2

Macroeconomic Framework

2.1. This chapter presents the basic macroeconomic projections underlying the Eleventh Plan consistent with achieving the target GDP growth rate of 9% on average over the Eleventh Plan period. These projections are not based on a single model of the economy, but on the results of several different models which have been used to explore feasible levels of growth and to derive a broadly consistent macroeconomic picture covering the broad sectoral composition of growth, savings and investment and projections of the balance of payments which are consistent with external viability of the strategy being proposed.

GROWTH POTENTIAL

2.2. The growth potential of the economy can be judged to some extent by the performance of the economy in the past, and especially the performance in recent years. Table 2.1 presents the growth rates achieved in each Plan period since the First Five Year Plan.

2.3. It shows that the economy grew at 6.5% per year in the Eighth Plan period (1992–1996) and then decelerated to 5.5% in the Ninth Plan period (1997–2001), but recovered sharply to achieve a growth rate of 7.7% during the Tenth Plan. The last four years of the Tenth Plan recorded an average of about 8.7% and this momentum has continued into 2007–08 which is the first year of the Eleventh Plan, and is likely to record a growth of around 8.5% or, perhaps, even a little higher.

2.4. In this background, the 9% growth target for the Eleventh Plan period (2007–2011) approved by the NDC, which involved accelerating gradually from around 8.5% in the first year of the Plan to 10% by the end of the Plan period, appears entirely feasible, provided supportive policies are put in place. China has achieved growth rates exceeding 9% for two to three decades and while circumstances in India are not identical, the Indian economy has many strengths and now looks well

TABLE 2.1
Growth Performance in the Five Year Plans

(% per annum)

	Plan Period	Target	Realization		Plan Period	Target	Realization
1.	First Plan (1951–55)	2.1	3.5	8.	Sixth Plan (1980–84)	5.2	5.5
2.	Second Plan (1956–60)	4.5	4.2	9.	Seventh Plan (1985–89)	5.0	5.6
3.	Third Plan (1960–65)	5.6	2.8	10.	Annual Plan (1990–91)	–	3.4
4.	Annual Plans (1966–68)	–	3.9	11.	Eighth Plan (1992–96)	5.6	6.5
5.	Fourth Plan (1969–73)	5.7	3.2	12.	Ninth Plan (1997–2001)	6.5	5.5
6.	Fifth Plan (1974–78)	4.4	4.7	13.	Tenth Plan (2002–2006)	7.9	7.7
7.	Annual Plan (1979–80)	–	–5.2				

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. The actual growth rates are in terms of GDP at factor cost. Average growth rates over a short period can be misleading because of fluctuations in agricultural output due to variable monsoon.

positioned to achieve this goal. The economy has been accelerating gradually for the past fifteen years and the further acceleration needed to achieve the Eleventh Plan target is only modest. If this target is achieved, it would mean that per capita GDP would grow at around 7.6% per annum during the Eleventh Plan period. Per capita consumption growing by about 7% a year would double per capita consumption in about 10 years. Further, if growth is sufficiently inclusive, it will certainly provide an environment conducive to bringing about a broad-based improvement in living standards. Accelerated growth will also boost tax collections in both the Centre and the States, allowing the public sector to finance the special programmes needed to ensure inclusiveness.

2.5. The major macroeconomic parameters associated with achieving the average GDP growth of 9% during the Eleventh Plan are given in Table 2.2 with a comparative picture of the same parameters for the Tenth Plan. It may be noted that the higher growth target in the Eleventh Plan is premised upon a significant increase in the investment rate from an average of 32% of GDP in the Tenth Plan to an average of 36.7% of GDP in the Eleventh Plan. The Incremental Capital Output Ratio (ICOR) is expected to improve marginally. With the competition stimulated by openness and the expected improvement in infrastructure, ICOR can be expected to come down. Considering the acceleration in savings and investment rates in recent years, the projected growth may seem conservative. However, since private investment may fluctuate over a business cycle, a deliberately conservative target is set.

SECTORAL COMPOSITION OF GROWTH

2.6. Earlier, planning models placed heavy emphasis on estimating the sectoral composition of growth based on input-output balances established on the basis of detailed multi-sector models. Such detailed sectoral targets have little relevance in an open economy where necessary balances for all the tradable goods can be achieved through exports and imports. The only sectors where it is necessary to plan for a balance between domestic production and likely demands are the non-tradable sectors which are mainly in infrastructure, e.g. electric power, road transport, ports, airports, telecommunications, etc. The capacity requirements for these sectors have been worked out in detail and the policy implications and investment implications are discussed in Chapter 12 and also in the relevant chapters on individual sectors.

2.7. Although detailed sectoral targets are no longer relevant, it is possible to present a broad picture of sectoral growth prospects consistent with the target of 9% growth of the economy as a whole. Table 2.3 presents the sectoral composition of growth in the past three Plans together with indicative projections for the Eleventh Plan.

TABLE 2.2
Macroeconomic Parameters

(at 2006–07 prices)

	Tenth Plan	Eleventh Plan
1. Investment Rate (% of GDPmp)	32.4	36.7
2. Domestic Savings Rate (% of GDPmp)	30.9	34.8
3. Current Account Deficit (% of GDPmp)	1.5	1.9
4. ICOR	4.3	4.1
5. GDP Growth Rate (% per annum)	7.5	9.0

Note: GDPmp = GDP at market prices.

TABLE 2.3
Sectoral Growth in Recent Plans

(% per annum)

Sector	Eighth Plan (1992–96)	Ninth Plan (1997–2001)	Tenth Plan (2002–06)	Eleventh Plan (2007–11)
1. Agriculture	4.72	2.44	2.30	4.0
2. Industry	7.29	4.29	9.17	10–11
3. Services	7.28	7.87	9.30	9–11
4. Total	6.54	5.52	7.74	9.0

It may be seen that both agriculture and industry show a marked deceleration in the Ninth Plan compared to the Eighth Plan. The deceleration in industry was reversed in the Tenth Plan but the growth in agriculture continued to be slow. The services sector accelerated sharply in the Tenth Plan.

2.8. The deceleration in agriculture, which began in the Ninth Plan period and continued in the Tenth Plan period, has been a major area of concern from the point of view of inclusiveness. With half our population deriving the greater part of their income from agriculture, faster growth in agriculture is necessary to provide a boost to their incomes. Rising incomes in agriculture will also boost non-agricultural income in rural areas, thus helping redress the rural–urban imbalance. The Eleventh Plan has therefore set a sectoral target of doubling agricultural growth to 4% per year. In this context it may be noted that agricultural growth increased from less than 1% in the first three years of the Tenth Plan to average more than 4% in the last two years and, from early indications, this will be maintained in the first year of the Eleventh Plan also. Although no firm judgement is yet possible, this growth upturn in agriculture is a promising development and suggests that the target of 4% growth in agriculture for the Eleventh Plan is eminently achievable.

2.9. Industrial performance in the Tenth Plan period improved to a respectable 9.2% from the very low growth rate of 4.3% in the Ninth Plan. This revival of industrial growth is a major achievement of the policy in recent years. However, industrial performance needs to be improved further if high quality employment in the non-agricultural sector is to be generated. Within industry, the manufacturing sector, accounting for 77% of industrial output has shown significant growth acceleration in the last two years. This revival of dynamism in industry has to be sustained to reverse the unacceptable decline in the share of manufacturing in GDP that has happened since 1991. This will also help generate more employment opportunities for the burgeoning workforce. The Eleventh Plan aims at double digit growth both in manufacturing and in industry. At the same time, it will be critical to improve the performance of the core sector (steel, coal, cement, oil, fertilizers and refined petroleum) to ensure that their supply response is adequate to sustain double digit manufacturing and industrial growth. Accelerated growth in industry will help to provide faster growth in organized sector employment, which is typically of a higher quality.

2.10. The services sector has grown impressively in successive Plans with a sharp acceleration in the Tenth Plan period, reflecting the rapid growth in high-end services spurred by the IT revolution. This has opened up new and attractive employment opportunities for our educated youth. We can expect further improvement in performance in this sector with an acceleration of services growth to 10% in the Eleventh Plan. Rapid growth in IT related services and in tourism will contribute to this outcome as will the expected expansion in health and education which should provide additional jobs for teachers, doctors and medical attendants.

TABLE 2.4
Investment and Savings Rates

(% of GDP)

Year	Investment Rate	Savings Rate
Eighth Plan (1992–93 to 1996–97)	24.4	23.1
Ninth Plan (1997–98 to 2001–02)	24.3	23.6
2002–03	25.2	26.4
2003–04	28.2	29.8
2004–05	32.2	31.8
2005–06	35.5	34.3
2006–07	35.9	34.8
Tenth Plan (2002–03 to 2006–07)	32.1	31.9
Eleventh Plan Targets	36.7	34.8

Note: Ratios for Eleventh Plan are at constant 2006–07 price; Ratios for earlier years' Plans are at current price; 2005–06: Provisional Estimates; 2006–07: Quick Estimates.

AGGREGATE INVESTMENT

2.11. High levels of investment are critical for rapid growth and an important strength of the economy is that we are entering the Eleventh Plan after experiencing several years of a rising level of investment as a percentage of GDP. As shown in Table 2.4, the investment rate averaged 24.4% in the Eighth Plan period and was almost unchanged in the Ninth Plan period. Thereafter it rose to an average of 32.1% in the Tenth Plan with the last year of the Plan showing an acceleration to 35.9%. This rate of investment should normally be adequate to attain 9% growth, but in our circumstances, because of prolonged underinvestment in infrastructure and the consequent need to enhance investment in this area, the Eleventh Plan aims at a further increase in the rate of investment in succeeding years to reach 38% at the end of the Plan period, yielding an average of around 37% in the entire Plan period.

2.12. An important structural change in the investment behaviour of the economy in the recent past is the change in relative shares of public and private investment. As shown in Table 2.5, although the rate of total investment as a percentage of GDP was almost the same in the Eighth Plan as in the Ninth Plan, the composition shifted in favour of private investment. Public sector investment as a percentage of GDP declined from 8.5% in the Eighth Plan to 7% in the Ninth Plan. This meant that the share of public sector investment in total investment declined from 34.7% in the Eighth Plan to 29% in the Ninth Plan. This trend of a declining rate of public investment as a percentage of GDP continued in the first two years of the Tenth Plan but then began to be corrected in the rest of the Plan period. Private sector investment continued to be buoyant throughout the Tenth Plan period so the share of public investment in total investment in the Tenth Plan fell to 22%.

2.13. The rapid increase in private sector investment in the aggregate investment is in large part a reflection of the impact of the reforms initiated in the 1990s, which reduced restrictions on private investment and created a more favourable investment climate. It reflects the fact that the private sector has responded positively with an improvement in the investment climate. This is clearly a welcome development and should be encouraged in the Eleventh Plan. However, the declining trend in public investment as a percentage of GDP is a matter of concern. It reflects inadequate public investment in the Ninth Plan period in many critical areas such as agriculture and infrastructure. The reversal of the declining trend of public investment as a percentage of GDP in the Tenth Plan is a welcome development which needs to be continued in the Eleventh Plan. It must be emphasized that a higher share of public investment can be justified only if there is a demonstrable improvement in the efficiency of public investment. However, it can be argued that the infrastructure gaps are so large that an increase in public investment in infrastructure will actually crowd in private investment. These objectives are reflected in the projections for the Eleventh Plan, as shown in Table 2.5.

2.14. The private sector, which includes farming, micro, small and medium enterprises (MSMEs), and the larger

TABLE 2.5
Total and Public Investment in the Ninth and Tenth Plans

	Total Investment (% of GDPmp)	Private Investment (% of GDPmp)	Public Investment (% of GDPmp)	Public Investment (% of Total Investment)
Eighth Plan (1992–93 to 1996–97)	24.4	15.9	8.5	34.7
Ninth Plan (1997–98 to 2001–02)	24.3	17.3	7.0	29.0
2002–03	25.2	19.2	6.1	24.1
2003–04	28.2	21.8	6.3	22.5
2004–05	32.2	25.3	6.9	21.4
2005–06	35.5	27.9	7.6	21.4
2006–07	35.9	28.1	7.8	21.6
Tenth Plan (2002–03 to 2006–07)	32.1	25.1	7.1	22.0
Eleventh Plan	36.7	28.7	8.0	21.9

Note: Ratios for Eleventh Plan are at constant 2006–07 price; Ratios for earlier years' Plans are at current price; 2005–06: Provisional Estimates; 2006–07: Quick Estimates.

private corporate sector, accounts for over 77% of the total investment in the economy and an even larger share in employment and output. Expansion in this sector will have to play a critical role in achieving the objective of faster and more inclusive growth. The MSMEs, in particular, have a vital role to play in making the growth regionally balanced, and in generating widely dispersed off-farm employment, some of it in rural areas. The Eleventh Plan, therefore, aims at an increase in investment in the private sector to 28.7% from an average of 25.1% in the Tenth Plan. This is best done by creating an environment in which entrepreneurship can flourish at all levels. New entrepreneurs should be able to enter and expand. In order to compete with incumbents, there must be strong competitive pressures which promote efficiency, government policies must be investor friendly, transaction costs should be low and infrastructure services of good quality should be readily available, especially to small and medium enterprises. Many elements of this environment are already in place. Licensing controls and discretionary approvals have already been greatly reduced, but remnants of the control regime remain that still need drastic overhaul, if not elimination, especially at the State Government level. Quantitative controls, where they exist, should give way to fiscal measures and increased reliance on competitive markets, subject to effective and transparent regulation. The burden of multiple inspections by government agencies must be removed and tax regimes rationalized. Since MSMEs are expected to create the bulk of new employment, it is particularly important to make the financial system more efficient in meeting the needs of our expanding private sector, and to ensure financial inclusiveness.

2.15. While encouraging private investment, the Eleventh Plan also aims at a substantial increase in public investment in critical areas such as agriculture, irrigation and water management, and in social and economic infrastructure. Public investment in infrastructure is projected to increase from 4.1% in 2006–07 to 6.8% in 2011–12. Since this increase must be accommodated with the overall increase in public investment from 7.8% in 2006–07 to 8.6% in 2011–12, it implies that public investment will shift from the non-infrastructure to infrastructure sector.

AGGREGATE SAVINGS

2.16. The rise in investment projected in the Eleventh Plan is expected to be supported by a substantial increase in domestic savings. Table 2.6 presents the structure of savings since the Eighth Plan period. Private savings consist of household savings, including direct investment by households, and corporate sector savings. Public sector savings consist of the savings of the government departments (Centre and States) and public sector corporations. Both components of private savings (households and corporate sector) have risen as a per cent of GDP in the Ninth Plan and also in the Tenth Plan. Corporate savings have been especially buoyant in the Tenth Plan, reflecting the very strong output and financial performance of the private sector in recent years.

2.17. The behaviour of public savings displays a more varied pattern. There was a marked deterioration in public savings in the Ninth Plan period, reflecting the sharp deterioration in the performance of Departmental Savings mainly on account of the impact of the Fifth Pay Commission which led to an increase in government salaries. Departmental Savings deteriorated from –0.9% of GDP in the Eighth Plan to –4.1% of GDP in the Ninth Plan. There was a marginal improvement in the savings of public sector undertakings from 3% of GDP in the Eighth Plan to 3.3% in the Ninth Plan, but the deterioration in Departmental Savings in the Ninth Plan meant that total public sector savings deteriorated from 2.1% of GDP in the Eighth Plan to –0.8% of GDP, a turnaround of 3 percentage points.

2.18. As shown in Table 2.6, both components of public sector savings showed an improvement in the Tenth Plan. Reduction in the dis-savings of government administration has been due to three main reasons: first, the impact of the Fifth Pay Commission's recommendations worked itself out in the system; second the implementation of the Fiscal Responsibility and Budget Management (FRBM) Act, and the fiscal and revenue deficit targets for 2008–09 established thereby helped introduce an element of discipline; and third, the buoyancy in tax revenues arising out of the high growth rate recorded in the Tenth Plan combined with improvements in tax administration contributed to improved savings.

2.19. The projections for the Eleventh Plan assume that the private sector savings effort will continue to be strong with some further improvement and that this will be combined with a very strong improvement in public sector savings. The scale of the public sector effort can

be seen from the fact that the Eleventh Plan projects a combined public sector savings rate of 4.5% of GDP compared with an achieved level of only 1.9% in the Tenth Plan. The projected turnaround of 2.6 percentage points of GDP in public sector savings requires a massive effort on the part of both the PSEs and the departments, mainly, the latter. It is important to note that this favourable outcome assumes that the award of the Sixth Pay Commission will not present severe difficulties. Hopefully, since the Fifth Pay Commission had indexed salaries fully to inflation, the pay increases should be only moderate. Pay revision should also increase private savings. If some of the subsidies financed by the government can be moderated, the savings target of public administration is realizable. It is also assumed that PSEs will maintain their savings performance of the Tenth Plan. One could expect it to increase. However, a slightly lower savings rate of 4% of GDP is conservatively projected to account for government policy on oil product price subsidies and its adverse impact on oil PSUs' balance sheets.

THE BALANCE OF PAYMENTS

2.20. A key aspect of macroeconomic consistency is the viability of the Plan targets in terms of their implications for managing the balance of payments.

2.21. During the Tenth Plan period, merchandise exports moved on to a new trajectory with an annual average growth rate of 23.2%. Similarly, with a buoyant economy, merchandise imports increased by 27.8% during this period. There has been a continuous shift of exports towards technology intensive high-value manufactures, including machinery and instruments and also petroleum products, gems and jewellery. Despite substantial growth in the export of petroleum products by an annual average of 54.3% in the Tenth Plan, net oil imports increased by 26.5% due to the steep rise in oil prices of the Indian basket. Services exports increased substantially in the Tenth Plan contributing to increase in net invisibles. This provided a cushion for financing a large part of the trade deficit on the merchandise account. The current account deficit in 2006–07 was US$ 9.6 billion, i.e. 1.1% of GDP.

2.22. Based on the Tenth Plan trends, projections for the Eleventh Plan have been made and are summarized in Table 2.7. These projections reflect a picture of a dynamic Indian economy taking full advantage of the opportunities provided by integration with the world economy.

2.23. Exports in the Eleventh Plan are projected to grow at about 20% per year in US$ terms, which is lower than

TABLE 2.6
Composition of Saving

(% of GDP)

Period/Years	Private Sector			Public Sector			
	Household Sector Sector	Private Corporate Sector	Total Private Sector	Government Administration	Public Sector Undertaking	Total Public Sector	Gross Domestic Savings
Eighth Plan (1992–93 to 1996–97)	17.0	4.0	21.0	(–) 0.9	3.0	2.1	23.1
Ninth Plan (1997–98 to 2001–02)	20.5	4.0	24.5	(–) 4.1	3.3	(–) 0.8	23.6
2002–03	23.2	3.9	27.0	(–) 4.7	4.0	(–) 0.6	26.4
2003–04	24.4	4.4	28.7	(–) 3.1	4.2	1.1	29.8
2004–05	23.0	6.6	29.6	(–) 2.0	4.2	2.2	31.8
2005–06	24.2	7.5	31.7	(–) 1.4	4.0	2.6	34.3
2006–07	23.8	7.8	31.6	(–) 0.8	4.0	3.2	34.8
Tenth Plan (2002–03 to 2006–07)	23.7	6.3	30.0	(–) 2.2	4.1	1.9	31.9
Eleventh Plan	23.0	7.3	30.3	0.5	4.0	4.5	34.8

Note: Ratios for Eleventh Plan are at constant 2006–07 price; Ratios for earlier years' Plans are at current price; 2005–06: Provisional Estimates; 2006–07: Quick Estimates.

the 23% rate at which they have been growing over the Tenth Plan reflecting somewhat the lower projections of growth in world trade. Even with this moderation in export growth, the projection implies that the share of exports to GDP in the Eleventh Plan period will rise from 13.9% in 2006–07 to 22.5% by the terminal year of the Eleventh Plan, reflecting the continued integration of the economy with the rest of the world. This also implies an increase in India's share of world exports since world trade is unlikely to grow by more than 6%.

2.24. Imports on the other hand are likely to continue increasing at an average rate of 23% over the Eleventh Plan. This will help address critical capacity constraints in the plant and equipment sectors, the demand for which is expected to remain strong due to rising investment. Petroleum, oil and lubricants (POL) imports, which currently accounts for nearly 30% of total imports, will be boosted by the higher oil prices and rising energy consumption levels.

2.25. As Table 2.7 shows, the trade deficit is expected to go up significantly to 16% of GDP by 2011–12. This appears high but is expected to be largely compensated by rising invisible account surplus on the back of accelerating services sector exports, tourist earnings and remittances. This surplus is projected to be as much as 13.5% of GDP and the current account deficit projected for the Eleventh Plan period therefore increases from 1.1% in 2006–07 to 2.4% of GDP in 2011–12. These projections are calibrated around an international crude oil price of US$ 80 per barrel. Financing a deficit of this order should not present a problem given the foreign capital inflows that are taking place and which can be expected to continue, barring an unexpectedly severe and prolonged downside shock to the world economy. In fact, the capital flows we have been experiencing in recent years have proved difficult to manage, leading to a sharp build-up in foreign exchange reserves and upward pressure on the exchange rate which has adverse consequences.

UNCERTAINTIES AND RISKS

2.26. The external environment facing the economy in the Eleventh Plan period presents some uncertainties and risks which could have an impact on performance. These include the following:

- A downturn in the global economy, given the current macro imbalances and uncertainties in the financial markets.
- Uncertainty about the price of oil in world markets.

TABLE 2.7
Balance of Payments

(at 2006–07 price)

Items	2006–07		2011–12		(2007–12)	
	US$ billion	% to GDP	US$ billion	% to GDP	US$ billion	CAGR
Current Account Balance						
Exports	127.1	13.9	316.2	22.5	1135	20.0
Imports	192.0	20.9	540.5	38.5	1864	23.0
Trade Balance	–64.9	–7.1	–224.3	–16.0	–729	–
Invisibles (net)	55.3	6.0	190.0	13.5	616	28.0
of which:						
Exports of Services	81.3	8.9	238.4	17.0	812	24.0
Imports of Services	48.6	5.3	217.9	15.5	653	35.0
Current Account Balance	–9.6	–1.1	–34.3	–2.4	–113.2	–1.9@
Capital Account						
Foreign Direct Investment (net)	8.4*	0.9	14.0	1.0	48.3	10.7
NRI Deposits	3.9	0.4	9.8	0.7	38.6	20.3
Portfolio (net)	7.1	0.8	11.2	0.8	43.3	9.7
Net Capital Flows	44.9	4.9	51.9	3.7	206.8	2.9

Note: *Foreign Direct Investment (net) includes US$ 20.41 billion inflows and US$ 11.97 billion outflows during 2006–07. @ indicates percentage to GDP.

- Capital flows and exchange rate risks. This risk is more likely to be an upside risk.
- Impact of increase in food prices in the world due to increasing use of foodgrains for ethanol production.
- Continued governance problems that prevent necessary efficiency improvements in public expenditure and public investments.

Slowdown in World Economy

2.27. The growth of the world economy affects our economy directly through exports and also through the impact of global growth prospects on Foreign Direct Investment (FDI). It is therefore relevant to evaluate the medium term prospects in this regard. Although unsettled financial conditions prevailing at the end of 2007, combined with the persistence of global imbalances, have raised the prospect of a slowdown in some of the major economies over the next 12 months; this is likely to be temporary and not a medium-term phenomenon. In any case, Indian exports have shown considerable resilience and have also diversified considerably so that the impact of a temporary slowdown in some of the major industrial economies may not be significant. India's share in global trade is still small and an aggressive policy drive for expanding exports may enable us to weather the impact of a temporary slowing down of the global economy. In effect, the constraints on our growth are primarily internal and it is reasonable to assume that uncertainties affecting the world economy are not such as to have an impact on India's growth potential over the Eleventh Plan period.

High Oil Prices

2.28. The impact of higher oil prices on our growth can be significant and will depend on the strategy we adopt to deal with the situation. A 25% increase in oil price from US$ 80 per barrel can be expected to increase our import bill by 5% and the current account deficit to GDP ratio by a little over one percentage point of GDP. Base year deficit at around 1.1% of GDP is projected to increase to 2.4% of GDP by the terminal year. With higher oil prices, the deficit is likely to increase further, but would still be financiable. In fact, it would enable us to deal with foreign inflows which, at present, appear excessive. The additional foreign exchange cost of oil imports therefore should not present a serious problem. The more important issue is how we deal with the need to pass on high oil prices to the consumer. The present policy of insulating consumers from the full impact of the rise in the global price of oil is not sustainable as the public sector oil majors bear a very large burden in terms of under-recoveries and there are also fiscal costs which run into constraints posed by the FRBM Act. It is always possible to undertake some subsidization for those who are really needy, but the bulk of the under-recoveries at present are not on account of such targeted subsidization. As and when the global price is passed on fully to the consumers, it would reduce the demand for oil, mitigating the impact on the balance of payments, and also raise the general level of prices somewhat. Given the low rate of inflation at present, this one-time adjustment could be absorbed in the system without too much disruption. A price adjustment would also moderate growth to some extent in the short run but it would not significantly affect growth in the medium term.

Volatility of Capital Flows

2.29. The volatility of capital flows in a globalized world is a major problem which affects many countries. Traditionally, we have been concerned with volatility in terms of possible outflows triggering a balance of payments crisis. However, recent experience has exposed us to a new phenomenon of managing a surge of inflows. From a low of US$1 billion in foreign exchange reserves in the middle of 1991, when the economy was plunged into a balance of payments crisis, our foreign exchange reserves have reached over US$ 290 billion which is generally regarded as more than necessary for managing any conceivable downside shock to external payments. The same phenomenon is evident in many Asian countries which have seen a build-up in foreign exchange reserves.

2.30. This build-up in foreign exchange reserves was facilitated by foreign capital inflows to emerging market countries which have been very buoyant. Some part of the build-up was justified as a measure of insurance against a possible adverse turn in the external climate in future. However it is clear that the accumulation in reserves in recent years is in excess of requirements and reflects the desire to manage capital inflows without allowing them to impact on the exchange rate.

2.31. The problem posed by having to manage large inflows has been discussed in Chapter 13. It arises because of the well known 'trilemma' that it is not possible to achieve three objectives simultaneously, i.e. free capital mobility, an independent monetary policy and a stable exchange rate. Attention should be given to measures to restrain these capital flows and enhance the absorptive

capacity in the economy to avoid running into the classical 'Dutch Disease' situation where non-tradables become over-priced and erode the competitiveness of the economy in the tradable sector.

2.32. Faced with a surge of inflows as in the past year, we have to either protect the exchange rate by intervening in the forex market or allow the rupee to appreciate. Rupee appreciation has a negative effect on export, especially in the short run, and is therefore best avoided. However, the option of intervening to buy up foreign exchange and add to reserves also has adverse consequences. If the intervention is not sterilized it leads to a build-up of liquidity, which could lead to inflation. If it is sterilized, as has been done extensively in 2007–08, it involves a significant fiscal cost since the interest paid by the government on market stabilization bond is significantly higher than the interest earned on reserves. It may be noted that if the spread between the two rates is 5 percentage points then the cost of sterilization of US$100 billion of excess reserves is US$5 billion per year or Rs 20000 crore.

2.33. In practice, governments have rarely chosen pure strategies. Instead, efforts are made to respond in terms of a mixed strategy of allowing some appreciation in the currency, some unsterilized intervention and some effort to limit inflows at the margin. This is essentially the policy we have followed thus far, and it is on the whole well conceived.

2.34. The cautious approach to opening the capital account followed thus far as a conscious act of policy has given the government some leeway in limiting inflows of certain categories. In determining the categories of capital flows on which restrictions should be imposed, we have rightly followed the approach of exempting FDI flows completely from any restrictions associated with short-term compulsions. We have also kept the door open for genuine Foreign Institutional Investment (FII) flows, while introducing some regulation of flows through non-transparent mechanisms such as participatory notes. This leaves external commercial borrowing (ECB) (including non resident Indian [NRI] deposits) which is subject to control and should bear the brunt of short-term restrictions, if these become necessary.

Rising Food Prices in the World

2.35. Foodgrain prices in the world markets have increased significantly in the last year due to a combination of poor harvest and a shift towards bio-fuels. The latter tendency is bound to accelerate, which suggest that food prices may remain high in the near future. This will undoubtedly put pressure on Indian agricultural prices. It should be emphasized that farmers are likely to gain from higher prices and to the extent to which low profitability of agriculture have been a cause of low farm income and adequate investment, the favourable shift in prices could actually boost domestic production and rural incomes. However, it must also be noted that consumers are hurt by higher prices and since most of the poor in India are net purchasers of food, it would be necessary to protect them from any undue increases in food prices. How to balance these conflicting objectives will present a major problem especially in the short term.

CONCLUSION

2.36. On balance, the macroeconomic parameters facing the economy at the start of the Eleventh Plan are very positive reflecting strong fundamentals and the economy is well set to benefit from them. There are risks and uncertainties but these can be managed, especially over the medium term. On the whole, the growth target of 9% proposed for the Eleventh Plan is feasible provided necessary supportive policies are put in place to address domestic constraints. These are discussed in detail in the individual chapters of the Plan document.