Corporate governance in banks and financial institutions has assumed great importance in India, and there is still some ground to cover in order to make all banking institutions safe, sound and efficient. It is necessary that institutions, which form a part of the financial system, have internal management, governance and accountability structures, which measure up to the highest standards. Liberalisation and deregulation has given greater autonomy to the financial sector, particularly banks, in regard to their maturity structure, interest rates and asset management. Even as greater freedom implies greater responsibilities, there are more players in the field today public sector banks, private banks, co-operatives, NBFCs, etc. where the markets are more free but more competitive. As some recent instances involving co-operative banks have pointed out, contagion and systemic implications are inevitable and here corporate governance becomes crucial. Added to this is the greater volatility in the inter-linked financial architecture where effects tend to be instantaneous.

2.168 Some of the issues, which need to be debated, are those of compatibility of corporate governance with public ownership of banks and making the system accountable to economic institutions and regulators. It is essential to put appropriate mechanisms in place to enforce accountability, asset liability management, early warning and prompt corrective action systems. It is also imperative that there is complete alignment between the goals of the management of the banks and the goals of shareholders.

