Mid-Year Review of the Indian Economy 2007-2008

Rajiv Kumar

The *Mid-Year Review of the Indian Economy* projects a mild slowdown of the economy to 9.2 per cent GDP growth in 2007–08 from 9.4 per cent in 2006–07 and a likely further slowdown in 2008–09. The author finds the economy on the limits of its potential growth and advocates structural reforms to raise its potential growth rate.

While the economy has followed the unconventional path of services overtaking industry, there is some evidence of the resurgence of the industrial sector in the 2000s. Further liberalization of the industrial sector is necessary for boosting industrial growth with large employment generation.

It is forecast that while the current account deficit is projected to rise to 1.6 per cent of GDP in 2007–08, net capital flows will reach an unsustainable level of US$ 104 billion (8.9 per cent of GDP). This will put further pressure on the rupee and push India towards being afflicted by the 'Dutch disease'. Urgent and even unconventional measures are required to limit capital flows.

There is a possibility of the central government not reaching the fiscal deficit target of 3.3 per cent of GDP in 2007–08. Fiscal deficit including the off-budget liabilities remains very high and debt levels high by international standards and even by our own standards in the mid-1990s. The review advocates measures for reducing the stock of public debt by sale of public assets.

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With

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Preface

On 17 November 2007, Dr Rajiv Kumar, Director and CEO, Indian Council for Research on International Economic Relations (ICRIER) presented the mid-year review of the Indian economy, on what may be regarded as the silver jubilee year of this annual initiative at the Centre. Although at the time it was called 'discussion', the 'review of the mid-year review' was initiated at the India International Centre in the year 1983, by the late Prof. Malcolm Adiseshiah, Convenor of the Economic Affairs Group of the Centre. The initiative was so well received that in the following year, 1984, it was none other than ICRIER along with National Institute of Public Finance and Policy (NIPFP) who gave full support to Prof. Adiseshiah in this nascent venture, which then went on to become an annual feature of the Centre. It is fitting therefore that the current Director of ICRIER should have presented the review in its silver jubilee year.

The assessments expressed in the review were ably supported by the two distinguished Discussants, Mrs. Mythili Bhusnurmath, Consulting Editor, *The Economic Times*, and Dr. Subir Gokarn, Chief Economist, Standard and Poors, Asia-Pacific. In the Chair was Shri Saumitra Chaudhuri, Economic Advisor with ICRA, who, it may be recalled, had presented the 2004-05 mid-year review at the Centre.

The present review maintains that the economy has been apparently overheating since 2005-06 when the potential growth rate reached 8 per cent and the overheating has

continued into 2006-07 and 2007-08 although potential growth rate improved to 8.5 per cent. A further rise in potential growth rate is not possible unless reforms are undertaken. Broadly, these reforms can be categorized in the areas of infrastructure, education, business climate, and public expenditure efficiency, delivery of public goods and services including general governance reforms. These reforms hold the key to whether or not the present high growth rate can be sustained. The speaker, in his own words, has framed the current mid-year review of the economy in this longer-term and broader context of a sustainable growth path for the Indian economy. The review projects a mild slowdown of the economy to 9.2 per cent GDP growth in 2007-08 from 9.4 per cent in 2006-07 and a likely further slowdown in 2008-09.

It is interesting to note that the 'mid-year review' of the Indian economy has, since the Economic Reforms Programme launched in July 1991, been focusing on the fluctuations of the growth rate, with almost every reviewer suggesting the need for reforms in varying sectors of the economy in order to ensure that the growth rates remain sustainable. Prof. Surjit Bhalla, who presented the 2006-07 review at the Centre, made the point that whereas the previous two spurts in the growth rate (in 1992-94 and then again in 1999) petered out very shortly due to the oft-cited classical problems of the Indian economy, there was less likelihood of growth seeing a downsize after 2004 *circa*. The reasons for this were identified by him in the sharp rise in the savings and investment rate, the opening of the Indian economy to foreign trade and foreign investment, and to foreign financial capital. In other words, according to Prof. Bhalla, globalisation had arrived and was here to stay, and even with the worst of policies, the likelihood of infrastructure problems, political uncertainty, 'red tape' and so on, turning investments into losses was gradually receding: India may well be moving to a new growth trajectory.

Dr Kumar's review on the other hand links the sustainability of the current growth rates with important reforms in specific areas outlined by him. His presentation was much praised at the seminar, and despite some disagreements there was general consensus that he had produced an excellent document. This document, along with the comments of the Discussants, is now being made available to a wider audience through this publication.

Since 2001 the Malcolm and Elizabeth Adiseshiah Trust, based in Chennai, has been supporting the mid-year review project at the Centre, which comprises the annual seminar and the publication of its proceedings, for which IIC wishes to express its gratitude.

Thanks are due to Dr Rajiv Kumar and his team for the detailed research work required in the preparation of the review; to Mrs. Bhusnurmath and Dr Gokarn for their acute observations; to Shri Saumitra Chaudhuri for his able chairing of the event; to all the participants who contributed to the success of the seminar; and to the Publisher, Mr. D. Kumar, for his cooperation in the timely publication of the review.

Bela Butalia
Editor

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Introduction

The rapid growth of the Indian economy since 2002-03 averaging more than 8.5 per cent per annum over these five years is a historical first for the Indian economy and has expectedly generated both high expectations and skepticism about the likely future trends. But there is no doubt that this sustained growth episode has given the country a new sense of confidence and raised India's stock globally. The all important question clearly is whether this high growth can be sustained and has India *a la* China entered a virtuous phase of high and sustained economic growth that has been triggered by the reforms undertaken in the late 1980s or early 1990s. We have framed the current mid-year review of the economy in this longer term and broader context of a sustainable growth path for the Indian economy. Other questions that have arisen are, if this growth rate can be raised further as envisaged in the 11th Plan? Third, has the high growth led to high levels of employment or has this been "jobless growth" as emerged from the NSS data for the period 1994-00? Fourth, has India benefited from integration with the global economy and what has been the contribution of external sector to the performance of the economy? Finally, what is the sate of public finances which had deteriorated sharply in the late 1990s and early 2000s? These are some of the broad issues covered in the Mid-Year Review 2007-08 (the Review).

Unlike in previous years we start the Review with a reference to India's external sector and the degree of Indian economy's integration with the global economy. We do this simply because it is clear that the Indian economy today is far more integrated with global financial, investment and technology flows than it was in the early eighties or even early nineties and also because of ICRIER's own focus on India's external environment. Here we also make an indirect plea to our planners and policy makers to pursue policy options in an open economy framework because with more than 50 per cent of its GDP being related to the external sector, the Indian economy is and its various sectors are continuously exposed to global competitive pressures and policy formulation has to take these into account. Chapter 2 also compares India's economic growth with that of China and examines the possibility of India catching up with Chinese growth rate.

Chapter 3 considers the real sector performance of the economy broken up into the broad sectors of agriculture, industry and services and also addresses the issue of whether the economy is overheated. This provides a partial answer to whether or not the present growth rate is sustainable over the longer period. Chapter 3 also identifies some critical reforms that are needed to raise the potential growth rate for the Indian economy. It can be argued that these reforms hold the key to whether or not the present high growth rate can be sustained.

Chapter 4 forecasts the growth rate for the year 2007-08. An index of leading indicators for the Indian economy is constructed and its relation with GDP growth estimated to check for its robustness. This relationship is used for the projection of GDP growth for the current year. Though only an initial attempt, this does give us a more analytical basis for forecasting the growth rate and will be strengthened in coming period.

India's balance of payments provides additional insights into her growth prospects. The rupee appreciation and huge

capital inflows are the major happenings on the external front. Chapter 5 reviews the developments in the external sector so far and projects the balance of payments for 2007-08. These projections are used to recommend policy measures to moderate the capital inflows and make the rupee appreciation more manageable.

The country's fiscal situation has steadily improved since 2001-02. However, it is important to examine if the budget targets of the central government for 2007-08 will be achieved. This will determine if the central government is on track for achieving the slightly longer term FRBM targets of zero revenue deficit and 3 per cent fiscal deficit by 2008-09. The fiscal issues are examined in Chapter 6, which traces the Indian public finances from 1990-01 and makes forecasts for the year 2007-08 in comparison with the estimates given in the budget 2007-08.

The last chapter examines the effect of growth on employment generation during the 1990s and 2000s. Analysis of employment patterns by broad sectors brings out important lessons for the future.

2

Global Context

The opening of the Indian economy to the global economy in fact began in the early 1980s. This is reflected in the absence of any correlation between the GDP growth rates of India and the global economy before the 1980s and the emergence of a clear correlation thereafter (Charts 2.1a and 2.1b).

Chart 2.2 brings out how closely the trends in Indian GDP growth followed those of global GDP growth since the early 1980s. The global economy is projected to slow down slightly

Chart 2.1A: Relationship between Growth of World GDP and India GDP (1951-79)

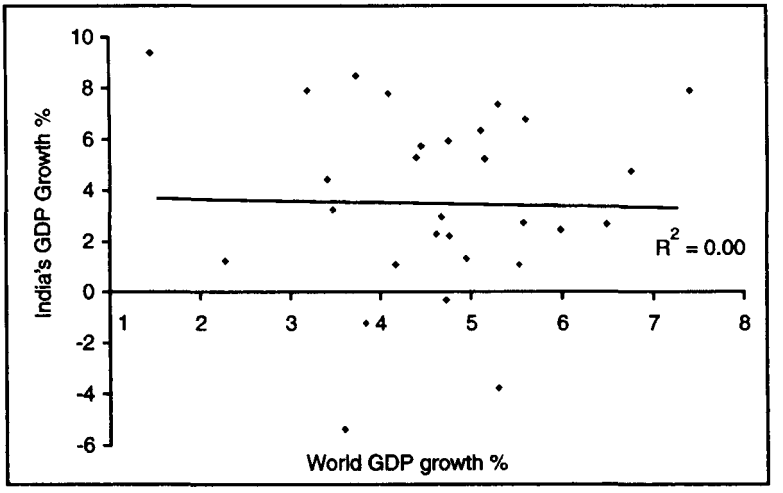


Chart 2.1B: Relationship between Growth of World GDP and India GDP (1980-07)

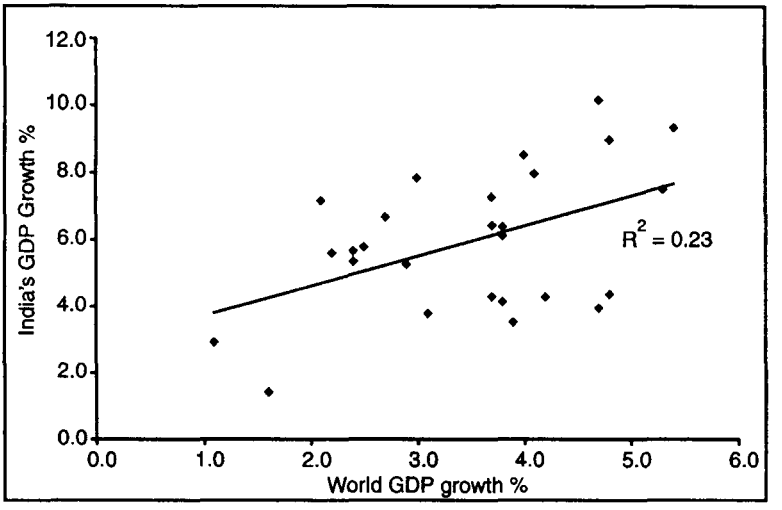
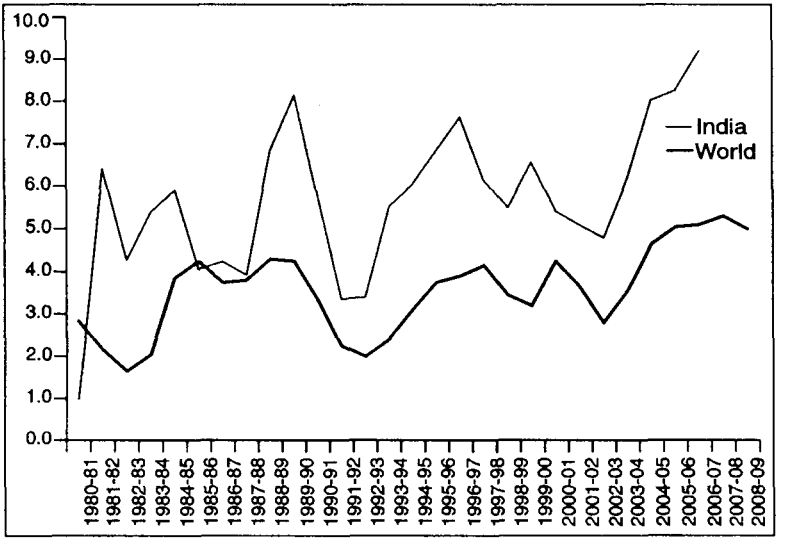


Chart 2.2: GDP Growth: India and World (2-Year Moving Average)



Source: CSO and IMF.

by the IMF in 2007 and 2008 and by implication India may also be subject to a mild decline in growth rate in 2007-08 and 2008-09.

Impact of Global Oil Price

Global oil price has a definite impact on Indian economic growth. Historical data indicates that rise in the real world oil price hurts Indian growth rate (Chart 2.3). The futures price of oil up to March 2008 is to remain in the range above US$ 90 per barrel and that will mean a subduing effect on Indian growth rate in the current year. This also implies that any assumption that global oil prices will decline in the coming months and years is perhaps misplaced. Therefore, the government will do well to formulate a longer term policy stance that essentially leaves domestic retail oil prices to be determined by import parity price and for the consumers to bear the costs of future oil price increases or benefit from their decline, which is unlikely. The other policy measure would be to reduce the indirect tax burden on oil price,

Chart 2.3: World Oil Price and India's GDP Growth (1974-2006)

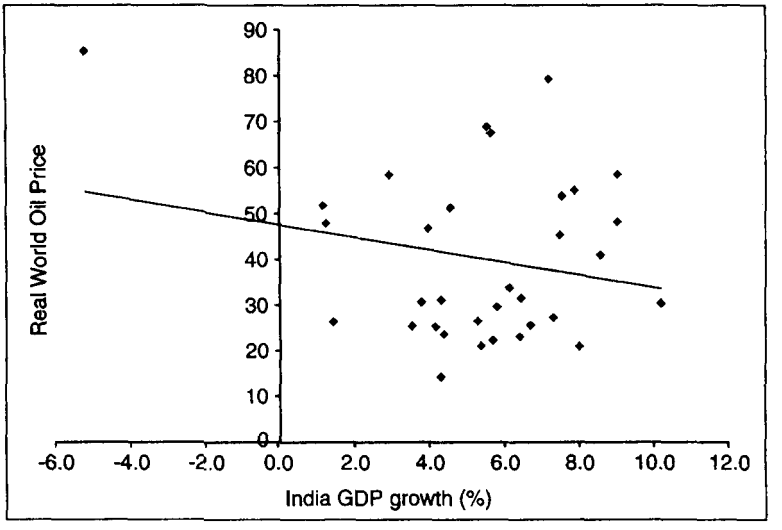
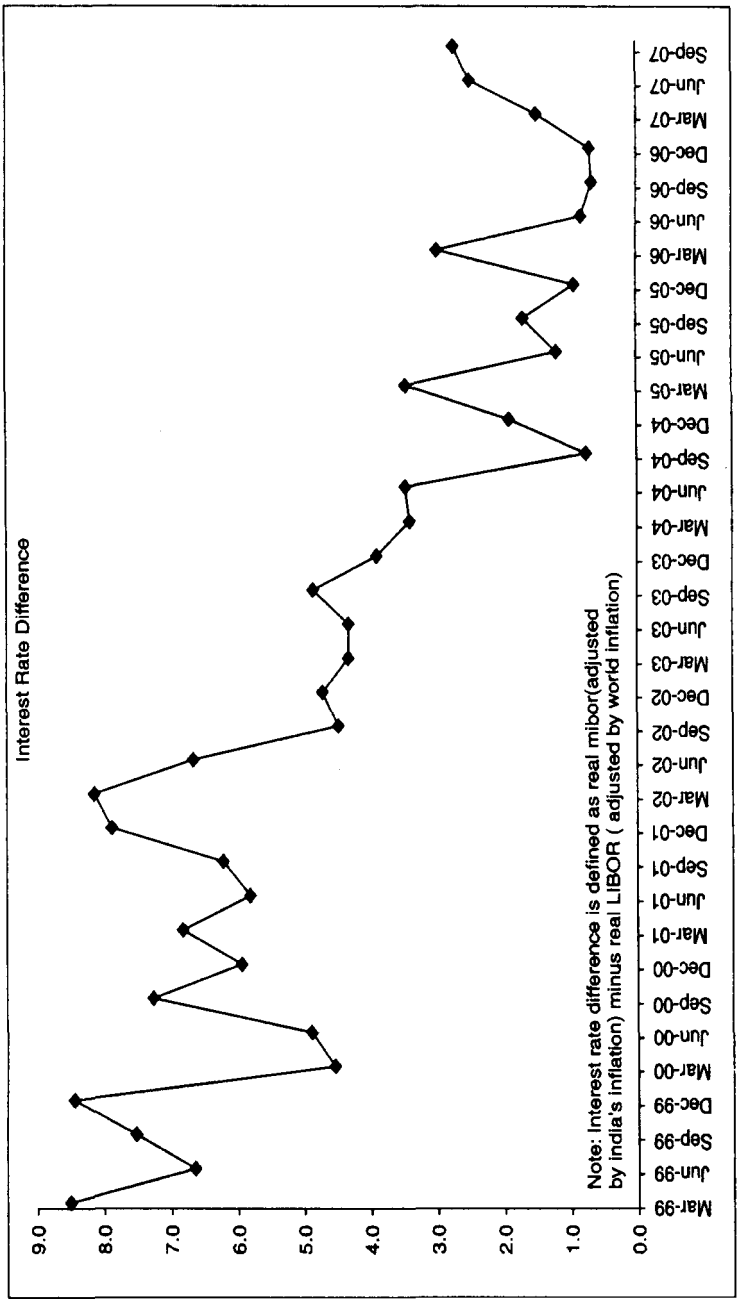


Chart 2.4: Real Interest Rate Differential with Developed Countries (1999-2007)

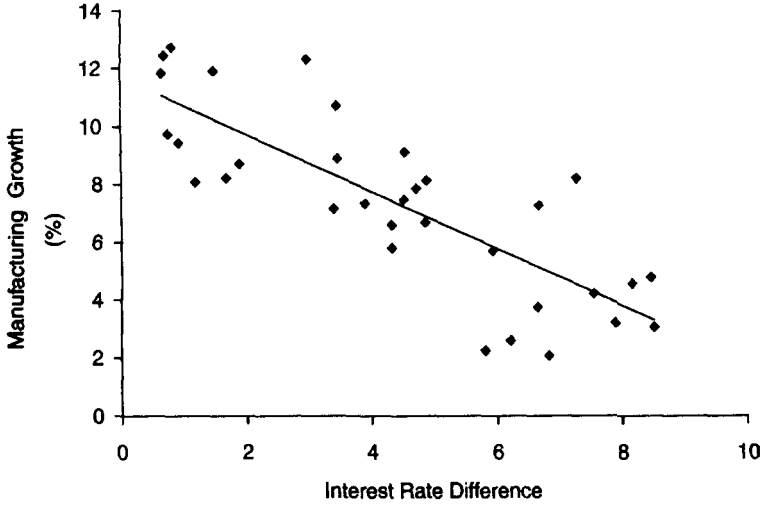


currently estimated at 57 per cent of the total price. This will be in line with the recommendations of the Rangarajan Committee on "Pricing and Taxation of Petroleum Products" submitted to the Government nearly two years ago in February 2006.

Interest Rate Differential and Growth Rate

Interest rate used to be high in India in the late 1990s and the early 2000s and the real interest rate differential between India and the developed world had been in the range of 4.0 to 8.5 per cent. Since December 2003 the differential narrowed till December 2004 to below 1 per cent. After some fluctuations, the rate differential reached below 1 per cent again in the second half of 2006-07. However, the differential has been widening since then as Indian interest rates have risen and the interest rates in developed countries has been either stabilizing or coming down (Chart 2.4). The real interest differential has two direct impacts on the economic scene in India. First, it attracts larger volumes of foreign capital,

Chart 2.5: Real Interest Rate Differential and Manufacturing Growth (1999-2007)



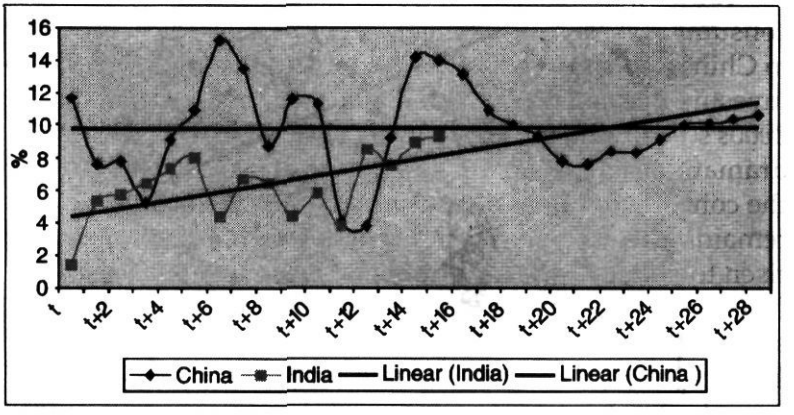
swelling our capital account surplus and putting an upward pressure on the rupee. Second, it raises the relative cost of capital for Indian corporates making it difficult for them to compete in global markets. In overall terms the lower differential in real interest rates in global financial markets and India would seem to be the desirable policy outcome.

Chart 2.5 testifies the clear negative relationship between the interest rate differential and India's manufacturing growth.

Post-Reform Convergence to Chinese Growth Rate?

Chart 2.6 compares post-reform growth performance of India with that of China. We consider 1978 as the beginning of reform in China and 1991-92 for India. This is done simply because it is more useful to compare the economic performance of the two countries in a comparable policy environment. Clearly China has had a head start but as the chart shows the linear trend lines of post-reform GDP growth rates for both the countries are not only similar but that the Indian economy has been perhaps performing as well as the Chinese in the post-reform period. Going forward we can see that these trend lines cross at 2013-14 indicating the

Chart 2.6: Post-Reform Growth Rates: China vs India (t = 1978 for China and 1991-92 for India)



possibility of convergence in growth rates of the two countries in that year and India surpassing China's trend growth rate thereafter.

Expenditure Composition of GDP: India vs China

It is interesting to note that the share of final consumption expenditure has been declining and that of domestic investment rising in both China and India in the current decade i.e. post 2000. However, the consumption share of GDP in India remains much higher than China and that of investment much below that of China. On the other hand, the share of net exports (of goods and services) in India's GDP has always been negative and that of China increasingly positive (Charts 2.7a and 2.7b). With a higher dependence on consumption, especially domestic consumption, the Indian growth experience could be seen as more sustainable as it is less dependent on investment and external demand, both of which can have sharper cyclical components. However, the negative role of net external demand could reflect India's inability to take advantage of its abundant and cheap labour by expanding labour-intensive exports. This must change and Indian policy makers will do well to carefully examine the constraints on raising the growth rates of labour-intensive industries to meet both rising domestic demand and expanding their share in global markets.

Table 2.1 computes the relative contribution of consumption, investment and net exports on GDP growth in China and India in the 1990s and in this decade. In China, investment has become the major driver of growth in the 2000s so far contributing about 54 per cent of GDP growth, a dramatic rise from about 30 per cent in the 1990s. In India, the contribution of investment in GDP in the 2000s, though remaining lower than that of consumption, has remarkably risen to about 46 per cent from just 26 per cent in the 1990s. In China, the contribution of consumption has declined sharply to 38 per cent in the 2000s from 63 per cent in the 1990s. In India, now consumption contributes a little less than

Chart 2.7a: Share of Consumption, Investment and Net Exports in GDP: India

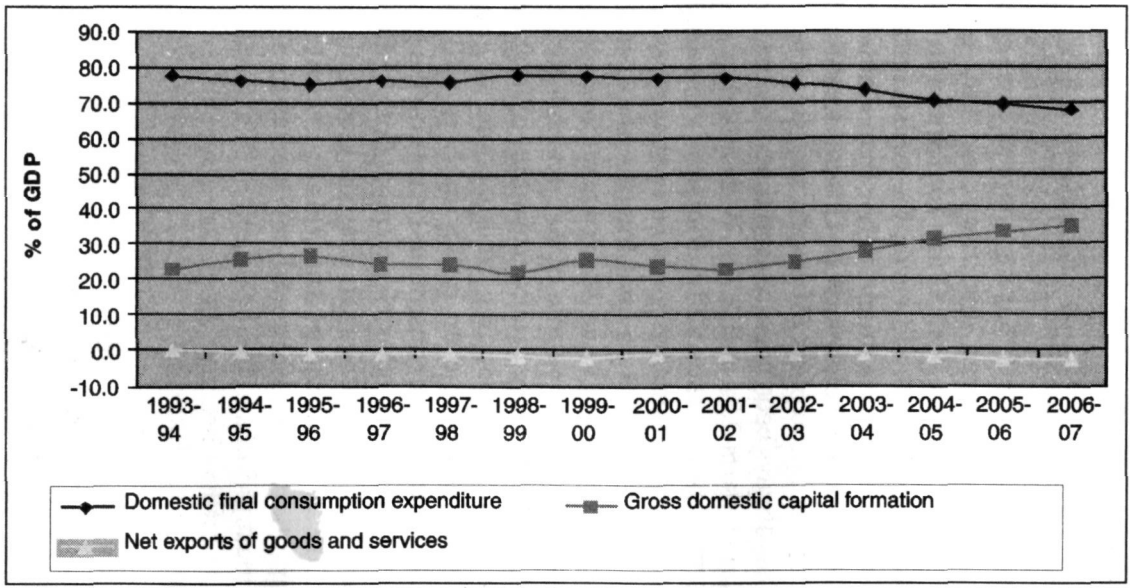
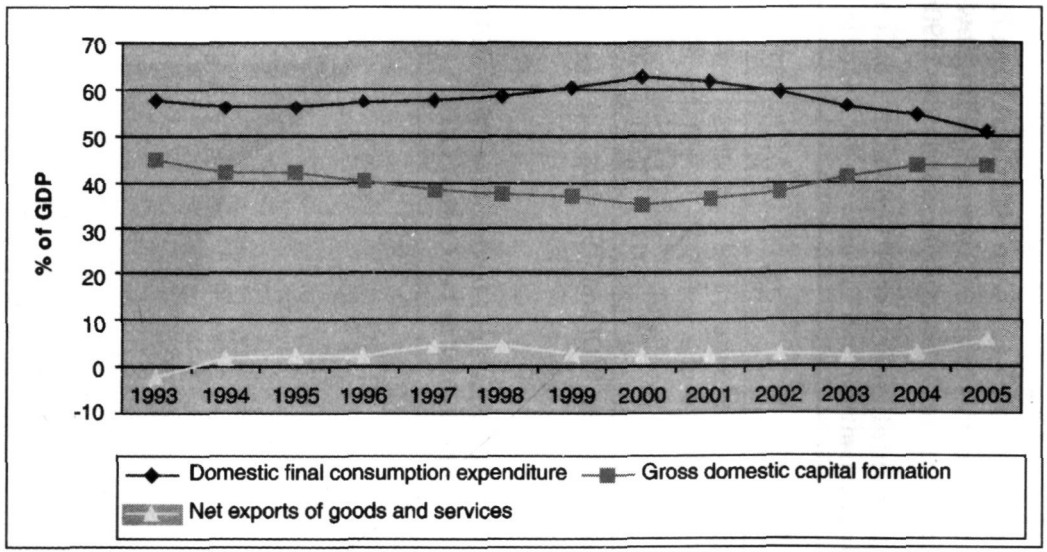


Chart 2.7b: Share of Consumption, Investment and Net Exports in GDP: China



60 per cent in the 2000s in GDP growth from a high of 75 per cent in the 1990s. More significantly, the contribution of net exports (of goods and services) has become increasingly negative in India at about 5 per cent in the 2000s against about minus 1 per cent in the 1990s. In contrast, China has relied on the external sector for about 8 per cent of its growth in the 2000s so far, an increase from 7 per cent in the 1990s.

TABLE 2.1: Contribution to GDP Growth by Consumption, Investment and Net Exports: China Vs India

	China		*India*	
	1993-00	*2000-05*	*1993-01*	*2001-07*
Final consumption expenditure	63.2	37.6	74.9	59.1
Gross capital formation	29.9	54.4	26.2	46.1
Net exports	7.0	8.0	-1.1	-5.2
Total	100.0	100.0	100.0	100.0

Source: Computed from WDI and CSO data.

Chart 2.8: Share of Merchandise Trade and Invisibles as Per Cent of GDP

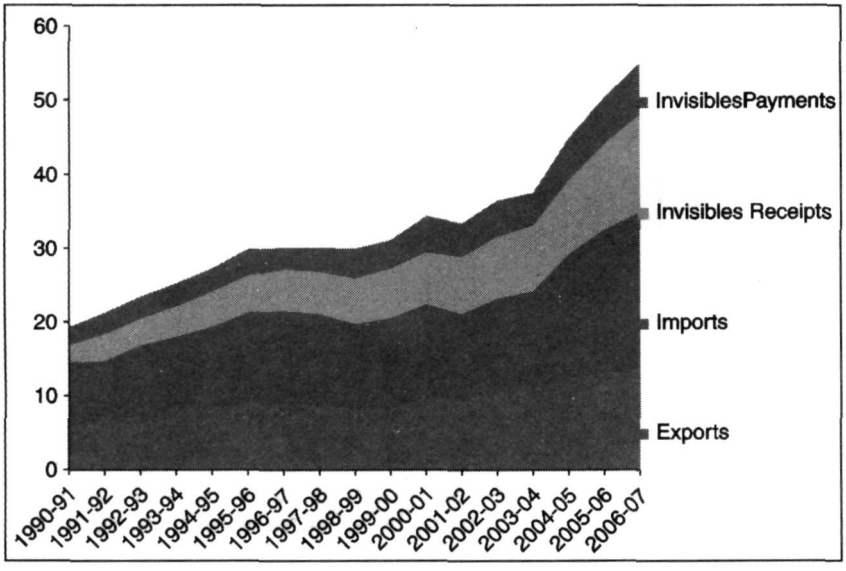


Chart 2.8 shows that the share of external sector transactions in total GDP in India has increased dramatically between 1990-91 and 2006-07.

The combined share of exports and imports of both goods and invisibles in total GDP went up from less than 20 per cent in 1990-91 to 55 per cent in 2006-07. With current account transactions constituting more than half of India's GDP, it is important to ensure macroeconomic stability so that the benign effects of the external environment can be fully captured and the economy protected from any unforeseen turbulence in global markets. Secondly, it is important to undertake reforms that will improve the global competitiveness of the real sectors so that Indian firms can secure higher shares in global markets and defend their shares in domestic markets. Policy making in India cannot be done any longer in the context of supply-demand balances in a closed economy.

3

Real Sector Performance

The key trends in the real sector in the last few decades have been the remarkable performance of the services sector, a moderately satisfactory industrial growth and a poor agricultural turnout. This is reflected in the sharp rise in the share of the services sector in the economy from about 38 per cent in 1980-81 to 50 per cent in 2000-01 and 55 per cent in 2006-07. The share of the agricultural sector (including forestry and fishing) was interestingly the same as the services sector in 1980-81 at about 38 per cent, but, in contrast, declined markedly to 24 per cent in 2000-01 and a further to 18.5 per cent in 2006-07. The industrial sector, on the other hand, has seen its share increasing only marginally from 24 per cent in 1980-81 to 26 per cent in 2000-01 and to 27 per cent in 2006-07 (Table 3.1). Almost the entire decline in the agriculture sector share being taken by services. More significantly, the share of the manufacturing sector has stagnated since 1990-91 and this remains a real structural weakness of the economy that calls for urgent measures to raise the growth rate in this sector to make the growth process more employment inducing.

Agriculture

Indian agriculture is in the midst of a serious crisis with its growth steadily falling to just 2.4 per cent per annum during 2000-07 against 4.2 per cent annual growth in the 1980s and

Table 3.1: Sectoral Composition of GDP at Current Prices (%)

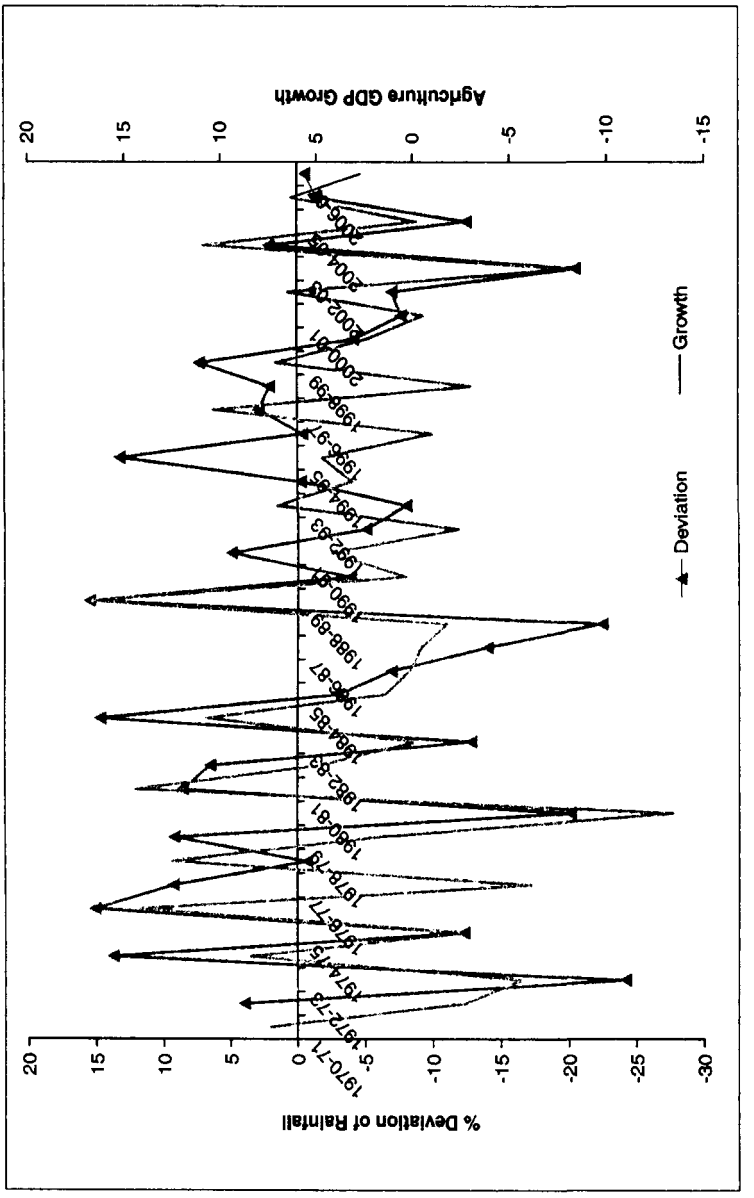
	1980-81	*1990-91*	*2000-01*	*2006-07*
Agriculture, forestry and fishing	37.9	31.4	23.9	18.5
Industry	24.0	25.9	25.8	26.6
Manufacturing	13.8	14.9	15.3	15.5
Services	38.0	42.7	50.3	54.9
Total	100.0	100.0	100.0	100.0

Source: Central Statistical Organization.

3.2 per cent in the 1990s. Some of reasons for this secular downtrend of the sector have been the low level of investment in the sector of just below 2 per cent of GDP (Economic Survey 2006-07, p. 176) for the past decade and a half, inability to bring a larger share of land under irrigation for the past many years, lack of any significant yield breakthroughs for the past few decades, and the dismal state of rural infrastructure like power, roads, transport, marketing, etc. While the industry and services sectors have been largely freed from stringent government controls and regulations , agriculture remains constrained from a series of government policy restrictions on input supplies; movement of agriculture output across state borders; price controls and ad hoc approach towards agriculture exports and imports that ranges from export bans in one instant to export subsidies. It is time that Indian agriculture is freed from these restrictions and allowed a relatively freer play of market forces and entrepreneurial energies.

Agricultural growth in India continues to closely follow the monsoon. Chart 3.1 shows that except for a few years in the 1990s, the close link between rainfall and agricultural growth remains intact. In the current year, the monsoon is above normal. The cumulative rainfall has been 5 per cent above normal during June-September 2007 with deficient rainfall only in 6 sub-divisions against 10 in 2006. The area under *kharif* crops has also increased during this year, by about 3 per cent above the last year. The first advance estimates of *kharif* foodgrains production for 2007-08 is placed

Chart 3.1: Monsoon and Agricultural Growth



at 112.2 million tonnes against last year's production of 110.5 million tonnes.

The post-monsoon situation in this year has not been quite satisfactory with deficient or scanty rainfall in 26 meteorological divisions during October-December against the average of 20 divisions during 2002-06. The resultant moisture stress and high temperature have led to a decline in the area under cultivation under wheat and other *rabi* crops. All indications are that rabi crop will be lower than in the previous year.

Despite the poor rabi production, we expect growth in agriculture, forestry and fishing in 2007-08 to be better than in the previous year of 2.7 per cent. In the first half of 2007-08, agricultural GDP grew by 3.7 per cent in comparison to 2.8 per cent in the first half of 2006-07. Overall, we expect agriculture growth in 2007-08 to come in at about 3.5 per cent.

The Role of Services Sector

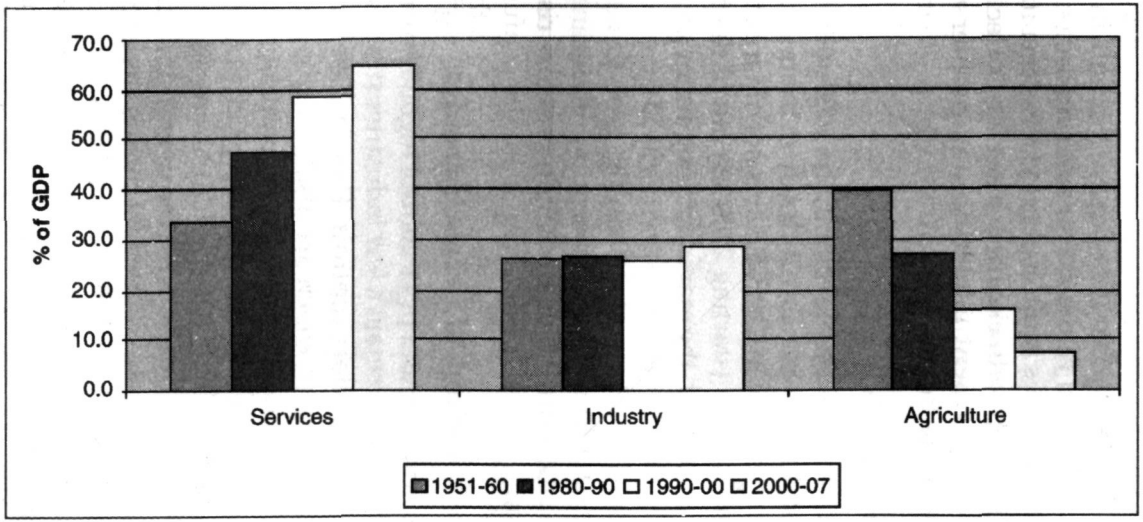
The contribution of services to GDP growth has been rising rapidly. Its contribution to GDP growth (not to be confused with share in the GDP) during the 1950s was hardly a third and lower than that of agriculture at nearly 40 per cent but higher than industry at a fourth (Table 3.2). In the current decade up to 2006-07, service sector's contribution is nearly two-thirds of GDP growth while the contribution of agriculture has shrunk to a mere 7 per cent and of industry to about 29 per cent.

Table 3.2: Contribution of Broad Sectors to GDP Growth (in %)

	1951-60	*1980-90*	*1990-00*	*2000-07*
Agriculture, forestry and fishing	39.5	26.7	15.9	7.3
Industry	25.9	26.3	25.5	28.7
Services	33.4	47.3	58.6	64.6
Total GDP	100.0	100.0	100.0	100.0

Source: Computed from CSO data.

Chart 3.2: Sectoral Contribution to GDP Growth, 1951-07



Source: Computed from CSO data.

Another feature that can be noticed is that the contribution of industry to GDP growth remained stagnant at 25-26 per cent till the 1990s but showed a promising rise to 29 per cent in the 2000s so far (Chart 3.2). Within industry however, the contribution of the manufacturing sector has remained stagnant and this is often pointed to as one of the reasons for the Indian growth experience having not been as conducive for employment generation as perhaps the Chinese experience has been.

Quarterly Sector Growth Rates

The emergence of the industrial sector in the 2000s out of its stupor of the past decades comes out clearly in the quarterly sectoral growth rates given in Chart 3.3. It is not often noticed that in the current decade (starting 2000-01) out of the total of 30 quarters from 2000-01, the manufacturing sector growth rates have been higher than that of services in 15 quarters. It is important to further raise and sustain the growth rate of manufacturing sector to facilitate absorption of entrants to the labour force and reduce the population pressure on the agriculture sector.

Industrial Growth: Controlled vs Free Industries

While industrial licensing and price control regime has been largely dismantled, there remain a few industries still subject to pricing and other regulatory controls. They include almost all the intermediate sectors which are also jointly called as the 'core sectors' in official parlance. These comprise mainly electricity, coal, crude petroleum, refinery products, sugar and fertilizer industries. Table 3.4 provides a comparison of growth rates of these industries with the overall industrial sector and its manufacturing component during the present decade. The table also gives the performance of the composite core sector industries consisting of coal, electricity, crude petroleum, petroleum products, finished steel and cement. The table shows that the growth rates of industries subject to government price control have been appreciably lower

Chart 3.3: Quarterly Growth Rates by Broad Sector, 2000-07

Table 3.4: Industrial Growth: Controlled Vs Overall Industry

	Industrial Index of Production	*Index of Manu-facturing*	*Core Industry*	*Electricity*	*Coal*	*Crude Petro-leum*	*Refinery Products*	*Sugar*	*Nitrogenous fertilizer (N)*	*Phosphatic fertilizer (P2O5)*
2001-02	2.7	2.9	3.5	3.1	4.2	-1.2	3.9	-3.9	-2.5	3.1
2002-03	5.7	6.0	5.0	3.2	4.8	3.6	5.0	2.2	-1.7	0.6
2003-04	7.0	7.4	6.1	5.1	5.0	0.8	8.4	-13.8	0.7	-8.1
2004-05	8.4	9.2	5.8	5.3	6.2	1.9	4.6	-18.5	6.7	11.7
2005-06	8.2	9.1	6.1	5.2	6.5	-5.2	2.2	39.3	0.5	4.4
2006-07	11.6	12.5	8.4	7.3	5.9	5.7	12.4	30.8	1.8	9.2
2007-08										
(Apr- Nov)	9.2	9.8	6.0	7.0	4.3	0.6	8.3			

Source: CSO, Ministry of Industry, and Industry Associations.

than those where prices are market determined. This is not a sustainable condition because inadequate growth in the intermediate industries that provide necessary inputs to the downstream industries will impose a binding constraint on manufacturing sector growth. This is especially true because some core industries like electricity produce non-tradable outputs whose supplies cannot be augmented through imports. Also in the case of bulk commodities like coal and cement it is impractical to meet domestic demand requirements through imports as this will put tremendous pressure on the transport infrastructure and also raise costs in the economy. Therefore, it is advisable that the government allows a freer play of market forces for price determination and generating the supply response in these industries if it wishes to accelerate the manufacturing sector growth rate.

With regard to overall industrial and manufacturing, there is a slowdown of growth in 2007-08 for the first time since 2000-01. This slowdown is also evident when we consider the calendar year growth rates (Table 3.5).

Table 3.5: Industrial Growth Rates (January–November)

	Overall Industry	*Manufacturing*
2001	2.7	2.9
2002	4.8	5.0
2003	6.5	7.0
2004	8.4	8.8
2005	8.1	9.3
2006	10.3	11.2
2007	10.1	10.8

Source: CSO.

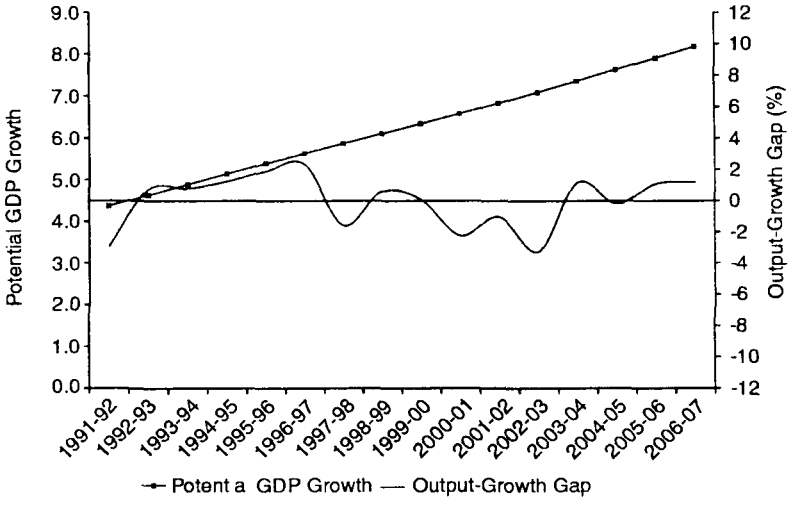
Is the Indian Economy Overheating?

The OECD Economic Survey of India (2007) has computed the growth rate of potential output for India at 8.5 per cent for 2006. A recent IMF Working Paper by Hiroko Oura (2007) has estimated Indian potential growth rate in the range of 7.4 to 8.1 per cent for 2006-07 and about 8 per cent for the

medium term. The Indian economy has been growing by over 9 per cent per annum in the last two years and a half. Does this mean that the economy is now over-heating and in danger of setting of inflationary expectations? This is of utmost importance to policy makers, especially the Reserve Bank of India which treats inflation as one of the key variables for determining the stance of monetary policy.

To answer this question, we have estimated the potential GDP growth and output growth gap. The methodology of this computation is the HP filter technique as proposed by Hodrick and Prescott (1997). Using annual data over the period 1991-92 to 2006-07, this estimate shows that the potential output growth for the economy has been steadily rising over the period to reach 8.5 per cent in 2006-07 and there has been a positive output-growth gap from 2005-06 (Chart 3.4). This implies that for the last three years (2005-06, 2006-07 and 2007-08) the economy is producing above the potential growth rate and so in clear danger of over-heating. In fact it can be seen either as a mini-miracle or an outcome

Chart 3.4: Potential GDP Growth and Output-Growth Gap (1991-2007)



of a supremely successful monetary policy that inflation and inflationary expectations remain relatively subdued in this scenario. In case the economy can manage similar higher than 'potential growth rate' in 2008-09, it will have to be concluded that the economy is on a higher growth trajectory which is not adequately captured in estimates of potential output growth.

How to Raise Potential Output Growth?

India's potential growth rate steadily moved up from 4-5 per cent in the early 1990s to 6-7 per cent in the late 1990s to 7.5-8.5 per cent in the mid-2000s. The economy has been apparently overheating from 2005-06 when the potential growth rate reached 8 per cent and the overheating continued into 2006-07 and 2007-08 although potential growth rate improved to 8.5 per cent. A further rise in potential growth rate is not possible unless reforms are undertaken. Broadly these reforms can be categorized into the areas of infrastructure, education, business climate, and public expenditure efficiency.

For infrastructure of all types except telecommunications – power, roads, ports, airports, transport, water supply, sanitation and warehousing – the country is faced with binding shortages and quality issues. The Planning Commission has estimated that total investment in infrastructure should be 9 per cent of India's GDP as against the current level of 5 per cent. This increase of 4 per cent of GDP will have to come from both the public and private sector and represents a Herculean effort at resource mobilization and absorption. In our view, the task is enormous but not impossible. But it should be recognized that the easier task is to mobilize the necessary financing and the more difficult job would be to create the actual absorptive capacity. This will require preparation of a shelf of project proposals; much better inter-ministerial and inter-government coordination; and a sharp reduction in project associated risks by advance acquisition of the required land

and securing environmental clearances etc. The successful bidding and financial closure of the 'ultra mega power project' under the aegis of the central government demonstrates that this can be achieved and needs to be replicated across all the infrastructure sectors if the Plan target of utilizing 9 per cent of GDP in infrastructure development in the coming years. Scarcity and low quality of infrastructure hurts India's competitiveness by adding to its cost of production. Public-private partnerships have been identified as the way forward for improving infrastructure, but the speed and efficiency of formulation, approval and implementation of projects have to be stepped up considerably.

India is facing huge skill shortages in critical areas. Government has made a big jump in the plan allocation for education in the 11th Plan. However, this sector requires radical reforms to eliminate barriers to entry; reduce the role of inspectors; create much needed autonomy for curriculum modernization; flexibility in fixing salaries and fees structure; and establishing multiple and independent accreditation agencies for more effective and efficient regulation of education providers at all levels etc; thereby creating conducive conditions for foreign and domestic investors. Pushing more money in to the education sector (the Eleventh Plan reportedly wants to increase the allocation for the education sector to five times over the Tenth Plan allocation) without undertaking these necessary reforms may well exaggerate the existing distortions and not generate the required and expected supply response.

While the license-control raj has been significantly eroded as a result of the 1990s reforms, there still remain significant obstacles to doing business in India. The 2007 World Bank Report on "Doing Business" has put India at 134th position among 175 countries. This low ranking, based on a comparison of more than twenty variables and on responses from enterprises themselves, reveals a rather dismal environment for entrepreneurship. This is perhaps one of

the main reasons that investment in the manufacturing sector remains well below potential levels as prospective investors, especially foreign direct investors, find that many regulations create high levels of uncertainty which dampens investment intentions.

Government expenditures on social sectors like education and health, poverty alleviation and employment generation have been rising several fold in recent years. However, the delivery of services in this regard continues to be poor and inefficient and subject to huge leakages. The government should seriously consider empowering the actual beneficiaries with direct transfer of purchasing power through vouchers and smart (store value) cards which will directly contribute to reducing leakages and improve service delivery by introducing the vital competitive pressure in these programmes.

4

Growth Forecasts 2007-08

For projection of GDP growth, we have used an index of leading economic indicators. Leading indicators are variables, which have significant influence on the future economic activity. We have selected the following six economic indicators:

1. Production of machinery and equipment
2. Sales of heavy commercial vehicles
3. Non-food credit
4. Railway freight traffic
5. Cement sales
6. Corporate performance (sales and ratio of net profit to sales)

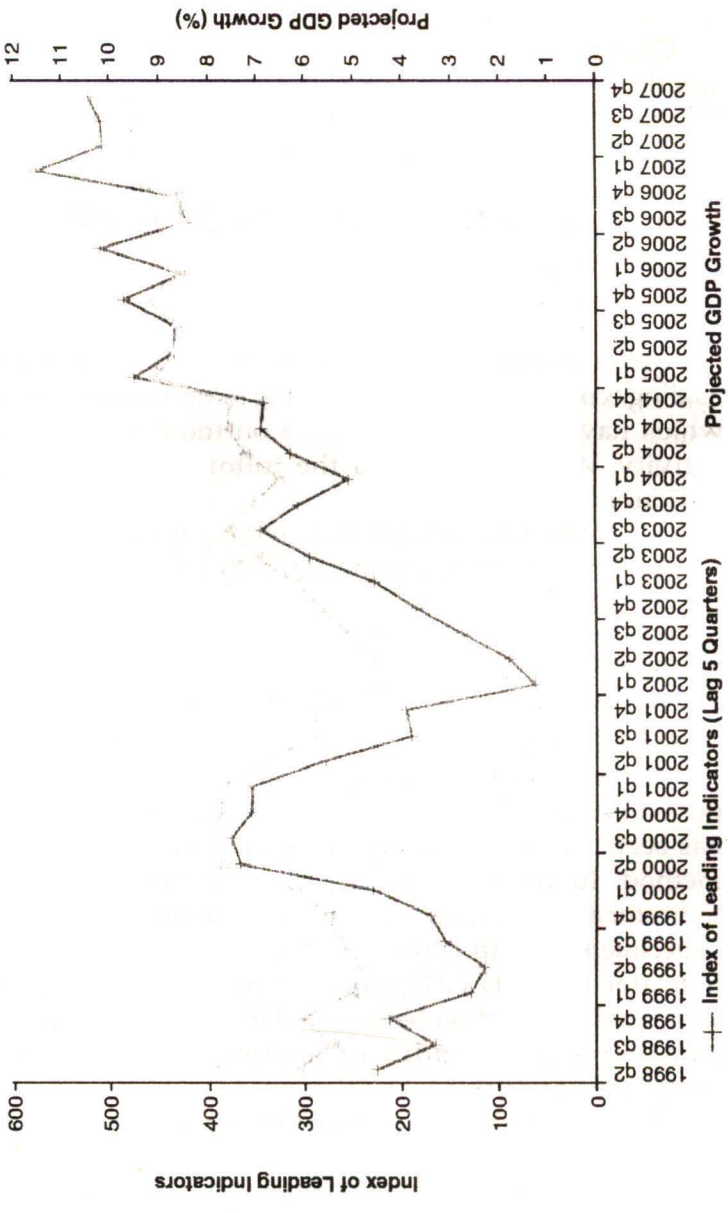
With quarterly series of growth of these variables for the period 1991-2007, the composite index for leading indicators has been constructed using the principal component index method. To decide on the lag length between the leading indicator and the actual GDP growth, different lag levels were experimented with and found that a 5-quarter lag leading indicator forecasts GDP growth most accurately. We have estimated the relation between GDP growth as dependent variable and the index of leading indicators as the independent variable.

The estimated equation for GDP growth forecast is given by:

$GRGDP_t = 3.340506 + 0.0118915\ LEI_{t-5} + e_t$ (4.10)*

R-Bar Squared = 0.6921

Chart 4.1: Projection of GDP Growth through Leading Indicators



Where GRGDP = Growth in GDP; LEI = Index of leading economic indicators; t = time; e = error term; and * = t-value.

Chart 4.1 brings together the index of leading indicators and the projected GDP growth from 1997-98 Q2 to 2007-08 Q4. Based on these quarterly projections, the GDP growth rate for 2007-08 works out to 9.2 per cent.

The sectoral growth rates for 2007-08 can be seen from Table 4.1.

Table 4.1: GDP Growth Forecasts 2007-08

	2006-07 (RE)	*2007-08 (Forecast)*
Agriculture, forestry & fishing	2.7	3.5
Industry	10.9	10.0
Manufacturing	12.3	11.0
Services	11.0	10.7
Total	**9.4**	**9.2**

The forecasts show that a better agricultural performance for 2007-08 compared to the previous year will compensate for some slowdown in industry and services growth and the overall GDP growth at 9.2 per cent this year compares with 9.4 per cent in the previous year.

5

Balance of Payments

While India's trade deficit has been widening from 4.8 per cent of GDP in 2004-05 to 6.9 per cent in 2006-07, the rise in invisibles surplus from 4.5 per cent of GDP to 5.9 per cent over the same period has ensured that the current account deficit remained within acceptable limits in 2006-07 at about 1.1 per cent of GDP. However, growth in capital inflows has been huge rising from 3 per cent of GDP in 2005-06 to 5.1 per cent GDP in 2006-07. As a result, official reserves increased by US$ 36.6 billion (excluding valuation changes) in that year. Net capital inflows have further accelerated in the current year and the reserve build-up (excluding valuation) has already crossed US$ 40 billion during the first half of 2007-08 compared to just US$ 8.6 billion during the first half of 2006-07. The accretion of foreign exchange reserves during April-December 2007 has been a massive at US$ 76.4 billion against the total reserve growth in 2006-07 at US$ 47.6 billion.

Table 5.1 provides the trends in selected indicators of India's balance of payments from 2004-05 and projections for the year 2007-08. Merchandise exports increased by 22.1 per cent during April-November 2007 in dollar terms and imports by 27.0 per cent over the same period of last year. Invisible receipts rose by 23.4 per cent during April-September 2007 and invisible payments by 13.0 per cent over the same period of last year. The projection for the full year 2007-08 assumes an export growth of 20 per cent, imports by

25 per cent, invisible receipts by 20 per cent and invisible payments by 15 per cent.

Table 5.1: India's Balance of Payments: Selected Indicators (US$ Million)

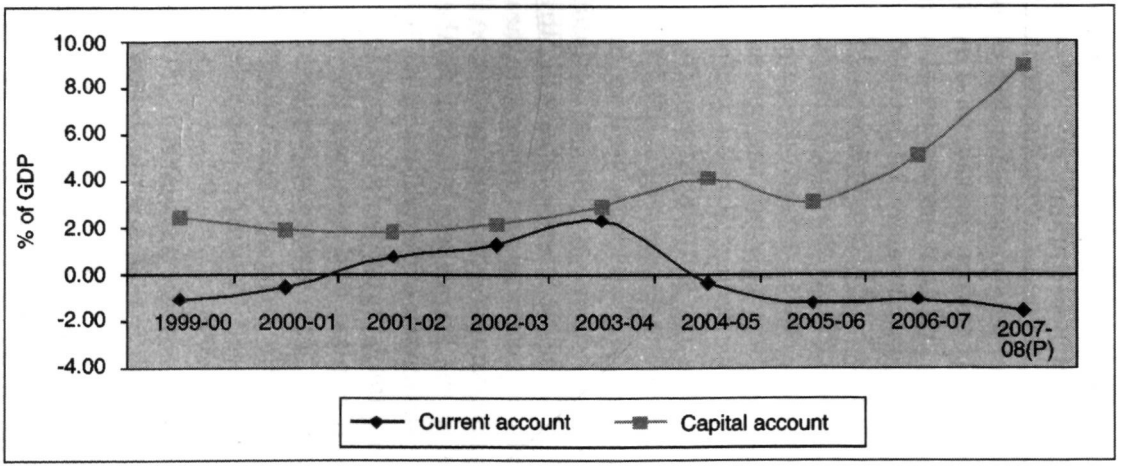
	2004-05	*2005-06*	*2006-07*	*2007-08(P)*
Exports	85206	105152	128083	153700
Imports	118908	157056	191254	239068
Trade balance	-33702	-51904	-63171	-85368
% of GDP	**-4.8**	**-6.4**	**-6.9**	**-7.3**
Invisible receipts	69533	89687	115074	138089
Invisible payments	38301	47685	61669	70919
Invisibls, net	31232	42002	53405	67169
% of GDP	**4.5**	**5.2**	**5.9**	**5.8**
Current account	-2470	-9902	-9766	-18198
% of GDP	**-0.4**	**-1.2**	**-1.1**	**-1.6**
Capital account (net)	28629	24954	46372	104000
% of GDP	**4.1**	**3.1**	**5.1**	**8.9**
Change in Reserves (-increase, +decline)	-26159	-15052	-36606	-85802

Source: Actual data from Reserve Bank of India and CSO and projections by ICRIER.

Our projections indicate that trade deficit will rise further to 7.3 per cent of GDP and current account rising to 1.6 per cent of GDP. More significantly, net capital inflows will sharply rise to US$ 104 billion in 2007-08, more than double that in 2006-07 and amounting to a huge 8.9 per cent of GDP. And the reserve build-up is projected to be about US$ 86 billion (on BoP basis, i.e. excluding valuation changes) in the current year, more than double the previous year. The emerging situation on the external sector is that of a huge divergence between the current and capital accounts as depicted in the Chart 5.1.

This has serious implications on the Indian economy. First, the rupee which has already appreciated by 12.2 per cent against US dollar from end-December 2006 to end-December 2007 will face further upward pressure. This will necessitate much more active open market operations by the

Chart 5.1: India's Current and Capital Account Balances as % of GDP



central bank to absorb excess liquidity in the system. This in turn implies fiscal costs which may have to be incurred to prevent a further appreciation of the currency that will render exports uncompetitive and expand the trade and current account deficit beyond acceptable levels. The fiscal costs of sterilization can be simply estimated by using the interest rate differential between the rate paid by the RBI to holders of MSS bonds and that earned on holding of US treasury bills. This is approximately 3.0 per cent and yields a fiscal cost of about Rs 5100 crore on an outstanding MSS bonds of Rs 1.71 lakh crore at the end of November 2007. This fiscal cost may be seen as reasonably small in relation to the value of outstanding oil bonds that are used to shore up the incomes of public sector oil retail companies faced with controlled prices for petroleum products and are currently estimated in the excess of Rs 100,000 crore. The monetary authorities will also do well to bring down domestic interest rates because at a time of declining global interest rates, high domestic interest rates will attract more foreign capital in to the economy and appreciate the currency on the one hand, and dampen economic growth on the other. With inflation below the 3.5 per cent level and in the absence of any signs of inflationary expectations rising in the near future, the drop in interest rates could be used to reduce the inflow of foreign capital and weaken the pressure to appreciate the currency. Both monetary (interest rate decline) and fiscal measures (bearing the costs of sterilization) measures should be used in unison to prevent a further appreciation of the currency.

Continued narrow current account deficit with surging capital inflows indicates inadequate absorptive capacity of the economy and its inability to raise investment levels quickly above the already existing high levels of 34-35 per cent of GDP. If fully left to the market forces, this would lead to faster appreciation of the rupee which would make imports cheaper and exports dearer leading to higher current account deficit thereby enhancing the absorptive capacity. But this

would be disruptive of both export and import-substituting production and hurt growth and employment. The ultimate solution to the problem of plentiful external capital inflows is further reforms as detailed in Chapter 3. Reforms will enhance the absorptive capacity of the economy, raise investment levels even further and help sustain the growth momentum.

A recent decision by the central government to utilize the mounting Indian foreign exchange reserves for infrastructure investment is an important step in the right direction. A SPV (special purpose vehicle) set up by IIFCL (India Infrastructure Finance Company Ltd.) abroad will issue foreign currency securities to the RBI and its proceeds will be lent to Indian infrastructure companies for import of capital equipment. The RBI is guaranteed a return more than the existing 3.5-4 per cent that the RBI receives on foreign sovereign securities and, the cost of loans to Indian infrastructure entities by the SPV will be lower than the current external commercial borrowings. A ceiling of US$ 5 billion a year is placed on such borrowings.

Another idea could be to allocate a part of foreign exchange reserves towards an India sovereign wealth fund to be set up for equity investments in foreign enterprises. This is being done by countries such as Singapore, Abu Dhabi and China. This is perhaps not feasible at this stage because one, it would require amendments to in the RBI Act and two, the level of reserves does not really warrant such a step which could be seen as risking our reserves to the vagaries of foreign capital markets.

Exchange Rate and Exports

Recent developments on the external sector of the economy have raised once again the role of exchange rates on exports. It has been pointed out by some observers that exchange rate no more plays a role in determining exports from India as the strong growth in exports in recent years has occurred with a more less stable real effective exchange rate and

therefore, exports will not be affected with the appreciation of the rupee as well. Is it really so?

Table 5.2 brings out growth trends in India's exports (in US dollars), real effective exchange rate (export-based 36-country), world real income and India's real GDP over the period 1994-95 to 2007-08.

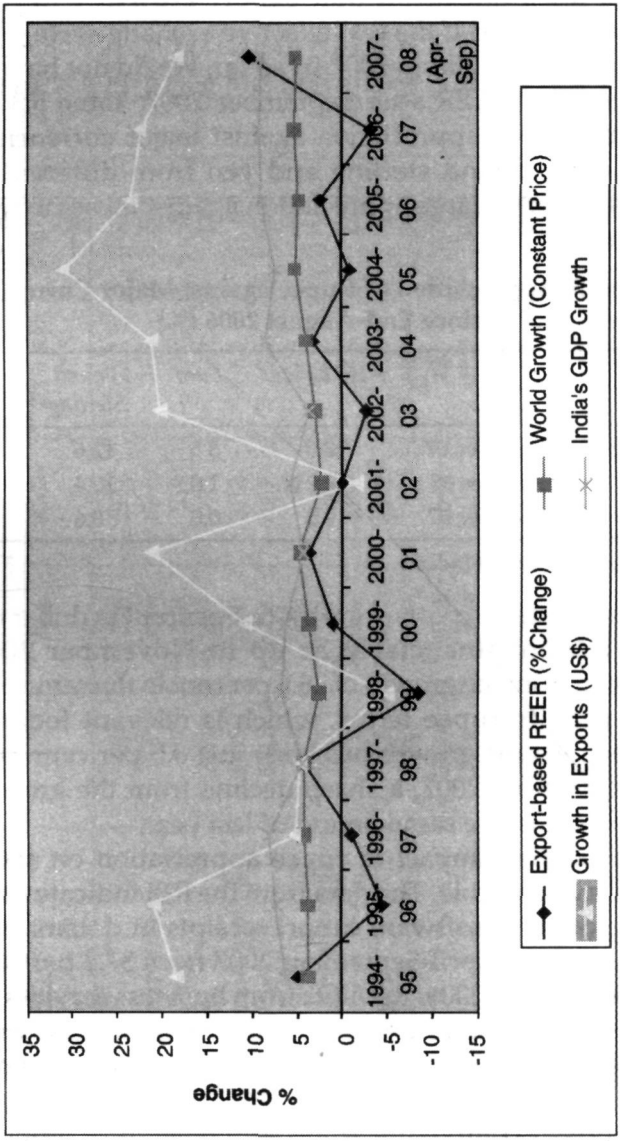
Table 5.2: Exports and Exchange Rate, 1994-08

	Growth in Exports (US$)	*Export-based REER (%Change)*	*World Growth* (Constant Price)*	*India's GDP Growth*
1994-95	18.4	4.9	3.8	6.4
1995-96	20.8	-4.6	3.7	7.3
1996-97	5.3	-1.1	4.1	8.0
1997-98	4.6	4.1	4.2	4.3
1998-99	-5.1	-8.5	2.7	6.7
1999-00	10.8	1.0	3.8	6.4
2000-01	21.0	3.6	4.8	4.4
2001-02	-1.6	-0.1	2.5	5.8
2002-03	20.3	-2.6	3.1	3.8
2003-04	21.1	3.2	4.0	8.5
2004-05	30.8	-0.8	5.3	7.5
2005-06	23.4	2.3	4.8	9.0
2006-07	22.5	-3.1	5.4	9.4
2007-08 (Apr-Sep)	18.5	10.5	5.2	9.1

** For calendar years.*
Source: RBI, CSO, and IMF.

There are many factors affecting aggregate exports growth of which three crucial factors are world income growth, exchange rate changes and changes in productive capacity/ productivity. Productive capacity/ productivity changes can be proxied by GDP growth rates. The data show that real effective exchange rate changes since the mid-1990s have been small and within a margin of +/- 5 per cent except in1998-99 and 2007-08. Admittedly, these small changes in the real effective exchange rate are not adequate enough to impact exports. World growth and rise in India's productive capacity/ productivity could have been the major factors

Chart 5.2: REER and Exports Growth



behind large growth in India's exports during the last five years. (See also Chart 5.2).

This does not mean that export growth will not be adversely affected if the real effective exchange rate (REER) rises sharply as it did in 2007-08 so far. We do not have data on 36-country REER after September 2007. Table 5.3 gives the recent rupee appreciation against major currencies US dollar, euro, pound sterling and yen from different base periods. It shows large appreciation against these currencies except euro.

Table 5.3: Appreciation of Rupee against Major Currencies since End-August 2006 (%)

	US dollar	*Euro*	*Pound Sterling*	*Yen*
End-Aug 06 to End-Dec 07	18.0	3.5	12.6	13.5
End-Dec 06 to End-Dec 07	12.2	1.0	10.4	6.6
End-Mar 07 to End-Dec 07	10.5	0.8	8.6	5.0

Source: Reserve Bank of India.

Merchandise exports grew by 22.1 per cent in dollar terms in the current financial year up to November 2007, a slowdown from the growth of 26.6 per cent in the same period of last year. In rupee terms, which is relevant for Indian exporters, export growth has been just 8.0 per cent during April-November 2007, a sharp decline from the growth of 31.4 per cent in the same period of last year.

The adverse impact of rupee appreciation on services exports is also visible. The data from the RBI indicate a sharp fall in growth of software export receipts in dollars to 15.2 per cent during April-September 2007 from 37.2 per cent in April-September 2006. Receipts from business services have recorded an absolute decline from US$ 8.0 billion during April-September 2006 to 6.4 billion during April-September 2007.

Exports by commodity group are available for the current year up to August. Total exports grew by a lower 18.6 per

Table 5.4: Indian Exports by Commodity Group (US$ Million)

	Commodity	April-August			% Growth		% Share	
		2005	2006	2007	2006 over 2005	2007 over 2006	2006	2007
1	Plantations	308	377	331	22.2	-12.1	0.8	0.6
2	Agri and allied products	2737	3318	4066	21.2	22.5	6.6	6.8
3	Marine Products	587	588	559	0.2	-5.0	1.2	0.9
4	Ore & minerals	2291	2457	2785	7.2	13.4	4.9	4.7
5	Leather and manufactures	1135	1228	1312	8.1	6.9	2.4	2.2
6	Gems & jewellery	6341	6131	7667	-3.3	25.1	12.2	12.8
7	Sports goods	53	60	54	12.9	-9.8	0.1	0.1
8	Chemicals & related products	5967	7141	7814	19.7	9.4	14.2	13.1
9	Engineering goods	7576	10199	12350	34.6	21.1	20.3	20.7
10	Electronic goods	808	1152	1240	42.6	7.7	2.3	2.1
11	Project goods	51	32	15	-38.0	-53.9	0.1	0.0
12	Textiles	6050	6823	6845	12.8	0.3	13.6	11.5
13	Handicrafts	210	189	106	-10.2	-43.7	0.4	0.2
14	Carpets	314	366	337	16.5	-7.9	0.7	0.6
15	Cotton raw inclu. waste	121	325	228	168.8	-29.9	0.6	0.4
16	Petroleum products	3844	8372	10233	117.8	22.2	16.6	17.1
17	Unclassified exports	1186	1578	3778	33.1	139.3	3.1	6.3
	Total	39579	50335	59719	27.2	18.6	100.0	100.0
	Exchange Rate: (1US$ = Rs.)	*43.5949*	*45.881*	*40.988*				

Source: DGCIS, Kolkata.

Table 5.5: India's Exports by Region (US$ Million)

	Region	April-August			%Growth		%Share	
		2005	2006	2007	2006 over 2005	2007 over 2006	2006	2007
1	**Europe**	**9,621**	**10,968**	**13,684**	**14.0**	**24.8**	**21.8**	**22.9**
1.1	EU Countries (27)	9,023	10,317	12,716	14.3	23.3	20.5	21.3
1.2	Other WE Countries	581	623	927	7.2	48.9	1.2	1.6
1.3	East Europe	17	29	42	73.7	44.1	0.1	0.1
2	**Africa**	**2,003**	**3,306**	**4,617**	**65.1**	**39.6**	**6.6**	**7.7**
2.1	Southern Africa	731	1,217	1,590	66.6	30.6	2.4	2.7
2.2	West Africa	714	857	1,602	20.0	87.0	1.7	2.7
2.3	Central Africa	62	78	98	24.5	25.8	0.2	0.2
2.4	East Africa	496	1,155	1,327	133.0	14.9	2.3	2.2
3	**America**	**8,250**	**9,689**	**10,513**	**17.4**	**8.5**	**19.3**	**17.6**
3.1	North America	6,970	8,109	8,594	16.3	6.0	16.1	14.4
3.2	Latin America	1,280	1,581	1,919	23.5	21.4	3.1	3.2
4	**Asia & ASEAN**	**19,164**	**25,750**	**29,938**	**34.4**	**16.3**	**51.2**	**50.1**
4.1	East Asia	426	816	489	91.6	-40.1	1.6	0.8
4.2	ASEAN	4,124	5,591	5,279	35.6	-5.6	11.1	8.8
4.3	WANA	6,205	9,679	12,286	56.0	26.9	19.2	20.6
4.4	NE Asia	6,186	6,869	8,794	11.0	28.0	13.7	14.7
4.5	South Asia	2,223	2,794	3,090	25.7	10.6	5.6	5.2
5	**CIS & Baltics**	**473**	**561**	**607**	**18.7**	**8.1**	**1.1**	**1.0**
5.1	CARs Countries	63	78	89	23.9	14.5	0.2	0.2
5.2	Other CIS Countries	410	483	517	17.9	7.1	1.0	0.9
6	**Unspecified Region**	**68**	**60**	**360**	**-11.5**	**497.9**	**0.1**	**0.6**
	Total	**39,579**	**50,335**	**59,719**	**27.2**	**18.6**	**100.0**	**100.0**
Exchange Rate: (1US$ = Rs.)		*43.5949*	*45.8811*	40.9877				

Source: DGCI&S, Kolkata.

cent in dollar terms during April-August 2007 against a growth of 27.2 per cent during April-August 2006. There has been negative growth in products like plantations, marine products, sports goods, project goods, handicrafts, carpets, and raw cotton. Exports growth in products like chemicals & related products, engineering goods, electronic goods, textiles, and petroleum products in the current year have been much lower than during the same period of last year (Table 5.4).

Thus, it can be seen that the exchange rate appreciation seems to have affected adversely India's exports in the current year. The slowdown in growth of exports has occurred in all regions except Europe and West Africa. This is significant in the context that rupee's appreciation was rather small against the euro and the growth of India's exports to Europe and West Africa (where currencies are mostly pegged to euro) has been stronger this year than the last. As a result, the share of India's exports to Europe has gone up to 22.9 per cent during April-August 2007 against 21.8 per cent in the same period last year and that of West Africa to 2.7 per cent against 1.7 per cent (Table 5.5).

6

Fiscal Scene

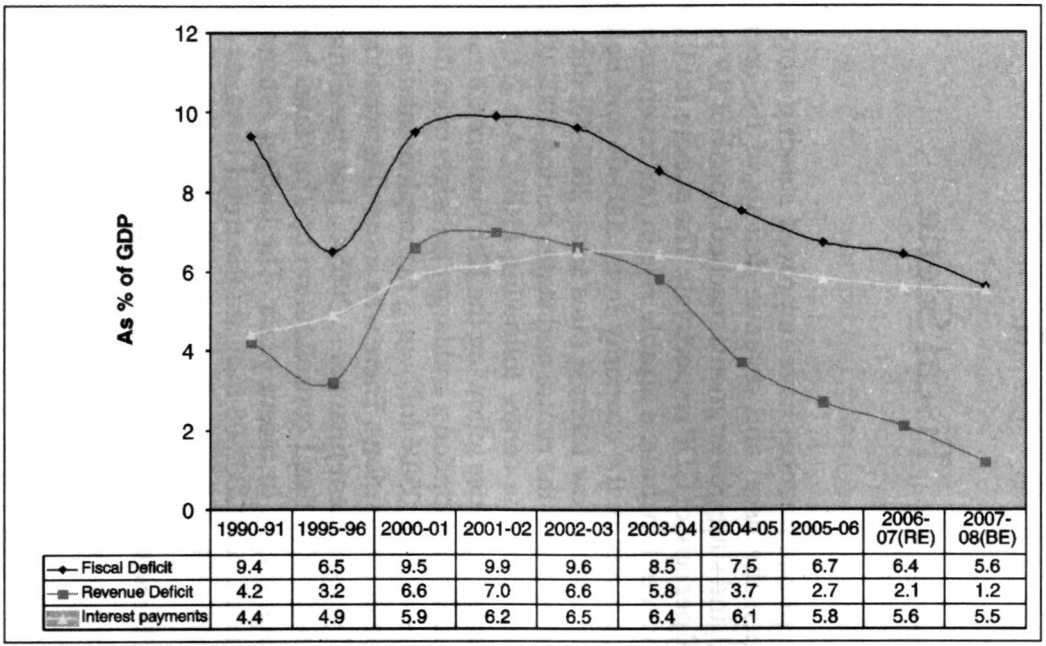
Indian public finances have improved steadily since 2001-02, when the fiscal and revenue deficits of the combined central and state governments reached a peak of 9.9 per cent and 7.0 per cent of GDP respectively. The reasons for the fiscal improvement include: a sizable rise in tax revenues due to robust growth of the economy from 2003-04 and better tax administration; low interest rates since 2002-03; debt-swap scheme between the centre and states during 2002-05; fiscal adjustment by the centre following FRBM Act 2003; fiscal adjustment by states following the 12th Finance Commission (TFC) recommendations; and larger transfers from the centre to states from 2005-06 following the implementation of the TFC recommendations. There was some deterioration in the central government finances in 2005-06 but these improved in 2006-07. The fiscal consolidation by the states has been quite significant in recent years. The budget estimates for the current year 2007-08 indicate the trend towards further improvement.

Fiscal Trends of the Centre and States

Chart 6.1 provides a synoptic view of the fiscal trends from 1990-91.

By 2006-07, the combined fiscal deficit came down to 6.4 per cent of GDP, below the best achieved in the mid-1990s at 6.5 per cent of GDP, and the combined revenue deficit significantly lower at 2.1 per cent of GDP. Interest payments

Chart 6.1: Fiscal Indicators of the Combined Centre and States



	1990-91	1995-96	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07(RE)	2007-08(BE)
Fiscal Deficit	9.4	6.5	9.5	9.9	9.6	8.5	7.5	6.7	6.4	5.6
Revenue Deficit	4.2	3.2	6.6	7.0	6.6	5.8	3.7	2.7	2.1	1.2
Interest payments	4.4	4.9	5.9	6.2	6.5	6.4	6.1	5.8	5.6	5.5

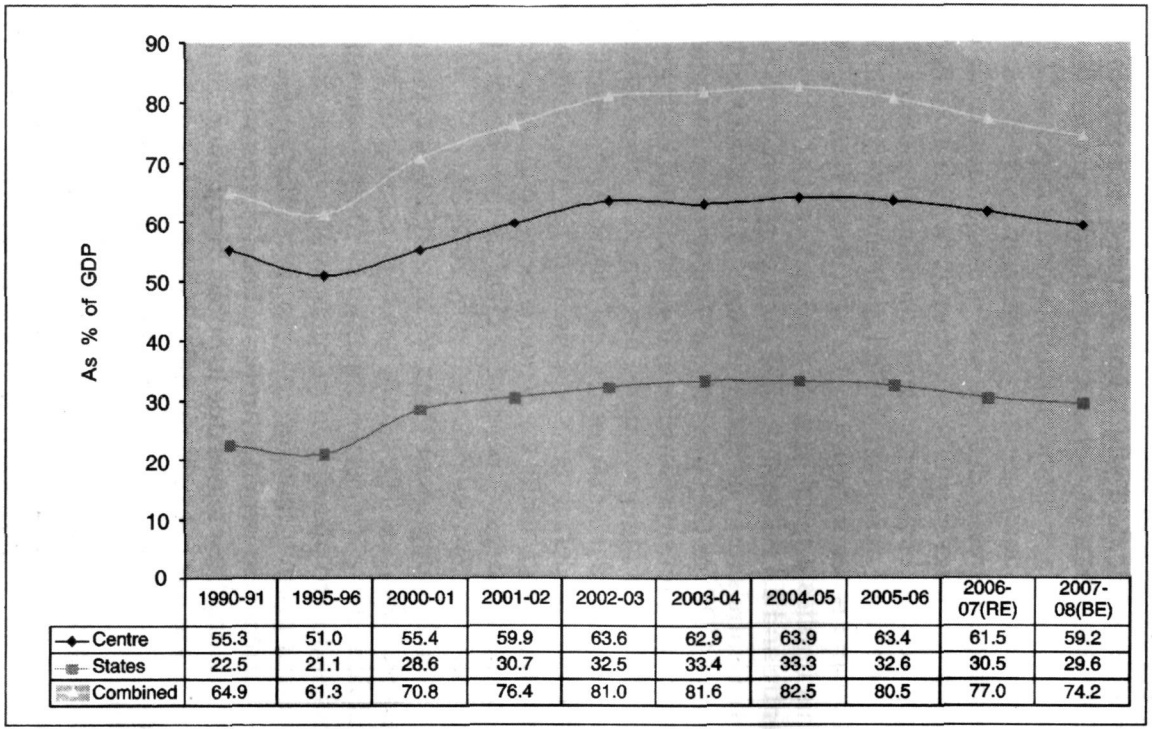
Source: Data from Reserve Bank of India.

as a per cent of GDP have also been coming down from the peak of 6.5 per cent reached in 2002-03. This came down to 5.6 per cent of GDP in 2006-07 but still remains too high. The level of public debt which has declined as a proportion of GDP since 2004-05, remains too high by earlier levels of the1990s and also by international standards (Chart 6.2). The government should seriously consider measures for reducing the stock of public debt by sale of public assets including equity holdings in public sector units (which have been put firmly on the backburner) and urban land holdings.

The fiscal deficit is targeted to decline to 5.6 per cent of GDP and revenue deficit to 1.2 per cent of GDP in 2007-08. This implies a fiscal deficit of 3.3 per cent of GDP for the centre and 2.4 per cent of GDP for the states (Charts 6.3 and 6.4). Centre's revenue deficit is targeted to decline to 1.5 per cent of GDP for the current year The states as a whole have budgeted a revenue surplus of 0.4 per cent of GDP for 2007-08. If these budget estimates are realized, then states will have achieved their target of fiscal deficit (3 per cent of GDP) and revenue deficit (zero revenue deficits) a year ahead. On the other hand, while the centre is on way to achieving the fiscal deficit target (3 per cent of GDP), it may be way below the target of zero revenue deficit by 2008-09.

Another important thing to be noted is the rising off-budget liabilities. The centre has been issuing oil bonds to public sector petroleum companies to compensate for their losses due to absorption of high international oil prices without passing them on to consumers. The centre also in the current year issued securities to Food Corporation of India for meeting their losses due to public distribution. Similarly, the centre has not paid up fully the fertilizer subsidies and arrears have been accumulated. Besides, losses on state public utilities have been mounting. All these liabilities are estimated to be about 2 per cent of GDP and are hidden fiscal deficit. It is important that these subsidies on account of petroleum, fertilizers and food be fully reflected in the budget which could henceforth show an aggregate figure for overall

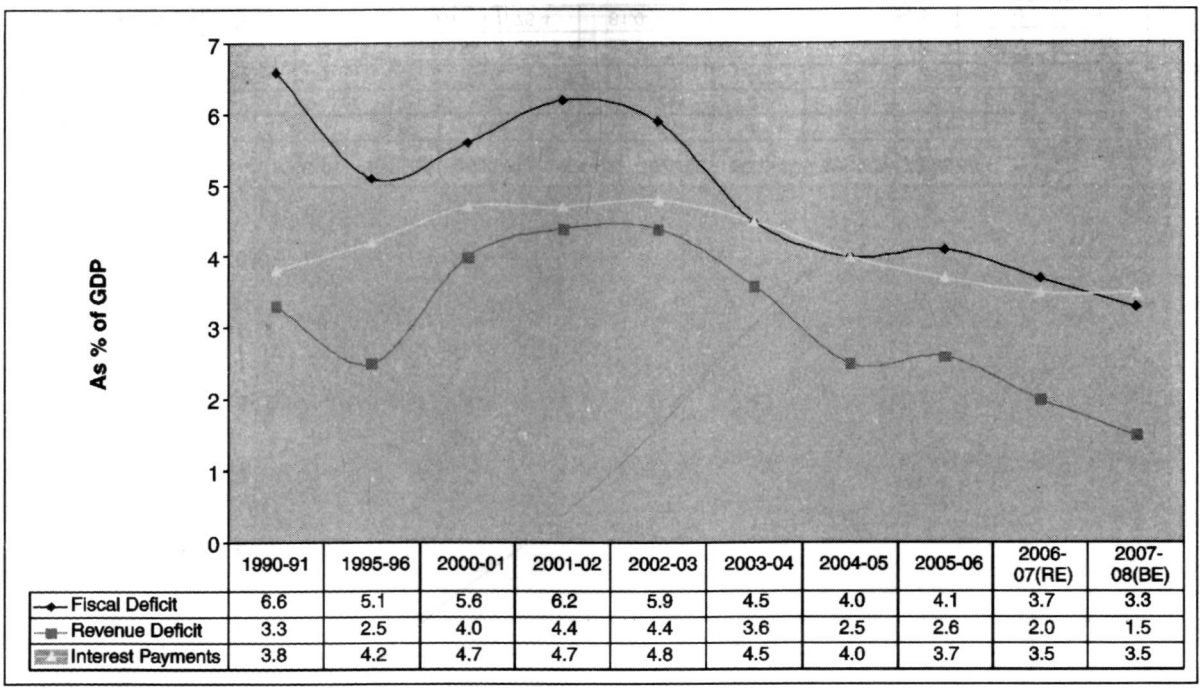
Chart 6.2: Outstanding Liabilities of the Centre and States



	1990-91	1995-96	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07(RE)	2007-08(BE)
Centre	55.3	51.0	55.4	59.9	63.6	62.9	63.9	63.4	61.5	59.2
States	22.5	21.1	28.6	30.7	32.5	33.4	33.3	32.6	30.5	29.6
Combined	64.9	61.3	70.8	76.4	81.0	81.6	82.5	80.5	77.0	74.2

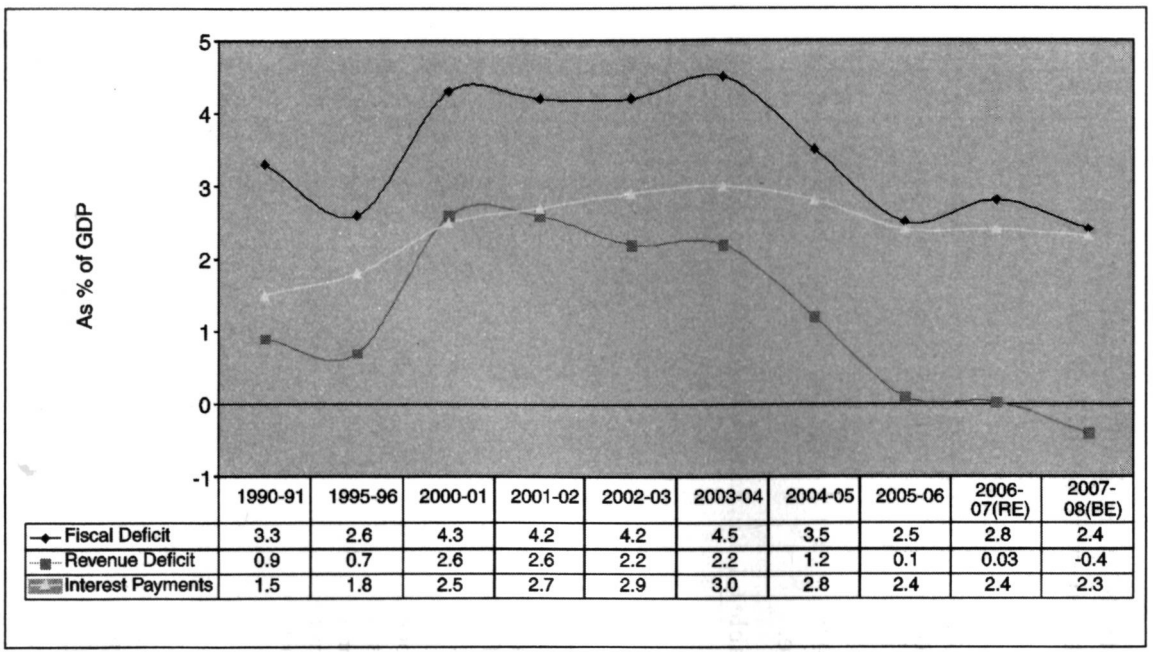
Source: Data from Reserve Bank of India.

Chart 6.3: Fiscal Indicators of the Centre



	1990-91	1995-96	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07(RE)	2007-08(BE)
Fiscal Deficit	6.6	5.1	5.6	6.2	5.9	4.5	4.0	4.1	3.7	3.3
Revenue Deficit	3.3	2.5	4.0	4.4	4.4	3.6	2.5	2.6	2.0	1.5
Interest Payments	3.8	4.2	4.7	4.7	4.8	4.5	4.0	3.7	3.5	3.5

Chart 6.4: Fiscal Indicators of States



	1990-91	1995-96	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07(RE)	2007-08(BE)
Fiscal Deficit	3.3	2.6	4.3	4.2	4.2	4.5	3.5	2.5	2.8	2.4
Revenue Deficit	0.9	0.7	2.6	2.6	2.2	2.2	1.2	0.1	0.03	-0.4
Interest Payments	1.5	1.8	2.5	2.7	2.9	3.0	2.8	2.4	2.4	2.3

public sector borrowing requirement that would also include losses incurred by public sector enterprises.

Central Government Revenue-Expenditure Growth Trends

Table 6.1 gives the growth of revenue and expenditure of the central government under broad indicators from 2004-05. For the current year, the growth has been calculated for the period, April-October 2007 over the same period last year. Capital expenditure and total expenditure growth for the current year excludes the transaction relating to transfer of State Bank of India from the Reserve Bank of India of Rs.35531 crore.

Table 6.1: Revenue-Expenditure Growth Trends of Central Government, 2004-08

(%)

	2004-05	*2005-06*	*2006-07 (RE)*	*2007-08 (BE)*	*2007-08 (Apr-Oct)**
Gross Revenue (Tax+ Non-Tax)	15.9	13.5	21.8	14.9	25.5
Net Tax Revenue (net of State Share)	20.2	20.2	28.0	16.7	25.8
Direct Taxes	25.8	26.6	23.5	16.6	39.9
Corporate Tax	30.1	22.5	44.6	15.0	43.1
Taxes on Income Other than Corporate Income	19.0	23.3	28.7	19.7	34.5
Indirect Taxes	16.9	17.4	19.3	17.7	15.7
Customs	18.5	12.9	25.7	20.7	18.3
Union Excise duties	9.2	12.2	5.4	11.0	3.9
Other Taxes (includes Service Tax)	62.7	100.3	53.7	29.8	37.5
Non-Tax Revenue	5.6	-4.9	0.2	6.7	25.5
Total Expenditure	5.6	8.8	14.9	10.9	15.2@
Revenue Expenditure	6.1	14.4	15.2	10.1	15.3
Capital Expenditure	3.8	-17.7	12.8	14.0	14.8@

*Growth over the corresponding period of 2006-07; @ Excludes purchase of SBI stake from RBI.

Source: Controller General of Accounts, Ministry of Finance.

For the current year, we find a substantially high growth in direct taxes (both corporate and individuals income tax) and service tax. On the other hand, we notice a very poor growth in union excise duties of just 3.9 per cent. There could be genuine reasons for the slowdown in central excise duty collection like tax credit arising from service tax but such a paltry growth in excise tax collection needs thorough investigation on the state of indirect tax computerization, administration and compliance.

Fiscal Forecast for 2007-08

We attempt a projection of the key indicators of the fiscal position of the central government for the year 2007-08 against the budget estimates. For this, we first compute the average proportion of revenue and expenditure for April to October during the previous three years, 2004-05 to 2006-07 of the budget estimates. Once these ratios are obtained, then we compute the average balance for the rest of the year and apply them to the budget estimates for the year 2007-08 to get the revenue and expenditure numbers for November-March, 2007-08. Adding to these the actual numbers up to

Table 6.2: Fiscal Forecast for 2007-08 (Rs. Crore)

	2007-08 (BE)	*Actuals up to Oct 07*	*Forecast for 2007-08*
Revenue Receipts	486422	246546	549412
Tax Revenue	403872	195339	450429
Non Tax Revenue	82550	51207	98983
Total Receipts@	494042#	251115	526134#
Total Expenditure	644990#	333371#	688233#
Revenue Expenditure	557900	304108	614044
Of which: Interest payments	158995	89983	181192
Capital Expenditure	87090#	29263	74189#
Fiscal Deficit	150948	82256	162099
Revenue Deficit	71478	57562	64632

@ Includes revenue receipts and non-debt capital receipts; # Calculated excluding transactions relating to SBI transfer.

April-October 2007, we get the projections of revenue and expenditures for the full year. Fiscal deficit and revenue deficit projections are derived from them. The fiscal forecasts in rupees are given in Table 6.2.

Our forecasts indicate that revenue receipts would be higher than budget estimates and revenue expenditure also higher, but capital expenditure lower. Consequently, revenue deficit would be lower than the budget estimate but fiscal deficit higher.

Table 6.3 casts the forecasts as per cent of GDP. We have assumed a growth in nominal GDP at market prices for 2007-08 at 13 per cent whereas it appears that budget estimates assumed a lower growth of 11 per cent. Our forecasts show that while the government will be able to reach the revenue deficit target, it will be hard pressed to achieve the fiscal deficit target.

Table 6.3: Fiscal Forecasts for 2007-08 (as % of GDP)

	2007-08 (BE)	*Forecast for 2007-08*
Revenue Receipts	10.6	11.8
Tax Revenue	8.8	9.7
Non Tax Revenue	1.8	2.1
Total Receipts@	10.8#	11.3#
Total Expenditure	14.1#	14.8#
Revenue Expenditure	12.2	13.2
Of which: Interest payments	3.5	3.9
Capital Expenditure	1.9#	1.6#
Fiscal Deficit	**3.3**	**3.5**
Revenue Deficit	**1.5**	**1.4**

@ Includes revenue receipts and non-debt capital receipts; # Calculated excluding transactions relating to SBI transfer.

7

Employment

One of the satisfactory developments during the 2000s has been that the economic growth during this period has been accompanied with reasonable growth in employment. This contrasts with the experience in the 1990s when employment grew hardly at all, despite strong growth in GDP resulting in fears that the 1991 reforms may generate jobless economic growth in the country and which would be socially and politically unsustainable. According to the latest survey by the National Sample Survey Organization (NSSO), this trend has been reversed with employment growth increasing from an annual 1.0 per cent during 1993-00 to 2.9 per cent during 2000-05.

Employment in India is concentrated in sectors whose shares are shrinking. Table 7.1 brings out the comparison of the trends in the shares of GDP and employment by broad sectors from 1993-94 to 2004-05.

The share of GDP in agriculture, forestry and fishing declined from 28.9 per cent to 18.8 per cent, i.e., by about 10.1 percentage points, over 1993-05 while the share in employment of this sector declined from 64.8 per cent to 58.4 per cent, i.e., only about 6.4 percentage points, over the same period. This indicates that the agriculture sector still suffers from extensive disguised employment and low productivity levels. Services sector share in GDP rose from 45.2 per cent to 53.7 per cent, i.e., by 8.5 percentage points whereas its share

Table 7.1: Share in GDP and Employment of Selected Sectors, 1993-94 to 2004-05

	Share in GDP (%)			*Share in Employment (%)*		
	1993-94	*1999-00*	*2004-05*	*1993-94*	*1999-00*	*2004-05*
1. Agriculture, forestry and fishing	28.9	25.0	18.8	64.8	59.8	58.4
2. Industry	25.9	25.3	27.5	15.6	17.4	18.2
Of which: Manufacturing	15.8	14.8	15.9	11.3	12.1	11.7
3. Services	45.2	49.7	53.7	19.7	22.7	23.4
Of which: Trade	11.9	13.0	14.9	7.8	8.2	8.4
Of which: Retail	n.a	n.a	n.a	n.a	7.4	7.3
Wholesale	n.a	n.a	n.a	n.a	0.8	1.1
Total	100.0	100.0	100.0	100.0	100.0	100.0

n.a: Not available.

Source: Computed based on data from CSO, NSSO and EAC Report (2007).

in employment rose by just 3.7 percentage points from 19.7 to 23.4 per cent over the same period. This implies that employment elasticity of the services sector is low and productivity increases are sharper. This growing diversion in productivity and commensurate income levels between the services and agriculture sectors (reflected also to a large extent in the urban-rural income disparities) can exacerbate the dualism in the economy and needs to be addressed by urgently adopting policies that will raise productivity levels in agriculture. The industrial sector saw its share in GDP rising marginally from 25.9 per cent to 27.5 per cent, i.e., by 1.6 percentage points, and its share in employment increased more by 2.6 percentage points from 15.6 per cent to 18.2 per cent. In terms of employment elasticity, industry is at the top, and services at the bottom and agriculture, in between. Thus the expansion of the industrial sector is the key to raising the employment opportunities in the country.

It can also be seen from Table 7.1 that trade, including both retail and wholesale, accounts for over a third of employment and over a fourth of value added in the services

sector. However, the employment elasticity of trade is also very low. This is so also because of the disguised nature of employment in the predominantly unorganized retail trade in India. This is expected to change with the emergence of organized retail in the country. Organized retail has taken off only in the last few years in India and accounts for hardly 5 per cent of the total retail in the country. As it spreads, it is estimated to provide direct employment to about 1.7 million persons over the next 5 years. This constitutes about 6 per cent the existing employment in the retail sector. Organized retail besides providing direct employment will generate multiple employment opportunities in other sectors of the economy whose growth will be triggered by the organized retail.

Table 7.2 provides the employment growth in 2000-05 by broad sector in comparison with the period 1994-00 in juxtaposition with the GDP growth of the corresponding sectors.

Table 7.2: Annual Growth in GDP and Employment by Broad Sector (%)

	GDP Growth		*Employment Growth*	
	1994-00	*2000-05*	*1994-00*	*2000-05*
Agriculture, forestry and fishing	3.3	1.6	-0.3	2.4
Industry	6.6	6.6	2.9	3.8
Manufacturing	6.9	6.5	2.1	2.2
Services	8.3	7.6	3.4	3.5
Total	**6.5**	**6.0**	**1.0**	**2.9**

Source: Computed based on data from CSO and EAC Report (2007).

The overall and sectoral growth in employment during 2000-05 has shown some surprising results. Firstly, the employment elasticity (with respect to growth in GDP) of all sectors has risen except the manufacturing. Particularly, agriculture which had shown negative employment elasticity during 1994-00 has now a large positive elasticity of 1.5, much higher that of all other sectors. Although industrial employment elasticity has risen from 0.4.to 0.6, that of

manufacturing remained stagnant and low at 0.3. The employment elasticity of the services sector has also improved from 0.4 to 0.5.

Indian manufacturing has become very capital intensive despite the plentiful supply of labour and low wages in the country and consequently employment generation in this sector has been rather modest. Several studies have shown that the restrictive labour laws in various states that effectively raise labor costs for the firms, especially in the formal or organized sector of the economy, are essentially responsible for this phenomenon.

8

Conclusions

India's integration with the global economy began in the 1980s. Since then, Indian economic growth is increasingly correlated with global economic growth, world oil prices and interest rates in developed economies. With the world economy slowing down, world oil prices remaining very high and the interest differential between India and abroad rising, Indian economic performance in 2007-08 and 2008-09 could be expected to be weaker than in the past four years when the external environment was not just benign but strongly supported India's economic growth.

Extrapolation of the post-reform growth trends in China and India indicate the possibility of India catching up with the Chinese high growth rates by 2013-14. This is certainly not inevitable and will not actually happen unless further reforms are undertaken. While the growth in China is propelled by the three engines of investment, consumption and net exports, for India it is by just two engines of consumption and investment with the third engine of net exports remaining virtually stalled. In this context Indian policy should be focused on preventing an unnecessary appreciation of the rupee; lowering the cost of capital while maintaining macro-stability; generating the skills and providing the necessary infrastructure facilities for the manufactured exporters.

It has been often said that Indian growth followed an unconventional path of services overtaking industry as the share of agriculture sector declined. The surge of the services sector in India is so pronounced that it has contributed nearly two-thirds to GDP growth in this decade. However, we are finding some evidence of the resurgence of the industrial sector in the 2000s with the manufacturing growth exceeding services growth in 15 of the past 30 quarters. We have also seen that industries subject to price and administrative controls have performed worse than other industries and may impose a binding constraint on manufacturing and overall economic growth as some of these sectors produce non-tradables. Hence a further liberalization of the industrial sector will help in boosting industrial and aggregate economic growth.

Indian economic growth is currently at the very limits of its potential output growth. The potential growth rate, that currently ranges between 7.5-8.5 per cent can be and should be raised by undertaking the necessary structural reforms. These have to focus on education, infrastructure, business climate and delivery of public goods and services including general governance reforms.

We expect the current trend of high growth rates to continue into 2007-08. We are, however, forecasting a mild slowdown of India's GDP growth to 9.2 per cent in 2007-08 from 9.4 per cent in 2006-07. This is on account of a slowdown in industrial and services sectors being partly compensated by a rise in agricultural growth.

India's external sector is marked by a rising trade deficit being offset by a rising surplus on the invisibles account resulting in a narrow current account deficit. In 2007-08 the current account deficit may rise a bit to 1.6 per cent of GDP from 1.1 per cent of GDP in 2006-07. But net capital inflows into India is reaching unmanageable levels and in 2007-08 it is projected to rise to US$ 104 billion (8.9 per cent of GDP) from US$ 46 billion (5.1 per cent of GDP) in 2006-07. This will heighten the pressure on the rupee to appreciate further, which will result in the trade deficit reaching unacceptable

levels. Exports are already adversely affected and India is on way to being afflicted by the "Dutch disease". Some urgent and even unconventional measures to limit capital flows may be necessary.

Public finances are on a steady path of improvement. States are expected to reach their target of revenue and fiscal deficits one year ahead of schedule. Centre may achieve its revenue deficit target of 1.5 per cent of GDP in 2007-08 but may not reach the FRBM target of zero revenue deficit by 2008-09. To achieve the fiscal deficit target of 3.3 of GDP for 2007-08 will be problematic. Besides this, a major concern is the mounting off-budget liabilities equivalent to 2 per cent of GDP which are hidden fiscal deficit. The levels of public debt remain high by international standards and even by our own standards in the mid-1990s. Another issue is the sluggish growth in excise collections despite a strongly growing manufacturing sector raising the problems of tax loopholes, administration and compliance.

The 2000s dispelled the notion of "jobless growth" in India. However, the shifting of labour out of the shrinking agriculture sector has been slow as labor absorption capacity of the fast growing services sector remain limited and the manufacturing sector is becoming increasingly capital intensive. The employment in agriculture and in the unorganized retail sector where a third of the workforce in the services sector is currently engaged is characterized by low productivity and disguised employment. The spread of organized retail will help generate employment opportunities. The key to expanding employment could well be to address the existing rigidities in and laws governing labour markets. These make labour more costly and discourage investment in labour-intensive industry segments. The current trend of increasing capital intensity in manufacturing and of slowing down of relatively more labour-intensive industry segments has to be reversed for Eleventh Plan's objective of 'rapid and inclusive growth' to be achieved.

Comments on the Review by the Discussants

Mythili Bhusnurmath*

Thank you Dr. Kumar, you have made the task of the Discussants, at least my task very much more difficult. If I can digress a bit, when I was with the Reserve Bank of India (RBI) a long time ago, we used to go on inspection to various banks, and our biggest worry was whether we would find anything that we could object to. You know, the RBI is always objecting to things. So our fundamental role was to find things that one could object to. As inspectors our first role was to find out if there was anything that was missing? And once we had about three or four points that we could object to, then we were a little relaxed. Because otherwise, if we had gone back to the head office and reported that everything was in great shape, we would have been told that it could not possibly be so. Similarly as a Discussant, I think everything has really been covered in your extensive review. So you can just take all the good words as said and I will just focus on whatever I think needs perhaps to be fleshed out a bit more.

I would like to say first of all that what I found particularly interesting was your leading economic indicators. I thought this was a very interesting way of trying to see whether we

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* Mythili Bhusnurmath is Consulting Editor, *The Economic Times*

could really get some kind of a fix on how the Indian economy is going to fare and what are the other indicators that perhaps one needs to consider.

The output gap, again, I thought was an interesting way of putting it because I think sufficient attention has not been focused on the entire concept of a potential growth rate, and what that might be. These are the initial two things I found particularly interesting.

I also found it, as an Indian, very satisfying to learn that the Indian rate of growth seems more steady than the Chinese growth rate that seems to be plateauing, if not dipping, now after a spectacular rise. In contrast, India's growth rate, at least if you go by the post-reform period, seems to be a little slower but we are continuing to accelerate. That goes well with the general hypothesis that ours is a more inclusive growth that takes everybody along. It might not be as inclusive as we'd like it to be but it is the democratic way, it is slower but also steadier. I found this very interesting.

Coming to the other points, I would, perhaps, have likes to see some conclusion. At the end of your of the mid-year review, how do you view the Indian economy? How is it placed? Is everything going on okay, or is there likely to be a slowdown? If so, where is the slowdown going to be, how is it going to affect us? How are we poised at this particular juncture? Is it all pluses or all minuses—some kind of a SWOT analysis would have been nice.

I thought the sub-prime crisis could have been dwelt on at greater length, because you have talked of how the Indian economy seems to be doing better, even though the rest of the world might be slowing down: is that for real? If the US economy were to really go into a recession would the Indian economy continue to do better? Also on oil prices, given that oil is now near $100 a barrel and the new plateau seems to be certainly much higher than before–what does it mean for the Indian economy given the fact that our dependence on imports is more than 70 per cent?

The current account deficit, you say, is nothing to worry about? But I would look at it the other way, saying that a current account deficit of 1.5 means the Indian economy is not absorbing as much as it could. It shows a lack of absorptive capacity, given that you can normally run a current account deficit of about 3-4 per cent quite safely. This again is one of the reasons why we are having this huge increase in reserves—precisely because we are not able to absorb the capital inflows. I think one needs to look at the 1.5 per cent not as a happy sign, but rather as an unhappy sign that we are losing out. This again shows a lack of potential that we could have capitalised on.

Again, the entire review is completely silent on prices, a very big issue not only in India, but internationally, given that all central banks are responding to what they call inflationary expectations. I felt that to be a big lacuna, since even academically now there is a view that the entire idea of a core inflation which omits energy and food is no longer quite relevant; energy and food, even if they continue to be volatile, are volatile at a much higher mean. So, you do need to think in terms of what index to take, what core inflation you take, what is the asset price inflation and so on.

You also talked about the interest rate 'kick' and you said the pickup in investment has been entirely because of the lower interest rates. Yes certainly, the interest rate plays a role in spurring investment. But given the fact that investment in almost all economies, particularly in a country like India, is almost entirely driven by domestic savings, one needs to think of the implications of having a very low rate of interest on savings. Does it have any implications for savings, and if so, what does it mean for investment? Can you look at investment divorced from savings?

Second, despite the pickup in interest rates that we have seen in the past year, company bottomlines have not really suffered, so interest does not seem to be a very major factor in determining investment—is that correct? If so, how correct is it? Maybe one needs to think in terms of some kind of

trade-off on the rate of interest. How does it impact both investors, and how does it impact savers?

The geo-political context is something that few economists ever discuss so I am not surprised the Review is also silent on it. But given that we have virtually failed states all around us, does it in any way impact the performance of the Indian economy? In my view it should certainly impact though it doesn't seem to impact global perceptions of India. I think right now India seems to be the flavour of the year. Everybody seems to be on a high as far as India is concerned, international investors even more so than Indian investors. And I am not sure how far that is really warranted, given the fact that we are perhaps the only island of stability in the sub-continent and we also have our problems. So maybe just one little brief mention might be warranted about the geo-political context and the internal contradictions that India has, given the fact that a large part of the economy has really not participated in the reform and the market driven growth process. What does it mean for the sustainability of the economic growth?

I would now like to turn to some very specific issues. If you look at your chart on world oil prices and India's GDP–the broad point is accepted that the global oil price will have a very significant impact–but the fact is that global oil prices have been going up since 2003 and that is exactly when our economic performance also picked up. Given the fact that there is some talk about the energy intensity of the economy coming down, has that happened in the Indian context?

You also talked about the interest rate differential where you have adjusted Libor with global inflation. Maybe it would give a slightly better picture if you were to take UK or US inflation, given that global inflation would have very little relation to US or UK Libor.

You have also talked about controlled sectors vis-à-vis overall industry, maybe the word to use is not so much controlled but sectors where reform has happened and where it hasn't happened.

You have talked about exports and the exchange rate. I was wondering whether we could get something on the impact on exports after controlling for other factors. How much really does exchange rate impact exports? There is a huge controversy given the tussle between the Commerce Ministry and the Finance Ministry on what we need to do with the exchange rates. How much do the exchange rates really matter as far as export performance is concerned?

As far as exchange rate and remittances is concerned (and this can be seen from the table on exchange rate and remittances), remittances seem almost indifferent to the exchange rate. And that gels well with the general hypothesis that most remittances in India are for the maintenance of families, in which case the exchange rate is not a very major factor influencing remittance flows. They tend to be more or less indifferent to exchange rates. Yes, there would be ups and downs, but not significantly.

Now, to turn to the fiscal scene, where you have talked about the revenue deficit and the fiscal deficit–yes we have made significant progress, particularly if we look at what the revenue deficit was as a percentage of the fiscal deficit, but actually if you look back to 1991, it is a little alarming that in 2006-07, the revenue deficit was about 54 per cent of the fiscal deficit, which is higher than what it was in 1991. That means we really have progressed only to get back to where we were in 1991. I don't worry so much about the fiscal deficit if it is spent on the right things but I do worry about the revenue deficit because that is where we are borrowing just to spend on the current consumption. So how much have we really progressed? In this I think the centre is more liable than the states; the states have made remarkable progress, maybe because of the 12th Finance Commission, but the centre really has not pulled its weight sufficiently.

On employment, the last point I had, you did refer to the informal sector and what the latest figures show. But what does it mean? If the wage rate has been falling, if it has not been looking up at all, than what does it really mean for

employment and again for sustainability? These are some points which you could, perhaps, incorporate. Overall, the review is a marvelous job. Thanks to you and your team.

SUBIR GOKARN*

Let me compliment Dr Rajiv Kumar and his team for having put together this very comprehensive and insightful presentation on the state of the economy in the middle of the year. I think after a number of years we have had a reasonably interesting year as far as macroeconomics goes. The last two-three years were relatively boring; there wasn't very much happening that caused concern or required deep analysis. This year we actually have a number of issues that I think have revived the intensity of the debate that has been going on in the public domain on macroeconomics. And all of these issues have been addressed in this presentation to some extent, although for obvious reasons not conclusively. I will touch on some of these as I get deeper into my comments.

Let me begin by addressing the issue of overheating and the question of whether the Indian economy is growing faster than it can sustain and the implications this has for a short-term macroeconomic policy. The presentation's premises are on the base of the two papers that are referred to, which seem to accept the premise that the overall sustainable growth rate, the trend growth rate for the economy currently, is somewhere around 8 per cent, if one goes by the second paper. But the OECD says it is 8.5 per cent, and then uses its leading economic indicators methodology to forecast growth rate of 9.2 per cent. I don't agree with that forecast but that is a separate issue and I don't want to get into it here. My own outlook for 2007-08 is around 8.6 per cent compared with a trend of about 8.5 per cent. So at this point I don't believe that the economy is at the overheating stage. But if you do accept that the economy is overheating, as the review seems

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to infer, it has very important implications for short-term monetary policy.

The RBI's current position, having chosen not to change interest rates in its last announcement at the end of October, was based on calculations similar to mine which is that we are on a trend of 8.5 per cent and so there is no need to change. However, if the actual performance is at 9.2, than the implication is that it needs to increase interest rates further. We need to go back to the pattern we saw over 2004-06 and if that happens, if we are working in an environment where there are inflationary pressures resulting from overheating, it links very directly to the issues of the exchange rate, and how to deal with the forex reserves.

The Reserve Bank of India has to manage the somewhat delicate balance between domestic monetary policy and the whole balance of payments, exchange rates, and so on. I will come back to that point a little later when I focus on balance of payments. But the immediate point is that if the economy is growing at 9.2 per cent this year then I would be looking at a further series of interest rate increases, with all the implications these will have for manufacturing growth, and other performance indicators.

As I stated, I don't agree with this forecast. I think the current monetary policy regime is appropriate, at least on the interest rate front because I do see signs of some slowdown in the economy. Maybe I won't use the word 'slowdown', but let's say moderation or deceleration in the economy, consistent with the expectations that went into the interest rate increases over the last few quarters. Let me focus specifically on manufacturing. The review makes the point about the significant contribution of lower interest rates. Whether one looks at it as a differential vis-à-vis global interest rates or just lower interest rates in India compared to historical levels is, I think, not very important. But the fact is that lower borrowing costs have contributed very significantly to the manufacturing revival that we saw starting around 2002 or 2003. A number of other factors in

combination with this have contributed to the very important development that the review pointed to, that is, the sharp increase in the contribution of investment spending to GDP growth. And as was displayed in one of the tables, we have more or less a balance now between the contribution of investment and consumer spending. So it is not just a consumer boom any more. It is a much more broad-based process and because investment is presumably responding to long-term potential, it also indicates optimism on the part of investors as far as the sustainability of this process goes. Overall this is a very good sign.

Investment will have its cyclicality. We have already seen this with particular reference to commercial vehicles, because this sector has been a very powerful contributor to growth in the last few years, but the fleet is now about as young as it can be. There has been an enormous amount of replacement and a new fleet means more capacity because new trucks do not break down as often as the old ones. More generally, we should expect to see some lull, some 'plateauing' in certain kinds of investment precisely because capacity has reached a point where you don't need to add any more for some time at least, until that capacity starts to become a constraint. That again is, I think, consistent with the overall expectation that we would see a slower growth year compared to 2006-07, and nothing really to be terribly concerned about.

A positive sign from manufacturing is the sustained growth in machinery and equipment which is one of the variables used in the leading indicators, which have consistently grown over the last six months at about 12-13 per cent, if I remember right, and that again links up with the overall attractiveness on the investment front. Investment, again, is not just construction, not just housing, but also capacity expansion in manufacturing and other sectors. I have used the word 'soft landing' often in my comments on the Indian economy this year, and I think that is really the best way to characterize it. The monetary policy was effective in bringing growth down to a point which is sustainable, which

is consistent with a sort of comfortable balance between growth and inflation. This is going to change the scenario somewhat. But for the moment I think the macroeconomic situation is in a state of soft landing.

One point I would like to bring up which was mentioned in the review but not really backed up by any analysis, at least as far as the presentation goes, is this whole issue of wage inflation. I think it is absolutely critical to understand what is going on and how it is going to impact our overall performance. We have been looking at comparative data between manufacturing and services, corporate data, that is, and that tends to confirm beliefs several people have that this is really a result of extreme labour market segmentation. Some segments of the labour market are showing enormous wage inflation; typically white collar professionals, which comprise the largest chunk of manpower costs in the services sector. But blue collar costs, which are typically the largest chunk of costs in the manufacturing sector, have not been going up. We do see from the 61st round of the National Sample Survey that manufacturing employment has been rising steadily, but as Dr. Kumar pointed out, this is largely in the informal sector and we do not see significant wage pressure there. We do not see significant increases in real wages. As a result, services sector companies have started to see pressure on their margins because of their rising costs, whereas manufacturing companies have actually sustained very large margins; in fact they are showing significant growth because their wage costs overall are in control. So, there is a significant increase in the return, or the share of value-added, which is going to the shareholder. This is a very striking difference between manufacturing and services that is emerging, which also probably explains the very broad-based stock market pattern that we are witnessing. The old economy/new economy is no longer a meaningful distinction as far as stock prices go.

Let me turn to the two global issues that were raised. First, the oil prices; I think the relationship between oil prices

and economic performance has fundamentally changed and therefore historical analysis is not very meaningful in this context. It is driven by the very significant factor that the previous Discussant pointed to, which was that the oil intensity of global GDP has reduced considerably. I believe it is about half of what it was 20-25 years ago, around the time of the second oil shock. That has happened for two reasons: one, the global economy has swung, like the Indian economy, much more towards services; and two, because every activity is more energy-efficient. So as a result the impact, although it is there, is much less than it was in the early eighties. Now that doesn't mean that the Indian economy is not vulnerable; nor is the Chinese economy invulnerable to this. Both India and China have actually suppressed the impact of rising crude oil prices on domestic consumers, by keeping their domestic retail prices under cap. Till the beginning of this recent spurt, around August-September of this year, we had achieved a correction, a pass-through of roughly about 70 per cent, given the fact that oil prices had declined between the end of 2006 and over the first half of this year (i.e. 2007). But that pass-through now has gone completely haywire so we will probably be less than 50 per cent. Now if we take today's price as the benchmark, ironically, the 40 per cent growth in oil exports results from the fact that Reliance Industries, with its very efficient refinery, is unable to sell domestically because it is not getting the budgetary support that the public sector companies are, and is therefore making enormous profits by refining very efficiently and exporting all its refined products. Consequently, if you look at the performance of the oil sector in the recent quarter, the second quarter, all the companies selling in India have been hammered, while Reliance's profits continue to soar, so there is something in that which we need to think about.

Let me get to the second, and what I think is the most important issue facing us today on the macroeconomic front, and that is the exchange rate and all the forces that are

combining to push it in a direction that many people find rather uncomfortable. Dr. Kumar did refer to the ongoing debate and the relative lack of resolution on it as of now; his position was that he is wary of appreciation, at least sudden appreciation, because of its impact on exports, and because of its impact on anybody who is competing against imports and therefore also going to suffer. It is not just exports that are going to fall; domestic production will also be directly affected. This is clearly a concern I think we need to take this into account. My position on this debate has been in favour of managed appreciation because if we continue to grow at 8.5 per cent, assuming that the estimate of trend rate of growth is reasonable, this capital inflow will not cease, there is no way this is going to come down, it will continue to rise, and the more we back the rupee, the more it stimulates and aggravates the capital inflow problem. Having done some research on the impact of appreciation on export performance and by extension on import of competing products as well, I believe that Indian producers are reasonably capable of accommodating a gradual appreciation. The appreciation we saw in the rupee in the middle of March and perhaps the end of April or so, 8 per cent in a very short period of time, can be compared with the roughly 10 ten per cent appreciation that we have seen between 2002—which is when this capital account upsurge first started to show up—and March 2007. Roughly about 2 per cent a year over that period really did not have any significant negative impact that we could see on exports, either of goods or services. The implication is that gradual appreciation can be offset by productivity gains, and so on, and it is really not going to cause much disruption. China has chosen a 3 per cent mark, as of 2005, to appreciate its currency; with precisely the logic that its producers can accommodate that rate of appreciation through productivity increases. Whether that is the right number or not is, I think, an analytical question, but clearly between 2 per cent a year and 2 per cent every two weeks or over a month there is

some middle ground, and to find and implement that rate of change is the right policy.

I did, in a recent piece, also suggest that we think about the Tobin Tax as a transitional instrument, not as a permanent one. And I was glad to hear Dr. Kumar bringing that into the discussion also. But at the end of the day I think what we need more than anything else on exchange rate policy is clarity. I think there are arguments to be made on all sides. But, if we are looking at a peg now, we go back to the issue that I raised at the beginning, which is that the economy is still overheating, and managing the exchange rate is counter to that. If the economy is overheating then an appreciating exchange rate is actually a device to ease it, to cool it down. This is a fundamental problem that China is facing. China has talked about a soft landing for the last three or four years but has done nothing on the exchange rate side to facilitate it. This is a contradiction that we are dealing with. But ultimately, exchange rate policy has to select on of these three options: (i) you can peg it, (ii) you can let it free-float immediately, or (iii) you can find a way to manage the pace of appreciation. Each is going to impose its costs on certain groups, each of them is going to benefit other groups and I think we need to get some sense of where we stand on these. But, at the moment, markets are in a state of confusion and there is uncertainty about what the policy position is. That is not a very good position to be in. I shall conclude on that note.

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Appendix Tables

Table A.1: GDP Growth Rates: World and India

	World	*India*		*World*	*India*
1951-52	5.9	2.3	1980-81	2.1	7.2
1952-53	4.6	2.8	1981-82	2.2	5.6
1953-54	5.0	6.1	1982-83	1.1	2.9
1954-55	3.4	4.2	1983-84	3.0	7.9
1955-56	6.4	2.6	1984-85	4.7	4.0
1956-57	4.7	5.7	1985-86	3.8	4.2
1957-58	3.8	-1.2	1986-87	3.7	4.3
1958-59	3.2	7.6	1987-88	3.9	3.5
1959-60	4.6	2.2	1988-89	4.7	10.2
1960-61	5.2	7.1	1989-90	3.8	6.1
1961-62	3.5	3.1	1990-91	2.9	5.3
1962-63	4.7	2.1	1991-92	1.6	1.4
1963-64	4.4	5.1	1992-93	2.4	5.4
1964-65	7.3	7.6	1993-94	2.4	5.7
1965-66	5.2	-3.7	1994-95	3.8	6.4
1966-67	5.4	1.0	1995-96	3.7	7.3
1967-68	3.7	8.1	1996-97	4.1	8.0
1968-69	5.5	2.6	1997-98	4.2	4.3
1969-70	5.5	6.5	1998-99	2.7	6.7
1970-71	5.1	5.0	1999-00	3.7	6.4
1971-72	4.1	1.0	2000-01	4.8	4.4
1972-73	4.8	-0.3	2001-02	2.5	5.8
1973-74	6.6	4.6	2002-03	3.1	3.8
1974-75	2.3	1.2	2003-04	4.0	8.5
1975-76	1.5	9.0	2004-05	5.3	7.5
1976-77	4.9	1.2	2005-06	4.8	9.0
1977-78	4.1	7.5	2006-07	5.4	9.4
1978-79	4.4	5.5	2007-08	5.2	
1979-80	3.6	-5.2	2008-09	4.8	

Note: For India, financial year (April-March) and for World, calendar year (January-December).
Source: WEO, IMF & CSO, India

Table A.2 : Interest Rates: World and India

	Real Libor	*Real Mibor*
Sep-99	-1.8	4.8
Dec-99	-1.1	6.5
Mar-00	0.0	8.4
Jun-00	1.1	5.6
Sep-00	1.8	6.6
Dec-00	1.7	9.0
Mar-01	1.1	7.1
Jun-01	-0.1	6.7
Sep-01	-0.7	5.1
Dec-01	-1.8	4.4
Mar-02	-2.5	5.4
Jun-02	-1.9	6.3
Sep-02	-1.8	4.8
Dec-02	-1.8	2.7
Mar-03	-2.4	2.3
Jun-03	-3.1	1.2
Sep-03	-3.4	0.9
Dec-03	-3.0	1.9
Mar-04	-2.8	1.1
Jun-04	-2.5	0.9
Sep-04	-1.9	1.5
Dec-04	-1.8	-1.0
Mar-05	-1.4	0.5
Jun-05	-1.2	2.2
Sep-05	-0.7	0.5
Dec-05	0.0	1.6
Mar-06	0.4	1.4
Jun-06	0.5	3.4
Sep-06	1.1	1.9
Dec-06	1.3	2.0
Mar-07	1.7	2.4
Jun-07	2.5	3.5
Sep-07	3.3	4.6

Note: Real Mibor is adjusted by India's Inflation and Real Libor is adjusted by world Inflation.

Source: 1) Libor from www.bba.org.uk
2) Mibor from www.nseindia.com

Table A.3: World Oil Price

	Real Oil Price ($ per barrel)
1974	51.4
1975	51.8
1976	48.3
1977	48.0
1978	45.3
1979	68.8
1980	85.3
1981	79.3
1982	67.5
1983	58.5
1984	55.1
1985	46.8
1986	25.3
1987	31.2
1988	25.5
1989	30.4
1990	33.8
1991	26.5
1992	26.4
1993	21.1
1994	22.3
1995	23.1
1996	27.3
1997	21.0
1998	14.2
1999	25.6
2000	31.6
2001	23.7
2002	29.6
2003	30.7
2004	41.0
2005	53.9
2006	58.5

Note: Base year: 2007=100
Source: EIA Energy Outlook

Table A.4: Growth of Gross Value Added by Sector (%)

	Agriculture	*Industry*	*Manufacturing*	*Services*
Jun-00	0.5	8.5	9.1	5.8
Sep-00	5.7	7.0	8.1	6.9
Dec-00	-0.6	7.3	8.2	6.3
Mar-01	-4.3	3.0	5.7	4.1
Jun-01	3.0	1.2	2.1	7.2
Sep-01	6.0	1.9	2.2	6.8
Dec-01	7.0	3.2	2.6	8.4
Mar-02	8.8	4.5	3.2	6.4
Jun-02	-1.3	5.8	4.6	7.7
Sep-02	-5.2	7.8	7.3	8.1
Dec-02	-12.1	7.3	7.4	6.9
Mar-03	-8.2	7.3	7.9	7.0
Jun-03	0.2	6.3	5.8	7.5
Sep-03	7.7	8.0	6.6	10.1
Dec-03	19.4	6.9	6.7	9.7
Mar-04	10.3	8.3	7.3	7.0
Jun-04	3.4	9.3	7.2	9.8
Sep-04	0.7	9.3	8.9	8.2
Dec-04	-4.9	10.8	9.7	8.7
Mar-05	2.6	9.5	8.7	11.4
Jun-05	4.0	10.5	10.7	9.2
Sep-05	4.0	7.7	8.1	9.3
Dec-05	8.7	9.6	8.2	9.5
Mar-06	6.2	10.4	9.4	11.1
Jun-06	2.8	10.6	12.3	11.7
Sep-06	2.9	11.3	12.7	11.8
Dec-06	1.6	10.6	11.8	11.0
Mar-07	3.8	11.2	12.4	9.9
Jun-07	3.8	10.6	11.9	10.6
Sep-07	3.6	9.1	8.6	10.2

Source: CSO, India.

Table A.5: Growth in Agricultural Gross Value Added and % Deviation of Rainfall

	Agricultural Growth	*% Deviation of Rainfall from Normal*
1971-72	-2.66	4.0
1972-73	-5.63	-24.2
1973-74	8.43	13.7
1974-75	-2.76	-12.3
1975-76	14.20	15.1
1976-77	-6.08	9.2
1977-78	12.51	-0.7
1978-79	1.99	9.1
1979-80	-13.36	-20.1
1980-81	14.44	8.6
1981-82	4.85	6.5
1982-83	-0.14	-12.9
1983-84	10.75	14.7
1984-85	1.48	-3.0
1985-86	0.19	-6.9
1986-87	-0.39	-14.1
1987-88	-1.73	-22.5
1988-89	16.85	15.5
1989-90	0.40	-3.9
1990-91	4.28	4.9
1991-92	-2.31	-5.1
1992-93	7.06	-8.1
1993-94	3.18	-0.2
1994-95	4.74	13.2
1995-96	-0.98	-0.3
1996-97	10.40	2.9
1997-98	-2.97	2.1
1998-99	7.12	7.3
1999-00	2.41	-4.2
2000-01	-0.56	-7.7
2001-02	6.48	-7.0
2002-03	-8.11	-20.6
2003-04	10.89	2.1
2004-05	-0.19	-12.5
2005-06	6.31	-1.5
2006-07	2.70	-0.6

Source: Indian Meteorological Department.

Table A.6: Index of Leading Indicators and Its Components

	% Growth of				*Corporate Performance*			
	Production of Machinery & Equipment	*Sales of Heavy Commercial Vehicles*	*Non-Food Credit*	*Railway Freight Traffic*	*Cement Sales*	*% Growth of Sales*	*Net Profit/ Sales*	*Index of Leading Indicators*
Jun-97	6.9	-8.6	11.8	3.7	21.9	11.0	5.8	239.7
Sep-97	5.6	-25.0	11.6	5.2	7.5	1.7	6.4	188.6
Dec-97	9.3	-27.3	11.0	3.9	22.7	13.4	5.2	230.3
Mar-98	2.6	-51.5	14.9	4.6	9.3	10.6	4.0	158.5
Jun-98	-2.6	-32.1	14.2	5.7	2.0	9.2	5.3	146.2
Sep-98	-3.3	-33.0	14.9	7.4	5.5	8.8	5.9	180.5
Dec-98	0.9	-6.0	16.4	5.3	1.0	7.4	4.9	193.5
Mar-99	10.2	-2.9	12.5	5.3	8.6	12.0	4.8	242.9
Jun-99	21.5	-22.5	13.1	8.6	21.5	11.9	4.9	359.2
Sep-99	23.4	12.4	14.6	6.5	15.6	16.1	5.4	366.9
Dec-99	17.9	-9.5	17.5	8.7	11.6	21.5	4.6	349.2
Mar-00	10.1	10.9	17.4	9.9	9.9	24.1	6.3	349.2
Jun-00	10.5	-19.0	21.5	8.0	1.8	30.8	4.7	284.2
Sep-00	7.8	-18.5	21.4	3.2	2.6	25.7	4.9	209.4
Dec-00	7.6	-16.2	19.3	4.4	1.6	16.2	4.7	214.3
Mar-01	3.9	-8.6	16.7	-0.1	-8.2	7.4	5.5	101.3
Jun-01	-0.1	0.0	13.0	0.4	4.6	2.4	4.7	123.9
Sep-01	3.0	0.0	11.0	2.6	6.7	-2.1	4.6	164.7
Dec-01	1.0	0.0	11.0	5.6	9.0	-4.9	4.8	204.2
Mar-02	1.3	0.0	12.2	7.5	9.9	-3.1	6.1	240.5
Jun-02	4.0	45.2	20.8	5.5	3.6	6.0	5.3	297.5
Sep-02	-0.8	37.7	25.5	8.7	5.5	10.9	7.4	340.8
Dec-02	2.1	34.7	26.2	5.5	5.0	20.3	6.2	307.8
Mar-03	1.5	36.0	26.6	1.9	6.4	25.7	7.3	264.2
Jun-03	3.0	31.3	19.5	8.5	4.2	15.2	7.1	314.3
Sep-03	12.5	52.6	15.0	7.1	4.7	11.0	8.4	340.4
Dec-03	16.1	46.7	16.7	6.1	2.9	12.3	8.9	338.1
Mar-04	30.5	34.7	17.9	9.3	7.2	13.0	8.9	450.1
Jun-04	26.6	61.5	21.0	5.5	3.8	21.8	8.0	416.0
Sep-04	23.8	17.8	25.2	7.7	7.2	19.7	8.9	415.1
Dec-04	17.7	23.6	31.4	9.0	12.2	24.7	8.3	459.5
Mar-05	13.2	20.2	31.6	8.4	6.0	20.1	9.7	408.6
Jun-05	11.5	5.3	33.1	13.5	11.8	15.9	7.0	479.9
Sep-05	9.2	20.9	36.4	6.9	9.2	20.9	8.0	405.2
Dec-05	11.7	8.9	31.4	9.2	10.4	15.2	6.1	413.4
Mar-06	15.4	12.8	34.6	14.0	16.9	19.3	10.6	535.8
Jun-06	13.7	37.2	32.9	9.7	13.4	28.3	7.3	478.1
Sep-06	18.7	31.2	32.5	9.9	9.6	29.4	9.5	480.4
Dec-06	11.8	35.2	30.1	9.6	10.8	32.5	9.8	490.0

Source: CSO, RBI, SIAM, Indian Railways, and CMIE

Table A.7: Balance of Payments (% of GDP)

	Exports	*Imports*	*Invisibles Receipts*	*Invisibles Payments*
1990-91	5.8	8.8	2.3	2.4
1991-92	6.9	7.9	3.6	2.9
1992-93	7.3	9.6	3.6	3.0
1993-94	8.3	9.8	4.1	3.1
1994-95	8.3	11.1	4.8	3.1
1995-96	9.1	12.3	5.0	3.5
1996-97	8.9	12.7	5.6	2.9
1997-98	8.7	12.5	5.7	3.2
1998-99	8.3	11.5	6.2	4.0
1999-00	8.3	12.3	6.7	3.8
2000-01	9.9	12.6	7.0	4.9
2001-02	9.4	11.8	7.7	4.5
2002-03	10.6	12.7	8.3	4.9
2003-04	11.0	13.3	8.9	4.3
2004-05	12.2	17.1	10.0	5.5
2005-06	13.1	19.5	11.5	6.2
2006-07	13.9	21.1	13.0	7.0
2007-08*	13.2	20.5	11.8	6.1

* Projections by ICRIER.
Source: RBI, India.

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