

*Growth in the industrial sector was buoyant during the first two quarters (April-June, July-September) of the current financial year. The manufacturing sector, in particular, showed a remarkable robustness, growing at rates of 12.6 percent and 9.9 percent respectively, during these two quarters. Thereafter industrial output growth has begun to moderate. This compares with global trends as global manufacturing continued to rebound post crisis till the first half of 2010 and has thereafter moderated. India's post recovery industrial output growth has been largely driven by a few sectors such as the automotive sector along with a revival in cotton textiles, leather, food products, and metal products. Some sectors have shown extreme month-on-month output volatility. The impact of favourable monsoon on the domestic-demand-driven industrial sector has not been widespread. On the consumer non-durable segment in particular it has not been discernible so far but is expected to be visible in the fourth quarter of this fiscal year. A higher base effect had adverse impact on the industrial growth rate in the Q3 (October-December 2010) and accordingly may moderate the industrial sector's contribution to the gross domestic product (GDP) in Q3 of the current financial year.*

9.2 Industry-sector GDP, which includes gross value added (GVA) of the construction sector apart from mining, manufacturing, and electricity, has shown quarterly growth rates comparable to growth rates based on the index of industrial production (IIP). IIP data for Q2 and Q3 of the current financial year indicate that moderation has set in across all the broad sectors covered under it. Manufacturing growth rate declined to 5.1 per cent in Q3 of the current financial year. This is a moderate performance compared to the peak growth of 16.8 per cent achieved during Q4 (January-March) of the last financial year. Within the manufacturing sector, the capital goods segment has been the main driver of growth though it has shown extreme volatility as it registered a growth of 3.5 percent in Q1 of 2009-10 and surged up to 45.7 per cent during Q4 of the last financial year and continued to be in double digit till Q2 and moderated further to 3.8 per cent during Q3 of the current financial year. (Table 9.1).

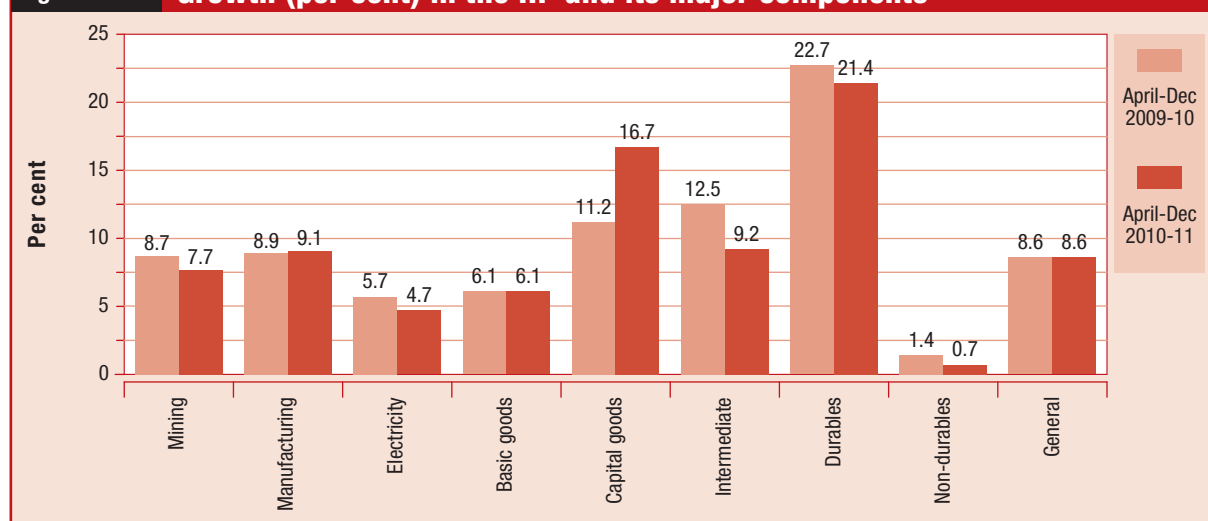
9.3 The IIP-based cumulative industrial output growth rate during April-December 2010 was 8.6 per cent, at par with the growth rate in the corresponding months of the previous year (Figure 9.1). Component-wise cumulative growth figures, however, show wide variation. Growth rates in the mining and electricity sectors have been comparatively low. Likewise, on the basis of use-based classification, intermediate and consumer non-durable goods have also had comparatively lower growth.

9.4 Due to poor performance of the basic goods and consumer non-durables segments, which constitute about 59 per cent of the IIP, a sizeable chunk of the industrial sector has not contributed significantly towards overall IIP growth. The growth has mainly been driven by the capital goods and the consumer durables segments. Weighted contribution of capital goods and consumer durables during April-December 2010 was about 29 per cent and 21 per cent as against their weights of 9.26 per cent and 5.37 per cent respectively in the IIP. The basic goods

**Table 9.1 : Growth in the IIP and its major components**

Period	Mining	Manu- facturing	Electri- city	Basic goods	Capital goods	Inter- mediate goods	Consu- mer goods	(per cent)
								General
Q1 2008-09	4.0	6.1	2.0	3.3	9.2	3.0	8.7	5.6
Q2 2008-09	3.8	5.6	3.2	4.9	15.2	-1.3	7.0	5.2
Q3 2008-09	2.0	1.3	2.9	2.5	5.7	-5.9	4.8	1.5
Q4 2008-09	0.9	0.8	3.0	0.4	4.0	-3.0	3.2	1.0
Q1 2009-10	6.8	3.6	5.8	6.3	3.5	7.0	-0.3	4.0
Q2 2009-10	9.0	8.7	7.4	5.9	6.7	11.6	9.7	8.6
Q3 2009-10	10.3	14.4	3.8	6.1	22.7	19.4	10.6	13.3
Q4 2009-10	12.9	16.8	7.1	10.3	45.7	17.0	5.2	15.8
Q1 2010-11	10.2	12.6	5.6	6.8	31.9	10.5	9.2	11.9
Q2 2010-11	7.0	9.9	2.1	4.7	18.4	10.8	7.0	9.1
Q3 2010-11	5.8	5.1	6.5	6.8	3.8	6.5	3.7	5.3

Source : Central Statistics Office (CSO).

**Figure 9.1 Growth (per cent) in the IIP and its major components**

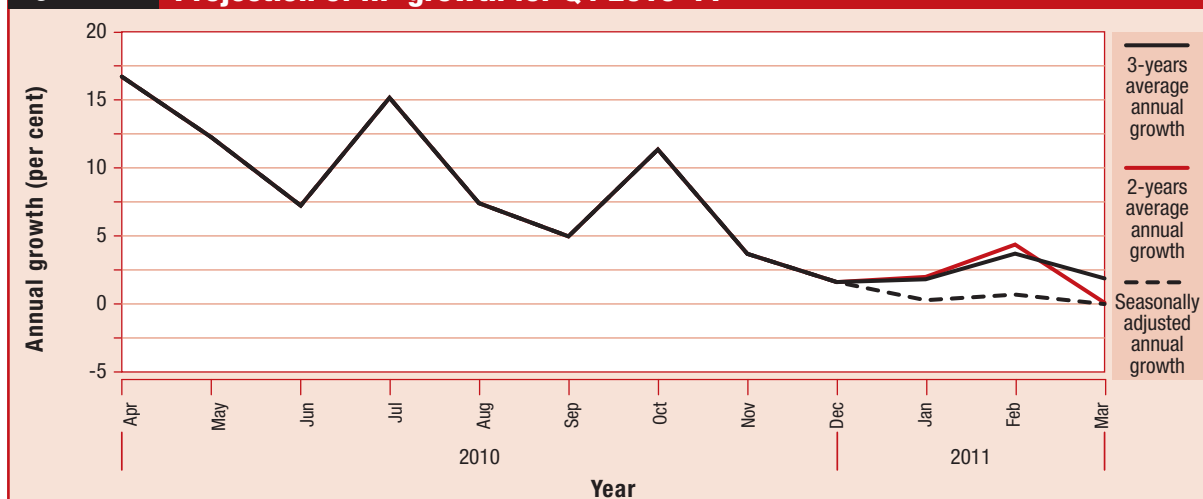
segment, which has a weight of 35.57 per cent in the IIP, contributed only 20 per cent during April-December 2010 (Table 9.2).

9.5 The manufacturing sector, which has a weight of 79.36 per cent in the IIP, is its key driver. Manufacturing output growth has dipped from a peak of 18 per cent in April 2010 to 1.0 per cent in December 2010, as a result of which IIP growth has also come down from 16.6 per cent in April 2010 to 1.6 per cent in December 2010. However, this slowdown is in a large part driven by the base effect. Despite wide fluctuations, the April–December 2010 cumulative growth rate has remained at a robust 9.1 per cent for the manufacturing sector and 8.6 per cent for the IIP. Month-wise annual growth rate for the remaining months of the financial

**Table 9.2 : Sector-wise weighted contribution**

Sector	Weight	Weight contribution	
		April- Dec 2009	April- Dec 2010
Mining	10.47	7	6
Manufacturing	79.36	88	90
Electricity	10.17	5	4
<b>General IIP</b>	100.00	100	100
<b>Use-based</b>			
Basic goods	35.57	20	20
Capital goods	9.26	19	29
Intermediate goods	26.51	37	28
Consumer goods (total)	28.67	24	23
Consumer Durables	5.37	20	21
Consumer Non-durables	23.3	4	2
<b>General IIP</b>	100.00	100	100

Source : Central Statistics Office (CSO).

**Figure 9.2** Projection of IIP growth for Q4 2010-11

year is likely to remain moderate but annual growth rate is expected to remain at par with the last years growth rate. (Figure 9.2).

9.6 During April-December 2010, out of the seventeen industrial groups covered under the manufacturing sector, nine have had higher than 10 per cent cumulative growth rates and three higher than 5 per cent. Only five groups have had less than 5 per cent or negative cumulative growth rates. The poor performance of basic chemicals and chemical products, with an IIP weight of 14 per

cent, has contributed significantly to pulling down the IIP (Table 9.3).

9.7 The IIP with 1993-94 as its base has become dated. It has, therefore, not been able to capture the structural shift in manufacturing, both in terms of the products to be included and the coverage of producing units. There has been a consistent downward bias in the IIP and this widens as the base becomes dated. A comparative study of IIP and Annual Survey of Industries (ASI) data clearly establishes that the downward bias of IIP has

**Table 9.3 : Growth of Industry Product Groups (at two-digit level)**  
Index of Industrial Production (base 1993-94=100)

Industry Group	Weight	2008-09	2009-10	April- Dec. (2009-10)	April- Dec. (2010-11)
Manufacturing	793.6	3.3	11	8.9	9.1
<b>Industrial Groups with Growth Rates above 10 per cent during April-December 2010-11</b>					
Transport Equipment	39.8	2.4	26.9	18.5	24.5
Other Manufacturing Industries	25.6	3.5	9.2	6.4	22.1
Metal Products	28.1	0.5	11.5	0.2	21.9
Machinery & Equipment	95.7	9	20.6	15.7	12.7
Food Products	90.8	-9.7	-1.5	-6.9	12.4
Leather Products	11.4	-6.9	2.5	1.1	11.4
Rubber, Plastic & Petroleum	57.3	-1.5	15.4	14.5	11
Jute Textiles	5.9	-10	-24.4	-14.1	10.8
Cotton Textiles	55.2	-1.9	5.5	4.1	10.2
<b>Industrial Groups with Growth Rates below 10 per cent during April-December 2010-11</b>					
Basic Metals	74.5	4	6.5	4.6	8.4
Paper Products	26.5	1.9	3.9	2.1	8
Non-metallic Mineral Products	44	1.3	9.5	8.1	6.5
Textile Products	25.4	5.8	8.4	10.6	3.7
Basic Chemicals & Chemical Products	140	5.5	8.8	11.3	2
<b>Industrial Groups with negative Growth Rates during April-December 2010-11</b>					
Wool, Silk & Man-made Textiles	22.6	0	8.1	11.8	-0.6
Beverages & Tobacco Products	23.8	16.2	-0.2	-1	-3.1
Wood Products	27	-9.6	9.7	8.6	-13.8

Source : Central Statistics Office (CSO).

**Table 9.4 : Rate of Growth of ASI Manufacturing (1999-2000 prices) and IIP Manufacturing**

	2004-05	2005-06	2006-07	2007-08	2008-09
ASI Output	22.01	9.26	19.72	10.17	8.90
ASI Gross Value Added	17.36	12.79	19.69	14.83	2.80
IIP Manufacturing	9.2	8.9	12.9	9.2	3.3
Difference	8.2	3.3	6.8	5.6	-0.5

Source : Office of the Economic Adviser, Department of Industrial Policy and Promotion (DIPP).

considerably increased and this has implications for GDP growth and the share of manufacturing in this growth. Assessment of the growth of registered manufacturing based on the ASI and IIP for the last five years clearly indicates persistence of this continued bias (Table 9.4).

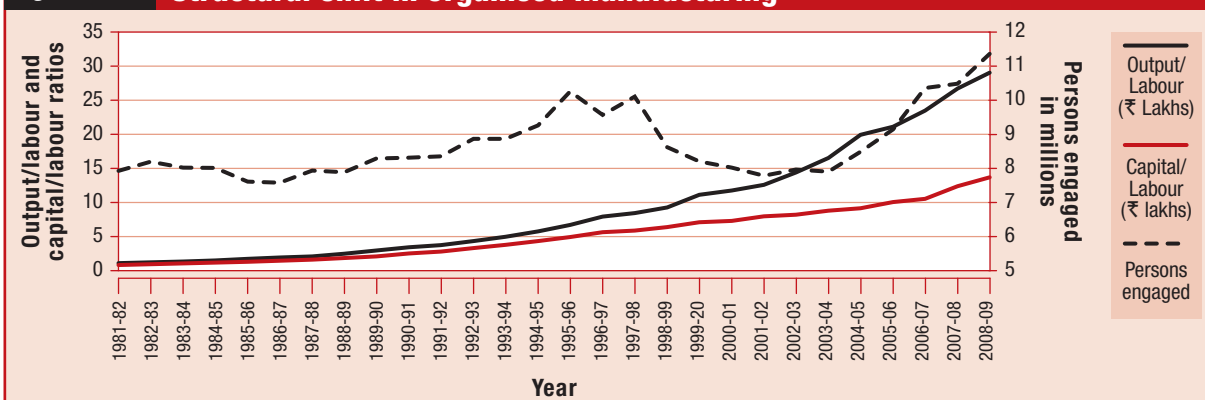
### Volatility in the IIP at individual items level

9.8 Since the weight of an item (4-digit NIC) broadly indicates its relative importance in the IIP, it is generally expected that contribution of an item in any given monthly IIP would be close to its assigned weight in the basket. In other words, any excess contribution over and above the base year's assigned weight in the IIP would affect overall IIP growth. The Office of the Economic Adviser, DIPP, has carried out an exercise to identify the highly volatile items with high standard deviation (SD) during the past five years.

9.9 The exercise has identified 26 highly volatile items with a weight of 8.2 per cent in the IIP. Within these 26 volatile items there are five with a weight of 1.8 per cent showing very high SD, namely ampicillin(200), alarm time pieces (875), agarbatti(409), well/offshore platforms(13,475) and insulated cables and wires (204). These items have created wide fluctuations in the IIP. There is need to shift to a new base and an IIP series based on an updated basket.

### Structural shift in the organized manufacturing sector

9.10 There is a general perception that in the Indian organized manufacturing sector, there has not been much increase in the rate of growth of employment. Product market reforms which eliminated capacity regulations and rent seeking in Indian industry were expected to provide impetus for greater absorption of labour in line with resource availability. ASI data, which are the most comprehensive data set on the organized sector, did indicate that the number of persons engaged in the organized manufacturing sector, after continuous increase in the initial years, witnessed a deceleration from 1997-98 onwards. The decline continued until 2003-04. From 2004-05 onwards, there has been continuous increase in employment in the organized manufacturing sector. Further, even in 2008-09, the latest year for which ASI data are available, there appears to be a significant increase in the number of persons employed. This is contrary to the anecdotal evidence and various surveys undertaken during this period which indicated a decline in the employment in the organized manufacturing sector. While there has been an increase in the capital employed per unit of labour during the period and the output per unit of labour, a sharper increase has been observed in the rate of growth of labour absorption itself (Figure 9.3).

**Figure 9.3 : Structural shift in organised manufacturing**

## Corporate-sector performance

9.11 Based on analysis of abridged financial results of the listed manufacturing companies, it is observed that revenue growth in the second half (October-March) of 2009-10 rebounded to pre-crisis level amidst improving demand conditions and confidence. Consequently, consumption of raw material as well as power and fuel expenses followed an upward trend during the considered period. Accumulated stocks-in-trade during the first half of 2008-09 were depleted during the later quarters indicating adjustments of inventory levels to changes in business demand which had picked up, during the latter half of 2009-10 and first quarter of 2010-11, indicating revival of the demand. The non-core 'other income' which contributed significantly to net profits was seen to be at lower levels during Q2 and Q3 (July-September, October-December) of 2009-10 and contracted further in Q1 of 2010-11. However, in Q2 it has risen to a peak of 69.5 per cent.

9.12 The growth in net profits followed a downward trend and was very low in Q3 and Q4 of 2008-09. However, during the subsequent quarters, aided by low base and momentum in demand, corporate

profits have recovered. But first half results in 2010-11 reveal pressures on net profits on account of higher commodity prices and staff costs and higher interest outgo. With faster increase in total expenditure in relation to sales, the profitability margin has contracted in recent months (Table 9.5)

## INDUSTRIAL GROWTH BY SECTORS

### Textiles

9.13 The IIP covers four textile groups, namely cotton textiles; wool, silk & man-made fibre textiles; jute & other vegetable fibre textiles (except cotton); and textile products (including wearing apparel). Cotton textiles production grew by 10.1 per cent during April–November 2010-11 as compared to 3.6 per cent during April-November 2009-10. Jute textiles production have also recovered and grew by 6.8 per cent as compared to a decline of 16.7 per cent during April-November 2009-10. Textile products grew by 5.7 per cent during April-November 2010-11 as compared to 3.9 per cent during the corresponding months of the previous year. In the wool, silk, and man-made fibres segment of textiles growth has,

**Table 9.5 : Year-on-Year Growth in Sales and Expenditure of listed public limited manufacturing companies in the private sector**

Items	2008-09				2009-10				2010-11	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
No. of Companies	1926	1837	1849	1901	1885	1876	1901	1912	1900	1933
<b>Growth Rates in per cent</b>										
Sales	30.1	32.1	6.3	0.1	-2.7	-0.4	28.7	34.9	28.8	21.2
Change in Stock-in-trade	131.9	230.1	a	a	-79.5	0.1	b	b	354	-46.5
Expenditure	34.3	38.8	9.3	-2.9	-6.6	-3.4	26.6	37.5	34.5	22.5
Consumption of Raw Materials	38.1	44	4	-9.6	-14.5	-4.7	35.5	46.6	40.6	21.9
Staff Cost	19.3	17	12.4	7.9	9.9	9.1	12	18.1	16.9	20.4
Power & Fuel	28.8	37.8	21.7	3.1	-1.4	-5.7	1.7	10.6	13.1	15.5
Other Income	-9.5	2.7	14.9	26.8	62.7	10	12.3	42.4	-28.5	69.5
Interest Costs	52	69.9	60.5	43.3	8.3	-2.1	-5	1.1	10.9	7.8
Profits after Tax (PAT)	6.9	-4.2	-66.4	-28.3	3.2	17.6	178	69.4	8.2	10.9
<b>Ratio in per cent</b>										
PAT to Sales	8.7	7.6	3.6	6.7	9.2	9	8	8.6	8	8.1

Source : Reserve Bank of India Studies on Corporate Performance based on a abridged results of select companies in the private corporate sector.

Note: a: Numerator is negative; b : Denominator is negative

**Table 9.6 : Production of fabrics/cloth (million sq. m)**

Sector	2006-07	2007-08	2008-09	2009-10 (P)	April- October	
					2009-10	2010-11 (P)
Mill Sector	1746	1781	1796	1961	1097	1130
	-5.40%	-2.00%	-0.80%	-9.20%	-3.00%	
Handloom	6536	6947	6677	6769	3956	3770
	-7.00%	-6.30%	-3.90%	-1.40%	-1.70%	
Powerloom	32,879	34,725	33,648	36,644	21699	22067
	-7.40%	-5.60%	-3.10%	-8.90%	-1.70%	
Hosiery	11,504	11,804	12,077	13,623	7941	8362
	-10.40%	-2.60%	-2.30%	-12.80%	-5.30%	
Others	724	768	768	814	448	476
	-0.059	-6.10%	0.00%	-5.70%	-6.30%	
Total Cloth Production	53,389	56,025	54,966	59,809	35,141	35,805
	-7.70%	-4.90%	-0.019	-8.80%	-1.90%	

Source : Office of the Textile Commissioner, Mumbai.

Notes : P is Provisional.

however, dipped to mere 0.1 per cent during April-November 2010 as compared to 13 per cent during April-November 2009-10.

9.14 Overall, the production of textile fabrics increased by 1.9 per cent during April-October 2010-11. This is a moderate performance when compared with the robust increase of 8.8 per cent during 2009-10. The decline in textile fabrics/cloth during the current financial year has been on account of comparatively lower growth rates in the production of mill, power loom and hosiery segments. (Table 9.6).

9.15 Post slowdown/recession in the developed economies, the textile sector has gathered momentum yet the export performance of Indian textiles continues to lag substantially behind that of China's as regards rate of growth as well as share in world textile exports. During 2009, China had a 28.3 per cent share in world textile exports as against India's share of only 4.3 per cent. In clothing exports, China had a share of 30.7 per cent as against India's share of 3.6 per cent. India's textile exports grew by 6.31 per cent during 2009-10 as against a decline of 5.0 per cent during 2008-09. As per the latest available data for April-September 2010, exports of textiles and clothing were of the order of US\$ 11.27 billion, thus recording a growth of 11.47 per cent vis-à-vis exports worth US\$ 10.11 billion in April-September 2009.

## CHEMICALS, PETROCHEMICALS AND FERTILIZERS

### Chemicals

9.16 Major chemicals undergo several stages of processing to be converted into downstream chemicals. These processed chemicals are used in agriculture and industry as auxiliary materials such as adhesives, unprocessed plastics, dyes, and fertilizers. Chemicals are also directly used by consumers in the form of pharmaceuticals, cosmetics, household products, paints, etc. The trend in production of chemicals in the current year vis-à-vis the preceding three is given in Table 9.7. During April-November 2010-11 dyes and dyestuffs registered impressive growth of 18.52 per cent.

### Petrochemicals

9.17 Petrochemicals include synthetic fibres, polymers, elastomers, synthetic detergents, and performance plastics, apart from their intermediates such as synthetic fibre intermediates, synthetic detergent intermediates, olefins, and aromatics. The main sources of feedstock and fuel for petrochemicals are natural gas and naphtha. Petrochemical products cover the entire spectrum of daily use items ranging from clothing, housing, construction, furniture, automobiles, household items, toys, agriculture, horticulture, irrigation, and packaging to medical appliances.



**Table 9.7 : Production of major petrochemicals**

(000' MT)

Years	Alkali Chemicals	Other Inorganic Chemicals	Organic Chemicals	Pesticides (Tech.)	Dyes & Dyestuffs	Total Major Chemicals
2007-08	5443	609	1552	83	44	7731
2008-09	5442	513	1254	85	32	7326
2009-10	5602	518	1280	82	42	7524
April-Nov 2009	3659	341	846	60	27	4933
April-Nov.2010	3876	365	867	56	32	5196
Growth rate	5.93	7.04	2.48	-6.67	18.52	5.33

Source : Department of Chemicals and Petrochemicals. Note: MT- Metric Tonne

**Table 9.8 : Production of major petrochemicals**

(000' MT)

Years	Synthetic fibers	Polymers	Elastomers	Synthetic detergent intermediates	Performance plastics	Total major petrochemicals
2007-08	2524	5304	105	585	157	8675
2008-09	2343	5060	96	552	141	8192
2009-10	2601	4791	106	618	172	8287
April-Nov 2009	1727	3152	70	406	117	5472
April-Nov. 2010	1824	3450	65	422	124	5915
Growth rate	7.35	9.45	-7.14	3.94	5.98	8.17

Source : Department of Chemicals and Petrochemicals. Note: MT- Metric Tonne

9.18 The production of major petrochemicals in primary form and the growth rates from 2007-08 onwards are exhibited in the Table 9.8. It is worth noting that polymers account for the largest share by far of petrochemical production and in 2009-10 this share was 58 per cent. During April-November 2010-11 major petrochemicals have increased by 8.17 per cent.

### Foreign Trade in Chemicals and Petrochemicals

9.19 The share of chemicals and petrochemicals in total national exports declined from 11.6 per cent to 9.96 per cent during the period 2003-04 to 2009-10. Likewise, imports declined from 9.2 per cent to 7.2 per cent.

### Fertilizers

9.20 India is meeting 85 per cent of its urea requirement through indigenous production but is largely import dependent for meeting the phosphorus and potassium (P&K) fertilizer requirements either as finished fertilizers or raw materials. The entire

requirement of potash, about 90 per cent of phosphatic, and about 20 per cent of urea is met through imports.

9.21 In addition to urea, 21 grades of P & K fertilizers, namely di-ammonium phosphate (DAP), muriate of potash (MOP), mono-ammonium phosphate (MAP), triple super phosphate (TSP), ammonium sulphate (AS), single super phosphate (SSP), and 15 grades of NPK complex fertilizers are provided to farmers at subsidized rates, which are much below the actual cost. Farmers pay only 25 to 40 per cent of the actual cost and the rest is borne by the Government in the form of a subsidy that is reimbursed to the manufacturers/importers.

9.22 The domestic production of urea in the year 2009-10 was 211.12 lakh MT, as compared to 199.20 lakh MT in 2008-09. The production of DAP increased sharply in 2009-10 and was at 42.46 lakh MT as compared to 29.93 lakh MT in 2008-09. The estimated production of urea in 2010-11 is projected at 215.37 lakh MT and that of DAP and complexes at 39.58 lakh MT and 91.66 lakh MT respectively (Table 9.9)

**Table 9.9 : Production and import of fertilizers**

(lakh MT)

Year	Production			Imports		
	2008-09	2009-10	2010-11*	2008-09	2009-10	2010-11*
Urea	199.2	211.12	215.37	56.67	52.09	45.83
DAP	29.93	42.46	39.58	61.91	58.89	68.12
Complex Fertilizers	68.48	80.38	91.66			
MOP	Nil	Nil	Nil	56.72	52.86	47.84

Source : Department of Chemicals and Petrochemicals

Note : \* estimated; MT- Metric Tonne.

## Steel

9.23 India ranked as the fourth largest producer of crude steel in the world during January–November 2010, after China, Japan, and the USA as per the World Steel Association. This was a slip in rank from its number three position in 2009. The country has also been the largest sponge iron producer in the world since 2002. Domestic crude steel production grew at a compounded annual growth rate of 8.4 per cent during 2005-06 to 2009-10 (Table 9.10). The increase in production rode on the back of capacity expansion, mainly in private-sector plants, as also higher utilization rates.

9.24 The Indian steel industry has diversified its product mix to include sophisticated value-added steel used in the automotive sector, heavy machinery, and physical infrastructure. It, however, suffers from the high ash content of locally available metallurgical coal and a marked dependence on imported coal. The issues regarding raw material security (e.g. getting iron ore mining lease),

infrastructure (affecting logistics and transport), and uncertainties in land acquisition have emerged as bottlenecks to greenfield expansion. During April–November 2010-11, consumption, imports, and exports of finished steel recorded growth rates of 9.8 per cent, 11.1 per cent, and 13.8 per cent respectively.

## Information technology and electronics

9.25 The revenue aggregate of the information technology (IT)-business process outsourcing (BPO) industry has grown by 5.4 per cent to reach US \$ 73.1 billion in 2009-10 as compared to US \$ 69.4 billion in 2008-09. IT services exports were US \$ 27.3 billion in 2009-10 as compared to US \$ 25.8 billion in 2008-09, showing a growth of 5.8 per cent. Information Technology Enabled Services (ITeS)-BPO exports have increased from US \$ 11.7 billion in 2008-09 to US \$ 12.4 billion in 2009-10, registering a year-on-year (Y-o-Y) growth of 6 per cent. Revenue from the domestic market (IT services and ITeS-BPO) has grown to US \$ 14 billion in the

**Table 9.10 : Production, consumption, import and export of total finished steel and pig iron**

(million tonnes)

Item	2005-06	2006-07	2007-08	2008-09	2009-10	Change (per cent) over 2008-09	
Production for Sale	TFS	46.56	52.53	56.07	57.16	59.69	4.4
	PI	4.69	4.93	5.284	6.21	5.73	-7.6
Import	TFS	4.31	4.93	7.03	5.84	7.3	25
	PI	0.03	0.03	0.11	0.08	0.11	38
Export	TFS	4.8	5.24	5.08	4.44	3.24	-27
	PI	0.44	0.71	0.56	0.35	0.28	-21
Real Consumption**	TFS	41.43	46.78	52.12	52.35	56.48	7.9
	PI	4.13	4.33	4.62	5.87	5.46	-6.9

Source : JPC, Ministry of Steel.

Notes : TFS= total finished steel, both alloy and carbon; PI=pig iron;

\*provisional.; \*\* adjusted for stock variation and double counting.



year 2009-10 as compared to US \$ 12.8 billion in 2008-09, a growth of about 9 per cent. Total IT software and services employment has reached 2.28 million in 2009-10 (excluding employment in the hardware sector) as against 2.20 million in 2008-09. The IT-ITeS industry's contribution to national GDP is estimated to increase from 6.0 per cent in 2008-09 to 6.1 per cent in 2009-10. NASSCOM expects IT-BPO exports to grow by at least 18 per cent in 2010-11 to reach US \$58.7 billion as against US \$ 49.7 billion in 2009-10.

### Electronics hardware manufacturing

9.26 The production of electronics is estimated to grow by 13 per cent to reach Rs.109,940 crore in 2009-10 as compared to ₹ 97,260 crore in 2008-09. Electronics hardware exports are estimated to be ₹ 31,250 crore in 2009-10 as compared to ₹ 31,230 crore in 2008-09. The cumulative export figure in electronics during 2010-11 (April to July) is estimated at US \$ 1.36 billion (₹ 6259 crore) whereas during the same period in the previous year, exports of electronics amounted to US \$ 1.92 billion (₹ 9339 crore).

### Micro, small, and medium enterprises (MSMEs)

9.27 The role of MSMEs in the economic and social development of the country is widely acknowledged. They are nurseries for entrepreneurship, often driven

by individual creativity and innovation, and make significant contributions to the country's GDP, manufacturing output, exports, and employment generation. MSMEs contribute 8 per cent of the country's GDP, 45 per cent of manufactured output, and 40 per cent of exports. The labour-capital ratio in MSMEs is much higher than in larger industries. Moreover, MSMEs are better dispersed. In view of these factors, MSMEs are important for achieving the national objective of growth with equity and inclusion.

### CENTRAL PUBLIC-SECTOR ENTERPRISES (CPSEs)

9.28 There were altogether 249 CPSEs under the administrative control of various ministries/ departments as on 31 March 2010. Of these, 217 were in operation and 32 under construction. The cumulative investment (paid-up capital plus long-term loans) in all the CPSEs stood at ₹ 579,920 crore as on 31 March 2010, an increase of 12.93 per cent over 2008-09. The capital employed in all the CPSEs went up by 14.73 per cent during the same period. A great deal of investment in CPSEs is accounted for by internal resources rather than through investment from outside.

9.29 The net profit of the profit-making CPSEs (158) stood at ₹108,434.68 crore in 2009-10. The net loss of the loss-making enterprises (59) on the other hand,

**Table 9.11 : Performance of CPSEs during 2009-10**

(₹ crore)				
Sl. No.	Particulars	2009-10	2008-09	% change over previous year
1.	Investment(long-term loan + equity)	579,920	513,532	12.93
2.	Capital employed (net fixed assets + working capital )	910,120	793,240	14.73
3.	Total turnover	1,235,060	1,271,529	-2.87
4.	Profit of Profit Making CPSEs	108,435	98,488	10.10
5.	Loss of Loss Making CPSEs	15,842	14,621	8.35
6.	Net worth	660,245	665,686	-0.82
7.	Dividend declared	33,223	25,501	30.28
8.	Corporate tax	119,529	131,583	-9.16
9.	Interest paid	35,720	39,300	-9.11
10.	Contribution to Central Exchequer	139,828	151,529	-7.72
11.	Foreign Exchange Earnings	77,745	74,206	4.77
12.	Foreign Exchange Outgo	420,415	433,332	-2.98

Source: Department of Public Enterprises.

stood at ₹15,842 crore during the same period. The year also witnessed severe financial under-recoveries by public-sector oil marketing companies (OMCs) as they had to keep prices on sale of petroleum products low in the domestic market. The foreign exchange earnings of the CPSEs amounted to ₹ 77,745 crore during 2009-10 and were clearly overtaken by the foreign exchange outgo of ₹ 420,415 crore (Table 9.11).

### Tourism Sector

9.30 Foreign Tourist Arrivals (FTAs) in the first eight months of 2010-11 have registered significant growth of 9.4 per cent after the negative growth in 2008-09 and low growth in 2009-10. This compares favourably

with growth of about 6 per cent for the world. Foreign exchange earnings (FEEs) from tourism in 2010-11 (April-November) increased by 16.8 per cent in rupee terms, and by 22.7 per cent in US dollar terms, as compared to the corresponding period of 2009-10 (Table.9.12).

## FINANCING AND INVESTMENT

### Industrial Credit

9.31 On a year-on-year basis, credit growth to industry sharply accelerated to 27.0 per cent in November 2010 from 14.2 per cent in November 2009 (Table 9.13). The sectoral composition of the gross deployment of bank credit to industry,

**Table 9.12 : Number of FTAs, FEEs in Rupees and Us Dollars, and Per Cent Change**

Year	FTAs (lakh)	%Change over Previous Year	FEEs (₹ crore)	% Change Over Previous Year	FEEs (million US\$)	% Change over Previous Year
2006-07	46.67	13.8	41,127	17.9	9123	16.2
2007-08	51.75	10.9	45,526	10.7	11,349	24.4
2008-09	50.66*	-2.1	48,657**	6.9	10,543**	-7.1
2009-10	52.86*	4.3	59,124**	21.5	12,521**	18.8
2010-11 (April-Nov)	33.65*	9.4	40,104**	16.8	8777**	22.7

Note: \*provisional;\*\* advance estimates.

Source: Department of Tourism.

**Table 9.13 : Industry-wise deployment of gross bank credit**

Sector	% Growth (y-o-y)		Share in outstanding credit to industry(%)	
	Nov. 2009	Nov. 2010	Nov. 2009	Nov. 2010
Mining & Quarrying (incl. Coal)	2.6	27.0	1.3	1.3
Food Processing	5.9	30.3	4.6	4.8
Beverage & Tobacco	49.2	-2.3	0.9	0.7
Textiles	7.4	18.1	9.4	8.7
Leather & Leather Products	-0.5	16.1	0.5	0.5
Wood & Wood Products	4.1	27.9	0.4	0.4
Paper & Paper Products	11	16.3	1.5	1.4
Petroleum, Coal Products & Nuclear Fuels	-22	-14.6	5.9	4.0
Chemicals & Chemical Products	1	19.9	6.6	6.3
Rubber, Plastic & their Products	6.5	37.8	1.2	1.3
Cement & Cement Products	18.3	40.9	1.8	2.0
Basic Metal & Metal Product	18.3	25.7	12.8	12.6
All Engineering	4.7	31.9	5.7	5.9
Vehicles, Vehicle Parts & Transport Equipment	-2.9	16.5	3.1	2.9
Construction	8.9	16.4	3.2	3.0
Infrastructure	47.2	44.2	29.0	32.9
Industries	14.2	27.0	100.0	100.0
Industry total minus Infrastructure	4.6	20.0	71.0	67.0

Source : RBI.

Notes : Data are provisional and relate only to select banks.

including infrastructure, shows widely varying patterns. It is the infrastructure sector that kept credit growth to industry at the level of 27.0 per cent during the year ended November 2010. Net of infrastructure, year-on-year credit growth to industry was 20.0 per cent in November 2010, compared to 4.6 per cent during the corresponding period of the previous year.

9.32 Industrial credit to micro and small enterprises (MSEs), including service-sector, grew at a higher rate of 21.5 per cent in November 2010 compared to 19.3 per cent during the corresponding period of the previous year. Further, industrial credit to MSEs in the manufacturing sector grew at 16.9 per cent during November 2010 as compared to 19 per cent during November 2009.

### Industrial Investment

9.33 The industry sector has been attracting a sizeable chunk of domestic capital formation resulting in an addition to productive capacities. As per the new series of National Accounts (2004-05), average annual growth of new investment in the industrial sector (excluding construction) was 11.3 per cent, as against average GDP growth of 8.6 per cent during 2004-05 to 2009-10. The rate of growth of gross capital formation (GCF) for mining, registered manufacturing, and the electricity sector was even higher. There was a decline in the share of industry GCF in the total GCF in 2008-9, which could be considered an abnormal year because the global economic meltdown had affected investor sentiment resulting in a dip in investment and deferment of investment decisions. The internal accruals of the corporate sector were also adversely affected. A

decline in stock market indices also affected valuation gains and the combined effect of these factors led to a decline in industry GCF. But during 2009-10, industry GCF as a share of overall GCF has increased to 43.8 per cent due to revival of investment sentiments (Table 9.14).

9.34 While the GCF indicates actualization of investment, investment intentions indicated in the Industrial Entrepreneur Memorandums (IEMs) filed are lead indicators of likely investment flow to industry and of entrepreneurs' perception. The investment intentions also provide the sectoral preferences of investors and shifts in these preferences over time. During 2001-09, overall investment indicated in the IEMs filed increased at an average annual rate of 35.5 per cent. There was, as expected, a decline in investment intentions in 2009, but investment intentions in 2010 (January-November) indicate revival of business sentiment and an improvement in entrepreneurs' perception. Metals, machinery, cement, chemicals, and the auto sector continue to dominate as the preferred industries. This is consistent with the growth of these industries (Table 9.15).

### Foreign Direct Investment (FDI)

9.35 Domestic savings in India have not been large enough to wholly meet investment requirements. Capital inflows from other countries, particularly of an investment nature, have become important. The ratio of domestic savings to GDP has generally been lower than that of GCF to GDP. During 2004-08, this gap was 1.3 per cent of GDP. Equity inflows are more stable and bring in managerial skills and technological knowhow together with the investment.

**Table 9.14 : Gross Capital Formation (GCF) in Industry**

(₹ Crore at 2004-05 prices)

	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	CAGR
1. Mining	37,322	52,260	60,412	68,470	59,266	96,079	20.82
2. Manufacturing	344,517	405,047	472,223	611,469	417,971	563,633	10.35
2.1 Registered	245,984	342,671	380,294	521,967	381,056	477,202	14.17
2.2 Unregistered	98,533	62,376	91,929	89,502	36,915	86,431	-2.59
3. Electricity	53,300	64,673	76,366	85,040	95,533	98,908	13.16
Total Industry GCF*	435,139	521,980	609,001	764,979	572,770	758,620	11.76
Rate of growth (%)		19.96	16.67	25.61	-25.13	32.45	
Total GCF excluding valuables	1,011,178	1,183,485	1,365,019	1,606,013	1,542,642	1,731,209	11.35
Share of industry in total GCF	43.0	44.1	44.6	47.6	37.1	43.8	

Source: Office of the Economic Adviser, DIPP and CSO

Notes: CAGR- compound annual growth rate; \* Industry GCF excludes construction

**Table 9.15 : Investment Indicated in Industrial Entrepreneur Memorandums (IEMs) Filed**

	2005	2006	2007	2008	2009	2010 (Jan. Nov.)
Food	40,098	62,845	10,520	15,924	15,637	18,272
Fermentation Industries	2888	8008	5171	8230	4566	2998
Textiles	21,605	26,325	22,193	10,730	9200	25,747
Wood & Wood Products	163	-	105	622	96	122
Paper and Paper Products	5473	8199	4649	5841	6037	5908
Leather and Leather Products	209	148	266	106	106	152
Chemicals	28,350	45,722	34,352	155,756	27,661	51,072
Rubber	1102	2403	1191	2867	2118	5330
Cement	11,800	42,406	76,906	125,948	53,742	94,732
Metals	101,730	144,128	180,973	364,978	254,285	380,691
Machinery	87,340	165,227	375,276	556,635	503,651	884,582
Transport	2059	10,688	11,314	24,862	5048	10,437
Others	25,707	48,669	69,583	207,842	95,958	64,398
Fuel	25,432	23,782	35,001	42,225	61,743	72,956
<b>Total</b>	<b>353,956</b>	<b>588,550</b>	<b>827,500</b>	<b>1,522,566</b>	<b>1,039,848</b>	<b>1,617,397</b>

Source: Office of the Economic Advisor, DIPP.

To encourage FDI inflows, FDI policy has continued to be fine tuned and progressively liberalized, allowing FDI in more and more industries under the automatic route. In the year 2000, Government allowed FDI up to 100 per cent on the automatic route for most activities; a small negative list was notified where either the automatic route was not available or there were limits on FDI. Since then, the policy has been gradually simplified and rationalized and more sectors have been opened up for foreign investment.

9.36 There has been tremendous growth in FDI inflows to India since 2003-04. Equity inflows have risen nearly thirteen-fold, from US\$ 2.23 billion in 2003-04 to US\$ 27.31 in 2008-09 and US\$ 25.89 billion in 2009-10. Total FDI inflow into India since the onset of the liberalization process (August 1991-May 2010) is nearly US\$ 136.86 billion. This represents only the equity capital component. Under international practices of reporting, i.e. including equity capital, reinvested earnings, and intra-company loans, the figure comes to US \$168.94 billion as against US\$ 6.13 billion in 2001-02, US \$ 35.18 billion in 2008-09, and US \$ 37.19 billion in 2009-10. While the FDI inflows have somewhat flattened out over the course of the last three years, the pace of inflows has been stable, including during 2009-10. This is despite the fact that the United Nations Conference on Trade and Development

(UNCTAD) World Investment Report (WIR), 2009, had noted a fall in global FDI inflows from a historic high of US\$1.979 trillion in 2007 to US\$1.697 trillion in 2008, a decline of 14 per cent. UNCTAD had subsequently predicted a fall in global FDI investment flows by 30 per cent, from US \$ 1.7 trillion in 2008 to US\$ 1.2 trillion in 2009. The Organization for Economic Cooperation and Development (OECD), in its report on investment, released in March 2010, had also noted significant stagnation in global investment activity due to the global economic crisis.

**Table 9.16 : Growth in FDI inflows**

Financial Year	As per International Practices*	Per-centage Growth	FDI Equity Inflows#	Per-centage Growth
2003-04	4.32	(-) 14%	2.23	(-) 18%
2004-05	6.05	(+) 40%	3.78	(+) 69%
2005-06	8.96	(+) 48%	5.97	(+) 58%
2006-07	22.83	(+) 155%	16.48	(+) 176%
2007-08 (P)	34.84	(+) 53%	26.86	(+) 63%
2008-09 (P)	35.18	(+)1%	27.99	(+)4%
2009-10 (P)	37.18	(+)6%	27.15	(+)3
2010-11 (April-Oct 2010)	14.9	-	12.62	-

Source : Office of the Economic Adviser, DIPP.

Note: \* As per Reserve Bank of India (RBI) estimates.  
# As per DIPP estimates.

**Table 9.17 : Sector-wise FDI Inflows into industry and infrastructure**

	(US \$ million)					
	1991-2002	2002-07	2007-08	2008-09	2009-10	2010-11 (Apr.-Nov)
Food Products	972.6	392.2	80.7	150.5	348.2	166.0
Fermentation Industries	51.1	216.3	270.1	144.7	112.0	18.0
Textiles	249.2	327.2	186.0	157.4	140.6	56.2
Wood Products	0.1	0.6	0.4	11.3	6.5	0.7
Paper	327.2	139.0	104.2	310.1	85.9	28.1
Leather	43.4	16.8	7.5	3.3	5.1	0.3
Chemicals	1810.4	1934.1	582.3	992.5	611.8	500.6
Rubber, Plastic, & Petroleum Products (including oil exploration)	342.1	464.7	1441.9	497.2	296.2	542.2
Non-metallic Minerals	515.8	877.9	143.0	944.2	45.6	279.1
Metals and Metal Products	223.0	548.7	1176.9	960.9	406.7	960.3
Machinery and Equipments	3092.4	6854.4	2645.7	2528.1	2515.3	1317.1
Transport Equipments	431.1	1130.8	674.8	1151.7	1176.6	533.0
Others Manufacturing	2834.2	1184.7	704.3	1566.1	1079.4	1232.6
Mining (including mining services)	7.8	55.8	458.3	34.4	174.0	75.1
Power*	1885.8	398.5	1011.2	1070.1	1935.2	1028.0
Telecommunications	2140.4	1505.9	1261.5	2558.4	2554.0	1029.8
<b>Total</b>	<b>14,926.0</b>	<b>16,047.6</b>	<b>10,748.5</b>	<b>13,080.8</b>	<b>11,493.0</b>	<b>7831.2</b>

Source: DIPP.

Note : Total excludes inflows to services sector and other NRI schemes;

\*=includes Non-conventional energy sector

9.37 FDI equity inflows, as a percentage of the GDP, grew from 0.37 per cent in 2003-04 to nearly 2.21 per cent in 2008-09. As a percentage of the GCF, they grew from 1.35 per cent to nearly 6.32 per cent during the same period. The 2009 survey of the Japan Bank for International Cooperation (JBIC), conducted among Japanese investors, continued to rank India as the second most promising country for overseas business operations, after China. The WIR, 2010, in its analysis of global trends and sustained growth of FDI inflows, has ranked India as the second most attractive location for FDI for 2010-12. According to it, the top five most attractive locations for FDI for 2009-11 are China, India, Brazil, the United States, and the Russian Federation. The WIR, 2009, had listed India as the third most attractive destination. For India to maintain its momentum of GDP growth, it is vital to ensure that the robustness of its FDI inflows is also maintained.

9.38 In FDI equity investments, Mauritius tops the list of first ten investing countries followed by the US, the UK, Singapore, Netherlands, Japan, Germany, France, Cyprus, and Switzerland. Among

the sectors attracting highest FDI are services, telecommunications, computer software and hardware, housing and real estate, and construction. Sectors like agricultural services, sea transport, and electrical equipment have shown a quantum jump in FDI inflows during 2009-10. Sector-wise FDI inflows into some of the key industrial and infrastructure sectors are given in Table 9.17.

## POLICY DEVELOPMENTS AND PROGRAMMES

### Textiles

9.39 The two flagship schemes of the Ministry of Textiles, namely the Technology Upgradation Fund Scheme (TUFS) and Scheme for Integrated Textile Parks (SITP), have been approved for continuation in the Eleventh Five Year Plan. TUFS, which was commissioned on 1 April 1999 with a view to facilitating the modernization and upgradation of the textile industry by providing credit at reduced rates to entrepreneurs both in the organized and the unorganized sectors, has been fine tuned to induce



rapid investments in the targeted segments of the textile industry. Under the scheme, an amount of ₹ 85,091 crore was sanctioned against project cost of ₹ 207,747 crore and loans worth ₹ 85,091 crore were disbursed to 28,302 applicants up to 30 June 2010(P). Under the SITP, 40 integrated textiles parks of international standards, covering the weaving, knitting, processing, and garmenting sectors with project proposals worth ₹ 4133.09 crore (of which assistance from the Government is ₹1419.69 crore) have been sanctioned. So far, eight textile parks have been inaugurated.

9.40 The Ministry of Textiles formulated a draft National Fibre Policy incorporating inputs from all the major stakeholders. The Policy has been designed with a decadal perspective (2010-20) and seeks to place India firmly on the world fibre map by strengthening the existing policy framework and providing institutional and technological support for rapid fibre growth in the country in the coming decade.

9.41 A new scheme, namely the 'Integrated Skill Development Scheme' for the textiles and apparel sector including jute & handicrafts, was launched on 5 August 2010 with the objective of capacity building of institutions providing skill development and training for workers in the textiles sector. The Scheme envisages an investment of ₹ 272 crore, of which the Government contribution would be ₹ 229 crore during 2010-11 and 2011-12 with a target of 2.56 lakh persons to be trained.

9.42 The Government of India has decided to include sericulture activities up to the stage of cocoon production along with extension system for cocoon production in agri-enterprises up to the stage of yarn production and marketing to be eligible for funding under the Rashtriya Krishi Vikas Yojana (RKVY). The benefits of the RKVY can now be availed of for improvement of the sericulture extension system, enhancement of soil health, development of rain-fed sericulture, and integrated pest management.

### Electronics and IT

9.43 Several Governments across the world, including in India, have devised e-Governance strategies and are employing technology applications in the delivery of public services. The National e-Governance Plan (NeGP) has been approved by the Cabinet in May 2006 with a vision to providing access to critical public services and promoting rural entrepreneurship. The NeGP consists of 27 Mission Mode Projects (MMPs) (9 Central, 11 State, and 7 Integrated) and 8 Support Components. Over

₹ 40,000 crore has been planned to be invested by the government to e-enable delivery of over 1100 services across the country in public private partnership (PPP) mode; to make available a converged backbone network for data, voice, and video communications throughout States/UTs, and to provide common secure IT infrastructure to host State-level e-Governance applications/data in order to enable seamless G2C, G2B, and G2C services. Significant progress has been made in creating these core e-infrastructures comprising State Wide Area Networks (SWAN), State Data Centres (SDC), State Service Delivery Gateways (SSDG), and one-stop shop front-end service access points—the Common Services Centres (CSCs).

9.44 The Government had decided to establish a National Knowledge Network (NKN) with scalable multiples of 10 Gbps capacity high speed data communication network. It will connect about 1500 nodes covering Institutions of higher learning, research, and governance. A core backbone consisting of 17 Points of Presence (PoPs) have been established. The total number of operational NKN core links is 37. Around 88 institutions of higher learning and advanced research have already been connected to the network and 15 virtual classrooms set up.

9.45 To maintain an edge there is need to be attentive and continuously work towards generating quality manpower. The Government announced the National Skill Development Policy in 2010 which has set a target of equipping 500 million with skills by 2022. The policy also aims at taking the advantage of the demographic dividend, i.e. increasing population of the working age group of 15 to 59 years in India. The Department of Information Technology (DIT) has been listed under the skill development initiative and given the target of training 10 million persons by the year 2022.

9.46 Recognizing the importance of nanotechnology, the DIT initiated a Nanotechnology Development Programme in 2004 with the objective of creating infrastructure for research in nanoelectronics and nanometrology at national level and also funding small and medium-level research projects in specific areas such as nanomaterials, nanodevices, carbon nano tubes (CNT), and nanosystems. A nanometrology laboratory is being set up at the National Physical Laboratory, Delhi. The facilities created at the Indian Institute of Science, Bangalore (IISc), and Indian Institute of Technology, Powai (IITP), are made available to



researchers in the country through the Indian Nanoelectronics Users Programme (INUP) through which more than 40 organizations are already accessing these facilities from all over the country for R&D activities.

9.47 In order to promote indigenous production of medical electronic equipment in the country, the DIT has been supporting technology development activities for the development of diagnostic, therapeutic, and related medical electronic devices. Under the Jai Vigyan Mission (JVM), six JMV integrated medical linear accelerators (linac) for cancer treatment have been developed and deployed at the Mahatma Gandhi Institute of Medical Sciences (MGIMS), Wardha, and Regional Cancer Centre (RCC), Adyar, and are being used for treatment of cancer patients and four more machines are under development for deployment in other hospitals in the country. Telemedicine centres have been set up in the rural and remote areas of Tripura, Punjab, Himachal Pradesh, West Bengal, Kerala, and Tamil Nadu and tele-consultations been provided through these centres to patients in remote areas.

9.48 For alignment of IT process with business processes and for IT to deliver the correct and appropriate business solutions, there is a need for quality assurance in the field of electronics and IT in the country. This is being carried out by the Directorate of Standardization, Testing and Quality Certification (STQC) of the DIT. It provides testing, calibration, training, and certification services through its well-developed network of test laboratories spread across the country including the north-east region. These services have been primarily utilized by small and medium-scale industries and so far more than 10,000 organizations have availed of them.

9.49 For deriving economic benefits from an IT-led society, a holistic approach was made towards e-commerce and information security with the passage of the Information Technology Act 2000 and its amendment in 2008. The Indian Computer Emergency Response Team (CERT-In) has been designated as nodal agency for coordinating all matters related to cyber security and emergency response.

## MSMEs

9.50 The report of the Task Force on Micro, Small and Medium Enterprises, presented to the Hon'ble PM on 30<sup>th</sup> January, 2010, provides a roadmap for

the development and promotion of MSMEs. The detailed recommendations cover six major thematic areas, namely credit, marketing, labour, rehabilitation and exit policy, infrastructure, technology and skill development, and taxation as also special measures for the north-eastern region and Jammu and Kashmir. The implementation of these recommendations is being monitored periodically by the Steering Group constituted under the chairmanship of Principal Secretary to the Prime Minister. Further, a Council on Micro, Small and Medium Enterprises under the chairmanship of the Prime Minister has been set up to lay down broad policy guidelines and review the development of the MSME sector.

9.51 The National Manufacturing Competitiveness Programme (NMCP) is the nodal programme of the Government of India for developing global competitiveness among Indian MSMEs through improvement in their processes, designs, and technology and market access. With the balance three schemes operationalized this year, all its ten components are now under implementation. These ten components include Building Awareness on Intellectual Property Rights for MSMEs, Scheme for providing Support for Entrepreneurial and Managerial Development of SMEs through Incubators, Enabling the Manufacturing Sector to be Competitive through Quality Management Standards and Quality Technology Tools (QMS/QTT), Mini Tool Rooms under PPP mode, Marketing Assistance Support to MSEs (Bar Code), Lean Manufacturing Competitiveness Programme for MSMEs, Promotion of Information & Communication Tools (ICT) in the Indian MSME Sector; Design Clinics Scheme for MSMEs, Marketing Assistance and Technology Upgradation Scheme for MSMEs, and Technology Quality Upgradation Support to MSMEs.

9.52 In line with the overall target set by the Prime Minister's National Council on Skill Development, the Ministry of MSME has taken up skill development as a high priority area. The agencies under the Ministry will conduct skill development programmes for about 4.16 lakh trainees during 2010-11. Further, the Ministry aims to train 4.78 lakh trainees in the year 2011-12 through its various programmes for the development of self-employment opportunities as well as wage employment opportunities in the country.

9.53 The Government has adopted the cluster approach as a key strategy for enhancing the

productivity and competitiveness as well as capacity building of MSEs and their collectives in the country. The guidelines of the MSE Cluster Development Programme have been comprehensively modified to provide higher support to the MSEs. During 2010-11, 12 new clusters were taken up for diagnostic study, 11 new clusters for soft interventions, and 6 clusters approved for setting up of common facility centres (CFCs). With this, a total of 471 clusters spread over 28 States and seven UTs have so far been taken up for diagnostic study, soft interventions, and setting up of CFCs and efforts are under way to cover more and more clusters from all the States/UTs.

9.54 Under the Credit Guarantee Fund Scheme for Micro and Small Enterprises, over 1.5 lakh MSE proposals for an amount of ₹ 7568 crore have been approved for extending loans without collateral/third-party guarantee during the year (up to November 2010)—thereby registering a growth of over 150 per cent in terms of number of proposals and over 200 per cent in terms of credit amount over the corresponding period of last year. Cumulatively, about 4.50 lakh MSE proposals for loans of ₹ 18,946 crore have been approved under the scheme up to November 2010.

9.55 Under the Credit Linked Capital Subsidy Scheme, 15 per cent capital subsidy is provided upfront on loans subject to a maximum of ₹ 15 lakh, for technology upgradation through adoption of well-established and improved technologies approved under the Scheme. The ambit of the Scheme was recently enlarged to include 201 new technologies, including 179 in the pharmaceutical sector. During the year (upto November 2010) 1963 MSEs have been assisted and subsidy amounting to ₹ 117.3 crore has been sanctioned.

9.56 Under the Prime Minister's Employment Generation Programme (PMEGP) launched in August 2008, over 2.65 lakh applications have been received up to November 2010, of which 1.13 lakh have been selected by the District Level Task Force concerned for assistance. Financial assistance for 30,881 projects has been sanctioned by banks and loans were disbursed in 23,059 cases which will give employment to about 2.31 lakh persons. It is expected that 6 lakh additional employment opportunities will be generated in 2010-11.

9.57 A flexible growth stimulating and artisan-centric scheme named Market Development Assistance (MDA) to promote production and sales

of khadi and polyvastra has been introduced from 2010-11. The scheme provides for assistance up to 20 per cent of the value of production to be shared among artisans, producing institutions, and selling institutions in the ratio 25:30:45.

9.58 The Government has tied up financial aid from the Asian Development Bank (ADB) amounting to US\$150 million over a period of three years for implementing a comprehensive Khadi Reform Programme worked out in consultation with the ADB and Khadi and Village Industries Commission (KVIC). Under this reform package, it is proposed to revitalize the khadi sector with enhanced sustainability of khadi, increased incomes and employment for artisans, and artisans' welfare and to enable the KVIC to stand on its own with gradually decreasing dependence on Government grants. Initially, the programme will be initiated in 300 khadi institutions keeping the needs of regional balance, geographical spread, and inclusion of backward areas in view. The first tranche fund of ₹ 96 crore has already been released to the KVIC for implementation of the programme.

## CPSEs

9.59 With a view to delegating enhanced financial and operational powers to the CPSEs, the Government had introduced the Navratna and Miniratna schemes. During 2010-11, the Government has introduced the Maharatna scheme to empower mega Navratna CPSEs to expand their operations both in domestic as well as foreign markets. During the year, four CPSEs, namely Indian Oil Corporation Ltd., National Thermal Power Corporation Ltd., Oil and Natural Gas Corporation Ltd., and Steel Authority of India Ltd., were granted Maharatna status. Two more CPSEs, i.e. Oil India and Rashtriya Ispat Nigam Ltd., were granted Navratna status in 2010-11 and there are now 16 Navratna CPSEs as a result. Three more CPSEs, namely the Bridge & Roof Company Ltd., Bharat Pumps & Compressors Ltd. and National Seeds Corporation Ltd., were granted Miniratna status during the year and presently there are 62 Miniratna CPSEs.

9.60 Besides endeavouring to professionalize the Boards of Directors of these enterprises, the Government has issued guidelines on corporate governance of CPSEs. The Government, furthermore, established the Board for Reconstruction of Public Sector Enterprises (BRPSE) in December

2004 to advise the Government, inter alia, on revival / restructuring of sick and loss-making CPSEs. The BRPSE has made recommendations in respect of 62 cases until 31 December 2010. The Government, in turn, has approved the proposals for revival of 40 CPSEs and closure of two. The total assistance approved by the Government in this regard up to 31 December 2010 has been ₹ 23,612 crore, of which ₹ 3,290 crore comprises cash assistance and ₹ 20,322 crore non-cash assistance. Out of 20 revived CPSEs (which posted profit in 2008-09), 11 have been posting profit consistently for three years.

## Tourism

9.61 The Ministry of Tourism is making concerted efforts for development of nationally and internationally important destinations and circuits through Mega Tourism Projects. These projects are a judicious mix of cultural, heritage, spiritual, and eco tourism in order to give tourists a holistic experience. The Ministry is also combining with other Central Government ministries such as Railways, Civil Aviation, Road Transport & Highways, Food Processing and Urban Development as well as the concerned State Governments to achieve convergence and synergy with their programmes so that the impact of investment in these destinations is maximized.

9.62 The Visa-on-Arrival (VoA) scheme was started in the country from January 2010 on pilot basis for nationals of five countries, namely Finland, Japan, Luxembourg, New Zealand, and Singapore. A total of 5644 VoAs were issued during January-November 2010. The scheme is being extended to nationals of five more countries, namely Cambodia, Laos, Phillipines, Myanmar, and Vietnam from January 2011.

9.63 The Reserve Bank of India has delinked credit for hotel projects from real estate, thereby enabling hotel projects to avail of credit at relaxed norms and reduced interest rates.

9.64 The Ministry of Tourism has adopted the Code of Conduct for 'Safe & Honourable Tourism' in July 2010 essentially to strengthen the critical pillar of 'Suraksha' (Safety) and ensure that Indian tourism follows international standards of safe tourism practices, applicable to both tourists and local residents, i.e. local people and communities who may be impacted by tourism in some way. The Code has been formed to sensitize travellers and the travel industry, close all possibilities of exploitation,

specifically of women and children, and make India a safe tourism destination. As a follow-up of the efforts of the Ministry of Tourism to develop Sustainable Tourism Criteria, a Pledge for Commitment towards Safe, Honourable, and Sustainable Tourism was taken by the stakeholders of the travel trade and hospitality industry on World Tourism Day, 27 September 2010.

9.65 The Ministry of Tourism continued promotional efforts under the 'Incredible India' campaign in overseas and domestic markets. Emphasis was also laid on social awareness campaigns in the domestic market to sensitize the masses and various stakeholders to the importance of tourism.

## Fertilizers

9.66 The Government is examining the feasibility of revival of Hindustan Fertilizer Corporation Ltd. (HFCL) and Fertilizer Corporation of India Ltd. (FCIL), subject to confirmed availability of gas. An Empowered Committee of Secretaries, constituted to look into the various financial models for revival of the closed units, has submitted its recommendations. Various modules of revivals are under consideration. Proposals are under consideration for revamp of Madras Fertilizers Limited (MFL).

9.67 The concession scheme for decontrolled P & K fertilizers which was allowed to continue by the Government from 1992 to 31 March 2010 was changed to a Nutrient Based Subsidy scheme (NBS) with effect from 1 April 2010, whereby for P & K fertilizers, the Government has announced subsidy per kg of nutrients N, P, K, and S as well as per MT of fertilizers under the NBS during 2010-11 and 2011-12. The Government has also provided additional subsidy on fertilizers fortified with secondary and micro-nutrients, namely boron and zinc. An additional subsidy of ₹ 300 and ₹ 500 per tonne respectively has been sanctioned for boron- and zinc-fortified fertilizers. With the objective of providing a variety of subsidized fertilizers to farmers depending upon soil and crop requirements, the Government has included three new grades of complex fertilizers under the NBS, namely NP 24-24-0-0, NPK 16-16-16-0, and NPKS 15-15-15-09, in 2010-11.

9.68 Under the NBS, freight subsidy on decontrolled P & K fertilizers (except SSP) for rail movement is being paid as per the actual claim. The secondary freight is also paid. Freight for direct road movement from plant or port is subject to lower

of the actual claim or the equivalent rail freight up to a maximum distance of 700 km with effect from 1<sup>st</sup> January 2011. Manufacturers have been allowed to fix the maximum retail price (MRP) of boronated SSP higher than that of powered or granulated SSP. To ensure easy availability of fertilizers in all parts of the country, a uniform freight subsidy policy has been announced under which rail freight is paid on actual basis and road freight on a normative average district lead for urea.

9.69 The Government has placed 20 per cent of produced/imported decontrolled P & K fertilizers under the control of Department of Fertilizers under the Essential Commodities Act 1955 with the objective of making fertilizers available in the difficult areas. In order to improve availability of fertilizers in the country, import of all the subsidized fertilizers has been permitted.

9.70 The manufacturers of customized and mixture fertilizer are allowed by the Government to source the subsidized fertilizers from the manufacturers/importers after their receipt in the districts. With a view to ensuring adequate availability in the country and the subsidy paid, the Government has put the export of DAP and MOP in the restricted category to discourage exports and illegal diversion. Steps are being taken to put all P & K fertilizers under the restricted category. Possibilities for setting up of joint venture ammonia/urea projects in countries abroad where adequate gas is available are being explored. Indian entities are in dialogue for joint ventures in the field of phosphatic and potassic fertilizers in resource-rich countries.

### Steel Sector

9.71 The World Steel Association forecast for steel consumption in India is optimistic, indicating that India's steel demand is likely to grow by 8.2 per cent in 2010 and 13.6 per cent in 2011. For 2010-11, with Indian GDP likely to register steady growth and provided that the current performance trends of its major end-use segments (manufacturing, construction, consumer durables including automobiles, capital goods) are sustained, consumption of finished steel is likely to end the year with 9 per cent growth.

9.72 Responding to the improving economic outlook, the Government rolled back the earlier-effected reduction in excise duty, leading to a hike in the duty rate from 8 per cent to 10 per cent. Import of hot rolled coils was also moved from the restricted

to the free list. However, most of the other policy measures adopted to safeguard the economy during the recessionary period like removal of export duty on steel remain in place. At the same time, the government has set up an Inter-Ministerial Group to facilitate interaction between investors and various agencies in matters of acquisition of land, mining rights, power, and transportation including rail, road, and port sectors.

## SOME CRITICAL DIMENSIONS OF INDUSTRIAL DEVELOPMENT

### Recent trends in industrial pollution

9.73 Industrial effluents comprising organic pollutants, chemicals and heavy metals and run-off from land based activities such as mining are a major source of water pollution. The major water-polluting industries include fertilizers, refineries, pulp and paper, leather, metal plating, and other chemical industries. Continued monitoring by the Central Pollution Control Board (CPCB) and State Pollution Control Boards of water quality of aquatic resources has revealed that organic pollution continues to be predominant pollutant of aquatic resources. Based on the primary water quality criteria evolved in terms of bio-chemical oxygen demand (BOD), 150 stretches on 105 rivers have been identified as polluted.

9.74 Rapid industrialization and urbanization have also resulted in increase in pollution load on rivers. According to CPCB estimates, against an estimated sewage generation of about 38,254 million litres per day (mld) from Class I cities and Class II towns of the country, the available treatment capacity is for 11,787 mld, indicating a wide gap between sewage generated and treatment capacity created. Discharge of untreated waste water constitutes a major source of pollution load for the rivers.

9.75 Existing pollution abatement infrastructure in the country provides adequate treatment facilities to various streams of pollution generated by industries. Fly-ash, phospho-gypsum, and iron and steel slags are the main forms of Industrial solid wastes generated in India. It is estimated that around 112.29 million tonnes of fly-ash is generated annually by thermal power plants, of which only 53.92 million tonnes is utilized by different sectors like cement, road embankments, fly ash bricks and products, and back filling of mines. Besides, there are 36,145 hazardous-waste- generating industries in the



country producing 6.2 MT hazardous waste every year, brought about by expansion of chemical-based industries. It is further estimated that 1.47 lakh MT of e-waste was generated in the country in 2005, which is expected to increase to about 8.0 lakh MT by 2012. Presently there exist 23 e-waste recycling units with 90,000 MTA capacity.

### Current programmes and policy

9.76 The Government has notified emission and effluent standards for relevant pollutants for 74 categories of processes and industries, including 17 categories of highly polluting industries under the Environment (Protection) Act 1986. The concerned State Pollution Control Boards / Authorities along with the CPCB monitor the discharges from these units. A total number of 2504 units have been identified under these 17 categories, out of which 1810 have set up pollution control facilities to comply with standards, 265 are defaulting, and 429 have been closed.

9.77 There exists a charter on Corporate Responsibility for Environmental Protection (CREP) covering 17 categories of highly polluting industries. Industrial-sector-specific action points for each category were identified and listed for implementation after consulting various stakeholders.

9.78 Other measures taken by the Government towards effective control of industrial pollution include inspection and enforcement of emission and effluent standards through issue of directions and consent mechanism, mandatory prior environmental clearance for designated development projects, financial assistance for establishment of CETPs for small-scale industrial units located in industrial clusters, identification of critically polluted areas, and preparation of action plans for abatement of pollution.

9.79 Prior environmental clearance of development projects based on environmental impact assessment is mandatory for designated sectors/projects. Various steps, including involvement of stakeholders through public hearings, have been taken to bring greater transparency and professionalism in the granting of environmental clearances. Status of projects appraised in 2010 is displayed in Table 9.18.

### Labour relations

9.80 Due to constant endeavour of the industrial relations machineries of both the Centre and States, the industrial relations climate has generally remained peaceful and cordial. The number of incidences of strikes and lockouts has exhibited a declining trend over the past few years. Strikes and lockouts have declined from 349 in 2009 (P) to 99 in 2010(P). Correspondingly, the total number of man-days lost has also declined from 9,169,037 in 2009 to 1,699,826 in 2010(P) (Table 9.19).

9.81 As regards spatial/industry-wise dispersions of incidences of strikes, lockouts, there exist

**Table 9.19 : Strikes and Lockouts (man-days lost )**

Year	Strikes	Lockouts	Total Man-days lost
2005	227	229	2,96,64,999
2006	243	187	2,03,24,378
2007	210	179	2,71,66,752
2008(P)	240	181	1,74,32,965
2009(P)	157	192	91,69,037
2010(P)	79	20	16,99,826

Source : Labour Bureau, Ministry of Labour

**Table 9.18 : Projects appraised during April-November 2010**

Nature of Project	Cleared		Pending		Rejected/ Returned/ withdrawn EC TOR
	EC	TOR	EC	TOR	
1. Industry	150	288	104	172	85
2. Thermal power	32	71	23	90	33
3. River valley and Hydroelectric	07	24	10	10	01
4. Mining (Coal & Non Coal)	72	152	80	153	40
5. Infrastructure, construction & Industrial Estates	125	58	105	58	00
6. Nuclear	01	01	00	03	03
<b>Total</b>	<b>387</b>	<b>594</b>	<b>322</b>	<b>486</b>	<b>162</b>

Source: Ministry of Environment and Forests.

Notes: EC – Environmental clearance; TOR - Terms of Reference

widespread variations among different States/UTs. The maximum incidences were recorded in the State of Gujarat. Wage and allowance, bonus, personnel, indiscipline and violence, and financial stringency were the major reasons for these strikes and lockouts.

## CHALLENGES AND OUTLOOK

9.82 Looking at IIP data for the past few months, in the short-term the industrial sector is likely to grow at moderate but sustainable rates. Continued buoyancy in corporate sales, comparatively higher credit flow to industry, larger number of investment intentions across all major industries and States, accelerated growth in some sectors, and robust merchandise exports so far are likely to sustain industrial activities in the remaining months of the financial year. Over the medium to long term, to sustain double-digit output growth and reduce the vulnerabilities of the sector, there is need to put in place a policy framework for embarking on another round of multifaceted reforms.

9.83 The latest available data on bank credit and the financial resources from non-bank sources flowing to the industrial sector indicate increased investment activities in the sector. Gross banking credit to the industrial sector net of infrastructure has increased by 20.0 per cent in November 2010, compared to 4.6 per cent during the corresponding period of the previous year. At the same time increasing cost of financing and slowdown in the flow of FDI equity inflows during the current financial year are causes of concern. Long-term foreign investment supplements the domestic investable funds and eases the liquidity crunch that constricts the sector from time to time. Industrial credit to MSEs in the manufacturing sector grew at 16.9 per cent in November 2010, marginally lower compared to last year. For medium to long-term sustainable robust growth, availability and ease of credit flow to the industrial sector in general and MSE sector in particular is critical. The MSE sector seems to be relatively less favourably placed in terms of credit availability and credit cost of working capital as compared to the medium and large scale industrial and services sectors. This persistent bias needs to be corrected.

9.84 The manufacturing sector, despite being the driver of industry, has not grown significantly over time in terms of its share in the GDP. The share of Indian manufacturing in world manufacturing is also

less than 1.4 per cent. The growth of manufacturing is crucial for employment generation, augmentation of domestic supply, resource utilization and value addition, and for sustainable growth of exports. Neglect of research and development (R&D) in new technology and skill development continues to shackle growth in the manufacturing sector. High technology base and skilled manpower are crucial for enhancing manufacturing competitiveness in the globalized economy. For many of the economically successful emerging economies, promotion of manufacturing has been a key objective. Some of these countries like South Korea have become technological giants solely on the basis of indigenous learning, skill, and R&D effort. China has been the most successful in building the world's largest manufacturing base by giving special attention to technology development and by gearing FDI policy to promote technology transfer. All of these countries have also laid emphasis on making their SME sector highly competitive and the driver of technology. There is a strong case for enhancing public investment and building PPP in the R&D in skill and technology development.

9.85 Manufacturing inflation so far has been benign compared to overall inflation. Point to point manufactured products inflation rate for the month of December 2010 was 4.46 per cent as compared to 3.61 per cent a year ago. But the domestic prices of minerals, mineral oil, electricity, and other inputs (except coal) are on the rise partly due to the hardening of international commodity prices. Persistent high inflation is also leading to rise in average wages and this may impact labour-intensive industries such as textiles and leather etc. In the short to medium term, rising input costs may undermine the competitiveness of some sectors and also dampen domestic and foreign demand.

9.86 Overall production of the six core industries, namely crude oil, petroleum refinery products, coal, electricity, cement, and finished steel, has marginally gone up so far during this financial year but there is a huge gap in terms of the required capacity addition needed to catch up with the projected demand in some sectors. There has not been significant capacity addition in some of the core industries. Likewise slow rate of capacity addition in physical infrastructure sectors is constricting industrial sector growth. Capacity addition in core sectors and removal of infrastructure bottlenecks would spur industrial sector output in the medium to long term.