Economic Outlook for 2007/08

Economic Advisory Council to the
Prime Minister

New Delhi

July 2007

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ECONOMIC OUTLOOK FOR 2007/08
Executive Summary

I. Growth Performance and Outlook

1. **The Council assesses that the Indian economy will grow by 9.0% during 2007/08 assuming reasonably benign monsoon and other external conditions**. We expect farm sector incomes to grow by 2.5%, marginally slower than last year; industrial output to expand by 10.6%, a little lower than in the previous year (10.9%), and the service sector to grow by 10.4%, again slightly lower than in the previous year (11.0%). Overall the non-farm sector is expected to grow by 10.4% compared to 11.0% in the previous fiscal year. Details are set out in the *Table-A*:

Table A: Economic Growth ñ Past Performance and Projections for 2007/08

Annual Rates	2003/04	2004/05	2005/06 QE	2006/07 Rev	2007/08 Projected
	Percentage change over previous year				
1. Agriculture & allied activities	10.0	0.0	6.0	2.7	**2.5**
2. Mining & Quarrying	3.1	7.5	3.6	5.1	**5.5**
3. Manufacturing	6.6	8.7	9.1	12.3	**11.3**
4. Elect., Gas & Water Supply	4.8	7.5	5.3	7.4	**8.0**
5. Construction	12.0	14.1	14.2	10.7	**11.3**
6. Trade, Hotels, Transport, Storage & Comm.	12.1	10.9	10.4	13.0	**12.5**
7. Finance, insurance, realty & business services	5.6	8.7	10.9	10.6	**9.5**
8. Community & personal services	5.4	7.9	7.7	7.8	**7.3**
G.D.P. (factor cost & constant prices)	**8.5**	**7.5**	**9.0**	**9.4**	**9.0**
Industry (2 + 3 + 4 + 5)	7.4	9.8	9.6	10.9	**10.6**
Services (6 + 7 + 8)	8.5	9.6	9.8	11.0	**10.4**
Non-agriculture (9 – 1)	8.1	9.6	9.7	11.0	**10.4**
G.D.P. (factor cost, const. prices) per capita	**6.7**	**5.8**	**7.3**	**7.7**	**7.3**

2. The primary domestic **downside risk to our expectations of economic performance in 2007/08 derives from uncertainties on account of the South West (SW) monsoon** – both in regard to its quantum as well as the distribution through the season and across the landmass of the country. The Indian Meteorological Department in its latest update at the end of June 2007 has forecast lower than average aggregate rainfall during the season, as also in July which is a critical month for *kharif* sowing.

3. **Global economic conditions do not seem to contain potential of adverse developments during the current fiscal year**. Rising crude oil prices and supply disruptions do pose a potential downside risk, although this has become a somewhat familiar part of the landscape during the past several years. **The higher and more persistent the increase in world crude oil prices, the greater will be the domestic burden** and this could in some measure operate to depress the economic factors encouraging investment and growth.

Investment, Consumption, Savings and Growth

4. **The strength of domestic conditions supportive of economic growth emanates from the strong investment boom in evidence in recent years**. This may be seen from two inter-related facts. First, is the big increase in the investment rate, which had stagnated in the low to mid-20s from the mid-seventies. In the years immediately after the reforms of 1991, the investment rate rose to a peak value of 27% in 1995/96, but fell off subsequently; the average value of the investment rate between 1996/97 and 2002/03 was 24%. **Starting from an investment rate of 28.0% in 2003/04, the momentum of investment expansion has gathered steam rising to 31.5% and 33.8% in 2004/05 and 2005/06. In 2006/07, the investment rate (provisional) crossed 35%**. In every sense, the magnitude of the change in the trajectory of investment is large and significant. The extent to which contribution of investment to GDP growth has matched and then out-paced consumption is evident from the Table B.

Table B: Contribution to GDP growth by expenditure classes

	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
GDP (market prices) growth rate	**4.04**	**5.21**	**3.73**	**8.39**	**8.33**	**9.23**	**9.35**	**9.00**
Total Investment or total GDCF	–1.16	–0.43	3.69	4.77	5.22	4.97	4.75	5.05
o/w GDCF in Fixed Capital	*0.08*	*1.02*	*1.95*	*3.06*	*2.88*	*3.86*	*3.90*	*4.50*
Domestic Final Consumption Exp.	1.71	4.03	1.32	4.59	4.34	4.83	4.62	4.18
o/w Private Final Consumption Exp	*1.67*	*3.82*	*1.39*	*4.31*	*3.33*	*4.07*	*3.65*	*3.43*
Net Exports of Goods & Services	1.65	0.29	1.53	–1.47	2.42	–0.56	–0.31	–0.27

Note: Figures for 2006/07 are provisional based on the May 2007 release of CSO. Those for 2007/08 are our projections.

5. Second, **investment at constant prices has grown at a much more rapid and sustained pace**. Double digit growth in investment at constant prices has been a rarity, briefly showing up in 1994/95 and 1995/96. **Since 2002/03 real investment has grown by double digits in every year for the past five years, averaging more than 17% between 2002/03 and 2006/07. In comparison the annual growth in real consumption expenditure has been around 6%ñ7%, averaging 6.3% over the past four years**. The investment boom has come from the creation of fixed assets and this phenomenon has been most pronounced in the private corporate sector, although public sector fixed investment also picked up in this period.

6. **We expect that in 2007/08, the pace of growth in investment, particularly fixed investment, will continue at a pace similar to that of 2006/07**.

7. It is as a result of the faster pace of growth in income, relative to consumption, **that the domestic savings rate has moved up by over 4 percentage points of GDP, thereby permitting the largely domestic financing of the incremental investment equivalent to 7 percentage points of GDP**. The external balance (at current prices) shifted from a current account surplus in 2003/04 (denoting excess domestic supply) to a current account deficit (CAD) since 2003/04 (denoting excess domestic demand). However, the magnitude of the CAD has remained at around 1% of GDP.

8. A sharp increase in economic growth could be associated with a rise in inflation, rise in asset prices, a widening of the external (Current Account) and internal (fiscal) deficits, and a rapid expansion of bank credit and other forms of capital flows – a **phenomenon commonly referred to as ìoverheating**". During the last quarter of 2006 and the first few months of 2007 there were some signs of overheating when the wholesale price index rose to over 6% and the merchandise trade deficit also expanded to over 7% of GDP indicating some pressure on the supply side. In such a situation, it would have been imprudent to let money supply accelerate. However, **thanks to a series of monetary tightening measures undertaken by the RBI and fiscal measures initiated by the government, these signs have abated**.

9. **There is increasing evidence that a greater part of economic growth is now investment driven.** Thus, even if there is a pressure on prices in the initial stages when growth picks up, once fresh productive capacities come on line, there will be a dampening effect on inflation and the overheating will abate. In many sectors, investment is adequate to create the additional capacity needed as evidenced in the cement and iron and steel sectors. Infrastructure, however, remains a stumbling block. **If adequate attention is not paid to augment infrastructure, particularly power supply, overheating may persist on account of productivity and supply constraints.**

10. **In the medium to long term the principal constraints in sustaining of high rates of economic growth in India derive from two basic sources, viz. the farm and power sectors, where special circumstances obtain.** In the farm sector there is sizeable potential to improve the economic conditions of the farming community through an imaginative mix of policies and organisational response. The need is to simultaneously improve the dissemination of technological developments, provide easier access to markets for products and for credit, and by institutionally compensating for the specific disadvantages that may accrue on account of small farm size, infrastructural deficits and limitations of income and education. In the case of power, which is the single most important infrastructure constraint, there is an urgent need to radically enlarge the scope of power generation over the XIIth Plan period. This requires completion of the reform of the power distribution set-up; greater private sector participation; and encouraging the large-scale import of power generating plant & equipment to augment domestic production.

Trade and Balance of Payments

11. The provisional figures place the current account deficit (CAD) in 2006/07 at $9.6 billion or 1.0% of GDP, about the same level as in the previous year, namely 1.1% of GDP. On the capital account side, the surplus was $45 billon or 4.9% of GDP, a large increase from the $23 billion in 2005/06 (2.9% of GDP). **This increase was primarily due to a near-doubling of FDI and trebling of loan (ECB and others) inflows**. The net effect was a large accumulation of reserves by the Reserve Bank of India (RBI) amounting to nearly $37 billion, compared to $15 billion in 2005/06.

12. The merchandise trade data (from DGCI&S) show that the dollar value of exports rose by nearly 21% in 2006/07, imports increased by over 26% and the deficit expanded by nearly 41%. The monthly data is suggestive of a slowdown in the second half of 2006/07 in the growth of export and the **slowing down of growth in the export value of textiles to 4.6% in the first eleven months of 2006/07 is cause for concern.** Thus even though export data for April and May 2007 still show growth of over 20%, we have adopted a lower rate for our projections of exports in 2007/08. The dollar value of exports is likely to grow by 18% during 2007/08. Merchandise exports on DGCI&S basis are thus expected to aggregate about $147 billion, which is short of the $160 billion indicated by the Ministry of Commerce & Industry earlier.

13. In comparison, import growth had been robust in the second half of 2006/07. Considering the combined effect of the reduction in import duties, the stronger currency and the need to source capital goods for infrastructure and industry, imports, particularly non-oil and non-gold, are likely to continue to grow quite rapidly in the course of 2007/08. **The US dollar value of total merchandise imports (DGCI&S) is projected to be $223 billion, an increase of little over 23% over the previous year. The merchandise trade deficit on DGCI&S basis is thus likely to rise by 35% to over $76 billion, translating to a BoP basis merchandise trade deficit of over $84 billion or 7.3% of expected GDP in 2007/08.**

14. In 2007/08, we expect that net software & business service earnings will rise by 28%, which is a little less than last year, to $41 billion. Private remittances are expected to increase at a slightly slower pace of 10% to touch $30 billion, while net investment income outflow is expected to rise to $5 billion, an increase of 17%. **Total invisibles are thus expected to show a net inflow of $67 billion, an increase of 21% over the previous year.**

Table C: Projected Balance of Payments for 2007/08			
	2005/06 Prov. Rev.	**2006/07 Provisional**	**2007/2008 Projection**
		US$ billion	
Merchandise Trade Balance	(–) 51.8 *(– 6.4%)*	(–) 64.9 *(– 7.1%)*	(–) 84.4 *(– 7.3%)*
Net Invisible receipts	42.7	55.3	67.0
Of which: Software & BPO*	26.4	32.1	41.0
Private remittances	24.1	27.2	30.0
Investment income	(–) 4.9	(–) 4.3	(–) 5.0
Current Account Balance	(–) 9.2 *(– 1.1%)*	(–) 9.6 *(– 1.0%)*	(–) 17.4 *(– 1.5%)*
Capital Account Balance	23.4 *(2.9%)*	44.9 *(4.9%)*	58.0 *(5.0%)*
Of which: FDI (net)	4.7	8.4	15.0
Portfolio flows	12.5	7.1	12.5
Loans	6.1	21.1	25.0
Of which: ECB	2.7	16.1	20.0
Errors and Omissions	0.8	1.3	–
Accretion to Reserves	15.1 *(1.9%)*	36.6 *(4.0%)*	40.6 *(3.5%)*

Note: * Business process outsourcing

Figures in parentheses denote proportion to GDP at current and market prices

15. As a result **the current account deficit is likely to expand to $17.4 billion, equivalent to 1.5% of GDP, an enlargement from the previous yearís CAD of $9.6 billion or 1.0% of GDP.** However, if merchandise exports do better than has been expected in this projection, the overall current account deficit could be smaller to that extent.

16. In-bound FDI increased sharply in 2006/07 and for 2007/08, we project a further increase in *net* FDI inflows to $15 billion. We expect that in 2007/08 net portfolio capital inflows will be at about the same level as in 2005/06, that is, $12.5 billion. External commercial borrowings and short-term loans rose sharply in 2006/07, and in view of higher domestic interest rates and expectations of an appreciating rupee total loan inflows are projected to rise to $25 billion in 2007/08. **Thus our estimate of total capital inflows in 2007/08 is $58 billion, an**

increase of 29% over the previous year. This expected increase is much smaller than the 92% increase in capital inflows in 2006/07. It is unlikely that an increase of the same order as last year would recur in the current fiscal year. **However, it is possible to visualise conditions where capital inflows may be larger** than what has been estimated by us.

17. The projected expansion of the CAD will be much smaller than the capital inflows, resulting in **a likely net accretion to reserves of over $40 billion, slightly larger than the $36.6 billion last year and nearly three times as large as the $15.1 billion accruing in 2005/06. Policy makers however have to be prepared for larger capital inflows.**

Prices

18. The revised Wholesale Price Index (WPI) index showed that headline inflation on the week ending 31 March 2007 was 5.94%, a little lower than the previous week's 6.54%. Provisional WPI inflation rates for the last week of April and May 2007 were 5.66% and 4.85% respectively, and fell further to 4.13% by the third week of June 2007. **With revised numbers for the five weeks up to 28 April 2007 running an average of 29 basis points (bps) higher than the provisional figures, it would be advisable to moderate a reading of the most recent provisional WPI rates bearing this in mind. That is, a level of 4.1% for the headline inflation may be seen as being in reality somewhere around 4.4%.**

19. The price of two major refined petroleum products – diesel and petrol – was cut on two occasions late in 2006 in view of the decline in crude prices. However, world crude oil prices have since hardened again, but the domestic selling prices of diesel and petrol have not been revised to reflect this. Further, the selling prices of domestic cooking gas and kerosene have not been adjusted for several years now. This has had several outcomes, one of which is to suppress the rate of headline inflation. If both the price cuts in diesel and petrol made in late 2006 were to be reversed it would have the effect of increasing the current headline rate by around 30 bps. **Bearing in mind both the issue of the extent of revision, and the impact of adjustment, in the prices of refined petroleum products, it is advisable to view the current headline rate of 4.13% in the third week of June 2007 as being in reality closer to 4.7%.** Having said this, the current situation is a big improvement on the scenario prevailing in the period December to March 2006/07.

20. **The pressure from primary food articles appears to have clearly abated**. The price increase in manufactured goods measured year-on-year has fallen from 6.9% (revised) for the week ending 24 March 2007, to 5.2% (provisional) for the week ending 23 June 2007. The upward pressure on WPI inflation seems to have been curbed to a significant extent. But the present rates continue to be high, especially that in manufactured products: 5.2% provisional, likely to be 5.7% on revision. **The policy framework must necessarily seek to contain inflation at significantly lower levels**.

21. Consumer price inflation rates continue to exceed the WPI headline inflation rate, possibly because of the much larger weight of food items in the consumer price indices (CPI). Although the level of CPI inflation rate remains very high, the upward impetus prevailing between May and November 2006 is clearly behind us. **However, stable conditions where the upward pressure on price does not re-ignite need to be maintained in order to work the consumer price inflation rate downwards to more acceptable levels**.

22. **It is our assessment that, with appropriate monetary management headline inflation will continue to drop.** After factoring in future correction in petroleum product prices, revised headline inflation is likely to fall below 4% in August/September 2007. **Conditions would then be generated where the headline rate (after corrections in refined petroleum products etc.) is maintained at levels close to 4%.**

Employment

23. Employment growth is estimated to have increased from an annual rate of 0.98% in the period 1993/94 to 1999/00, to 2.89% in the period 1999/00 to 2004/05, there was also **acceleration in the rate of growth of the labour force from 1.03% in the first period to 2.93% in the second**. This unprecedented growth in labour force which was above the population growth rate could have had serious implications for the unemployment scenario, had it not been for the sharp increase in the workforce employed.

24. The bulk of the increase in employment has happened in agriculture and in the informal sector where both wage rates and income growth are generally lower than in other sectors of the economy. There appears to be a skills mismatch in the economy that needs to be urgently addressed in order to enable a smooth transfer of employment from agriculture to the secondary and tertiary sectors of the economy; this is a necessary concomitant of development. **The new challenge**

is one of improving productivity in the informal sector and in agriculture so that there is a significant improvement in the quality of employment.

Financial Sector

25. Broad money supply growth (M3) was 20.8% in 2006/07, little lower than the previous year's expansion of 21.2%, and supported a credit expansion that was comparable with that in the previous year. The principal source of money creation was the accumulation of substantial foreign currency assets with the RBI. In the current year, deposit growth for the fortnight ending 22 June 2007, was 2.3% over the outstanding stock at the end of March 2007, while credit off-take has fallen by 1.4%. **This situation has created significantly long periods when short term rates have crashed and have not been in line with the policy interest corridor.**

26. On the basis of available balance sheet data of Indian banks for 2006/07, both **profitability and balance sheet results seem to have not been overly adversely affected on account of the rise in interest rates (impacting the investment portfolio) and the lag in the process of pass-through of interest costs.** Despite the rapid increase in the loan book over the past couple of years, generation of incremental non-performing loans does not seem to have expanded and the stock of such assets to the total portfolio has continued to fall. However, public sector banks continue to be highly leveraged and the means of expanding their equity capital base within the framework of statute needs to be urgently addressed.

Government Finances

27. **There has been considerable progress towards fiscal consolidation in the country**, with the fiscal responsibility legislations at the Central and State levels helping to bring about significant improvement. **The aggregate fiscal deficit of the Centre and States in 2006/07 is estimated to have been 6.3% of GDP. In 2007/08 it is likely to be even lower at 5.2%, which reflects the States having reached their mandated targets ahead of schedule**. The reduction in the revenue deficit of the Centre has lagged, despite strong and sustained growth of tax collections mostly because of an increase in outlays for social development programmes and transfers to States.

28. The task of fiscal consolidation is not over and several risks remain. First, **the central governmentís revenue deficit continues to be high and it is**

unlikely to eliminate it by 2008/09. Second there are s**ubstantial off budget liabilities which need to be taken account of**. At the Centre, these include the issue of Oil Bonds to oil marketing companies, securities to Food Corporation of India, arrears of fertiliser subsidies. In the States they include the losses of the public utilities. All of **these would aggregate 2% of GDP**. Third, is the **potential expenditure increase from revision of pay scales after the Sixth Pay Commission** makes its recommendations.

Monetary, Exchange Rate and Inflation management

29. **The Indian economy is on an unprecedented strong trajectory of economic growth. Policy must work to preserve and strengthen these conditions, while maintaining monetary and exchange rate stability.** The sustained increase in demand over the past several years has served to whittle down excess production capacity and returned in some measure pricing power to producers. Offsetting this is the continued expansion of domestic production capacity and lowered import protection –through lower import duties and also a relatively stronger currency. As long as ease of entry and broadly competitive market conditions are maintained, pricing power shifts would be ephemeral rather than structural.

30. Many emerging economies, especially in Asia, have drawn large overseas investments and have also developed large and sustained current account surpluses. This has put enormous upward pressure on their national currencies, and in most cases their central banks have intervened to limit the appreciation. **India had a small current account surplus for a while, but that has since become a deficit. However the net capital inflow has been much larger than that required to finance the CAD, and the central bank had to resort to large purchases of foreign currency assets. The accumulation of foreign currency assets with the RBI has the direct monetary consequence of increasing the stock of reserve money which fuels the expansion of bank credit in the system and has the potential to fuel inflation.**

31. There is an ongoing debate on the justification for central bank intervention in the foreign exchange market and its extent. **In India the magnitude of the capital inflows and their potential to induce large changes in relative prices will have serious repercussions for domestic business in both the domestic and export markets**. **We do not therefore think that the solution is simply to stop intervention. The underlying imbalance between the CAD and capital inflows needs to be bridged.**

32. The argument has been made that if the excess of capital inflows is so much larger than the CAD, **why not restrict such inflows? Any restriction ñ which by definition will be *ad hoc* ñ on equity investment, be it direct or portfolio investment, will be most unwise**. Equity investment by its very nature is high-risk and policy continuity is an essential element to initiate and maintain such flows; they cannot be turned on and off at will. However, **on the debt side there are some areas which can do with some scrutiny.** Notably the best non-discretionary way of ensuring that such loans/bonds are used not to acquire rupee assets (where the by-pass becomes effective) is to **limit** the conversion of ECB proceeds into rupees. All in all, any such restriction that we may impose must be temporary.

33. **In substance, there are three instruments or channels through which policy makers can act in the face of strong capital flows. One is to let the rupee appreciate.** However, there are limits up to which this can be done. Beyond a point it will hurt exports, as also the larger domestic economy. Besides we need to take into account the behaviour of the currencies of other developing countries, most notably China. Despite a strong trade surplus, China continues to permit its currency to appreciate only to a small extent. Appreciation finally works through widening the current account deficit and it is necessary to keep in mind the extent to which the country can comfortably allow the current account deficit to widen. Exchange rate appreciation will exact a fiscal cost if attempts are made to support exports through subsidies.

34. **The second channel is to absorb the capital flows into reserves and to sterilise the excess over what may be regarded as appropriate.** The appropriate level would depend upon the desired expansion in money supply and the consequent level of reserve money expansion. It is currently estimated that expansion of reserve assets to the extent of $25 billion can be absorbed consistent with a money supply growth of 17.5**%**. **Intervention in excess of this has to be sterilised, which of course involves a cost.** Sterilisation through the issue of bonds will impose a fiscal cost which will be equal to the difference between the rate of interest paid on the domestic security and the return on reserves invested abroad. **In this context it may be noted that with interest rates having risen in the developed world, the difference in yield has come down**. Alternatively, sterilisation can be done through raising the cash reserve ratio, in which case the burden will be borne by the banks. In either case, there will be some impact on the interest rate.

35. **A third channel is to liberalise outflows by removing administrative and procedural impediments, and to discourage inflows by putting restrictions on some capital items.** Restricting capital inflow too has its limitations. It must not be seen as a signal that we are going back on liberalising the capital account. However, as indicated earlier, there are some types of flows on which purely temporary restrictions can be imposed without it being seen as intrusive.

36. Instead of arguing for the exclusive use of any one of the instruments, **there must be a judicious mix of all of the three instruments. There are limits to which each instrument can be used by itself.**

Economic Outlook for 2007/08

Full Report

I. GROWTH PERFORMANCE AND OUTLOOK

1. The Indian economy grew by 9.4% in 2006/07 and averaged 8.6% growth over the past four years (2003/04 through 2006/07). While the recovery in the farm sector had pushed up overall growth in 2003/04, in the course of the past three years, that is, 2004/05 through 2006/07, the high rate of economic growth has been driven by acceleration in industry and services. The sharp recovery in the manufacturing sector, where the rate of growth nearly doubled from 6.6% in 2003/04 to 12.3% in 2006/07, has been a particularly notable feature of this process of acceleration.

2. It is our assessment that the economy will grow by 9.0% during 2007/08 assuming reasonably benign monsoon and other external conditions. We expect farm sector incomes to grow by 2.5%, marginally slower than last year; industrial output to expand by 10.6%, a little lower than in the previous year (10.9%) and the service sector to grow by 10.4%, again slightly lower than in the previous year (11.0%). Overall the non-farm sector is expected to grow by 10.4% compared to 11.0% in the previous fiscal year. A summary of the principal projected numbers for the Indian economy for fiscal 2007/2008 is presented at *Table 1*.

3. Industrial production data for April 2007 showed manufacturing output maintaining growth at double digit levels. Durable consumer goods output continued to exhibit the depressed pattern in evidence since the second half of 2006/07, which was offset by stronger output growth in intermediate and basic goods. This is a trend that we expect to see reinforced during the course of the current fiscal year. The expected relative flattening of growth of domestic consumption as well as of exports this year is the primary reason for the slightly lower projected manufacturing growth of 11.3%, compared to the 12.3% achieved in the previous fiscal year. Not much change in expected in the services sector, the slightly lower growth mostly deriving from expectation of some flattening in the trade, hotels, transport, storage & communication sub-sector and in the financial sector.

Table 1: Growth ñ Past Performance and Projections for 2007/08					
Annual Rates	**2003/04**	**2004/05**	**2005/06 QE**	**2006/07 Rev**	**2007/08 Projected**
	Percentage change over previous year				
1. Agriculture & allied activities	10.0	0.0	6.0	2.7	2.5
2. Mining & Quarrying	3.1	7.5	3.6	5.1	5.5
3. Manufacturing	6.6	8.7	9.1	12.3	11.3
4. Elect., Gas & Water Supply	4.8	7.5	5.3	7.4	8.0
5. Construction	12.0	14.1	14.2	10.7	11.3
6. Trade, Hotels, Transport, Storage & Communication	12.1	10.9	10.4	13.0	12.5
7. Finance, insurance, real estate & business services	5.6	8.7	10.9	10.6	9.5
8. Community & personal services	5.4	7.9	7.7	7.8	7.3
9. Gross Domestic Product (factor cost & constant prices)	**8.5**	**7.5**	**9.0**	**9.4**	**9.0**
Industry (2 + 3 + 4 + 5)	7.4	9.8	9.6	10.9	10.6
Services (6 + 7 + 8)	8.5	9.6	9.8	11.0	10.4
Non-agriculture (9 – 1)	8.1	9.6	9.7	11.0	10.4
GDP (factor cost, const. prices) per capita	**6.7**	**5.8**	**7.3**	**7.7**	**7.3**
Some Magnitudes					
GDP factor cost – 1999/00 prices (Rs lakh crore i.e. Rs trillion)	22.2	23.9	26.0	28.5	31.1
GDP market & current prices (Rs trillion)	27.7	31.3	35.7	41.3	47.0
Population (million)	1,073	1,090	1,107	1,122	1,161
GDP current & market prices per capita (Rs)	25,773	28,684	32,224	36,771	41,359
GDP current & market prices per capita US$	561	638	728	813	1,021

4. The primary domestic downside risk to our expectations of economic performance in 2007/08 derives from uncertainties on account of the South West (SW) monsoon – both in regard to its quantum as well as the distribution through the season and across the landmass of the country. The Indian Meteorological Department (IMD) had predicted a near-normal monsoon in their May/June updates and the progress of the monsoon at the beginning of July is satisfactory. In a press release dated 29 June 2007, the IMD has issued a revised long range forecast for this year's SW monsoon. It predicts in this "update (that) for the 2007 South-West Monsoon Season (June-September) …. as a whole the seasonal rainfall is likely to be 93% of the Long Period Average (LPA) with a model error

of ± 4%". July is an important month for sowing of the *kharif* crop and the IMD update suggests that rainfall in "month of July 2007 is likely to be 95% of its LPA with a model error of ± 9 %". Some shortfall in aggregate precipitation for the country as a whole may then be expected as a base line case. We have however seen how even in years where aggregate rainfall was normal, uneven distribution of rainfall proved inimical to agricultural performance. This uncertainty (of uneven distribution and potential for flood damage) will persist for some time into the season, as also the possibility that notwithstanding a shortfall at the aggregate level, the spatial and temporal distribution, may work to the advantage of agricultural activities.

5. Global economic conditions do not seem to contain potential of adverse developments during the current fiscal year. The International Monetary Fund (IMF) in its *World Economic Outlook* issued in April 2007 projected that the world economy would grow at 4.9%, which is a little lower than the 5.4% estimated for the previous year. However, too much should perhaps not be read into the indicated slowing down, given that in April 2006 the estimate for growth in that year was 4.9% and this was revised upward to 5.1% in September 2006 and has now turned out to be 5.4%. Other multilateral agencies, such as the OECD, private banks and other institutions also do not suggest negative conditions for 2007. Most expect some slowing in the US economy and a stabilising of growth in West Europe and Japan at or slightly lower than last year's level. Some slowing is also projected for India, China and other developing economies, which yields the expected overall world output growth of about half of a percentage point lower than last year's actual.

6. Earlier in 2007, the problems in the US sub-prime home market were feared by some to be a harbinger of things to come with widespread adverse consequences for the entire home-building sector which were likely to spill over into the rest of the economy. In the event, in the first quarter of calendar 2007, the US economy growth turned out to be a dismal 1.9% (year-on-year) almost entirely on account of big negative growth in the home-building sector for the fourth quarter running. There was also some slowing down of private business investment, particularly in equipment & software; nevertheless these sectors continued to report positive growth. However, consumer demand does not seem to have suffered, with both durable and non-durable goods, as well as final consumer services, continuing to register strong growth in the most recent quarters. While there has been some easing of the pace of merchandise import growth, service imports continue to register strong growth. The historically low

unemployment and strong core inflation numbers do not seem to suggest that the US economy is approaching a significant slowing down.

7. In the Euro-zone, the economic recovery that came into evidence last year seems to be maintaining a steady course. In the first quarter of calendar year 2007, Euro-zone GDP grew by 3.0% compared to 2.7% for the year 2006 as a whole. Unemployment in the European Union (EU) continues to fall to new historical lows. Consumption growth in the EU – as might be expected of developed economies – continues to maintain stable growth of 1.5–1.8% annually, with the acceleration coming from private investment which grew by 4.9% in 2006 and by 7.2% in the first quarter of 2007. In Japan, overall economic growth in 2006 had been 2.2%, again driven by rapid growth of 6.3% in private investment with slowly expanding private final consumption expenditure; this picture remained true for the first quarter of calendar 2007 where private investment growth of 5.9% and some lifting of consumption growth pushed overall economic growth to 2.6%. In China economic growth in the first quarter of 2007 rose to 11.1% from that of 10.7% for 2006 as a whole. Investment growth continues to be stronger than what the authorities seem to be comfortable with in face of rising domestic inflation, compounded by the burdens of very large-scale intervention in the foreign exchange markets.

8. The Reserve Bank of India (RBI) in its *Annual Policy Statement* issued at the end of April 2007 has estimated GDP growth of "around 8.5%". The IMF in its World Economic Outlook has estimated that the Indian economy would grow by 8.4%. The National Council of Applied Economic Research (NCAER) has recently projected this year's growth at 8.5%. Private international banks till a month ago mostly had forecasts of around 8.5%, although some major banks have recently revised it to 9.0% and over.

9. Rising crude oil prices and supply disruptions do pose a potential downside risk, although this has become a somewhat familiar part of the landscape during the past several years. Crude oil prices have been hovering close to $70 per barrel (/bbl) and even the prices of sour crude have begun to inch closer to $70/bbl. If the situation continues to persist through much of the summer it will act as a source of concern, both with respect to the international management of the situation, and perhaps even more the domestic management of the outcomes for retail selling prices, subsidy burdens and oil company finances. The higher and more persistent the increase in world crude oil prices, the greater will be the domestic burden and this will in some measure operate as a depressant to the economic factors encouraging investment and growth.

II. CONTRIBUTION OF INVESTMENT AND CONSUMPTION TO GROWTH

10. There has been considerable discussion as to whether the recent spurt in our economic growth has been cyclical – in the sense of being driven primarily by leveraged consumption demand. Such cyclical movement quite often runs into domestic capacity bottlenecks and returns pricing power to producers, thus suffering inflationary consequences, triggering monetary tightening and eventually resulting in a slowing of the economy. We had stated in the economic outlook of the previous year:

> "The easy liquidity conditions (had) encouraged a surge in demand for personal loans during 2002/03 and 2003/04……. there was adequate capacity in the manufacturing sector, and the increased consumption demand ….. facilitated the recovery of the manufacturing sector. (G)rowth over the recent period has been more consumption driven than investment driven. The credit market has since become tighter and this will restrain consumption demand to some extent. However, this need not necessarily result in a growth downturn. A consumption boom that lasts for a period has the potential to create an investment boom."

11. In fact, as the investment and savings data released at the end of January 2007 showed, the investment boom had begun to set in 2003/04 itself, and has gained considerable momentum thereafter. This development is further reinforced by the provisional estimates for 2006/07 released by the Central Statistical Organisation (CSO) in May 2007.

12. The strength of the investment boom may be seen from two inter-related facts. First, is the big increase in the investment rate which is the proportion of total investment to GDP at current and market prices. For many years, the investment rate has stagnated in the low to mid-20s right from as far back as the mid-1970s. In the years immediately following the reforms of 1991, the investment rate rose to a peak value of 27% in 1995/96, but fell off subsequently; the average value of the investment rate between 1996/97 and 2002/03 was 24.2%, ranging between 22.9% and 25.3% of GDP. Starting from an investment rate of 28.0% in 2003/04, the momentum of investment expansion gathered steam rising to 31.5% and 33.8% in 2004/05 and 2005/06. In 2006/07, the investment rate moved into the upper half of the 30s, with provisional estimates registering a figure of 35.1%. In every sense, this change in the trajectory of investment is truly enormous.

13. Second, investment in real terms (that is at constant prices) has been growing at a much more rapid and sustained pace. Double digit growth in investment at constant prices has been a rarity, briefly showing up in 1994/95 and 1995/96. Since 2002/03 real investment has grown by double digits in every year for the past five years, averaging more than 17% between 2002/03 and 2006/07. In comparison the annual growth in real consumption expenditure has been around 6%–7%, averaging 6.3% over the past four years. The investment boom has come from the creation of fixed assets and this phenomenon has been most pronounced in the private corporate sector, although public sector fixed investment has also picked up over the past four years.

14. All this is clearly brought out in the summary provided at *Table 2*. The momentum generated by the sharp real increase in both total aggregate investment and fixed capital formation particularly that in the private corporate sector appears to be sustained and is likely to continue into 2007/08. Aggregate private corporate investment rose in real terms by 53% in 2004/05 and again by 41% in the subsequent year; we estimate that it might have expanded at a slower rate of 25% in 2006/07 on account of lower inventory growth while fixed asset creation is likely to have expanded at a rate closer to that of 2005/06.

15. We expect that in 2007/08, the pace of growth in investment, particularly fixed investment, will continue at a pace similar to that of 2006/07.

Table 2: Movement in some key macroeconomic parameters

	Investment Rate	Domestic Savings Rate	Growth rate at constant prices				
			Gross Domestic Capital Formation (GDCF)		GDCF in Fixed Capital only		Final Consumption Expenditure
			Total	Pvt. Corp.	Total	Pvt. Corp.	
2000-01	24.0%	23.4%	–4.8%	–20.2%	0.3%	–10.0%	1.6%
2001-02	22.9%	23.5%	2.1%	–2.4%	4.5%	3.1%	6.1%
2002-03	25.2%	26.4%	10.8%	15.2%	8.7%	–0.4%	1.8%
2003-04	28.0%	29.7%	13.9%	25.0%	13.1%	23.1%	6.2%
2004-05	31.5%	31.1%	18.1%	53.2%	11.8%	46.7%	5.4%
2005-06	33.8%	32.4%	18.0%	41.1%	15.3%	35.2%	7.2%
2006-07	35.1%	34.7%	15.1%	*25.0%e*	14.6%	*30.0%e*	6.6%
2007-08	**36.3%**	**35.7%**	**16.0%**	**30.0%**	**17.2%**	**30.0%**	**6.4%**

Note: e Estimated
Figures for 2007/08 are projections

16. It is as a result of the faster pace of growth in income, relative to consumption, that the domestic savings rate has moved up by over 4 percentage points of GDP, thereby permitting the largely domestic financing of the incremental investment equivalent to 7 percentage points of GDP. The external balance (at current prices) shifted from a current account surplus in 2003/04 (denoting excess domestic supply) to a current account deficit (CAD) since 2003/04 (denoting excess domestic demand). However, the magnitude of the CAD has remained around 1% of GDP.

Table 3: Contribution to GDP growth by expenditure classes

	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
GDP (market prices) growth rate	**4.04**	**5.21**	**3.73**	**8.39**	**8.33**	**9.23**	**9.35**	**9.00**
Total Investment or total GDCF	–1.16	–0.43	3.69	4.77	5.22	4.97	4.75	5.05
o/w GDCF in Fixed Capital	*0.08*	*1.02*	*1.95*	*3.06*	*2.88*	*3.86*	*3.90*	*4.50*
Domestic Final Consumption Exp.	1.71	4.03	1.32	4.59	4.34	4.83	4.62	4.18
o/w Private Final Consumption Exp	*1.67*	*3.82*	*1.39*	*4.31*	*3.33*	*4.07*	*3.65*	*3.43*
Net Exports of Goods & Services	1.65	0.29	1.53	–1.47	2.42	–0.56	–0.31	–0.27

Note: Figures for 2006/07 are provisional based on the May 2007 release of CSO. Those for 2007/08 are our projections.

17. In terms of GDP by disposition, the contribution of investment to growth has actually been greater than that of consumption, as is evident from a perusal of *Table 3*. Only in 2005/06 did the contribution of final consumption expenditure come close to equalling the contribution of investment. This was a complete turnaround from the position in the early years of this decade (2000/01 and 2001/02), where all the growth was coming from the increase in domestic consumption demand and from an increase in net exports. The change set in with great rapidity from 2003/04, with not only expansion in domestic capital formation overtaking domestic consumption demand, but overall domestic demand expanding strongly, while net exports began to decline. This structure of sources of overall economic growth has continued to obtain through 2006/07.

18. The term “overheating” has entered the lexicon of common usage in the discussion of our domestic policies over the past several months. “Overheating”

refers to a situation where aggregate demand in the economy is significantly in excess of domestic productive capacity. In the short to medium term, if there is unutilised productive capacity in the economy, higher demand will lead to a rapid and above-trend expansion of GDP. But if the excess demand persists, it could lead to "overheating" and manifest itself in a rise in prices and/or a higher external trade deficit till such time that additional capacities are created to meet the rising demand. If fiscal expansion is a major cause of the surge in domestic demand, the fiscal balance will also begin to widen. Since domestic demand – whether public or private – for its materialisation requires monetary accommodation by definition, there would be a rapid expansion of bank credit extended to public authorities and the private commercial sector.

19. A sharp increase in economic growth could therefore be associated with a rise in inflation, a widening of the external (Current Account) and internal (fiscal) deficits, and a rapid expansion of bank credit and other forms of capital flows. Asset prices also tend to rise in response to increase in expected profits. During the last quarter of 2006 and the first few months of 2007 there were signs of overheating when the wholesale price index rose to over 6% and the merchandise trade deficit also expanded to over 7% of GDP indicating some pressure on the supply side. In such a situation, it would have been imprudent to let money supply accelerate. Since then, thanks to a series of monetary tightening measures undertaken by the RBI and fiscal measures initiated by the government, these signs have abated.

Sustainable growth

20. There is increasing evidence that a greater part of economic growth is now being driven by investment. The ratio of gross fixed capital formation to GDP has shown a steady increase during each of the four quarters of 2006/07 compared to the same quarters in 2005/06. The ratio of private final consumption expenditure to GDP has likewise, shown a decline as has the ratio of government final consumption expenditures (with the exception of Q1 of 2006/07), suggesting that increasingly growth is being driven not so much by consumption demand, as by investment (see *Tables 2 & 3*).

21. Thus, even if there is a pressure on prices in the initial stages when growth picks up, once fresh productive capacities come on line, there will be a dampening effect on inflation and the overheating will abate. In many sectors, investment is adequate to create the additional capacity needed.

22. Take for example the cement industry. During the period 2001/02 to 2004/05, domestic demand lagged addition to capacity, leading to significant excess capacity creation and the loss of pricing power. In 2005/06 and 2006/07 domestic demand increased considerably, wiping out the excess capacity leading to a return of pricing power, as was evidenced by rising cement prices. This in turn has triggered a fresh round of capacity creation. It is estimated that operating capacity will increase by over 20 million metric tonnes in each of the three years beginning 2007/08 altering the pricing power dynamics in the business. A similar situation also obtains in the steel and aluminium business where fresh capacities at various stages of implementation are very sizable with respect to current installed capacity. A more detailed discussion is available at *Annex-III* to this report.

23. The large investment response in these industries illustrates what the Council has been saying about cyclical or transitory periods of excess demand. In many sectors, investment is taking place to create additional capacities to meet rising demand. Infrastructure, however, remains a stumbling block. If adequate attention is not paid to augment infrastructure, particularly power supply, constraints will develop and overheating will persist.

The Special Cases of Agriculture & Power

24. In the medium to long term the principal constraints to sustaining of high rates of economic growth in India derive from only two sources, namely the farm sector and the power sector, where special circumstances obtain.

Farm Sector

25. In the farm sector, the economic agents involved are generally small and have limitations in accessing technology and credit; there are limitations imposed by geography on natural inputs – principally land and water; there are issues of scale arising from the small size of holdings and the impact of market access on product diversification and potential gains in net incomes. There is also the legacy of a host of public policies within which the farm unit is expected to operate. With nearly 60% of our population deriving their livelihood, in part or wholly from farm activities and with the majority of our poor citizens occupied in the farm sector, there is a particular urgency to developing policy initiatives and furthering the adoption of superior practices, including access to better technology. It is unlikely to happen on its own and here government must both facilitate and execute appropriate policies and instruments. This may include changing existing

policies, where they may have outlived their usefulness and context. An extended discussion on the subject is placed at *Annex-I* to this report.

26. India is quite favourably placed both in terms of arable land and irrigated land.[1] However, when it comes to yield per acre, India does not compare well with China, the developed economies and in some cases with other developing economies as well. Nor does it compare well for several crops in terms of the gains in yield increases over time. Clearly India has considerable potential gains to be realised in agriculture, as the comparison suggests.

27. It may also be observed that while foodgrain and other food items are freely traded internationally, most nations implicitly tend to ensure a certain amount of self-sufficiency in food supply as may be evidenced from the disinclination of developed nations to discontinue or significantly reduce the agriculture subsidies extended to their high-cost farm sector. Thus for a combination of reasons ranging from the strategic to the purely commercial, in so far as the entry of large consumers like India and China can and does alter prices significantly, food security is an important issue of vital national interest.

28. It could be argued that India suffers asymmetrically with respect to access to technology, including farm mechanisation, and the small size of its holdings and the generally weaker economic conditions of her farmers are the operative constraints. However, while farm sizes are indeed small in India, they are larger than in China and not significantly smaller than in most developing countries. Farm mechanisation in India – as represented by the intensity of tractor usage – is greater than that in China and does not seem to be particularly disadvantaged. The one area where there indeed appears to be a significant difference in the Indian context is in the consumption of chemical fertilisers when compared to China and a lower proportionate consumption of potassium with respect to developed economies. However, unlike most other countries, including China, India continues to make subsidised fertiliser available to her farmers, suggesting

[1] India has the second largest land area under crops at 161 million hectares (ha), only a small distance behind that of the United States of America which has 176 million ha of arable land. Over the decades, there has been a small decline in the case of India and a larger one in the USA, with counterpart increases in permanent crops (plantations) and pasture in the two countries. China has the third largest arable area of 137 million ha and has increased this from 97 million ha in 1980. The Russian Federation comes in fourth with 124 million ha of arable land. In pasture land the situation is quite different with China having 400 million ha, USA 234 million ha, Russian Federation 91 million ha and India 11 million ha. Water resources are also favourably disposed in the case of India and she has the largest acreage under irrigation, as also one of the higher proportions of irrigated area to total cultivated area.

that the lower usage either lacks explanatory power in accounting for the yield differentials or there are other issues of technology access that make the material difference.

29. Aside from cultivation of crops, animal husbandry and fishery provide scope for considerable improvement in the incomes of the farming population. Presently in India, the value of conventional crops & horticulture products together account for 68% of the total output from agriculture & allied activities, while animal husbandry account for 24% and fishery 4.5% (forestry forms the balance 4%). In China the share of animal husbandry is much higher at 34% (having risen from 15% in 1980) as is the share of fisheries at 10% (having risen from 2% in 1980). The objective it must be recognised is to increase total *net* farm income, and diverse instruments offer a richer choice.

30. The other major factor impinging on income growth and productivity in the agricultural sector is the nature of public support for agriculture, which has traditionally been tilted more in the direction of subsidies – for inputs, price support and credit – than in investment in rural infrastructure. There continues to be a deficit in well-maintained all-weather rural roads connecting to the state and national highway system. There needs to be greater focus and effort in improving the rural road network, as also in the provision of other infrastructure facilities. In irrigation the pursuit of greater efficiency in water usage and conservation must be made to yield richer dividends. Further, investment in rural storage and marketing infrastructure and cold chains is critical for improved market access for farmers and to reduce wastage. A shift from subsidies to investment will contribute significantly to the improvement of rural infrastructure.

31. There appears to be sizeable potential to improve the economic conditions of the farming community in our country as comparison with other countries suggests. In order to realise this potential an imaginative mix of policies and organisational response needs to be developed that simultaneously improves the dissemination of technological developments and provides easier access to markets for products and for credit, by institutionally compensating for the specific disadvantages that may accrue on account of small farm size and limitations of income and education.

Power Sector

32. The most important constraint to sustaining high rates of growth in the Indian economy are the large and palpable deficits in physical and social

infrastructure. Of particular note in this is the availability of electricity, which remains largely in the public sector. The electricity business is a special case because the underlying economics are unfortunately not sound. A large proportion of the electricity generated and pumped into the distribution system simply disappears, i.e. is unaccounted (U/A) for. Only a part of this U/A power derives from genuine losses due to transmission and stepping down (Transmission & Distribution, i.e. T&D). The rest stems from a mixture of power theft and systemic inefficiency in metering, billing and collection of power consumed. In eventual recognition of this reality the term T&D has been replaced by ATC (Aggregate Technical & Commercial) losses. It is however worth pointing out that there is nothing "commercial" about being unable to collect payment for power that has been distributed (sold). While there have been gains made in the reform of the distribution system with metering (at different voltage levels) being much more widespread than before, the level of ATC losses is still too high for basic economic viability. Hence, private investment has not been as forthcoming in the sector, as it has for instance in telecommunications or in manufacturing. This has led to a piquant situation where it has been mostly the public sector that is involved in investing in new generation capacity. Not only does this greatly diminish the potential investment that the economy as a whole could make in capacity augmentation in the sector, but it also imbues it with the kind of special difficulties that arise from the idiosyncrasies of government agencies and systems.

33. On the one hand, the continued high level of unaccounted power in power distribution has rendered the business of power generation and distribution un-remunerative. This is a sector that is (and for that matter for many decades has been) commercially viable and there is no reason why the deficiencies that obtain and are today quite well-understood cannot be rectified. The financially weak characteristic of the industry inhibits the interest of private investors and places a difficult burden on the central and state governments and their agencies and corporations. On the other hand, large slippages in installing capacity have created an inadequacy in the supply of power that has brought about a situation where large power cuts have become all too common and industries have to set up large and expensive captive power generating units.

34. The consequence has been that domestic manufacturing units have higher operating costs than they would have had in the presence of adequate grid power, which has an adverse effect on their global competitiveness. It is also probable that had adequate power been available, much more manufacturing capacity might have come up. There has thus been both a real and opportunity cost resulting from

the inadequacy of generation. It must be noted that "demand" for power is most often taken to be the constrained supply, with at most some of the more obvious restrictions relaxed. The capacity build-up that we have planned has thus been in respect of an attenuated demand, and then even that capacity has failed to materialise in time. It is instructive to note that during the Tenth (2002–2007) Plan period, we had planned to add 41,110 MW and succeeded in implementing some 18,000 MW. In sharp contrast, it is understood that China implemented 101,170 MW of power generating capacity (mostly thermal) in calendar year 2006 *alone*.

35. The gap is of many orders of magnitude and holds serious implications of the consequences of not doing enough. The initial thinking in formulating the Eleventh Plan (2007–2012) was that additional power generating capacity during the plan period would be about 50,000 MW; this was revised upwards to 60,000 MW in the *Approach Paper* for the XIth Plan (December 2006). More recently this number has been further raised to 68,869 MW, with a "best effort" commitment to bring another 11,545 MW forward, i.e., a total of 80,414 MW. Some may argue that given the record of slippages in implementation, we should be guided by the past and accordingly we ought to lower our sights, and adopt a "realistic" target, which is not in excess of 40,000–50,000 MW.

36. We must bear in mind however, the fact that the principal reasons for the large slippages in the past were that (a) the public sector agencies were by default having to pick up almost the entire burden; and (b) mostly the equipment was being sought to be sourced locally. There is an urgent need to radically enlarge the scope of power generation over the Eleventh Plan period, and for that matter for the next decade. This enlarged scope should be in the region of 100,000 MW for the present plan period, going up to a cumulative total of 300,000 MW of incremental capacity creation by the end of the next decade (2020).

37. To embark on this course, we need to (a) take urgent steps to complete the reform of the power distribution set-up; (b) work to bring in much greater private sector participation; and (c) encourage the large-scale import of power generating plant & equipment to augment domestic production. Success on these fronts will dramatically change the conditions and relax the constraints that brought about slippages in the past.

38. There is a more detailed discussion on the power sector at *Annex-II* to this report. The reform of the distribution system must be accelerated so that commercially viability is restored. Simultaneously, it is necessary to realise that the single most important constraint facing the Indian economy is infrastructure

and within that it is the power sector. There is an absolute need to think big in this sector – much as has informed significant other parts of the economy, be it software, telecommunications, engineering or petroleum

III. SECTORAL DEVELOPMENTS

Agriculture

39. The third advance estimates for 2006/07 released by the Ministry of Agriculture and Cooperation, show that foodgrain output increased by 1.5% to 211.8 million tonnes (mt) from 208.6 mt in 2005/06. In aggregate, this is still lower than the peak level of 213.5 mt reached in 2003/04. The output of rice at 91.1 mt is marginally (0.8%) lower than that of the previous year, due to a 7.5% decline in the estimate of *rabi* rice. The estimate of wheat output at 73.7 mt is 6.3% higher than that of last year, benefiting from seemingly higher acreage as a consequence of much stronger prices. Coarse cereal output is lower by 3.3% compared to last year mostly on account of a weaker *kharif* crop which had been adversely affected by uneven rainfall. Although *kharif* pulses output has broadly remained unchanged from that in the previous year, *rabi* pulses output has shown healthy growth of 8.8% to 9.3 mt, as a result of which total pulses production in the year has expanded by 5.3% to 14.1 mt. It is reasonable to see in the higher output and also acreage, the expected response to the sharp increase in the price of pulses over the past year. Production of oilseed is down sharply by as much as 17%, owing to a very poor *kharif* groundnut harvest that was lower by 47%, almost entirely a consequence of widespread floods in the principal growing areas, coupled with an 18% decline in rape and mustard seed output reportedly due to inclement weather conditions – un-seasonal rain and hailstorm little before the crop was ready for harvest. Cotton and sugarcane harvests were good, up by 14% and 15% respectively.

40. In almost all crops, yields (per acre) have stagnated and since there is little scope for extending the acreage under cultivation, aggregate output has tended to stagnate. Indian yields are either lower or in the average band in almost all crops vis-à-vis other major growing countries. In all major crops yield per acre in China is significantly higher than ours. This difference is not easily explained in terms of principal resource differences – irrigation coverage, farm-size, mechanisation or fertiliser input. Some of the issues pertaining to this sector pertinent to policy formulation are highlighted at *Annex-I* to this report

41. With more than half of our population dependant for their livelihood on agriculture, the improvement of the profitability of farm operations is the main instrument of creating the income opportunities for growth in this sector. While

some of it can certainly come from crop diversification into higher value added horticultural products and expanded animal husbandry, the bulk of the improvement needs to necessarily come from improved productivity in cultivation. There may exist scope for more efficient use of inputs, thereby raising *net* farm income and such avenues should be actively explored. In most areas however, in order to raise *net* farm income, gross income, that is, yield per acre has to be significantly lifted from current levels. Given the present levels it is difficult to accept that progress is not possible.

42. The Indian Meteorological Department (IMD) had in its April 2007 release projected a 2007 South West (SW) monsoon season with aggregate precipitation 5% below the long period average. The SW monsoon broke over Kerala a few days early on 28 May. Thereafter it has moved up over the sub-continent on schedule and as at the beginning of July appears to hold the potential of a good monsoon, notwithstanding the update of the IMD issued on 29 June 2007 that aggregate precipitation could be short of the long period average. The Council is of the view that the agricultural sector is likely to register a 2.5% growth, marginally lower than that of last year and close to the near-term trend rate. It may in this context be stated that the much higher level of bank credit and public expenditure on the rural sector should over the near-term improve the growth realised by this sector, and part of the reason for the higher growth in 2006/07 may be attributed to this factor. However, such gains generally take some years to yield fruit and concomitant developments on reaching technological and market access gains to the farm, are critical catalytic factors. In light of this, the possibility exists that if weather and other conditions prove favourable, farm growth could be higher than 2.5% in 2007/08.

Industry

43. Overall growth of GDP arising in the industrial sector is thus expected to be 10.0% – about one percentage point below that recorded in the previous year. The primary reason for this is slower domestic consumer demand growth and weaker expansion of export demand. Over the medium term, the main constraint to industry growth will emanate from infrastructure, particularly electrical energy.

Mining

44. GDP originating in the mining sector rose by 5.1% in 2006/07, an improvement over the 3.6% growth registered in the year prior to that. The improvement came from the recovery of crude output from the ONGC field in

Bombay High that had suffered an accident in the summer of 2005. Crude output in 2006/07 was up by 5.6% as against a *decline* of 5.3% in the previous year. However, coal production growth was slightly lower at 5.9% in 2006/07 compared to 6.6% in the previous year. These two items add up to 70% of the weight of the output of the mining sector, with the balance contributed by ferrous, non-ferrous and other ores and miscellaneous quarrying activity.

45. Crude oil output was 34.0 million tonnes (mt) in 2006/07 as against the target output of 35.4 mt set by the Ministry for Petroleum and Natural Gas for 2006/07. It may be reasonable to expect that output growth in the current year (2007/08) will be modest – perhaps in the range of 2.5%. With considerable new thermal power generating capacity likely to be implemented this year there should be some pick-up in the pace of output growth of coal. Coupled with expected conditions similar to those of the last few years in the rest of the mining business, overall GDP growth in the sector is expected to be 5.5% in 2007/08.

Manufacturing

46. The growth of GDP arising in this sector jumped to 12.3% in 2006/07 from 9.1% in the previous year and 8.7% in the year prior to that (i.e. in 2005/06). Overall GDP grew by 7.5% and 9.0% respectively in these two years, indicating the relatively larger contribution of manufacturing, and industry more generally, to the current heightened pace of economic expansion. The Index of Industrial Production (IIP) released subsequent to the revised GDP indicates that manufacturing output in 2006/07 had grown faster than had been earlier estimated and this is likely to lead to a slight upward revision of the GDP arising in this sector to possibly 12.5%. The IIP data release for April 2007 shows manufacturing output rising by 15.1%, preceded by 15.9% (revised) growth in March 2007.

47. A closer scrutiny of the April 2007 data indicates that in the month of April 2007, the food & beverage group (the sector displaying the most pronounced seasonality) which registered growth of 55% in the month, contributed 2 to 3 percentage points more than it might have under “normal” circumstances; much of this is believed to be on account of a bumper sugarcane harvest leading to an extended crushing season and record sugar output. It is most likely that in the coming months levels will return to more normal conditions and this source of impetus will be dissipated. The category wood & wood products that had shown continuous output declines over the past many years appears to have begun to recover in 2006/07 and in a particularly pronounced fashion since December

2006. However, since output has yet to recover to 1996 levels, strong growth is likely to continue to be registered through the current fiscal year.

48. Durable consumer goods had grown strongly in recent times and this was an important characteristic of the expansion of manufacturing output in recent years. Between September 2003 and 2006, monthly output growth of durable consumer goods averaged 15%. However in the second half of 2006/07 this average dropped to 3.7% – most plausibly an outcome of the contractionary effect of monetary tightening on leveraged consumer demand, to which a sizable part of the durable consumer goods business belongs. During the second half of 2006/07 output growth in manufacturing has however been lifted up by over 2 percentage points as compared to the past 3-year period. This has been the result of stronger growth in capital, basic and intermediate goods – all pointing to heightened investment activity. In the current year, we expect that manufacturing growth will be sustained by continuing fixed asset formation; durable consumer good demand will grow at a modest pace; non-durable consumer goods demand (which is not leveraged financially) has shown little change (after adjusting for the sugar effect) in the past seven months from the three years preceding it and we broadly expect past trends to continue. Export demand has an important bearing on the pace of manufacturing output expansion. If export growth were to slow in the current year it will also have a dampening effect on the growth of manufacturing output.

Electricity, gas & water supply

49. The electricity industry makes up the bulk of the weight of this sector. Power generation by public utilities grew by 7.3% in 2006/07, a marked improvement on the 5.1% growth in the previous year. Significant new capacities are likely to be added during the course of the current fiscal year. The situation of widespread excess demand prevails in the domestic economy with widespread power cuts commonly prevalent and equally widespread use of costly captive power generation by industries and in many cases by commercial and even domestic users as well. If the expected new capacities materialise during the current year, there will be some relief in the extent of supply shortfall across the country.

50. Our assessment is that GDP arising in this sector during 2007/08 is likely to grow by 8%, marginally more than what it did in the previous year. This assumes normal rainfall and adequate recharge of reservoirs feeding major hydro-electric facilities. In years when rainfall is inadequate both power generation and water release for major irrigation suffer.

Construction

51. GDP arising in construction was estimated at 10.7%, considerably below the 14.2% and 14.1% attained during the two previous years. However, output growth of non-metallic minerals (revised) as reported by the IIP was 12.9% in 2006/07 about 3 percentage points higher than in the previous year; steel output too was higher. It is not unlikely that some upward revision of the growth rate of this sector during 2006/07 will be made. There is a highly visible surge of residential and commercial building activity in the urban areas of the country and construction occupies an important component of fixed asset creation in industry and infrastructure. Offsetting this is the effect of higher interest rates and other costs that are likely to restrain real estate activity. Having considered all aspects, we have taken a growth rate of 11.30% for the sector for the fiscal year 2007/08.

Services

52. The services sector was the key driver of growth in recent years, but not so much so in 2006/07, when industry and services contributed in like fashion to GDP growth. Growth in the service sector was 9.6% and 9.8% in 2004/05 and 2005/06. It picked up to 11.0% in 2006/07. We expect the growth rate to moderate marginally to 10.4% in 2007/08 primarily on account of some flattening in sectors such as transport & communications that have been seeing very rapid growth in recent years and some slowing of growth in the financial and real estate businesses.

53. The Indian Railways carried 728 million tonnes of revenue cargo in 2006/07 recording a growth of 9.2% over the previous year. Although growth dropped to 4.5% in April 2007, it is expected that for the year 2007/08 increase in total freight volumes would be comparable to the previous year. Major ocean ports handled 40.5 million tonnes of cargo in 2006/07 registering an increase of 9.5% over the previous year. In the second half of 2006/07 the rate of expansion was faster and between November 2006 and March 2007 growth was in double digits, averaging 13.3%. In April 2007 cargo handled increased by 24%, which however is expected to moderate through 2007/08. While, domestic air passenger traffic increased by nearly 39% in 2006/07, total passenger traffic including that on international routes, rose by over 31%. Rapid growth is expected to continue in the current year. The number of outstanding GSM cellular phone connections increased by 75% to reach 121.4 million in March 2007. Landline connections have remained flat.

54. The pricing power and top-line expansion of the software and business outsourcing industry will have a material bearing in calibrating the pace at which this sector is able to expand in the current year – that is, whether overall services sector growth will be closer to 10% or 11%.

IV. TRADE AND BALANCE OF PAYMENTS

BoP ñ 2006/07 Outcome

55. The provisional figures place the current account deficit (CAD) in 2006/07 at $9.6 billion or 1% of GDP, about the same level as that in the previous year, viz. 1.1% of GDP. It ought to be mentioned that for several years now the reinvested earnings on equity of foreign-owned companies are booked under foreign direct investment (FDI) on the capital account side. To do this they have to be first debited on the current account under investment income, offset against the reinvested earnings of Indian owned companies overseas which constitute the mirror image transactions. The net impact of this was $1.3 billion in 2005/06 and $2.2 billion (provisional) in 2006/07. The cash component of the estimated CAD in 2006/07 is thus actually even lower at 0.8% of GDP.

56. On the capital account side the surplus was $45 billon or 4.9% of GDP, a large increase from the $23 billion in 2005/06 (2.9% of GDP). The increase was due primarily to a large increase in FDI and loan inflows. Net FDI inflows increased to $8.4 billion, nearly twice the level in the previous year, while loans (mostly commercial) more than trebled to $21 billion. The net effect of a further enlargement of the already big gap between capital inflows and the CAD was a large accumulation of reserves by the Reserve Bank of India (RBI) amounting to nearly $37 billion, compared to $15 billion in 2005/06.

BoP ñ 2007/08 Outlook

57. According to the most recent press release of the Ministry of Commerce and Industry, and based on the DGCI&S data, in 2006/07 the value in US dollars of merchandise exports grew by 20.9%, while imports expanded by 26.4% and the resultant trade deficit widened by 40.7%. The trade data, for April and May 2007, show that merchandise exports grew by 20.4% and imports by 33.1% in terms of value when measured in US dollars. In terms of rupees these figure translated to 10.3% and 22.1% respectively. There seems to have been some changes made in methodology and it is not entirely clear whether comparability between this year and previous years has been quite preserved.

58. Given that the data for merchandise exports suggest a slowdown in the second half of 2006/07 and particularly from December 2006 through March

2007, it may not be advisable to take the higher growth reported for April–May 2007 to be indicative of what might be expected for the balance of 2007/08. In comparison, import growth had been robust in the second half of 2006/07. Considering the combined effect of the reduction in import duties, the stronger currency and the need to source capital goods for infrastructure and industry, imports, particularly non-oil, non-gold imports are likely to continue to grow quite rapidly for the course of 2007/08.

Exports

59. We assess that the US dollar value of exports is likely to grow by 18% during 2007/08, slower than that in the previous year (21%). Merchandise exports on DGCI&S basis are expected to aggregate about $147 billion, short of the $160 billion indicated by the Ministry of Commerce & Industry some while earlier.

60. Merchandise export growth in 2006/07 was not even across sectors. As stated elsewhere, total exports in the year in US dollar terms grew by 20.9%. Commodity-wise details of exports are however only up to February 2007. Accordingly an analysis of year-on-year growth for the comparable periods (April–Feb.) for 2006/07 and for the previous two years is presented at *Table 4*. It is true that in the past year, there was a big rise in the value of exports of refined petroleum products by 59% and it did lift up the overall growth in exports. However, gems and jewellery exports fell by 0.6%. Thus if we take non-oil, non-gems & jewellery exports, we find that the rate of growth in the April-February period of 2006/07 was almost the same as that of total exports.

Table 4: Level of Exports in AprilñFebruary 2006/07 and year-on-year growth				
	Value of Exports during April-Feb 2006/07 in US$ Billion	**Growth year-on-year**		
		2004/05	**2005/06**	**2006/07**
			April to February	
Total merchandise	**112.4**	**29.6%**	**26.2%**	**22.9%**
Non-oil merchandise	95.5	25.5%	22.2%	18.2%
Non-oil, non-gems & jewelry	**81.8**	**24.8%**	**23.7%**	**22.1%**
Agri. & marine products	9.7	13.5%	16.2%	14.2%
Ores and Minerals	6.0	96.1%	37.4%	12.8%
Cotton textiles	3.7	2.3%	15.0%	4.0%
Manmade textiles	2.1	12.5%	–0.1%	16.0%
Apparel – cotton & manmade	7.8	3.9%	33.9%	2.9%
Total textiles	**14.5**	**8.5%**	**21.8%**	**4.6%**
Carpets & other handicrafts	1.2	–6.6%	30.0%	–2.7%
Leather & articles thereof	2.7	17.4%	11.3%	9.2%
Chemicals	**15.8**	**34.4%**	**19.1%**	**14.2%**
Metals	8.4	57.5%	9.7%	80.7%
Engineering goods	**14.8**	**37.1%**	**37.2%**	**20.9%**
Electronic goods	2.5	5.4%	18.1%	32.0%
Memo item				
Non-oil, non-gems & jewelry, non-ores & minerals	75.8	21.4%	22.7%	22.9%

Source: *Foreign Trade Performance Analysis*, Department of Commerce.

61. However, there does seem to have been a decline in the overall rate of export growth from nearly 30% in 2004/05 to 23% last year (April–Feb. period). It is interesting to note however that the rate of expansion of merchandise exports other than refined petroleum products and gems & jewellery has not dropped off to the same extent as did overall exports. Further, if we were to exclude the category of ores & minerals, the rate of growth is found to be even more stable at around 22% as shown in the memo item of *Table 4.*

62. The slowing down of growth in the export value of textiles to 4.6% in the first eleven months of 2006/07 is however, cause for concern. This followed on a rapid expansion in apparel and cotton textile exports last year, in response to the opportunities opened up by the end of the *Multi Fibre Arrangement* (MFA) quotas

in developed countries. In the US, import of textiles from India had increased by 25% in calendar year 2005, but this dropped off to 8% in calendar year 2006. In sharp contrast China which has export volumes more than 5 times that of India, had raised export shipments by 43% in 2005 and by 16% in 2006. Imports of textiles into the US in 2006 from Indonesia, Vietnam, Bangladesh and Pakistan all exhibited more rapid growth than did imports from India. In calendar year 2007 up to the month of May, exports from India have done even worse. The value of exports *contracted* by 2.3% as against a 6.6% *increase* in total US imports of textiles. Chinese exports rose by 34%, while those from Indonesia and Vietnam increased by 20% and 21% respectively.

63. Growth in the export of chemicals and engineering goods has also shown some deceleration, but it is of a much smaller order and to some extent is perhaps reflective of strong domestic demand, reduced excess manufacturing capacities and possibly higher profitability in domestic markets. Going forward it is not unlikely that the appreciation of the rupee at the beginning of 2007/08 could further weaken export performance in those sectors that already seem to be disadvantageously placed – such as textiles.

Imports

64. Imports may be viewed as comprising three broad components – oil, gold and the rest – each of which is driven by very different factors. In 2006/07 the value of oil imports increased by 30%, which was contributed to almost equally by an increase in the level of imports and the increase in prices of imported crude. Bullion (mostly gold) imports had remained stagnant in 2005/06 and had shown negative growth in the first several months of 2006/07. It recovered thereafter and the increase in the value of imported bullion was nearly 30% in 2006/07. Non-oil, non-gold imports – industrial raw materials, components, machinery for the most part – increased by 16.5% in 2006/07 overall, but in the second half of the year this had averaged well over 30% growth.

65. Considering the price movement of crude oil over the past year and the stated policy of the major members of OPEC and the likely physical growth of refining, we expect the value of crude oil imports (gross, that is, without adjustment for the value of export of refined products made from imported crude) to increase by 12.5% to $64.5 billion in 2007/08 as compared to $57.3 billion in 2006/07, the increase reflecting mostly an increase in volumes.

Table 5: Projected Balance of Payments for 2007/08			
	2005/06 Prov. Rev.	**2006/07 Provisional**	**2007/2008 Projection**
	US$ billion		
Merchandise Exports	105.2	127.1	148.0
Merchandise Imports	157.0	192.0	232.4
Merchandise Trade Balance	(–) 51.8 *(– 6.4%)*	(–) 64.9 *(– 7.1%)*	(–) 84.4 *(– 7.3%)*
Net Invisible receipts	42.7	55.3	67.0
Of which: Software & BPO*	26.4	32.1	41.0
Private remittances	24.1	27.2	30.0
Investment income	(–) 4.9	(–) 4.3	(–) 5.0
Current Account Balance	(–) 9.2 *(– 1.1%)*	(–) 9.6 *(– 1.0%)*	(–) 17.4 *(– 1.5%)*
Capital Account Balance	23.4 *(2.9%)*	44.9 *(4.9%)*	58.0 *(5.0%)*
Of which: FDI (net)	4.7	8.4	15.0
Portfolio flows	12.5	7.1	12.5
Loans	6.1	21.1	25.0
Of which: ECB	2.7	16.1	20.0
Banking capital	1.4	2.1	2.5
Of which: NRI deposits	2.8	3.9	2.0
Other capital	(–) 0.7	6.4	3.0
Errors and Omissions	0.8	1.3	–
Accretion to Reserves	15.1 *(1.9%)*	36.6 *(4.0%)*	40.6 *(3.5%)*

Note: * Business process outsourcing

Figures in parentheses denote proportion to GDP at current and market prices

66. In 2007/08 we expect that bullion imports will show a large increase in the first four to five months due to the depressed base and then moderate as the elevated base of the latter months of the previous year begin to impact the computed growth. Overall for 2007/08 we expect the value of bullion imports to rise by 10% to about $16 billion. Given the expectations of continued strong economic growth, the growth in non-oil, non-gold imports is projected to average 30% for the year as a whole. Thus the US dollar value of total merchandise imports (DGCI&S) is expected to reach $223 billion, an increase of little over

23% over the previous year. The merchandise trade deficit on DGCI&S basis is thus likely to rise by 35% to over $76 billion. Adjustments need to be made to translate the DGCI&S basis projections to BoP basis and these have been made bearing in mind the differences in recent years. Thus, the projected DGCI&S trade deficit of over $76 billion is translated to a BoP basis merchandise trade deficit of over $84 billion or 7.3% of expected GDP in 2007/08. The increase in the merchandise trade deficit is reflective of the combination of effects – from strong domestic demand and increased output, to a strengthening of the Indian rupee and a reduction in import tariffs.

Invisibles

67. Net invisibles, including non-factor service exports, worker remittances, income from tourism & travel and investment income flows aggregated $55.3 billion in 2006/07, an increase of 30% over that in the previous year. This is mainly on account of continued strong growth (30%) in software and business service exports, 13% increase in remittances and the absence in this year, of the one-time hit due to accumulated interest payments on India Millennium Deposits (IMD) that had been incurred in 2005/06.

68. In fiscal year 2007/08, we expect that net software & business service earnings will rise by 28%, which is a little less than last year, to $41 billion. Private remittances are expected to increase at a slightly slower pace of 10% to touch $30 billion, while net investment income outflow is expected to rise to $5 billion, an increase of 17%. Total invisibles are thus expected to show a net inflow of $67 billion, an increaser of 21% over the previous year.

69. As a result the current account deficit is likely to expand to $17.4 billion equivalent to 1.5% of GDP, an enlargement from the previous year's CAD of $9.6 billion or 1.0% of GDP. However, if merchandise exports do better than has been expected in this projection, the overall current account deficit could be smaller to that extent.

Capital inflows

70. In-bound foreign direct investment (FDI) saw a large increase in 2006/07 with the total rising to $19.4 billion – an increase of 154% from the previous year's figure of $7.7 billion. While it is believed that a sizeable part of this incremental FDI was directed at the realty business, much of it was drawn to other businesses in industry and services, and the big increase in volumes of total FDI

after many years of effort is a significant gain. FDI outflows also showed a sharp increase to $11 billion, up 275% from the previous year's $2.9 billion, reflecting some of the overseas acquisitions of companies and fixed assets by Indian companies. For 2007/08, we see a further increase in *net* FDI inflows to $15 billion, from the previous year's figure of $8.4 billion.

71. *Net* portfolio capital inflows have been reported by the RBI at $7.1 billion for 2006/07. This has been shown to comprise in about equal parts of foreign institution investor (FII) inflows and American/Global Depository Receipts (ADR/GDR). This is a decline from the level of $12.5 billion recorded in the previous year. However, reported FII net equity purchases as reported by SEBI indicate that these aggregated $6.2 billion during the fiscal year 2006/07. The difference between the BoP and the SEBI numbers arise, it is understood, from the latter being inclusive of re-invested profits and dividends, while the RBI data reflects only the net inflow under the head. We expect that in 2007/08 net portfolio capital inflows will be at about the same level as in 2005/06, that is, $12.5 billion.

72. External commercial borrowings (ECB) and short-term loans increased sharply in 2006/07, with the total quantum of inflows under the category aggregating $21.1 billion, an increase of 246% over 2005/06. We see continued interest by Indian corporates in accessing the overseas loan market and project that total net loan inflows will increase to $25 billion.

73. Banking capital inflows have been largely driven by non resident Indian (NRI) deposits that rose by $3.9 billion in 2006/07. There have been steps taken to reduce the interest being offered on such deposits, and some slowdown in fresh deposits is likely. However, considering that interest will continue to accumulate on existing deposits and some incremental deposits are likely to continue accruing, a lower level of $2.5 billion incremental inflow is expected on banking capital.

74. As may be seen from *Table 5*, our estimate of total capital inflows in 2007/08 is $58 billion, an increase of 29% over that in the previous year. This expected increase is much smaller than the 92% increase in capital inflows that occurred in 2006/07. It is unlikely, that an increase of the same order as last year would recur in the current fiscal year. However, it is possible to visualise conditions where capital inflows may be significantly larger than what has been estimated by us. Indeed this has a higher probability of occurrence than that of capital inflows being significantly smaller than estimated here.

Accretion to Reserves

75. The projected expansion of the CAD is much smaller than the projected capital inflows, resulting in a likely net accretion to reserves of over $40 billion, slightly larger than the $36.6 billion of last year and nearly three times as large as the $15.1 billion accruing in 2005/06. The policy makers may however have to be prepared to face a situation of capital inflows being larger than projected here.

V. PRICES

Wholesale Price Indices

76. The revised Wholesale Price Index (WPI) index showed that headline inflation on the week ending 31 March 2007 was 5.94%, a little lower than the previous week's 6.54%. Provisional WPI inflation rates for the last week of April and May 2007 were 5.66% and 4.85% respectively and this fell further to 4.13% by the third week of June 2007. With revised numbers for the five weeks up to 28 April 2007 running an average of 29 basis points (bps) higher than the provisional figures, it would be advisable to moderate a reading of the most recent provisional WPI rates bearing this in mind. That is, a level of 4.1% for the headline inflation may be seen as being in reality somewhere around 4.4%.

77. The prices of the two major refined petroleum products – diesel and petrol – were cut on two occasions late in 2006 in view of the decline in crude prices to the low $50s/bbl (per barrel). However, since then world crude oil prices have risen again, going well past the upper end of the OPEC band of $60 to $65/bbl. It has been hovering close to $70/bbl for most of May and June 2007 and has recently crossed well over the $70/bbl mark. But the domestic selling prices of diesel and petrol have not been revised to reflect this. Further, the selling prices of domestic cooking gas and kerosene have not been adjusted for several years now. This has had several outcomes, one of which is to suppress the rate of headline inflation. To the extent that upward adjustments will have to be made at some point in the selling prices of most refined petroleum products, and certainly of diesel and petrol, it is advisable to see the present headline inflation rate in this light. If both of the price cuts in diesel and petrol that were made in late 2006 were to be reversed it would have the effect of increasing the current headline rate by about 35 bps.

78. Bearing in mind both the issue of the extent of revision and the impact of an adjustment in the prices of refined petroleum products, it is advisable to view the current headline rate of 4.1% in the third week of June 2007 as being in reality closer to 4.7%. Having said this, the current situation is a big improvement from the situation in the period December to March 2006/07.

79. The pressure from primary food articles appears to have clearly abated. The price increase in manufactured goods measured year-on-year has fallen from

6.9% (revised) for the week ending 24 March 2007, to 5.2% (provisional) for the week ending 23 June 2007. The revised rate for manufactured goods for the most recent 5 week period has averaged 52 bps above provisional estimates. To that extent the order of decline is overdone when comparing provisional to revised estimates. The core inflation (excluding primary foods and energy) for the week ending 31 March 2007 was 6.7% (provisional) and 7.2% (revised), while that in the third week of June 2007 was 6.0% (provisional) and 6.9% at the end of April (revised). The upward pressure on WPI inflation seems to have been curbed to a significant extent. But the present rates continue to be high, especially that in manufactured products: 5.2% provisional, likely to be 5.7% on revision. The policy framework must necessarily seek to contain inflation at significantly lower levels.

Consumer Price Indices

80. Consumer price inflation rates continue to exceed that of the WPI headline inflation rate, possibly because of the much larger weight of food items in the consumer price indices (CPI). In April 2007, the CPI-Industrial Worker (IW) rose by 6.7%, which was about the same as that for the previous month and also the average value for fiscal 2006/07. The CPI-Urban Non-Manual Employee (UNME) index showed inflation of 7.7% in April 2007, marginally higher than that in the previous month (7.6%) and significantly higher than the average value of 6.6% for the fiscal year 2006/07. However, in the month of May, the CPI-UNME inflation dropped sharply to 6.8%, while the CPI-IW rate remained largely unchanged at 6.6%. It may be mentioned that the rate of inflation for both the two indices had been 5.0% for the month of April 2006. Although the level of the CPI inflation rate remains very high, the upward impetus was delivered during the period between May and November 2006. That phase is clearly behind us. However, the conditions where the upward pressure on price does not re-ignite, requires to be maintained, in order to work the consumer price inflation rate downwards to more acceptable levels.

81. A major contributor to CPI and WPI inflation in 2006/07 was primary food, particularly foodgrain prices, namely that of wheat and pulses. The price of wheat had begun to rise rapidly in January 2006 and continued to do so till May. Policy steps to import wheat duty free appear to have taken the edge off the pace of increase slightly but prices began to flare up again in mid-August 2006, reaching a peak annual inflation rate of 21% in mid-November, in response to continued rise in international prices. There has been some relief in recent months

in part due to expectations of a better domestic harvest and some tapering off in international prices, and the rate of WPI inflation for wheat for the third week of June 2007 is 7%. Domestic rice production was adequate, as was the level of procurement and also there was no increase in world rice prices. However, not surprisingly given the partial substitutability of wheat and rice, the sharp increase in wheat prices has had a rub-on effect on rice prices which have risen at an average annual rate of 5.3% during January to June 2007.

82. The price of pulses had begun to increase towards the end of October 2005 and rose sharply and continuously, gathering enormous momentum. By April 2006, the pace of increase was close to 40%. Some of the policy measures adopted in June 2006 (including restrictions on export of pulses) and good monsoon rains brought some easing, but the pressure began to mount in September once again and in October 2006 it touched peak year-on-year inflation of 44%. Thereafter the rate of inflation declined as the pace of price increase abated, possibly owing to prospects of a strong *rabi* pulse crop and in the third week of June 2007 the inflation rate was down to 1.7%.

Manufactured Goods

83. Manufactured goods averaged WPI inflation of 4.3% during 2006/07, but there was a major pick-up in the rate of inflation as the year progressed. During the course of 2006/07, average inflation in manufactured goods in the first half was 3.2%, while in the second it was 5.7%. For the year as whole within the manufactured product category, non-ferrous metals, grain mill products and non-metallic minerals (mostly cement) showed the highest rates of inflation, averaging 32.0%, 16.6% and 12.7% respectively. In the second half of 2006/07, iron & steel and machinery prices also began to rise faster by over 7% in both cases, contributing to the elevation of both the overall inflation rate and that for manufactured goods category.

84. In fiscal year 2007/08, during the first three months, prices of manufactured goods have not shown the abatement displayed by primary food. Within the broader category of manufactured goods, manufactured food prices have fallen in absolute terms, and inflation in this sub-group has dropped from 6.1% at the end of March 2007 to 2.1% in the third week of June 2007. In some contrast, manufactured goods, other than food, have seen prices continue to rise, and the average inflation rate in this sub-category continues to be close to 6.0%. In fact the very large difference between revised and provisional inflation rates for the sub-category of manufactured goods, other than food items, has risen through

March and April averaging 76 bps in the most recent five weeks for which there is data (i.e. up to 28 April 2007) suggesting that some inflationary pressures continue to persist within this important sub-category of products.

Assessment

85. Inflation is a monetary phenomenon and an integral outcome of the magnitude and flows in the liquidity and monetary variables. The extent of liquidity creation in the course of the first eleven months of 2006/07 was high, even for an economy that was growing (as we now know) at the rate of 9.4%. For the year as a whole, broad money (M3) grew by 20.8%, almost the same as it had in the previous year (21.2%). This facilitated growth of total bank accommodation[2] to the commercial sector by 27.3%, which was almost the same as in the previous year (27.5%) in a regime where policy interest rates had been raised and the cash reserve ratio (CRR) enhanced. Deposit growth in the banking system in 2006/07 at 24.3% was even faster than in the previous year (18.2%) driving the expansion of lending. In its turn, the pick-up in deposit growth was fuelled by the magnitude of unsterilised purchase of foreign exchange by the central bank. The issue of MSB absorbed much of the increase in reserves and the increase in CRR impounded part of the incremental deposits.

86. It is our assessment that headline inflation will continue to drop. After factoring in future correction in petroleum product prices, revised headline inflation is likely to fall below 4% in August/September 2007. If present trends are maintained, manufactured goods (other than food) inflation will begin to ease by August/September. Conditions would then be generated where the headline rate (after corrections in refined petroleum products etc.) is maintained at levels close to 4%. This will create the material basis for the Indian economy to transit to an inflation trajectory more in keeping with our markets and competitor nations in Asia and elsewhere.

87. The RBI in its *Annual Policy Statement for 2007/08* has stated that inflation is "to be contained close to 5.0 per cent during 2007/08. Going forward, the resolve is to condition policy and perceptions for inflation in the range of 4.0–4.5 per cent over the medium term". The monetary policy needs of financing growth and containing inflation are discussed in a subsequent section. A moderation in money supply growth will help to achieve this.

[2] Total bank accommodation to the commercial sector comprises of bank finances extended through non-food credit, debt securities (such as commercial paper and bonds) and investment in company equity.

VI. EMPLOYMENT

NSSO Survey

88. The employment scenario in the country has undergone a fundamental change. The latest and seventh quinquennial survey by the National Sample Survey Organisation (NSSO) (61st Round) shows a reversal of the declining trend in employment growth rate that had characterised earlier periods. Employment growth is estimated to have increased from an annual rate of 0.98% in the period 1993/94 to 1999/2000, to 2.89% in the period 1999/2000 to 2004/2005. Interestingly there was also a sharp acceleration in the rate of growth of the labour force from 1.03% in the first period to 2.93% in the second. This unprecedented growth in labour force which was above the population growth rate could have had serious implications for the unemployment scenario, had it not been for the sharp increase in the workforce employed. This increase in employment growth is also corroborated by the recently released OECD paper on labour markets and other studies.

Major Characteristics

89. An analysis of the employment data gleaned from the NSSO survey reveals:

- A sharp increase in employment growth rate from an annual 0.98% in the period 1993/94 to 1999/2000 to 2.89% in the period 1999/2000 to 2004/2005.
- The distinct upswing in employment translated into 60 million jobs in this five-year period (2000/2005). Employment increased from 397 million in 1999/2000 to 457.82 million in 2004/2005. The most striking feature of this growth is that, the absolute number of workers has increased across all sectors of the economy in 2004/2005 from the 1999/2000 levels.
- Agriculture continued to account for the largest share in employment at 58.4% accounting for 30 million jobs. Services were a distant second at 23.4% while manufacturing was at 11.7%.
- Employment as measured by the NSS category of RWS (Regular wage/salaried) workers has increased by 10 million in the period 2000/2005.

- Share of self-employed workers has increased sharply and as per our estimate there are about 260 million people in this category. Employment opportunities for this segment have largely been in the informal sector.
- Aggregate elasticity of employment (with respect to unit GDP growth) has more than trebled from a low of 0.15 in the earlier period to 0.48 in the latest period. This increase in elasticity is seen in almost all sectors. Agriculture, forestry and fishery show a high elasticity of 1.52 which is surprising.
- Labour force growth rate outstripped the population growth rate and grew from 1.03% in the period 1993/1994 to 1999/2000 to 2.93% in the period 1999/2000 to 2004/2005.

Table 6: Employment and Unemployment UPSS

	Numbers in Million			Growth rate in per cent	
	1993/ 1994	**1999/ 2000**	**2004/ 2005**	**1993/1994 to 1999/2000**	**1999/2000 to 2004/2005**
Labour Force	381.94	406.05	469.06	1.03	2.93
Workforce	374.45	397.00	457.82	0.98	2.89
Number of Unemployed	7.49	9.05	11.24		
As a proportion of labour force in per cent					
Unemployment Rate	1.96	2.23	2.39		

Note: 1. Figures for 2004-05 are derived from 61st round survey on the basis of data provided by NSSO

2. Employment in 1993/94 and 1999/2000 is as per the *Report of the Task Force on Employment Opportunities*, Planning Commission

Outlook

90. The unadjusted employment elasticity for the latest period is 0.48. Even after adjusting the sectoral elasticities to lower figures, it is seen that with a GDP growth rate of 8.0%, by 2010 the work force will become equal to the labour force. A stronger growth rate, which is quite possible, will take the economy to this point even in a shorter period. Economic growth has been a major driving force in achieving a higher level of employment.

91. The analysis of the data thrown up by the NSSO Survey also indicates that bulk of the increase in employment has happened in agriculture and in the

informal sector where both wage rates and income growth are generally lower than in other sectors of the economy, notably organised manufacturing and services. The data also reveal that agriculture still accounts for a large share in employment. There appears to be a skills mismatch in the economy that needs to be urgently addressed in order to enable a smooth transfer of employment from agriculture to the secondary and tertiary sectors of the economy; this is a necessary concomitant of development. The new challenge is one of improving productivity in the informal sector and in agriculture so that there is a significant improvement in the quality of employment.

Table 7: Employment (UPSS) ñ Sectoral Shares

Unit: Million

Sectors	**1993 / 1994**	**1999 / 2000**	**2004 / 2005**
Agriculture, forestry & fishing	242.46 *(64.8%)*	237.56 *(59.8%)*	267.57 *(58.4%)*
Mining & quarrying	2.7 *(0.7%)*	2.27 *(0.6%)*	2.74 *(0.6%)*
Manufacturing	42.5 *(11.3%)*	48.01 *(12.1%)*	53.51 *(11.7%)*
Electricity, Gas & Water supply	1.35 *(0.4%)*	1.28 *(0.3%)*	1.37 *(0.3%)*
Construction	11.68 *(3.1%)*	17.62 *(4.4%)*	25.61 *(5.6%)*
Trade, hotels & restaurant	27.78 *(7.4%)*	37.32 *(9.4%)*	47.11 *(10.3%)*
Transport, storage & communication	10.33 *(2.8%)*	14.69 *(3.7%)*	17.38 *(3.8%)*
Financing, insurance, real estate and business services	3.52 *(0.9%)*	5.05 *(1.3%)*	6.86 *(1.5%)*
Community, social & personal services	32.13 *(8.6%)*	33.20 *(8.4%)*	35.67 *(7.8%)*
Total employment	**374.45** *(100%)*	**397.00** *(100%)*	**457.82** *(100%)*

Note: 1. Figures in parentheses denote sectoral share in total employment.

2. Figures for 2004/2005 are derived from 61st Round Survey on the basis of data provided by NSSO
3. Employment in 1993/1994 and 1999/2000 is as per Report of the Task Force on Employment Opportunities (Planning Commission)
4. The employment levels for the three periods derived by adjusting the NSS population to the census population.

VII. FINANCIAL SECTOR

Liquidity and Monetary Aggregates

92. Credit expansion was strong in 2006/07, especially in the second and third quarters of the year, notwithstanding the increase in interest rates and other policy measures adopted towards monetary tightening. Towards the end of the fiscal year, credit off-take began to slow down finally. For the year as a whole non-food bank credit to the commercial sector rose by 28%, lower than the 31.8% increase in non-food credit in the previous year. However, it is bank accommodation to the commercial sector (which includes investments in bonds, commercial paper and other instruments) that is a more appropriate indicator for flow of bank finance. There was hardly any slowing down in this aggregate: it had grown by 27.5% in 2005/06 and this fell marginally to 27.3% in 2006/07. Broad money supply growth (M3) was 20.8% in 2006/07, little lower than the previous year's expansion of 21.2%.[3] This was at variance to what the central bank had indicated at the beginning of the year as a "policy preference (for) maintaining a lower order of money supply growth in 2006-07". The principal source of money creation was the accumulation of substantial foreign currency assets with the RBI, the monetary impact of which was not fully neutralised through issue of additional *Market Stabilisation Bonds* (MSB) or other instruments. This issue is discussed at greater length subsequently.

93. In the current year, deposit growth for the fortnight ending 22 June 2007, was 2.3% over the outstanding stock at the end of March 2007, i.e. on year-to-date (YTD) basis. In the corresponding period of last year the YTD growth in deposits had been 2.8% and in the year prior to that it was 1.3%. On YTD basis non-food credit grew by (–) 1.3% in the fortnight ending 22 June 2007, compared to 0.9% growth in the comparable period of last year and 0.4% expansion in the year prior to that. The change in total accommodation parallels that of non-food credit, with the YTD change in the current year at (–) 1.4%, compared to 1.5% last year and 0.2% the year before that. The increase in the cash reserve ratio (CRR) and the issue of MSB had reduced the availability of liquidity in the

[3] The M3 stock at the end of 2004/05 was Rs. 2,251,449 crore (including effect of mergers & acquisitions) which rose by 21.2% to Rs. 2,729,547 crore at the end of 2005/06. This expanded to Rs. 3,296,919 crore, an increase of 20.8% by the end of 2006/07. Reserve Bank of India, *Monthly Bulletin*, Statement No. 11, June 2007.

market and banks were on occasion borrowing at the repo counter in the beginning of the first quarter of the fiscal year.

94. Thereafter, much larger reserve accretion in the first quarter of the current fiscal year, compared to the previous two years, operating in conjunction with a mismatch between MSB issuance and reserve accumulation that spilt over from the previous year, has increased the excess liquidity. Secondly, on the credit side, total bank accommodation is *down* 1.4% over end-March this year, compared to an *increase* of 1.5% in the same period last year. The combination of the two factors has over the past month or so, brought about an increase in excess liquidity. This situation has created significantly long periods when short term rates have crashed and have not been in line with the policy interest corridor.

Bank Performance

95. On the basis of available balance sheet data of Indian banks for 2006/07, both profitability and balance sheet results seem to have not been overly adversely affected on account of the rise in interest rates (impacting the investment portfolio) and the lag in the process of pass-through of interest costs. Despite the rapid increase in the loan book over the past couple of years, generation of incremental non-performing loans does not seem to have expanded and the stock of such assets to the total portfolio has continued to fall. A more detailed discussion is at *Annex-IV* to this report.

96. However, public sector banks continue to be highly leveraged and the means of expanding their equity capital base within the framework of statute needs to be urgently addressed. The interest rate structure on their loans and on their deposits too can do with some scrutiny so as to improve their net interest margins and improve both their profitability and ability to provide against their assets. The reform of the Indian banking industry has been a success and it is important to preserve the gains of this success through adequate strengthening of both operating and balance sheet parameters of the public sector banks that are not entirely free agents in our policy and legislative framework.

Equity Markets

97. It may be recalled that in May 2006 equity markets worldwide went through some readjustment, in the process of which the Indian stock indices lost about 15% of their value. The markets however recovered over the next three months and since September 2006 there has been a steady increase in asset prices.

Fears on asset quality in February 2007 – triggered by a small crisis in the US mortgage market – followed by more recent volatility in the bond market and uncertainties about expectations regarding economic and corporate profit outcomes have brought about two phases of downward movement in stock prices. The values of the major Indian stock indices however do not show too much volatility. Between October 2006 and early-July 2007, the *BSE-30 Sensitive Index* has moved within a range of 12,204 and 15,084 with a coefficient of variation of 4.9%. The closing value of the index on 6 July 2007 was 14,964, which was 2.1% above the closing value of 8 February 2007 that had been the all-time high prior to the current phase of price increases. In the last quarter of 2006/07 aggregate of net Foreign Institutional Investors (FII) investment in equity was $1.5 billion, of which in February it was $1.6 billion and a small negative value in March 2007. In the current fiscal year till end-June net FII investment in equities have aggregated $4.1 billion. The Indian market continues to enjoy fairly high price earning (historical) multiples with the figure being 20.8 for the BSE 30 Sensex and 19.8 for the NSE Nifty. Just as there are emerging markets that have lower price-earnings multiples, there are some with significantly higher valuations – the most prominent of which is the Shanghai stock market as reflected in its composite index, which is close to 40.0.

98. In India, corporate results for 2006/07 have mostly matched or exceeded expectations. If economic growth is strong and business possibilities continue to expand, implying both gains in productivity and scope, profit growth may be sustained notwithstanding increased interest expenses. How this arithmetic eventually materialises will determine the stability of the valuation of equity assets in the country – assuming relatively stable conditions and therefore sentiment in the equity market globally.

VIII. GOVERNMENT FINANCES

Fiscal Consolidation

99. There has been considerable progress towards fiscal consolidation in the country. The fiscal responsibility legislations at the Central and State levels have helped to bring about significant improvement in their finances. The aggregate fiscal deficit of the Centre and States in 2006/07 is estimated to have been 6.3% of GDP. In 2007/08 it is likely to be even lower at 5.2%, which reflects the States having reached their mandated targets ahead of schedule. Although significant part of the improvement in the States is due to higher central transfers, the improvement is structural. There is a more detailed discussion on the fiscal situation of the Centre and States at *Annex-V* to this report.

100. The improvement in the revenue deficit position, however, is not as impressive as that of fiscal deficit. The aggregate revenue deficit for 2006/07 (RE) is estimated to be 2.0% of GDP, and that is entirely due to the revenue deficit of the Centre. The States are estimated to have had at the aggregate level a marginal surplus in the revenue account.

Strong Growth in Tax Collections and the Revenue Deficit

101. This is despite strong and sustained growth in central tax revenues, particularly of direct taxes, the share of which in central tax revenues has increased from less than 35% in 2001/02 to 50% by 2006/07. In fact, the revenue deficit has persisted in spite of impressive increase in central tax revenues and this is mainly due to continued increase in expenditures on various flagship schemes for poverty alleviation and social development programmes in rural and urban areas.

102. At the Central level, while fiscal deficit reduction is on course to achieving the target, it would be difficult to phase out the revenue deficit by 2008/09. The revenue deficit is estimated at 1.6% of GDP in 2007/08 and eliminating it in one year appears infeasible.

Issues posing main risks

103. To summarise the principal issues that pose downside risks to the fiscal situation are:

- First, the central government's revenue deficit continues to be high and it is unlikely to eliminate it by 2008/09.
- Second there are substantial off budget liabilities which need to be taken account of. At the Centre, these include the issue of Oil Bonds to oil marketing companies, securities to Food Corporation of India, arrears of fertiliser subsidies. In the States they include the losses of the public utilities. All of these would aggregate to about 2% of GDP.
- Third, the potential expenditure increase from revision of pay scales after the Sixth Pay Commission makes its recommendations.

IX. MONETARY, EXCHANGE RATE AND INFLATION MANAGEMENT

104. The Indian economy is on an unprecedented strong trajectory of economic growth. Policy must work to preserve and strengthen these conditions, while maintaining monetary and exchange rate stability and address those aspects that require policy, regulatory or administrative intervention. The strong increase in domestic demand is being played out in a context of world-wide robust economic growth and consequential heightened pressure on natural resources – from food to iron ore to petroleum. Within the domestic economy the sustained increase in demand over the past several years has served to whittle down excess production capacity and returned in some measure pricing power to producers. Offsetting this is the continued expansion of domestic production capacity and lowered import protection –through lower import duties and also a relatively stronger currency. As long as ease of entry and broadly competitive market conditions are maintained, it will make the manifestation of pricing power a transitory phenomenon, rather than being structurally well-entrenched.

105. Many emerging economies, especially in Asia, have drawn large overseas investment attracted by the economic prospects that they hold forth in the coming years and decades. Many Asian economies have also run current account surpluses. The combination has naturally put enormous upward pressure on their national currencies and in most cases the respective central banks have sought to limit the appreciation through intervention. As a consequence Asian central banks have seen their foreign currency reserves swell by hundreds of billons of US dollars. In India's case after running small current account surpluses for three years between 2001/02 and 2003/04, the combination of stronger demand growth and increase in commodity prices, saw the current account going into deficit. However, despite the very large increase in the merchandise trade deficit to more than 7% of GDP in 2006/07, the rapid growth in software/BPO exports and continued expansion of private remittances have kept the CAD within 1% of GDP. As a result, the surplus on the capital account greatly exceeded the deficit on the current account and the central bank has had to resort to large purchases of foreign currency assets. The intervention being made by the RBI is to prevent what it views as an excessive appreciation of the currency.

106. The accumulation of foreign currency assets with the RBI has the direct monetary consequence of increasing the stock of reserve money. This finds its

way into the deposits of the domestic banking system and serves to fuel the further expansion of bank credit in the system. An economy that is growing needs to absorb a certain amount of incremental real money balances and this is non-inflationary. However, money supply growth that is in excess of this has the potential of bridging the surge in excess demand and available supply through alterations in the price points – that is, through higher inflation.

107. There are two issues here. First, is the justification for the central bank intervention in the foreign exchange market and of its extent. Second is the management of the consequences of this intervention in light of the inflationary potential of such action. There is a view that intervention is inadvisable and in its absence the currency will find its own level after some initial "over-shooting" and the system can then adjust to the new level, with the central bank permanently liberated from the burden of intervention. However, like all courses of action the determining factor is the magnitude of the imbalance between the current and capital account and the global context. If the excess of capital inflows over the current account deficit (CAD) had been say 25%, or even 50% of the CAD, that is, less than $5 billion in the current context, the adjustment resulting in non-intervention would have surely been small and the policy option would be a realistic one. Of course for that matter, absorption and monetisation of $5 billion in a full year would also have been equally a non-issue.

108. The problem is therefore first with the magnitudes involved. The excess of capital inflows in 2006/07 was 5 times the size of the CAD. Aside from the dynamic aspect of the problem (capital may rush in before the door is expected to shut, that is the currency fully appreciated), the order of appreciation that would expand the CAD to such an extent that it approaches the size of the capital inflow, would be of a large magnitude. Such large changes in relative prices will have serious repercussions for domestic businesses in both the domestic and export markets. Large scale dislocation of business has very serious long-term consequences and is typologically quite distinct from "adjustments" that imply a fundamental continuity. This is even truer for relatively open economies as India is today, as opposed to a more closed one as she used to be once. We do not therefore think that the solution is simply to stop intervention.

109. Large changes if extended over a longer time horizon, become smaller packets of change in unit time, and can conceivably turn from being dislocations to adjustments. Therefore, we feel that the intervention should continue to be directed towards "orderly conditions" as has been the RBI policy for long, but

further that it should be reconciled with gradual real appreciation of the currency. The disparity between nominal and real appreciation of the rupee has stemmed from the higher rate of inflation that has been prevalent in India in comparison with both our trading partners as well as other emerging economies who are also our competitor nations. Targeting and achieving lower rates of inflation are therefore an integral part of the process.

110. The central bank should seek to neutralise its intervention through the issue of MSBs. Capital inflows tend to be unevenly distributed over the year and it is best to soak up the excess of foreign currency at the point of its arrival. Since most of the MSBs are treasury bills, the RBI can choose to either inject or not to inject the additional liquidity into the domestic market depending on the conditions at the time. For instance, if call money rates are within the policy interest corridor and banks are borrowing at the repo window some injection may be desirable. In any case, if liquidity suddenly tightens up, the RBI can choose to buy up MSBs through open-market operations and vice versa if liquidity turns too easy. Much of the issue is to do with management of flows over time, the successful accomplishment of which will ensure orderly and stable conditions that are themselves conducive to economic efficiency and lower inflationary outcomes.

111. Through this process, a portion of the increase in reserve assets would be monetised, but in a gradual manner, such that its pick-up by the system is not inflationary. The currency will also harden a bit. In addition some of the intervention may be impounded through increase in the Cash Reserve Requirement (CRR) while keeping in view profitability of the banking system; however, beyond a point, there may be limited scope for this instrument. Market expectations would be built accordingly and managing the unmatched flows will become more intractable.

112. The gradual approach is also consistent with the wider context. China has grown to become one of the largest players in world trade; it has a policy of restricting the appreciation of the *renminbi*; it has had much lower rates of inflation than us; and, it has far superior infrastructure and more flexible labour markets. Our policy on the exchange rate has to be informed by the realities of the global context as well as the specifics of the magnitude of the flows.

113. The argument has been made that if the excess of capital inflows is so much larger than the CAD, why not restrict such inflows? Any restriction – which by definition will be *ad hoc* – on equity investment, be it direct or portfolio investment, will be most unwise. Equity investment by its very nature is high-risk

and policy continuity is an essential element to initiate and maintain such flows; they cannot be turned on and off at will. However, on the debt side there are some areas which can do with some scrutiny. The ceiling on interest offered on Non Resident Indian (NRI) deposits has been scaled down to Libor without a premium as earlier; however, established foreign banks offer rates in most markets that are much below Libor and thus there continues to be an effective premium that can be dispensed with. In the case of External Commercial Borrowings (ECB), that is, medium to long term loans and bonds, companies that can raise money overseas at rates that are lower than that what prevail in the domestic market, effectively by-pass the structure of domestic interest rates and the framework of monetary policy. Perhaps the best non-discretionary way of ensuring that such loans/bonds are used not to acquire rupee assets (where the by-pass becomes effective) is to limit the conversion of ECB proceeds into rupees. All in all, any restriction that we may impose must be temporary.

114. Thus in substance, there are three instruments or channels through which policy makers can act in the face of strong capital flows. One is to let the rupee appreciate. But as already argued, there are limits up to which this can be done. Beyond a point it will hurt exports, as also the larger domestic economy. Besides we need to take into account the behaviour of the currencies of other developing countries, most notably China. Despite a strong trade surplus, China continues to permits its currency to appreciate only to a small extent. Appreciation finally works through widening the current account deficit and it is necessary to keep in mind the extent to which the country can comfortably allow the current account deficit to widen. Exchange rate appreciation will exact a fiscal cost if attempts are made to support exports through subsidies.

115. The second channel is to absorb the capital flows into reserves and to sterilise the excess over what may be regarded as appropriate. The appropriate level would depend upon the desired expansion in money supply and the consequent level of reserve money expansion. It is currently estimated that expansion of reserve assets to the extent of $25 billion can be absorbed consistent with a money supply growth of 17.5%. Intervention in excess of this has to be sterilised, which of course involves a cost. Sterilisation through the issue of bonds will impose a fiscal cost which will be equal to the difference between the rate of interest paid on the domestic security and the return on reserves invested abroad. In this context it may be noted that with interest rates having risen in the developed world, the difference in yield has come down. Alternatively, sterilisation can be done through raising the cash reserve ratio, in which case the burden will

be borne by the banks. In either case, there will be some impact on the interest rate.

116. A third channel is to liberalise outflows by removing administrative and procedural impediments, and to discourage inflows by putting restrictions on some capital items. Restricting capital inflow too has its limitations. It must not be seen as a signal that we are going back on liberalising the capital account. However, as indicated earlier, there are some types of flows on which restrictions can be imposed without it being seen as intrusive.

117. Instead of arguing for the exclusive use of any one of the instruments, there must be a judicious mix of all of the three instruments. There are limits to which each instrument can be used by itself.

Annex I: Some Issues Pertaining to Agriculture

Agriculture

I.1 A summary of some key physical parameters for our major cereals and two important oilseed crops are provided at *Table I.1*. This clearly indicates that first, average yields in India are lower than in China as well as other high-yield countries and in some cases compare poorly to the average of all other nations. Second, the pace of yield increase over the past one-and-a-half-decades does not compare favourably with that of China and some other high-yield major producers.

Table I.1: Yield per acre of some important crops ñ India and other emerging countries

		India	China	Other major producing nations	Top 5 yield countries excl China
Rice (paddy)	Yield average of 2003-2005	3,034	6,233	3,748	7,070
	Trend rise in yield 1990-2005 p.a.	1.0%	2.1%	1.4%	1.3%
	Share in world output 2003-2005	21%	29%	48%	18%
Wheat	Yield average of 2003-2005	2,688	4,155	2,691	6,499
	Trend rise in yield 1990-2005 p.a.	1.5%	1.8%	0.5%	1.1%
	Share in world output 2003-2005	11%	15%	79%	43%
Ground nut	Yield average of 2003-2005	1,109	2,888	1,171	2,551
	Trend rise in yield 1990-2005 p.a.	0.5%	2.3%	0.0%	2.0%
	Share in world output 2003-2005	20%	39%	40%	34%
Rape & mustard	Yield average of 2003-2005	909	1,778	2,122	2,845
	Trend rise in yield 1990-2005 p.a.	0.6%	3.0%	1.1%	1.5%
	Share in world output 2003-2005	16%	34%	57%	43%

Note: The major producing countries account for about 90% of global output. The trend of the yield is obtained from the average of the aggregates of major producing nations after excluding India and China.

Source: Food & Agriculture (FAO) on-line statistics (FAOSTAT).

I.2. This relatively weak outcome on the productivity of land is not explained by the incidence of irrigation. At *Table I.2*, the available data on irrigation suggests that in terms of the extent of irrigation, India does not seem to be at a particular disadvantage with other major farming nations. In fact, India has the

distinction of having the largest amount of land under irrigation and a marginally higher proportion of irrigated land to total cultivable land, than that of China.

Table I.2: Extent of Irrigation ñ India vis-‡-vis other select countries

Sl. No.	Country	Irrigated Land in 000 Hectares		Share in Arable Land & Permanent Crops		Sl. No.	Country	Irrigated Land in 000 Hectares		Share in Arable Land & Permanent Crops	
		1989ñ91	2003	1989ñ91	2003			1989ñ91	2003	1989ñ91	2003
	WORLD	**244,196**	**277,098**	**16%**	**18%**						
1	**India**	**46,760**	**55,808**	**28%**	**33%**	22	Ukraine		2,208		7%
2	**China**	**47,234**	**54,596**	**36%**	**35%**	23	Chile	1,600	1,900	52%	82%
3	**U.S.A.**	**20,800**	**22,385**	**11%**	**13%**	24	Myanmar	1026	1,870	10%	17%
4	Pakistan	16,107	18,230	77%	91%	25	Sudan	1,817	1,863	14%	11%
5	Iran	7,000	7,650	41%	42%	26	Turkmenistan		1,800		79%
6	Mexico	5,600	6,320	22%	23%	27	Saudi Arabia	1,583	1,620	45%	43%
7	Turkey	4,024	5,215	14%	20%	28	Argentina	1,550	1,550	6%	5%
8	Thailand	4,248	4,986	21%	28%	29	Philippines	1,547	1,550	16%	14%
9	Bangladesh	2,851	4,725	30%	56%	30	South Africa	1,200	1,498	8%	10%
10	Russia		4,600		4%	31	Greece	1,200	1,453	30%	38%
11	Indonesia	4,402	4,500	14%	13%	32	Syria	717	1,332	13%	25%
12	Kazakhstan		3,556		16%	33	Peru	1,188	1,200	30%	28%
13	Spain	3,387	3,780	17%	20%	34	Nepal	984	1,170	42%	47%
14	Egypt	2,621	3,422	100%	100%	35	Korea, South	987	878	47%	48%
15	Romania	3,124	3,077	31%	31%	36	Canada	721	785	1%	2%
16	Viet Nam	2,867	3,000	45%	33%	37	Sri Lanka	522	743	27%	39%
17	Brazil	2,650	2,920	5%	4%	38	Portugal	631	650	20%	28%
18	Italy	2,615	2,750	22%	26%	39	Yemen	354	550	22%	33%
19	France	1,980	2,600	10%	13%	40	Germany	481	485	4%	4%
720	Japan	2,846	2,592	54%	55%	41	Uruguay	125	210	10%	15%
21	Australia	1,892	2,545	4%	5%	42	U.K.	162	170	2%	3%

Note: Countries with significant extent of irrigation as a proportion of cultivable land have been highlighted.

Source: Food & Agriculture (FAO), *Statistical Yearbook 2005-2006*, Vol. I.

I.3 In terms of aggregate fertiliser consumption, India is amongst the largest users of artificial fertilisers as may be seen from *Table I.3*. China is the largest single user accounting for 28% of world consumption in 2002, and it has more than doubled its share of world usage since 2002. India is presently the third largest user with 11% of world usage and this proportion has more than doubled

from 5% in 1980. However, given that the size of arable (and irrigated) land is broadly comparable with that of China, the intensity of usage of chemical fertiliser (i.e. per acre) in India does seems to be about half that of China, not accounting for differences in cropping pattern, climatic conditions, cultural practices and other specificities. It may however be noted that in terms of N:P:K usage ratios, the current levels prevailing in India are broadly comparable with that of China and several other developing countries, but are definitely less intensive in the use of potassium than developed countries.

I.4 The degree of farm mechanisation is closely related to the terrain, man/ land density and cropping patterns; however it also has a bearing on land productivity and the adoption of yield enhancing technologies. From a perusal of *Table I.4*, it is evident that while the extent of mechanisation, especially that indicated by tractor usage, in many countries, including developing ones such as Egypt and Vietnam, is higher than at present in India, there are many countries such as China where the intensity of use is much less; this is so also in some developed economies that are important producers of agricultural produce, such as Australia. While there certainly is scope for greater mechanisation, this factor does not seem to impose too much of a burden in the Indian context, in so far as boosting yield is concerned.

Table I.3: Total Fertiliser Consumption and Usage Proportion of N, P_2O_5, K_2O

COUNTRIES	Fertiliser (N+P+K) Consumption in million metric tonnes			N	P_2O_5	K_2O
				Proportion N:P:K		
	1980	2002	Share 2002	2002	2002	2002
W O R L D	**116.7**	**141.6**	**100%**	**3.6**	**1.4**	**1.0**
China	15.3	39.6	28.0%	6.0	2.3	1.0
United States of America	21.5	19.3	13.6%	2.4	0.9	1.0
India	5.5	16.1	11.4%	6.4	2.4	1.0
Brazil	4.2	7.7	5.4%	0.6	0.9	1.0
France	5.6	4.0	2.8%	2.4	0.8	1.0
Indonesia	1.2	3.0	2.1%	4.9	0.7	1.0
Pakistan	1.1	3.0	2.1%	265.5	70.2	1.0
Canada	1.9	2.6	1.8%	4.7	1.8	1.0
Germany	5.2	2.6	1.8%	3.7	0.7	1.0
Australia	1.2	2.3	1.6%	4.2	4.7	1.0
Spain	1.7	2.2	1.5%	2.2	1.2	1.0
Viet Nam	0.2	2.0	1.4%	2.6	1.2	1.0
United Kingdom	2.1	1.8	1.3%	3.0	0.8	1.0
Turkey	1.5	1.7	1.2%	16.2	6.4	1.0
Mexico	1.2	1.7	1.2%	6.3	1.9	1.0
Thailand	0.3	1.7	1.2%	3.7	1.5	1.0
Poland	3.5	1.5	1.1%	2.2	0.8	1.0
Russian Federation		1.5	1.0%	5.0	1.8	1.0
Italy	2.1	1.4	1.0%	2.9	1.4	1.0
Bangladesh	0.4	1.4	1.0%	6.9	1.5	1.0
Iran, Islamic Republic of	0.6	1.3	0.9%	8.7	3.0	1.0
Japan	1.8	1.3	0.9%	1.4	1.4	1.0
Egypt	0.7	1.3	0.9%	18.5	2.5	1.0
Malaysia	0.5	1.2	0.9%	0.5	0.3	1.0
South Africa	1.1	1.0	0.7%	3.5	1.4	1.0
New Zealand	0.5	0.9	0.6%	2.2	2.9	1.0
Belarus		0.7	0.5%	0.6	0.1	1.0
Argentina	0.1	0.7	0.5%	18.3	12.0	1.0
Philippines	0.3	0.7	0.5%	4.4	1.2	1.0
Uzbekistan		0.7	0.5%	16.9	3.8	1.0
Colombia	0.3	0.7	0.5%	1.5	0.6	1.0
Korea, Republic of	0.8	0.7	0.5%	2.0	0.8	1.0
Ukraine		0.6	0.4%	17.2	2.1	1.0
Ireland	0.6	0.6	0.4%	2.8	0.7	1.0
Hungary	1.4	0.5	0.4%	5.3	1.0	1.0

Source: Food & Agriculture (FAO), *Statistical Yearbook 2005-2006*, Vol. I.

Table I.4: Intensity of Farm Mechanisation				
COUNTRIES	**Tractors in Number per 1,000 ha**		**Harvesters ñ Threshers in Number per 1,000 ha**	
	1979-1981	**2003**	**1979-1981**	**2003**
Korea, South	1.4	128.5	0.62	52.77
Germany	134.0	79.8	15.06	11.41
Israel	80.9	71.6	1.01	0.70
Spain	33.5	68.7	2.75	3.67
France	83.6	68.5	8.34	4.93
Turkey	16.9	42.7	0.51	0.50
Uzbekistan	na	36.2	na	1.49
Egypt	15.8	30.7	0.92	0.80
United States of America	25.3	27.4	3.56	3.82
Viet Nam	3.8	24.4	nil	nil
Malaysia	7.7	24.1	nil	nil
World	**16.2**	**19.7**	**2.63**	**3.03**
Romania	15.0	18.0	4.49	2.76
Pakistan	5.0	16.5	0.03	0.08
Iran	5.6	16.0	0.22	0.31
India	2.4	15.7	0.01	0.03
Thailand	1.1	15.6	1.09	4.92
Brazil	11.8	13.7	0.80	0.92
Mexico	5.4	13.1	0.65	0.91
Ukraine	na	12.0	na	1.91
Argentina	7.1	10.7	1.69	1.79
China	7.6	7.0	0.28	2.54
Australia	7.5	6.6	1.32	1.19
Russian Federation	na	4.8	na	1.29
Indonesia	0.5	4.5	0.78	na
South Africa	14.0	4.4	2.36	0.72
Philippines	2.0	2.0	0.08	0.12

Source:Food & Agriculture (FAO), *Statistical Yearbook 2005-2006*, Vol. I.

I.5 How farm size impacts on productivity has been a long-standing and ongoing debate. Here however, we wish to make a much more limited observation of the fact of farm size, the direction of change in it and the implications that it might have for land productivity. In this context several facts should be stated:

- Most recent available data suggest that the average size of Indian farms at 1.4 hectares (ha) is larger than that in China (0.4 ha), Indonesia (0.9 ha), and South Korea (1.2 ha), and comparable to that of Japan. The average size of Indian farms is smaller than that in the Philippines (2.2 ha) and in Pakistan and Thailand (about 3 ha in both cases).
- Average farm size in Asia and Africa at 1.6 ha is much smaller than that in Western Europe (27.0 ha), Latin America (67.0 ha) and North America (121.0 ha).
- India had 93 million households working on farms smaller than 2 ha and this accounted for 80% of the total cultivated land, a situation similar to that in Indonesia which had 17 million such small landholders. In China however, there were a larger number of farms (189 million) and they accounted for 98% of the total land under cultivation. This appears to be a situation similar to that of the Russian Federation where 16 million farm families work on farms that are smaller than 1 ha and account for 98% of the cultivated land.
- In general the western experience has been that with economic development through a combination of migration and the effects of scale economies farm sizes become bigger. In the USA this phenomenon was expressed in the more distant past, while the process has been in strong evidence in Western Europe in the decades after 1960. In the U.K., Spain, France, Germany and Denmark the average farm size increased by 50% between 1970 and recent years.
- The contrary appears to have happened in much of the developing world, due undoubtedly to proportionately less off-farm income opportunities and consequential fragmentation of land holdings. In India average farm size declined from 2.3 ha in 1971 to 1.4 ha in the mid-1990s, while in Pakistan it fell from 5.3 ha to 3.1 ha over approximately the same time period. In China average landholding fell from 0.6 ha in 1980 to 0.4 ha currently.

I.5.1 Small farm sizes certainly imply restrictions on the conventional use of technology that is suited for larger scale operations. Thus farm mechanisation along lines of hiring in services has greater potential than ownership and captive use – a trend that is in evidence in part of the country, particularly in the use of combine wheat harvesters and transportation of produce to market and reportedly in tractor use on the farm as well. Higher labour intensity is the corollary of small holding size, as are limitations in access to information, technology and capital.

I.5.2 This should hold promise for a strategy that uses the relatively higher labour availability as a resource and seeks to provide institutional compensation for the limitations of access to markets, information, technology and generally sophisticated cultural practices. However, in this, India is placed more or less in a situation not dissimilar to that of China and other developing countries in Asia and Africa.

I.6 Land and natural resources can be transformed into income opportunities in myriad ways. The diversification of farm income must form a key ingredient in a strategy to enhance the economic conditions of the farming community. In China, notwithstanding (or perhaps partly because of it) the proportion of animal husbandry and fishing in total farm income has increase manifold over the decades as may be seen from *Table I.5*. The increase in the proportion of income arising from animal husbandry and fishery in India has by comparison been much less.

Table I.5: Composition of Farm Income (Gross Output Value) in India and China

Period	INDIA				Period	CHINA			
	Crop Production	Livestock	Fishery	Forestry		Farming*	Animal Husbandry	Fishery	Forestry
1982-85	72%	20%	3%	6%	1980	80%	15%	2%	3%
1992-95	70%	23%	3%	4%	1995	58%	30%	8%	3%
2004-05	67%	25%	5%	4%	2004	50%	34%	10%	4%

Note: * Denotes crop cultivation and horticulture

Source: 1. *National Accounts Statistics*: Central Statistics Organisation, Government of India, various years

2. *State-wise Estimates of Value of Output from Agriculture and Livestock*: Central Statistics Organisation, Government of India, various issues.

3. *China Statistical Yearbook (2005)*, National Bureau of Statistics, Beijing.

In some contrast, the proportion of animal husbandry in Indian agriculture (2003/2004) is lower at 25% (most of it from milk, where India is the largest producer in the world), while that of fishery accounted for a mere 4.5%. Forestry activities accounted for another 4.3%. Conventional crops – cereals, pulses, oilseeds, sugar cane, fibre (cotton, jute) and plantation (tea, coffee, rubber) crops – accounted for 42% of the total value of output of the agriculture & allied activities, while horticulture – fruits & vegetables, condiments & spices etc. – accounted for 25% .

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Annex II: Some Issues Pertaining to the Electricity Sector

II.1 Aggregate Technical & Commercial (AT&C) Losses

II.1.1 Till the end of the decades of the nineties there was a large degree of confusion about the pattern of consumption of electricity. The absence of metering converted the task of assessing sectoral consumption to one of allocation and these exercises used to indicate that Unaccounted Power (U/A), which was basically power about which nobody in the system had a good idea of where it went, was relatively low as used to be indicated by the Transmission & Distribution (T&D) losses. Thereafter, matters were corrected and a truer estimate of the inefficiencies in metering and collection for power sold by generating stations came to light. In 2001/02 it was estimated that this U/A, or AT&C losses as it is presently called, amounted to 38.9% of the total power supplied to the distribution system.

II.1.2 Over the years the efforts made at metering etc. have served to bring it down, albeit slightly to 34.5%. There is a lot of variation across states in both the level of losses and the extent to which improvements have been made possible through the efforts of the past several years. The northern, eastern and north eastern states started out in 2001/02 with the highest level of losses and have been able to reduce it by 6.0, 6.6 and 8.4 percentage points respectively. The southern states started out with lower levels of losses and have made gains proportion to that of the eastern, north eastern and northern states. The western states which had lower levels of U/A losses compared to northern and eastern states in 2001/02 showed relatively little progress.

II.1.3 One of the most important policy measures taken to rectify the situation was the devotion of considerable funds and effort to improving the pre-existing weak condition of metering so that constructive steps could be conceived to cut down U/A losses. The efforts appear to have had success. By early 2007, at the national level as much as 96% of metering of 11 KV feeders had been completed, with most states having achieved 100% metering. In regard of consumer point metering, at the national level 89% had been completed with most states in the range of 70% to 90%. This is a sea change from conditions as had prevailed till the present efforts began in 2001. It provides a platform to constructively work

towards reducing metering and collection inefficiencies and hence AT&C losses to more acceptable levels approximating the purely technical level.

II.1.4 Fixing the commercial aspect of the electricity business is critical to make it a viable business proposition in the absence of active – and often difficult to quantify (for a private investor) – government support. The consequences of commercial viability in delivering adequate investment and technology are in clear evidence in the telecommunication sector and it should be possible to largely replicate this in the power sector.

II.2 Creating the Capacity to Support Demand

II.2.1 For too long a time the creation of capacity in the power sector appeared to take persistent shortage and high-cost captive generation by industrial units to be a given. This has mainly flowed from the nature of the economic agents who were the predominant players in the business – namely government and public sector agencies. The allocation of scarce resources amongst competing uses unfortunately translated into generalised scarcity. Most industrial units in the country have installed captive power generating sets and often have to operate for protracted periods of time on the basis of such units. Most captive generating sets are diesel sets and the fuel cost of generation alone is about Rs. 10 (i. e. 25 US cents) per unit. Many commercial establishments and even housing units have invested in diesel generating sets. The burden on the level of cost of conducting economic activity has risen in consequence.

II.2.2 The *Integrated Energy Policy* report (August 2006) of the Planning Commission has examined the relation of electricity consumption with respect to incomes and has evaluated alternative situations where the elasticity falls as income rises (and presumably the efficiency of energy usage improves) and others where elasticity is constant. It has projected required power generating capacity in utilities (*Table 2.5*) based on the scenario of falling elasticity. In this case the elasticity of per capita power consumption is expected to take a value of 0.95 (2004–2011) and 0.85 (2011–2021) with respect to per capita GDP measured in (constant) purchasing power parity (PPP) terms. Based on this, the report estimates that between 2007 and 2012, power generating capacity of 78,000 MW will have to be created; and another 104,000 MW between 2012 and 2017. That is, a total of 182,000 MW over the next decade. However this is based on an estimate of installed capacity of 155,000 MW in 2006/07 which appears to be significantly higher than the actual installed capacity of 132,000 MW in March 2007. Thus basically, the report is talking of an additional 195,000 MW over the next decade.

II.2.3 There is no valid argument that the economy should not become more efficient in the use of all energy resources, including electrical energy. At the same time, the fact remains that the economy is considerably underserved at the moment and unconstrained demand (that is, not reduced by power cuts, non-availability of connections etc.) is much higher than the apparent demand, which is equivalent to the consumption or availability.

II.2.4 In this connection it may be mentioned that during the years of rapid growth between 1955 and 1975 in Japan the elasticity of electricity consumption to GDP at constant prices (both aggregate) was a very steady 1.27. In China, while in the earlier period of their growth (1980–90) the elasticity was 0.79, this has risen sharply in the more recent period to 1.24 between 1995 and 2006.

II.2.5 Efficiency is a consequence of the inter-play between technology, prices and competitive forces. The danger in anticipating an outcome such as increased efficiency may result in the under-provisioning of productive capacity and thus bear on the ability of the entire economy to sustain a high rate of growth. The contra argument may be that a more ambitious generating programme may lead to under-utilised capacity in the event of such efficiencies materialising. The economic argument is to let a large number of private investors take those decisions at multiple points in time and arrive at business solutions that are more adaptive than long-range planning. In any case, over the next decade as we hopefully resolve the situation of chronic power shortage and inadequacy, it is preferable to err on the side of caution and create adequate capacity, while reinforcing the market for electricity so that adequate feedback mechanism are able to inform investment decisions.

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Annex III: Capacity and Demand in Select Industries

III.1 Cement

The cement industry in India has gone through major changes in its ownership and market structure with competitive pressures promoting the preservation of market share as the predominant consideration till a few years back. Thereafter, as the economy continued to grow at a pace that was faster than most players had expected, the build-up to capacity that had itself slowed down, proved inadequate to keep pace with domestic demand. This may be seen from the steep fall in excess capacity and the increase in average capacity utilisation (*Table III.1*). In consequence, the big squeeze on productive capacity returned some measure of pricing power to individual players.

Table III.1: Operating Capacity, Domestic Consumption and Exports

Unit: million metric tonnes

	Operating Capacity at year-end	Domestic consumption	Exports	Total Demand	Excess Capacity	Capacity Utilisation
2000/01	113.7	90.0	5.2	95.2	18.5	81.0%
2001/02	129.9	99.0	5.1	104.1	25.8	78.8%
2002/03	136.5	107.6	6.9	114.5	22.0	81.6%
2003/04	144.1	113.8	9.0	122.8	21.3	81.5%
2004/05	153.6	123.1	10.1	133.2	20.4	83.6%
2005/06	157.1	135.6	9.2	144.8	12.3	90.2%
2006/07	165.6	149.0	9.0	158.0	7.6	93.8%

Source: Cement Manufacturers Association, *Cement Statistical Data*, monthly, New Delhi. The annual figures used are those that are reported in the respective March issues for each year.

III.1.1 However the response of the industry in capacity creation will shortly change the position once again. The conditions prevailing in 2001/02 and 2002/03 led firms to reduce their expansion plans and as a result the increment to capacity in 2005/06 was a mere 3.5 million metric tonnes (mt) against an annual average of 10 mt in the previous four years. The change in conditions since 2003/04 brought forth fresh expansion plans, some of which were to bear fruit in 2006/07, with fresh capacity increasing by 8.5 mt.

III.1.2 In 2007/08 new capacity of 13 mt is expected to come on line and a total of over 60 mt in the course of the next two years, which will bring about significant capacity additions of an order much larger than in the recent past. It is estimated that by March 2010, the country's total cement capacity will be close to 245 mt – nearly 80 mt more than in March 2007.

III.2 Steel and Aluminium

III.2.1 The situation in the steel industry is more complex, mostly due to the combination of the long-gestation periods involved in the creation of capacity, pre-emptive moves by players to lock into iron ore deposits and greater export-orientation. Between 2000/01 and 2002/03 the production of crude steel increased by 5 mt or about 17%. In comparison during the period 2002/03 and 2006/07 output has risen by a much larger factor increasing by 15 mt or by over 40% to 50 mt. On the one hand, this rapid pace of output growth drew down whatever excess capacity existed in the industry, while on the other, it also reduced the volume of net exports as the domestic market offered greater space. During the past few years the improvement in domestic demand did create the space for producers to recover costs more fully from the domestic market than in the years of poor growth.

III.2.2 The aggregate of investment plans announced by existing producers and prospective entrants to the Indian market exceeds 100 mt – double that of current installed capacity. Many estimates have been made of how much of this capacity will come in and when. It is difficult to come to conclusions with much certainty, considering that many projects are still on paper and in the case of others there are obstacles on the ground that need to be resolved. However, it would seem that in the next three years (to 2010) about 14 mt of additional capacity will become available and another 45–55 mt by 2015. From the projects under planning, another 40 mt may come up by 2020.

III.2.3 Whether the capacity addition will make the country a large net exporter, or it will not, is a matter that is not possible to address here. The limited point, however, is that the response by the steel industry in fresh investment has been large and considerable new capacities are likely to come on stream.

III.2.4 Strong growth world-wide in the past few years has had the impact of pushing the prices of non-ferrous metals, including aluminium, upwards. India is a major producer of the metal and has been traditionally a net exporter. Domestic capacity growth has averaged an annual 1.2 lakh tonnes (LT) in the three years

up to 2006/07 and a further increment of at least 3.0 LT is expected in the next three years. Beyond 2010 there are a slew of prospective projects, mostly by the existing players, that aggregate an additional 17 LT of capacity.

III.2.5 The industry, like others producing traded goods, tends to follow an import-parity based pricing pattern. The discount from the landed price tends to be determined by a combination of conditions obtaining in global markets and the state of domestic demand. With both global and domestic markets tight, domestic prices on offer tend to closely follow an import-parity pattern. Capacity utilisation increased from 86% in 2002/03 to 94%–95% in each of the three preceding years, notwithstanding 40% addition to capacity in that period. Thus domestic demand ate into excess capacity, even while fresh capacity came on line.

Annex IV: Some Issues on the Banking Industry

IV.1 Operating Parameters

Indian banks – both public sector and private – maintained respectable operating performance in financial year 2006/07. The rate of fresh non-performing asset generation has been low by historical standards, notwithstanding the sharp loan growth in the year, as well as in the two previous ones. However credit provisions have been lower in 2006/07 in the public sector banks, perhaps reflecting their effort to maintain reported profitability. Some of the floating cover and excess provisions of previous years appear to have been drawn down to an extent. Private sector banks however were able to maintain higher credit provisioning on account of improved net interest margins and higher fee based incomes. Going forward public sector banks need to focus on reversing the decline in their net interest margins, as well as their lower fee based incomes. Pricing not only of loans, but also of deposits, requires scrutiny.

Table IV.1: Bank Operating Performance for year ending March 2007*

Unit: per cent

	Net Interest Margin	Fee based income	PAT	Credit Provisions to Avg. Advances	Outstanding NPA/Advances		Gross NPA Generation rate
	As a proportion to Total Assets				Gross	Net	
Nationalised Banks	3.03 (3.14)	0.88 (0.84)	0.96 (0.90)	0.62 (0.68)	2.80 (3.99)	0.92 (1.16)	1.81 (1.77)
State Bank of India & associates	3.00 (3.23)	1.24 (1.33)	0.88 (0.92)	0.58 (0.24)	2.74 (3.50)	1.32 (1.63)	1.65 (2.07)
Public Sector Banks (1) (includes IDBI Bank)	2.92 (3.05)	0.99 (1.01)	0.92 (0.89)	0.59 (0.51)	2.75 (3.74)	1.06 (1.32)	1.75 (2.00)
Private Sector Indian Banks (2)	2.72 (2.49)	1.80 (1.74)	1.12 (1.22)	1.22 (0.80)	1.89 (1.67)	0.86 (0.73)	1.51 (1.31)

Note: * Figures in parentheses refer to the corresponding figure for the year ending March 2006
(1) Nationalised banks plus SBI & Associates and IDBI Bank
(2) ICICI Bank, HDFC Bank, UTI Bank, Bank of Rajasthan, Karur Vysya and Karnataka Bank.

Source: *Trends and Progress in Banking in India*, 2005/06, Reserve Bank of India
Annual reports (audited) of individual banks, for the financial year ending March 2007.

IV.2 Balance Sheet Parameters

Public sector banks continue to enjoy over 70% of the banking business. However, they are excessively geared (leveraged). Solvency ratio – net NPA to net worth – has quite a low value for both public and private sector banks and capital adequacy ratios also appear satisfactory. However, going forward, as indicated by the operating parameters above, public sector banks are squeezed on margins and hence are constrained with respect to profitability and credit provisioning. In addition unlike the private sector banks, the public sector banks have further limitations with respect to raising equity. This issue needs urgent policy attention in order to preserve the gains that have been achieved in reforming the public sector banks and the banking industry in general.

Table IV.2: Some key balance sheet characteristics for year ending March 2007*

	Total Assets		Gearing	Capital Adequacy Ratio	Net NPA to Net Worth
	Rs. 000 crore	Share %	Ratio	Per cent	
Nationalised Banks	1,524 (1,231)	44.8 (44.3)	17.7 (16.5)	12.3 (12.3)	10.3 (11.8)
State Bank of India & associates	806 (692)	23.7 (24.8)	16.4 (15.7)	12.4 (11.9)	14.9 (16.2)
Public Sector Banks (includes IDBI Bank)	2,434 (2,011)	71.6 (72.3)	16.9 (16.0)	12.3 (12.2)	11.7 (13.1)
Private Sector Indian Banks (2)	609† (448)†	17.9† (16.1)†	13.0 (10.7)	11.9 (12.7)	7.1 (4.9)

Note: * Figures in parentheses refer to the corresponding figure for the year ending March 2006

† These numbers include Indus Ind Bank, Kotak, Centurion Bank of Punjab and Yes Bank.

(1) Nationalised banks plus SBI & Associates and IDBI Bank

(2) ICICI Bank, HDFC Bank, UTI Bank, Bank of Rajasthan, Karur Vysya and Karnataka Bank

Source: *Trends and Progress in Banking in India*, 2005/06, Reserve Bank of India

Annual reports (audited) of individual banks, for the financial year ending March 2007.

Annex V: Some Issues on Government Finances

V.1 Fiscal Outlook for India

There has been considerable progress towards fiscal consolidation in the country. The fiscal responsibility legislations at the Central and State levels have helped to bring about significant improvement in their finances. The aggregate fiscal deficit of the Centre and States relative to GDP in 2006/07 is estimated to have been 6.3%. In 2007/08 it is likely to be even lower at 5.2%. Thus, improvement in fiscal management has helped to achieve the fiscal deficit targets almost two years before the date set by the *Fiscal Responsibility and Budget Management Act* (FRBMA) of the Centre and *Fiscal Responsibility Acts* (FRA) of different State governments based on the recommendation of the Twelfth Finance Commission (TFC). While the fiscal deficit of the Central government as a ratio of GDP in 2007/08 is estimated at 3.3%, the aggregate fiscal deficit of the States has already achieved the target of 3.0% set by Twelfth Finance Commission for 2008/09 and is estimated to be 2.4% in the current year (2007/08) itself.

V.2 Revenue Deficit

V.2.1 The improvement in the revenue deficit position, however, is not as impressive as that of fiscal deficit. The aggregate revenue deficit for 2006/07 (RE) is estimated to be 2.0% of GDP, and that is entirely due to the revenue deficit of the Centre. The States are estimated to have had at the aggregate level a marginal *surplus* in the revenue account. For 2007/08 (BE), the aggregate revenue deficit for the Centre and the States is estimated to be 1.2%. Of this, the Centre is likely to have a revenue deficit of 1.6% and States are likely to generate a revenue surplus of 0.4%, as a proportion of GDP.

V.2.2 The analysis shows that at the Central level, while fiscal deficit reduction is on course to achieving the target, it would be difficult to phase out the revenue deficit by 2008/09. The revenue deficit is estimated at 1.6% of GDP in 2007/08 and eliminating it in one year would seem to be infeasible. In fact, the revenue deficit has persisted in spite of impressive increase in central tax revenues and this is mainly due to continued increase in expenditures on various flagship schemes such as *Sarva Shiksha Abhiyan*, National Employment Guarantee Scheme, National Rural Health Mission, Prime Minister's *Gram Sadak Yojana*, *Indira Awas Yojana*,

National Urban Renewal Mission and various other poverty alleviation and social development programmes in rural and urban areas.

V.2.3 As mentioned above, the sharp increases in revenue from central government taxes has provided the required fiscal space for expanding various programmes and to contain the fiscal deficit. The gross Central tax revenue relative to GDP has increased from 8.2% in 2001/02 to an estimated 12% in 2007/08. The Central tax revenue increased at an average rate of 20% per year since 2001/02 and the direct taxes increased at an annual average rate of 26.6% due to good performance of both personal income tax (20.6%) and corporation tax (31.4%). Not surprisingly, the share of direct taxes which was less than 35% of total central tax revenue in 2001/02 has increased steadily to 50% by 2006/07.

Table V.1: Trends in Central and State Government Finances (2001/02 to 2007/08)

Unit: Per Cent of GDP

	2001/02	2003/04	2004/05	2005/06	2006/07 RE	2007/08 BE
I. Trends in Central Government Finances						
1. Gross Tax Revenue	8.20	9.20	9.75	10.24	11.36	11.98
2. Non-tax revenue	2.97	2.78	2.60	2.16	1.88	1.80
3. Gross Total Revenue	11.17	11.98	12.35	12.40	13.24	13.79
4. States' Share in Taxes	2.35	2.44	2.56	2.66	2.96	3.15
5. Grants to States	1.89	1.80	1.73	2.22	2.23	2.31
6. Net Revenue to the Centre	**8.83**	**9.54**	**9.79**	**9.74**	**10.28**	**10.63**
7. Transfers to autonomous agencies	na	na	0.00	0.00	1.09	1.07
8. Net direct expenditure by Centre:	11.32	11.29	12.29	12.33	8.99	8.81
o/w 8 (i) Interest Payment	*4.71*	*4.49*	*10.56*	*10.11*	*3.55*	*3.48*
9. Revenue Deficit	**4.39**	**3.55**	**4.06**	**3.72**	**2.03**	**1.56**
10. Fiscal Deficit	**6.18**	**4.46**	**2.51**	**2.59**	**3.70**	**3.30**
II. Trends in State Government Finances						
Revenue Deficit	**2.59**	**2.22**	**1.17**	**0.04**	**ñ0.01***	**ñ0.39***
Gross Fiscal Deficit	**4.21**	**4.46**	**3.50**	**2.39**	**2.60**	**2.17**
Primary Deficit	1.47	1.50	0.68	0.12	0.35	-0.02
Revenue Receipts	11.21	11.47	11.92	11.76	12.56	12.71
Current Transfers	4.18	4.29	4.34	4.62	5.14	5.20
Revenue Expenditure	13.80	13.68	13.09	11.79	12.55	12.32
Interest Payments	2.74	2.96	2.82	2.27	2.25	2.19
Capital Outlay	1.41	1.90	1.97	2.35	2.61	2.56

Note: Negative sign indicates a surplus

V.3 States Performance

The fiscal performance of the States is particularly impressive. In fact, all the States except West Bengal and Sikkim have passed the FRAs. There has been considerable improvement in the finances of not only the States as a whole but also in respect of each of the individual states. Although significant part of the improvement is due to higher central transfers, the improvement is structural. The States have gained from the higher buoyancy seen in Central taxes, higher grants given to them based on the TFC's recommendations and various flagship programmes introduced by the Central government. As many as 19 states have qualified for receiving write-off of Central loans in 2006/07 due to their improved fiscal performance as per the TFC's recommendations. On the States' part too, introduction of the value added tax is expected to bring about in higher buoyancy in their tax systems. The own revenues of the States relative to GDP are expected to increase from 5.9% in 2005/06 to 6.2% in 2006/07 (RE) and further to 6.4% in 2007/08 (BE).

V.4 Summary of Issues

V.4.1 Despite significant improvement, the fiscal situation in the country continues to be a matter of concern and needs to be watched closely for a number of reasons.

- First, as mentioned above, the central government's revenue deficit continues to be high and it is unlikely to eliminate it by 2008-09.
- Second there are substantial off budget liabilities which need to be taken account off. The important liabilities include the oil bonds issued to oil companies to compensate them for the losses arising from increase in the international price of oil and inability of the Government to increase the domestic prices of oil commensurately. Thus, during 2006/07 Oil Bonds issued amounted to Rs. 19,150 crore. In addition, securities issued to Food Corporation of India in 2006/07 amounted to Rs. 16,200 crore. Further, there were accumulated fertiliser subsidies not paid out and that too is substantial. All of these are estimated to aggregate about 1.0–1.5% of GDP. Furthermore, at the State level, the losses of electricity utilities add up to another 1% of GDP. Thus, realistically, another 2% of GDP should be added to the reported revenue and fiscal deficits in order to get a more accurate picture of the state of government finances.

- Third, the major fiscal risk is the potential expenditure increase from revision of pay scales after the Pay Commission makes its recommendations. This could increase the expenditures of the central and state governments substantially.

V.4.2 Thus, while the recent trends show a significant improvement in the fiscal health of both the Central and State governments, considerable risks still persist. The fiscal problem is far from being over, and both Central and State governments will have to continue to mobilise larger resources and contain unproductive expenditures. Strengthening of tax administration, particularly the information system in the case of income taxes has paid rich dividends and this has helped to improve the fiscal health in the country. Similarly, now that the VAT has been introduced, if it is backed by tax administration reform and institution of a good information system could enhance buoyancy of state taxes. Much remains to be done in improving the tax administration and information system in respect of Union Excise Duties. Thus, the reforms will have to continue and the fiscal situation at both central and state governments needs to be closely monitored in the next few years.