

## PERFORMANCE OF MANUFACTURING SUBGROUPS

8.6 The following analysis highlights the growth performance of industrial groups at the two-digit level with emphasis on the high-weighted items that have driven growth or decline within each group. In addition, sectoral production data have been used to supplement the analysis.

### Food products

8.7 As per the IIP data, food products grew at 6.8 per cent during April-November 2007 compared to 2.5 per cent during April-November 2006. This has been largely due to the phenomenal growth of 57.9 per cent in the production of sugar, which has the highest weight in the "food product" group. Among other high-weight items, production of milk powder declined about 10 per cent, while wheat flour/maida showed an indifferent growth of 1.3 per cent. Vegetable oils in general witnessed a visible decline in production during April-November 2007. Vegetable oils mostly experienced high levels of inflation during 2007. While the production of tea and biscuits declined slightly, chocolates and

sugar confectionaries grew by 7.8 per cent during the period.

### Beverages, tobacco & related products

8.8 The IIP data indicate that the beverages and tobacco group recorded growth in excess of 10 per cent during the last three years from 2004-05 to 2006-07 and their growth of 9.5 per cent during April-November 2007 came on top of this strong base. Among beverages, the intoxicant categories including beer, Indian-made foreign liquor and country liquor grew in the range of 8 to 11 per cent during April-November 2007. Rectified spirit grew at 21.1 per cent and soft drinks and soda at 4 per cent during the period. The production of cigarettes grew by 4.7 per cent during the period.

### Textiles

8.9 The IIP data show that during April-November 2007, cotton textiles grew by 5.5 per cent (cotton yarn by 5.7 per cent and cotton cloth by 4.2 per cent), wool, silk and man-made fibre textiles by 4.5 per cent, jute textiles by 13.3 per cent and textile products by 4.9 per cent, compared to the corresponding period in 2006 (Table 8.3).

**Table 8.4 Drivers of manufacturing growth during April-November 2007**

Industrial items	IIP weight adjusted to manufacturing =100	Growth (%) April- Nov. 2007	Contribution to manufacturing growth (%)
<b>Drivers of manufacturing growth during April-November 2007</b>			
Iron & steel group	5.92	16.60	10.02
Insulated cables/wires, telecom cables, etc	0.83	157.20	8.60
Wood products	3.40	72.60	7.36
Filament yarn, polyester/viscose staple fibre, etc	3.89	12.40	6.22
Hair oil	0.32	15.10	5.96
Sugar	2.83	57.80	4.80
Syringes	0.51	23.40	4.12
Laminates, PVC pipes & tubes, etc	2.32	22.10	3.80
Computer systems & peripherals	0.50	36.50	3.50
Rectified spirit, beer, Indian-made foreign liquor	1.16	11.30	3.48
Laboratory & scientific equipments	0.55	43.10	3.24
Adhesives, gelatine	0.21	22.30	2.91
Protection systems/switch board/switch gear, etc	0.70	8.90	2.85
CR sheets, HR sheets and pipes & tubes	0.43	26.10	2.51
Commercial vehicles, jeeps, passenger cars	0.75	13.90	2.46
<b>Dampeners of manufacturing growth during April-November 2007</b>			
Cine film, X-rays, photo/roll film	0.35	-34.40	-1.20
Ball & roller bearings, gear boxes	0.67	-13.60	-1.20
Telephone instruments	0.78	-22.70	-2.06
Auto, motorcycles, scooters	1.32	-7.80	-2.82

**Table 8.5 Production of fabrics (million square metres)**

Sector	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08(P) (April-Dec.)
Mills	1,496 (-3.2)	1,434 (-4.1)	1,526 (6.4)	1,656 (8.5)	1,746 (5.4)	1,308 (-1.3)
Powerlooms (incl.hosiery)	33,835 (4.9)	34,794 (2.8)	37,437 (7.6)	41,044 (9.6)	44,383 (8.1)	34,142 (3.0)
Handlooms	5,980 (-21.2)	5,493 (-8.1)	5,722 (4.2)	6,108 (6.7)	6,536 (7.0)	5,210 (7.5)
Others	662 (2.8)	662 (0.0)	693 (4.7)	769 (11.0)	724 (-5.9)	543 (0.0)
<b>Total</b>	<b>41,973 (-0.1)</b>	<b>42,383 (1.0)</b>	<b>45,378 (7.1)</b>	<b>49,577 (9.3)</b>	<b>53,389 (7.7)</b>	<b>41,203 (3.4)</b>

Source: Monthly Report O/o Textile Commissioner, Mumbai.

P = Provisional

8.10 Overall, the production of textile fabrics increased by 7.7 per cent during 2006-07 and then recorded a slower growth of 3.4 per cent up to December 2007 on year-on-year basis (Table 8.5).

8.11 During 2006-07, textile exports recorded an increase of 6.9 per cent over 2005-06. During April-October 2007, textile exports increased marginally by 1.49 per cent on year-on-year basis (Table 8.6). Though the textile sector seemed to have gathered momentum consequent to the

termination of the quota regime in December 2004, yet the export performance of the Indian textiles continues to lag substantially behind that of China in the post-quota era in terms of rate of growth of exports and share in world textile exports. Despite steady growth in production, the textile industry has been plagued by factors like high transaction and power costs, technological obsolescence and labour issues.

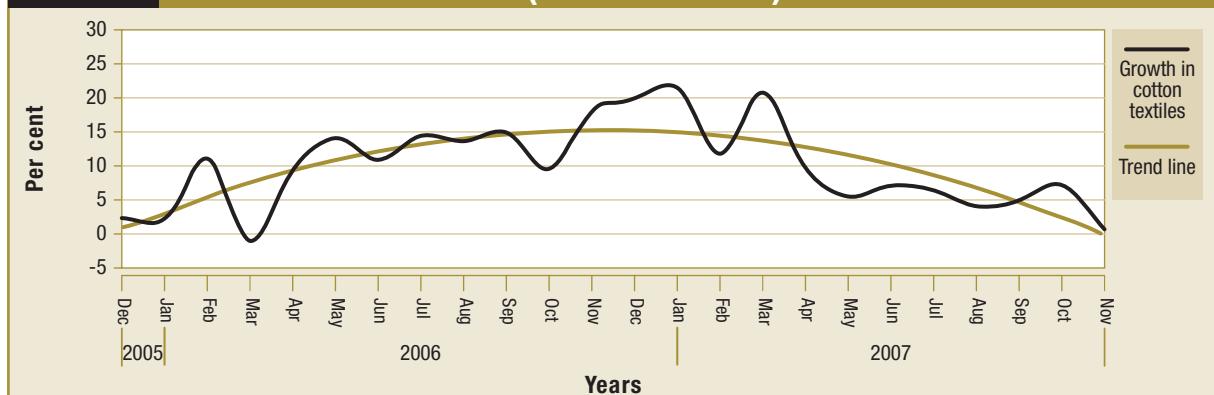
8.12 Figure 8.3, based on the IIP data, suggests that the production of cotton textiles

**Table 8.6 Export of textiles (US\$ million)**

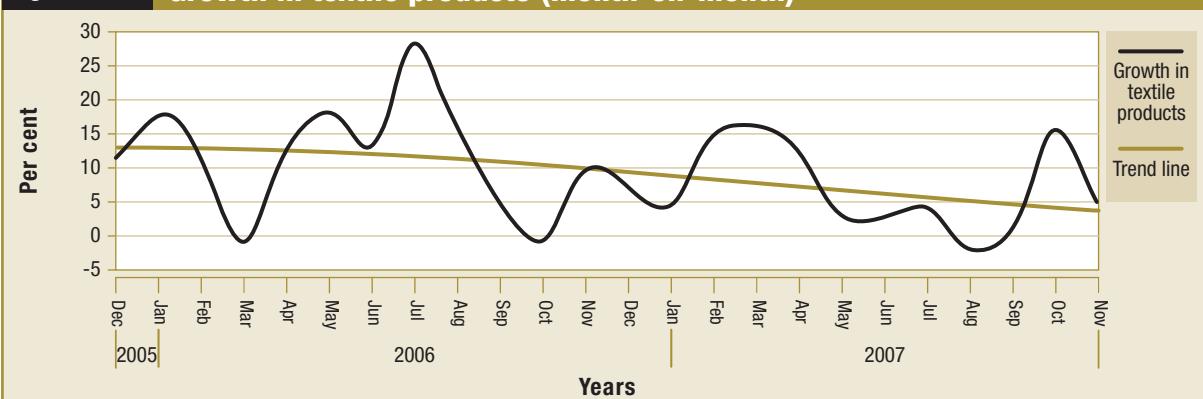
Item	2004-05	2005-06	2006-07 (P)	April- October		Growth '07(%)
				2006	2007 (P)	
Ready-made garments	6,024.5	7,986.4	8,075.6	4643.6	4413.9	-4.95
Cotton textiles	3,544.2	4600.8	5,485.0	2817.0	2816.3	-0.03
Wool & woolen textiles	417.1	455.9	445.5	271.3	377.5	39.14
Man-made textiles	2,050.7	2,039.6	2,361.2	1328.5	1689.9	27.20
Silk	594.6	693.3	689.6	395.4	384.8	-2.68
Handicrafts	1,013.9	1,314.5	1,259.2	803.8	719.2	-10.52
Coir & coir manufactures	105.6	133.4	156.4	80.5	92.2	14.62
Jute goods	276.3	296.3	257.5	176.4	179.0	1.48
<b>Grand Total</b>	<b>14,026.7</b>	<b>17,520.1</b>	<b>18,729.9</b>	<b>10,516.5</b>	<b>10,672.8</b>	<b>1.49</b>

Source: DGCIS, Kolkata

P= provisional

**Figure 8.3 Growth in cotton textiles (month-on-month)**

**Figure 8.4 Growth in textile products (month-on-month)**



may have been affected considerably by the recent appreciation of rupee against US dollar. Textile products may also have been affected to a lesser extent (Figure 8.4).

8.13 Two flagship schemes of the Ministry of Textiles, namely, the Technology Upgradation Fund Scheme (TUFS), launched in 1999, and the Scheme for Integrated Textile Parks (SITP), launched in 2005, have been approved for continuation in the Eleventh Five Year Plan. Under TUFS, loans worth Rs. 27,449 crore were disbursed to 10,216 applicants up to March 2007. Under SITP, 30 integrated textile parks of international standards, covering weaving, knitting, processing and garmenting sectors with project proposals worth Rs. 2,893.42 crore (of which assistance from the Government is Rs. 1,054.76 crore) have been sanctioned. These projects are likely to be completed by March 2008.

8.14 The fiscal duty structure has been generally rationalized to achieve growth and maximum value addition within the country. Except for mandatory excise duty on man-made filament yarns and man-made staple fibres, the whole value addition chain has been given an option of excise exemption. For those opting to pay the duty and thereby avail of duty credit, the applicable rate of excise duty is 4 per cent for cotton textile items (i.e. yarns, fabrics, garments and made-ups) and 8 per cent for all other textile goods. The Government has de-reserved hosiery and knitwear from the small-scale industries sector.

8.15 To tide over the difficulties arising out of the steep upsurge in rupee value, the Government

announced a set of measures in July 2007 to provide relief to exporters by way of accelerated reimbursement of dues, reduction in the interest rate on pre-shipment and post-shipment credit and revision in drawback rates and Duty Entitlement Pass Book (DEPB) rates. In addition, the Government also notified refund of service tax to exporters for use of services not in the nature of "input services". A further set of measures was announced in October 2007 extending service tax relief for more services and extending the period of interest subvention on pre-shipment and post-shipment credit for more sectors.

8.16 Besides, in November 2007, the Government announced another package which reduced basic customs duty on certain items relating to the textiles sector and extended refund of service tax paid by exporters on taxable services linked to exports. A support package for providing relief to export sectors, like textiles, which have low import intensity, was also announced with additional subvention of 2 per cent in pre-shipment and post-shipment credit to textiles including ready-made garments and carpets but excluding man-made fibre.

### Wood and wood products

8.17 Wood products, represented by particle boards and commercial plywood in the Index of Industrial Production, have had the highest rates of growth among all industrial groups during April-November 2007. Growth has been noteworthy for both the items; the monthly growth profile has been particularly consistent and impressive for particle boards.

### Paper and paper products

8.18 Paper and paper products have been subject to wide annual fluctuations in growth. After growing at 15.6 per cent and 10.5 per cent, respectively, during 2003-04 and 2004-05, their growth came down to -0.9 per cent during 2005-06. The rate of growth picked up to 8.7 per cent during 2006-07, but dropped to 1.6 per cent during April-November 2007. As per the IIP data, most items in this product group including machine-made pulp, paper and paper boards and bleached newsprint, showed indifferent growth/decline during April-November 2007.

8.19 The Eleventh Five Year Plan document has observed that despite the fact that India is self-sufficient in most forms of paper, the industry is affected by difficulties like high production cost, problems related to handling pollution, less than acceptable quality and shortage of raw materials, forcing their increased imports.

### Leather and leather products

8.20 Leather products, which contribute significantly to employment generation and export earnings, registered an impressive 12.2 per cent growth during April-November 2007. The Western type leather footwear grew at 21.1 per cent, while the Indian type leather footwear and finished leather had visibly lower growth during April-November 2007, as per the IIP production data. The (un-deflated) value of production of leather garments grew close to 30 per cent during the period, while the production of shoe uppers grew at 12.4 per cent.

8.21 The Inter-Ministerial Group constituted to evolve a comprehensive strategy for the development of the sector assessed that India has the potential to step up its leather exports from US\$ 2.7 billion in 2006-07 to US\$ 7 billion in 2011-12, with footwear accounting for the largest growth (Planning Commission). At the same time, the Eleventh Five Year Plan document has identified inadequate raw material base, low capacities and outmoded technologies of tanneries, constraints faced by small units in complying with rigorous environmental standards, shortage of skilled and semi-skilled workforce, inability of the industry to meet international requirements of quantity and variety and inadequate transport infrastructure as challenges to be overcome by the industry.

### Chemical industry

8.22 The chemical industry, which includes basic chemicals and its products, petrochemicals, fertilizers, paints and varnishes, gases, soaps, perfumes and toiletries, and pharmaceuticals, is one of the most diversified of all industrial sectors covering more than 70,000 commercial products.

8.23 The fertilizer industry has seen a slowdown during April-November 2007. The index of production of nitrogenous fertilizers and phosphatic fertilizers declined by 4.4 per cent and 11.5 per cent during the period from their levels during April-November 2006. The Eleventh Five Year Plan document notes that the productive capacity of the fertilizer industry remained stagnant during the Tenth Five Year Plan on account of the absence of fresh investment and that this, along with growing fertilizer consumption, has led to increasing supply-demand imbalances. The challenges faced by the industry include addressing the issues of insufficient domestic availability of raw materials like rock phosphates, inadequate port and transport infrastructure to handle large volume of imports and bulk movement of fertilizers and difficulties in converting non-natural gas-based units into natural gas units. The most important factor is the distorted incentive structure inherent in the system of fertilizer and related subsidies, which has been analyzed by a number of commissions over the decades.

8.24 As per the Index of Industrial Production, the "basic chemicals and chemical products" group grew by 9.4 per cent during April-November 2007. The heavy-weight drivers of growth during the period include items like organic pigments, adhesives, hair oil, vitamin C, filament yarn, polyester fibre and viscose staple fibre, while items like nitrogenous fertilizers, phosphatic fertilizers, ampicillin and photo films acted as dampeners.

8.25 Among the major chemicals, while the rate of growth of inorganic chemicals accelerated during 2006-07, the growth of organic chemicals and alkali chemicals tapered off (Table 8.7).

8.26 Petrochemicals mainly comprise synthetic fibres, polymers, elastomers, synthetic detergent intermediates and performance plastics. The average annual rate of growth of production of polymers and synthetic fibres that constitute the major part of production of petrochemicals has been considerably higher during 2006-07 than

**Table 8.7 Production of major chemicals (production in 000' MT, growth in per cent)**

Sector	Production					Annual growth	
	2002-03	2003-04	2004-05	2005-06	2006-07	2002-03 to 2006-07 <sup>a</sup>	2006-07
Alkali chemicals	4,792	5,070	5,272	5,475	5,269	4.0	-3.8
Inorganic chemicals	404	441	508	544	602	10.0	10.7
Organic chemicals	1,353	1,474	1,506	1,545	1545	5.8	0.0
Pesticides (Tech.)	70	85	94	82	85	0.7	3.7
Dyes & dyestuffs	26	26	28	30	33	5.4	10.0

Source: Ministry of Chemicals &amp; Fertilizers.

<sup>a</sup> Compound annual growth rate.

during the five-year block of 2002-03 to 2006-07 (Table 8.8). The production of polymers accounted for almost 63 per cent of the total production of major petrochemicals during 2006-07. While the domestic capacity of polymers of 5.2 million tonnes as on March 31, 2007 was utilized fully, the capacity of synthetic fibres was utilized only to the tune of 69 per cent.

8.27 India remained a net importer of chemicals till the end of the 1990s. However, there was a

turnaround during the post-2000 period. In 2002-03, the exports under chemical industry exceeded the corresponding imports by Rs. 7,346 crore which further increased to Rs. 8,365 crore in 2006-07 (Table 8.9). The share of chemical exports to the total exports stood at 13.2 per cent in 2006-07, while the share of imports to total imports was 8 per cent. Suboptimal size of plants, high input cost, infrastructural deficiencies, stringent/inflexible labour laws and low R&D expenditure have been

**Table 8.8 Production of major petrochemicals (production in 000' MT, growth in per cent)**

Subgroup	Production					Annual growth	
	2002-03	2003-04	2004-05	2005-06	2006-07	2002-03 to 2006-07 <sup>a</sup>	2006-07
Synthetic fibers	1,755	1,868	1,875	1,906	2,250	6.2	18.0
Polymers	4,175	4,499	4,776	4,768	5,183	5.5	8.7
Elastomers	82	87	97	110	101	5.1	-8.2
Synth. detergent intermediates	447	453	488	556	556	5.5	0.0
Performance plastics	95	99	113	127	132	8.0	3.9

Source: Ministry of Chemicals &amp; Fertilizers.

<sup>a</sup> Compound annual growth rate.**Table 8.9 Chemical industry - Exports and imports(Rs. crore; Growth in per cent)**

Items/Years	2002-03	2003-04	2004-05	2005-06	2006-07	Compound annual growth 2002-03 to 2006-07	
						2002-03 to 2006-07 <sup>a</sup>	2006-07
<b>Exports</b>							
(A) Chemicals	17,397	20,679	25,574	33,462	39,352	24.0	
(B) Petrochemicals	11,186	13,444	17,492	17,268	21,801	21.0	
(C) Drugs/pharmaceuticals	6,779	7,445	9,263	10,821	14,380	23.4	
Chemical industry (A+B+C)	35,362	41,568	52,329	61,551	75,532	22.9	
<b>Imports</b>							
(A) Chemicals	20,190	25,258	32,838	40,492	47,914	21.5	
(B) Petrochemicals	6,674	7,865	10,018	14,141	16,339	24.8	
(C) Drugs/pharmaceuticals	1,152	1,150	1,303	1,945	2,914	29.7	
Chemical industry (A+B+C)	28,016	34,273	44,159	56,578	67,167	22.6	

Source: Ministry of Chemicals &amp; Fertilizers.

identified in the Eleventh Five Year Plan document as some of the problems faced by the chemical industry.

**8.28** The value of pharmaceutical output grew more than tenfold from Rs. 5,000 crore in 1990 to over 65,000 crore in 2006-07. India is now recognized as one of the leading global players in pharmaceuticals. Europe accounts for the highest share of Indian pharma exports followed by North America and Asia. An increasing number of Indian pharmaceutical companies have been receiving international regulatory approvals for their plants. The policy initiatives taken by the Government of late have led to quantitative and qualitative improvements in the R&D activities of the industry. The National Pharmaceutical Policy, aimed at ensuring availability of lifesaving drugs at reasonable prices, is being finalized. Taking stock of the imperative requirement for skilled manpower, the Government has decided to set up six new National Institutes of Pharmaceutical Education and Research (NIPERs) in different regions of the country. As a new initiative in the pharmaceutical

sector, the First Pharmaceutical Census of India (FPCI) is proposed to be launched during 2007-08 to obtain a robust database for the sector.

### Rubber, plastic & petroleum products

**8.29** As per the IIP production data, the growth in different categories of rubber tyres has not been impressive during April-November 2007. This could perhaps be attributed to the indifferent performance of automobile production, reflected in the IIP data during the period. While the production of rubber footwear grew by 4.7 per cent, sheets (PVC/rubber) grew by 18.8 per cent. PVC pipes and tubes, which have the highest weight in the product group, grew at 27 per cent during April-November 2007.

### Oil & gas

**8.30** Crude oil production during April-November 2007 was 22.69 million tonnes (MT) as against 22.56 MT during the corresponding period in the previous year, showing a marginal increase of 0.60 per cent. (Table 8.10) Correspondingly, natural gas production at 21.35 billion cubic metre (BCM)

**Table 8.10 Petroleum industry production**

Item	Unit	2004-05	2005-06	2006-07 <sup>a</sup>	2007-08 <sup>b</sup>
Reserves <sup>c</sup> (Balance recoverable)					
(i) Crude oil	MT	739	786	756	N.A.
(ii) Natural gas	BCM	923	1101	1090	NA
Production					
(i) Crude oil	MT	33.98	32.19	33.99	22.69
(ii) Petroleum products <sup>d</sup>	"	120.82	121.94	137.35	84.41 <sup>f</sup>
Consumption					
(i) Crude oil <sup>e</sup>	"	127.42	130.11	146.55	103.06
(ii) Petroleum products	"	111.63	113.21	119.55	66.52 <sup>f</sup>
Refinery: Installed capacity					
Refinery production					
(i) Public sector	"	93.11	96.95	108.17	74.56
(ii) Private sector	"	34.31	33.16	38.38	28.50
<b>Total (i &amp; ii)</b>		<b>127.42</b>	<b>130.11</b>	<b>146.55</b>	<b>103.06</b>
Natural gas					
(i) Gross production	BCM	31.763	32.202	31.747	21.35
(ii) Utilization	"	30.775	31.325	30.791	20.79
Exploratory drilling					
(i) Wells	Number	117	114	96	NA
(ii) Metreage	000'	329	342	263	NA
Wells & metreage drilled					
(i) Wells	Number	333	301	297	NA
(ii) Metreage	000'	839	801	742	NA

Source: Ministry of Petroleum & Natural Gas.

<sup>a</sup> Provisional.

<sup>c</sup> As on April 1 of the initial year.

<sup>e</sup> Refinery crude throughput.

<sup>g</sup> Prorated figure.

<sup>N A</sup> = Not Available.

<sup>MT</sup> = million tonne.

<sup>b</sup> = Up to November, 2007.

<sup>d</sup> = Includes LPG production from natural gas.

<sup>f</sup> = Up to Oct. 2007.

RBF= Refinery Boiler Fuels.

BCM = billion cubic metre.

**Table 8.11 Under-recoveries by oil marketing companies**

(Rs. crore)

<b>Under-recovery</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06 (P)</b>	<b>2006-07 (P)</b>	<b>April-Sept 07(P)</b>
PDS kerosene and domestic LPG (+)	9,274	17,842	24,630	28,584	13,814
Petrol and diesel	-	2304	15370	20803	12,549
<b>Total</b>	<b>9,274</b>	<b>20,146</b>	<b>40,000</b>	<b>49,387</b>	<b>26,363</b>

**Source:** Ministry of Petroleum & Natural Gas.

(+) On gross basis, i.e. before sharing of losses by upstream oil companies;

(P) Provisional

during April-November 2007 showed an increase of 2 per cent. The domestic refining capacity was 148.97 million tonnes per annum (MTPA) as on April 1, 2007. The refinery production during April-November 2007 at 103.06 MT showed an increase of 8.3 per cent compared to April-November 2006.

8.31 Since operationalizing the New Exploration Licensing Policy (NELP) in 1999, 46 oil and gas discoveries have been made by private/joint venture (JV) companies in 13 blocks, which have added more than 600 MT of oil equivalent hydrocarbon reserves. As on April 1, 2007, the investment made by the Indian and foreign companies was US\$ 3,887 million, out of which 30 per cent was by the national oil companies, 61.1 per cent by the Indian private companies and the remaining 8.9 per cent by foreign companies. At present, after concluding six rounds of NELP, 162 production sharing contracts have been signed and area under exploration has increased four times, which covers 44 per cent of Indian sedimentary basins.

8.32 The international price of crude oil and petroleum products has increased phenomenally in recent months. The crude oil price of the Indian basket touched an all-time high of US\$ 92.13 per barrel on November 26, 2007. This has a significant impact on the oil marketing companies (OMC) and the Indian economy as India imports about 72 per cent of the crude oil requirement. As done earlier, the Government has tried to equitably distribute the burden of oil price hike among the various stakeholders, namely upstream companies, oil marketing companies, Government and consumers. The Government has decided to issue oil bonds to the tune of 42.7 per cent of the total estimated under-recoveries and make the upstream oil companies bear approximately one-third of the under-recoveries.

8.33 The Petroleum & Natural Gas Regulatory Board (PNGRB), set up under the provisions of PNGRB Act, 2006, is now operational. The initiatives taken to contain adulteration and diversion of PDS kerosene include automation of retail outlets, solutions based on information technology and third party certification of retail outlets selling over 100 kilolitre (KL) per month. Over 53 per cent of the work on fully automating retail outlets selling more than 200 KL per month has been completed. About 40 per cent of the work on adoption of Global Positioning System

**Box 8.1****Major initiatives in the petroleum sector during 2007-08**

- The Coal Bed Methane (CBM) Policy was approved in July 1997. Since then, 26 CBM blocks have been awarded for exploration and production of CBM gas. Six TCF reserves have already been established in 4 CBM blocks. First commercial production of CBM commenced from July 2007. The work relating to the launch of CBM IV has started.
- Seventh round of NELP has been launched on December 13, 2007, under which bids have been invited for 57 (29 onland, 9 shallow water and 19 deep water blocks) exploration blocks.
- Reserve replacement ratio is decided to be maintained at more than one during the Eleventh Five Year Plan period.
- The Assam Gas Cracker Project has been formally launched in April 2007.
- Initiatives have been taken to meet the demand for gas through intensification in domestic exploration and production activities, LNG import, CBM, underground coal gasification, gas hydrates and transnational gas pipelines, etc.

(GPS) in 26,382 tank trucks has been completed. To give a firm legal footing for the new marker system for detecting adulteration of kerosene in diesel and petrol, launched in October 2006, various control orders governing the sale of kerosene have been amended. Oil marketing companies in the private sector have also been asked to introduce the scheme along the lines of the public sector companies. The oil marketing companies are considering the sale of non-PDS kerosene in one litre bottles. The plant for packaging has been commissioned in October 2007 and the sale is operative on pilot basis. The major policy initiatives taken during 2007-08 are given in Box 8.1.

### **Coal**

8.34 Coal production during April-November 2007 was 309.51 MT as against 295.19 MT in the corresponding period last year, registering a growth of 4.85 per cent. The annual action plan target for production of 454.90 MT is likely to be achieved. During April-November 2007, the coking coal production was 20.69 million tonnes as against 20.48 MT in the corresponding period last year. The policy measures initiated during the current year to augment coal production are given in Box 8.2.

### **Non-Metallic Mineral Products**

8.35 Non-metallic mineral products grew at the rate of 8.4 per cent during April-November 2007 compared to 13.6 per cent during April-November 2006. Among the items with considerable weight within the product group, glazed tiles/ceramic tiles grew by 8.5 per cent, bottles/bottle glassware by 10.2 per cent and graphite electrodes and anodes by 20 per cent, while the value of production of polished granite/stone chips declined by 4 per cent.

### **Cement**

8.36 The cement industry recorded a growth of 7.72 per cent (provisional) during April-November 2007. The production increased from 99.99 MT during April-November 2006 to 107.71 MT during April-November 2007.

8.37 Expansion of cement capacity and production assumes great importance in view of the growing demand from the infrastructure sector. Cement capacity and production are targeted to

grow by 11.5 per cent annually during the Eleventh Five Year Plan. Thus, capacity and production are likely to increase to 269 MT each at the end of the Eleventh Five Year Plan from 166 MT at the end of the Tenth Five Year Plan. However, the

### **Box 8.2 Coal: Policy developments during 2007-08**

- During April-December 2007, 45 coal blocks with geological reserves of 11,384.49 MT were allocated to the Government and private companies.
- Guidelines have been framed for undertaking detailed exploration by allottees of unexplored coal blocks in public and private sectors.
- To encourage private investment in development of new technologies, a notification specifying coal gasification and liquefaction as end uses has been published in the Gazette of India on July 12, 2007.
- New Coal Distribution Policy has been notified on October 18, 2007
- The royalty rates on coal and lignite have been revised in July 2007 on the basis of a formula consisting of ad-valorem plus a fixed component.
- The Administrative Staff College of India, Hyderabad, appointed as a consultant for preparing the report on the appointment of a Coal Regulator, has submitted a draft report.
- A proposal to confer Nav Ratna status on Coal India Limited (CIL) has been submitted to the Department of Public Enterprises. An order has been issued to confer Mini Ratna Category-I status on six coal companies including CIL.
- To ensure the free play of market forces, a system of e-auction for sale of about 20 per cent of the total production has been introduced.
- For securing metallurgical coal supplies overseas by the PSUs, a proposal for formation of a Special Purpose Vehicle (SPV) has been approved. The CIL has committed to contribute Rs. 1,000 crore in the SPV as equity out of the total authorized capital of Rs. 3,500 crore.
- The Expert Committee on the Road Map for Coal Sector Reforms has submitted its report which is being examined by the Government.

Eleventh Five Year Plan document observes that the achievement of targets is crucially dependent on factors like adequate availability of limestone, coal, power and facilities for transport of limestone. The small number of bulk cement terminals poses another challenge.

### **Basic metals (steel and iron)**

8.38 Indian steel companies have marked their diversified presence in the global market, effected mainly through the establishment of the state-of-the-art plants, continuous modernization, and improved energy efficiency of plants. Additional capacities of nearly 6 MT have been commissioned for finished (carbon) steel in the current year.

8.39 The imports of carbon steel increased from about 1.5 MT in 2002-03 to 4.44 MT in 2006-07 on account of the supply-demand gap in the domestic market. The Eleventh Five Year Plan document points out that the problems faced by the industry include depleting iron ore resources, inadequate availability of coal, inadequate sintering and pelletization capacities and poor transport infrastructure for movement of raw materials (Table 8.12).

8.40 In conjunction with international trends, the domestic steel prices continued to be high during the first three quarters of 2007-08, despite some softening witnessed in the case of flat products. With a view to augment the supply of

steel, the Government reduced the customs duty on seconds and defective steel from 20 per cent to 10 per cent and provided exemption from customs duty to all coking coal. The customs duty on alloys and stainless steel was reduced to 5 per cent in January 2007.

### **Machinery and equipments**

8.41 The machinery sector (except the transport equipments), which grew at a robust rate of 12.2 per cent during April-November 2007, presents a mixed picture within the product group. Encouragingly, the index of production of industrial machinery grew at 27.9 per cent during the period. The other drivers of growth included boilers, turbines and computer system and its peripherals, whose indices of production grew by 36.6 per cent, 57.4 per cent and 36.5 per cent, respectively, during April-November 2007 compared to the corresponding period in 2006. While the production of insulated cables/wires of all kinds increased by more than 2.5 times, the production of telecommunication cables, telephone instruments, TV receivers, and power and distribution transformers declined during the period.

### **Electronics and computer technology**

8.42 In 2006-07, the performance of the Information Technology Enabled Services-Business Process Outsourcing (ITES-BPO) industry was marked by double-digit revenue growth, steady expansion into newer service lines and increased

**Table 8.12 Production, consumption, export and import of steel and pig iron (million tonnes)**

Item	2004-05	2005-06	2006-07	April-December <sup>a</sup>	
				2006-07	2007-08
<b>Production</b>					
Finished carbon steel	44.54 (9)	48.9 (10)	55.15 (13)	39.29	41.7 (6.1)
Pig iron	3.23 (-14)	4.69 (45)	4.99 (6)	3.67	3.96 (7.9)
<b>Exports</b>					
Finished carbon steel	4.38 (-10)	4.48 (2)	4.89 (9.3)	3.53	3.67 (4)
Pig iron	0.39 (-25)	0.44 (13)	0.71 (61)	0.49	0.53 (8.2)
<b>Imports</b>					
Finished carbon steel	2.11 (37)	3.85 (82)	4.44 (15)	2.94	4.7 (60)
Pig iron	0.08 (300)	0.03 (-63)	0.03 (0)	0	0.01
<b>Consumption</b>					
Finished carbon steel	34.39 (10)	39.18 (14)	44.33 (13)	31.48	35.51 (12.8)
Pig iron	2.79 (-14)	4.14 (48)	4.34 (4.8)	3.16	3.42 (8.2)

Source: JPC.

<sup>a</sup> provisional estimates.

Note: Figures in parenthesis indicate variation over previous year.

**Table 8.13 Growth of production and exports in electronics industry**

Items	Electronics production (Rs. crore)				
	2002-03	2003-04	2004-05	2005-06	2006-07 <sup>a</sup>
1. Consumer electronics	13,800	15,200	16,800	18,000	20,000
2. Industrial electronics	5,550	6,100	8,300	8,800	10,400
3. Computers	4,250	6,800	8,800	10,800	12,800
4. Comm. & broadcasting equipment	4,800	5,350	4,800	7,000	9,500
5. Strategic electronics	2,500	2,750	3,000	3,200	4,500
6. Components	6,600	7,600	8,800	8,800	8,800
Sub-Total	37,500	43,800	50,500	56,600	66,000
7. Software for exports	46,100	58,240	80,180	1,04,100	1,41,800
8. Domestic software	13,400	16,250	21,740	29,600	37,800
<b>Total</b>	<b>97,000</b>	<b>1,18,290</b>	<b>1,52,420</b>	<b>1,90,300</b>	<b>2,45,600</b>
Electronics exports (Rs. crore)					
1. Electronics hardware	5,600	7,700	8,000	9,625	11,500
2. Computer software	46,100	58,240	80,180	1,04,100	1,41,800
<b>Total</b>	<b>51,700</b>	<b>65,940</b>	<b>88,180</b>	<b>1,13,725</b>	<b>1,53,300</b>

Source: Ministry of Communications & Information Technology.

<sup>a</sup> Estimated

geographic penetration and an unprecedented rise in investments by multinational corporations (MNCs). Total export revenues of IT-ITES industry have grown from US\$ 23.6 billion in 2005-06 to

US\$ 31.3 billion in 2006-07, a growth of 32.6 per cent.

8.43 A total of 90 Indian IT companies were certified at SEI CMM Level 5 by December 2006.

### Box 8.3 Policy developments and new initiatives in Information Technology

- The Special Incentive Package Scheme (SIPS) to encourage investments for setting up semiconductor fabrication and other micro- and nano-technology manufacturing industries was announced in March 2007. The incentives admissible would be 20 per cent of the capital expenditure during the first 10 years for units located in Special Economic Zones (SEZs) and 25 per cent for units located outside SEZs.
- A Task Force has been constituted to promote the growth of electronics IT hardware manufacturing industry.
- The Department of Information Technology has unveiled various components of the National e-Governance Plan (NeGP) covering 27 Mission Mode Projects (MMP) and eight support components to be implemented at Central, State and Local Government levels, at an estimated cost of Rs. 23,000 crore over the next five years. The Government has approved the approach, strategy, key components and implementation framework for NeGP with the vision: "Make all Government services accessible to the common man in his locality through common service delivery outlets and ensure efficiency, transparency and reliability of such services at affordable costs to realize the basic needs of the common man."
- The Government has approved a scheme for facilitating establishment of 1 lakh broadband Internet-enabled Common Service Centres in the rural areas in the public-private partnership mode.
- The Government has approved a scheme for establishing the State Wide Area Networks (SWANs) across the country in 29 States/6 UTs with a total outlay of Rs. 3,334 crore with Central assistance component of Rs. 2,005 crore over a period of five years. The scheme envisages to provide Central assistance to States/UTs for establishing SWANs for States/UTs headquarters up to the block level with a minimum bandwidth capacity of 2 Mbps.
- The Department of Information Technology is setting up Nano Electronic Centres at the Indian Institute of Technology, Mumbai and the Indian Institute of Science, Bangalore, with an outlay of about Rs. 100 crore to carry out R&D activities in nano-electronics devices and materials.
- The software tools and fonts for 10 Indian languages, namely Hindi, Tamil, Telugu, Assamese, Kannada, Malayalam, Marathi, Oriya, Punjabi and Urdu, have been released in the public domain.
- The Information Technology Amendment Bill, introduced in the Parliament in December 2006, was referred to the Parliament Standing Committee which has presented its report to both Houses of Parliament.

**Table 8.14 Automobile production (in thousands)**

Category	2000-01	2003-04	2004-05	2005-06	2006-07	2007-08 April-Nov
Passenger cars	513	842	951	1,046	1,323	912
Utility vehicles	128	146	249	263	222	156
<b>Total CVs</b>	<b>157</b>	<b>275</b>	<b>350</b>	<b>391</b>	<b>520</b>	<b>339</b>
<b>Total Two-wheelers</b>	<b>3,759</b>	<b>5,625</b>	<b>6,527</b>	<b>7,609</b>	<b>8,444</b>	<b>5,398</b>
Three-wheelers	203	341	374	434	556	340
<b>Grand Total</b>	<b>4,760</b>	<b>7,229</b>	<b>8,451</b>	<b>9,743</b>	<b>11,065</b>	<b>7,145</b>
Growth in per cent	-2.00	15.12	16.90	15.29	13.57	-3.55

Source: Department of Heavy Industry.

Majority of the Fortune 500 and Global 2000 corporations are sourcing IT-ITES from India. Over the last two-three years, a number of reputed companies in electronics/IT/telecom hardware manufacturing like Nokia, Motorola, Foxconn, Flextronics, Aspocomp, Samsung, LG, Elcoteq, Ericsson, Alcatel, Tessolve and DELL have either set up their units or are in the process of investing in the country. India is rapidly becoming an R&D hub. All the top 10 global fabless design companies have operations in India and 17 of the top 25 semiconductor companies worldwide have a strong presence in India. The total number of professionals employed in the IT-ITES sector grew from an estimated 12,87,000 in 2005-06 to 16,21,000 in 2006-07. In addition, IT-ITES is estimated to have helped create an additional 60 lakh job opportunities through indirect and induced employment in telecom, power, construction, facility management, IT transportation, catering and other services. Some of the policy initiatives recently taken by the Government are summarized in Box 8.3.

### Transport equipments & parts

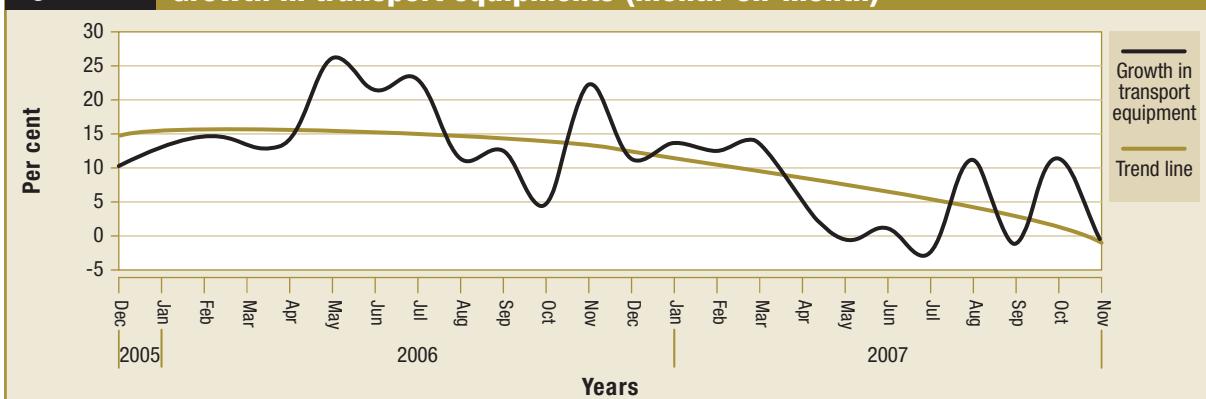
8.44 Production of automotive industry, which provides extensive forward and backward linkages with other key segments of the economy, grew at an impressive rate during the Tenth Five Year Plan (Table 8.14). However, as the IIP data suggest, their production growth has been negative during April-November 2007, chiefly because of a 10.6 per cent decline in the production of motorcycles and 6 per cent decline in the production of auto rickshaws from their levels achieved during the corresponding period in the previous year. At the same time, the production of passenger cars grew by 15.6 per cent and scooters and mopeds by 18.9 per cent.

8.45 Automobile exports crossed the US\$ 1 billion mark in 2003-04 and further increased to US\$ 2.76 billion in 2006-07. The industry exported over 15 per cent passenger cars produced in 2006-07, almost 10 per cent of the commercial vehicles, 26 per cent of the three-wheelers and 7 per cent of the two-wheelers (Table 8.15).

**Table 8.15 Automobile exports (in thousands)**

Category	2000-01	2003-04	2004-05	2005-06	2006-07	2007-08 April-Nov
Passenger cars	23	126	161	170	194	131
Utility vehicles	4	3	6	5	4	4
<b>Total CVs</b>	<b>14</b>	<b>17</b>	<b>30</b>	<b>41</b>	<b>50</b>	<b>36</b>
<b>Total Two-wheelers</b>	<b>111</b>	<b>265</b>	<b>367</b>	<b>513</b>	<b>619</b>	<b>536</b>
Three-wheelers	16	68	67	77	144	93
<b>Grand Total</b>	<b>168</b>	<b>479</b>	<b>631</b>	<b>806</b>	<b>1,011</b>	<b>800</b>
Growth in per cent	20.24	55.98	31.73	27.73	25.43	17.39

Source: Department of Heavy Industry.

**Figure 8.5 Growth in transport equipments (month-on-month)**

8.46 The turnover of the fast growing auto component industry, comprising around 500 firms in the organized sector and more than 10,000 firms in the small and unorganized sector, grew from US\$ 3.1 billion to US\$ 15 billion between 1997-98 and 2006-07. The international recognition received by the producers bears out the vastly improved quality of their products.

8.47 During the period 2003-06, the exports of auto component industry grew by a compound annual growth rate of 29.07 per cent to reach US\$ 2.9 billion while imports grew by 31 per cent to reach US\$ 3.33 billion. During 2006-07 the corresponding growth rates were 16 per cent and 34 per cent, respectively. India is a net importer of auto components. In the current liberalized duty regime, the challenge faced by the industry is to innovate and upgrade continuously to remain competitive in the international market.

8.48 The initiatives taken by the Government in 2006-07 to boost the automobile sector included: reduction in the duty of raw materials to 5-7.5 per cent from 10 per cent; setting up of the National Automotive Testing and R&D Infrastructure Project (NATRIP) at a cost of Rs. 1,718 crore for enabling the industry to usher in global standards of vehicular safety, emission and performance; and finalization of the Automotive Mission Plan (AMP) 2006-16 for making India a preferred destination for design and manufacture of automobiles and automotive components.

8.49 The IIP data suggest that despite a visible decline in the production of automobiles during April-November 2007 (Figure 8.5), the total rate of growth for the "transport equipments & parts" group has remained positive by the impressive growth in activities like shipbuilding and repair, production of locomotives, and of broad gauge covered wagons.