

## *Industrial Production in India: 2006-07\**

This analysis is based on the data on index of industrial production (IIP) for 2006-07 (April-March) and industry-wise production data released by the Ministry of Statistics and Programme Implementation. A detailed examination of relevant data reveals the following.

### Highlights

- During the year 2006-07, the IIP registered an accelerated double-digit growth of 11.5 per cent, which is the highest growth since 1995-96 when the growth recorded was 13.1 per cent.
- The IIP growth during the year was led by strong growth of the manufacturing sector at 12.5 per cent - the highest since 1995-96 (14.1 per cent). Both mining and electricity sectors also recorded accelerated growth at 5.3 per cent and 7.3 per cent, respectively.
- Growth across seventeen manufacturing industry groups remained well-diversified and 16 out of 17 industry groups recorded positive growth during 2006-07.
- As per use-based classification; basic, intermediate and capital goods sectors recorded accelerated double-digit growth, while consumer goods sector posted decelerated growth during the year.

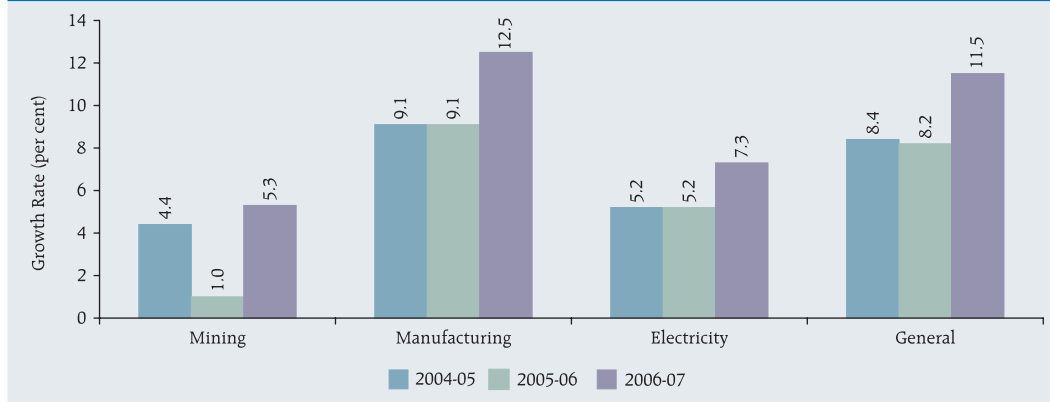
### I. Performance of the Indian Industry

#### *I.A. Broad-based Classification*

Led by strong investment and consumption demand, the industrial upsurge entered the fifth year of expansion in 2006-07 and the IIP registered a strong double-digit growth of 11.5 per cent, which is the highest since 1995-96 (13.1 per cent)

\* Prepared in the Division of Industrial and Services Studies, Department of Economic Analysis and Policy.

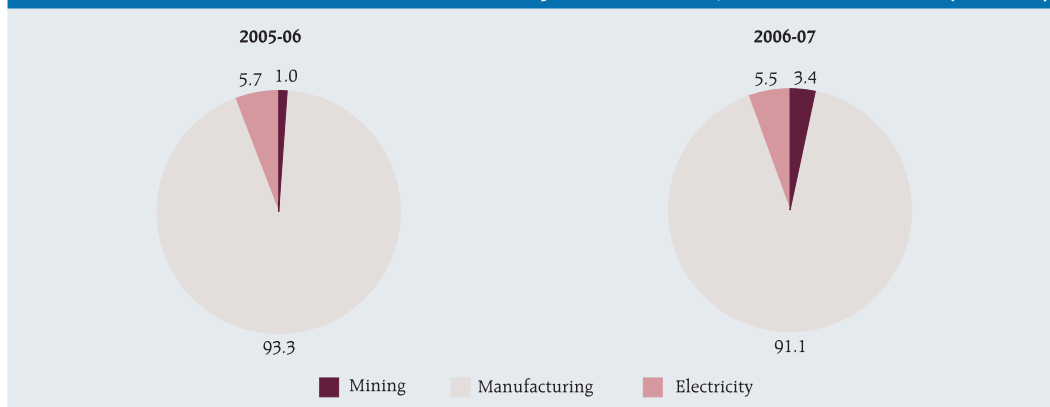
Chart 1: Growth Performance of Indian Industry: Broad-based Classification



(Chart 1 and Statement 1). Manufacturing sector recorded an accelerated growth of 12.5 per cent, which was also the highest since 1995-96 (14.1 per cent). The growth in manufactured goods sector was led by 'machinery and equipment', 'basic metal and alloy industries' and 'chemicals and chemical products'. Electricity sector recorded a higher growth of 7.3 per cent during the year on the back of higher generation of electricity in hydro power plants as well as improved plant load factor (PLF) in thermal power plants. Growth in the mining sector at 5.3 per cent

was impressive as it recovered from the previous three years of decelerated growth performance – from 5.3 per cent in 2003-04 to 1.0 per cent in 2005-06. Enhanced mining activity in respect of coal and other minerals as also recovery in crude oil production in Mumbai High (where the production was affected on account of a major fire in July 2005) propped up the mining sector in 2006-07 and consequently its relative contribution to the IIP growth increased from 1.0 per cent in 2005-06 to 3.4 per cent in 2006-07 (Chart 2).

Chart 2: Relative Contribution of Broad-Based Classification of Industries to the IIP Growth in 2005-06 and 2006-07 (Per cent)

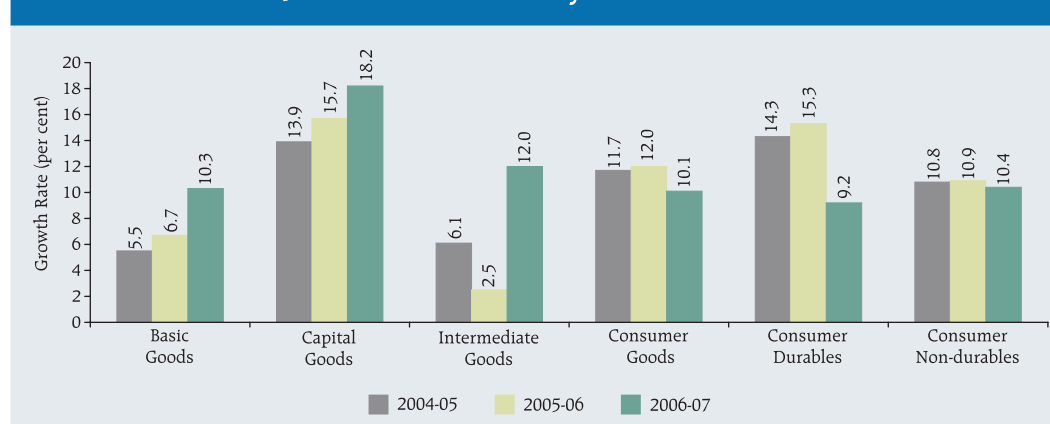


### I.B. Use-based Classification

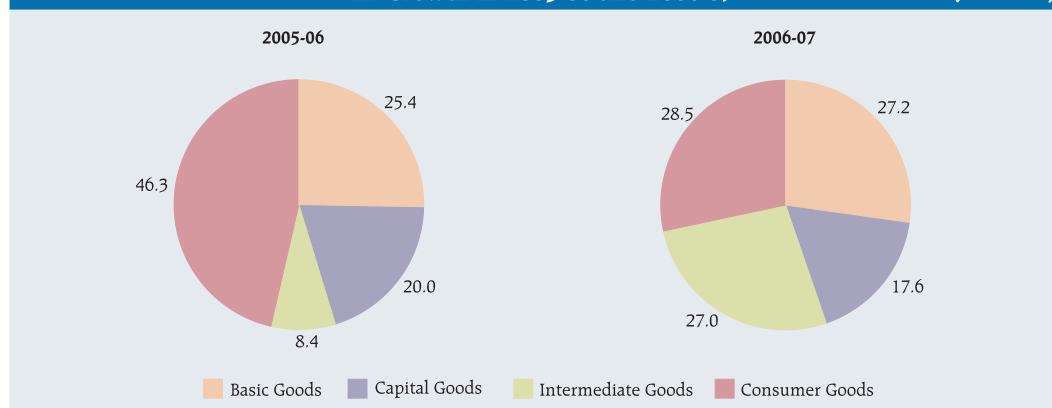
As per use-based classification, the basic, capital and intermediate goods sectors recorded marked acceleration during the year (Chart 3). Basic goods sector witnessed a higher growth of 10.3 per cent, which is the highest growth since 1995-96 (10.8 per cent). The contribution of basic goods sector to the IIP growth increased from 25.4 per cent in 2005-06 to 27.2 per cent in 2006-07 (Chart 4). Better performance of cement, high speed diesel, and various iron and steel products such as carbon steel, bars and rods, pipes and tubes, *etc.*, contributed to higher growth of basic goods sector. The intermediate goods sector, which had recorded subdued growth in 2005-06, picked up sharply and this has added strength to the already firmly entrenched industrial growth. The sector posted double-digit growth of 12.0 per cent, which is also the highest growth since 1995-96 (19.3 per cent). In consonance with the acceleration in growth, the contribution of intermediate goods sector to the IIP growth increased sharply from 8.4 per cent in 2005-06 to 27.0

per cent in 2006-07. The growth was driven largely by higher growth of yarn, polyester fibre, viscose staple fibre, PVC pipes and tubes, glazed tiles/ceramic tiles, *etc.* The capital goods sector has recorded an accelerated double-digit growth consistently in the last five years, thereby making it one of the longest phases of expansion of capital goods in the recent past. In 2006-07, capital goods sector registered an accelerated growth of 18.2 per cent, which is the highest growth in the 1993-94 series. Robust performance of capital goods sector was abetted by higher growth in respect of complete tractors, boilers, diesel engines, textile machinery, material handling equipment, process control systems, *etc.* The continued robust expansion of capital goods sector enabled substantial additions to capacity across a number of industries. Consumer goods sector witnessed moderation in growth and its contribution to the IIP growth declined sharply from 46.3 per cent in 2005-06 to 28.5 per cent in 2006-07. This was largely on account of sharp deceleration in the growth of consumer durables, while consumer non-

Chart 3: Performance of Industry: Use-Based Classification



**Chart 4: Relative Contribution of Use-Based Classification of Industries to the IIP Growth in 2005-06 and 2006-07 (Per cent)**



durables recorded a lower but moderate growth of 10.4 per cent as compared with 10.9 per cent in 2005-06. Lower growth in consumer non-durables was on account of negative growth in certain food products, drugs and edible oils.

## II. Key Indicators of Industrial Activity

During 2006-07, the industrial sphere was characterised by a congenial investment climate and buoyant domestic and external demand conditions that enabled capacity additions across a large spectrum of industries. Among the key indicators of industrial activity, production of commercial vehicles and capital goods expanded impressively by 33.0 per cent and 18.2 per cent, respectively in 2006-07 (Table 1). Despite some moderation, the growth in non-food credit and capital goods imports remained high during 2006-07. Moderation in growth was also observed in respect of manufacturing exports, revenue earning freight traffic of railways, cargo handled at major ports, cement and steel sectors.

**Table 1: Key Indicators of Industrial Activity - Growth**

|   | (Per cent) |         |
|---|------------|---------|
|   | 2005-06    | 2006-07 |
| Capital Goods Production                      | 15.7       | 18.2    |
| Capital Goods Imports                         | 49.9       | 40.6    |
| Production of Commercial Vehicles             | 10.6       | 33.0    |
| Revenue Earning Freight Traffic of Railways   | 10.7       | 9.2     |
| Cargo Handled at Major Ports                  | 10.4       | 9.5     |
| Non-Food Credit of Scheduled Commercial Banks | 31.8       | 28.4    |
| Cement Production                             | 12.4       | 9.1     |
| Finished Steel Production                     | 11.2       | 10.9    |
| Manufacturing Exports                         | 19.5       | 14.1    |

**Source:** Government of India and the RBI.

Capital goods sector has been supporting the ongoing capacity expansion in recent years. The current performance of capital goods sector is in contrast with the industrial boom that was witnessed during 1993-96, when this sector did not play any significant role. Nevertheless, currently the domestic demand for some of the capital goods has exceeded their domestic production. Consequently, there has been a robust growth in imports of capital goods such as project goods,

Table 2: Production and imports of leading Capital goods - Growth

| (Per cent)                          |         |         |  |         |         |
|-------------------------------------|---------|---------|--|---------|---------|
| Capital goods production            | 2005-06 | 2006-07 | Capital goods imports                        | 2005-06 | 2006-07 |
| Textile Machinery                   | 50.3    | 35.8    | Machinery except Electrical & Electronics    | 46.8    | 38.4    |
| Switchgear (circuit breakers)       | 13.5    | 8.6     | Electrical Machinery except Electronics      | 25.9    | 30.0    |
| Control panels/ boards/ disks       | 44.8    | 18.3    | Electronic Goods including Computer Software | 32.7    | 19.4    |
| Computer system and its peripherals | 10.7    | 8.3     | Transport Equipments                         | 104.2   | 74.4    |
| Commercial vehicles                 | 11.7    | 33.0    | Project Goods                                | 48.1    | 98.7    |
| Material handling equipment         | 90.0    | 115.8   | Machine Tools                                | 73.5    | 37.6    |
| Cranes                              | 36.6    | 66.5    |  |         |         |
| Boilers                             | 60.2    | 48.9    |  |         |         |
| Furnaces                            | 35.9    | 22.8    |  |         |         |
| Machine tools                       | 10.5    | 0.2     |  |         |         |

Source : CSO and DGCIS.

transport equipments, machine tools, machinery except electrical and electronics, electrical machinery and electronic goods. At the same time, the domestic production of various capital goods has also recorded substantial growth during the recent period (Table 2). The ongoing trend in capital goods production coupled with growing imports and increasing capital expenditure by the corporates highlight the increased capacity additions that are taking place in the Indian industry.

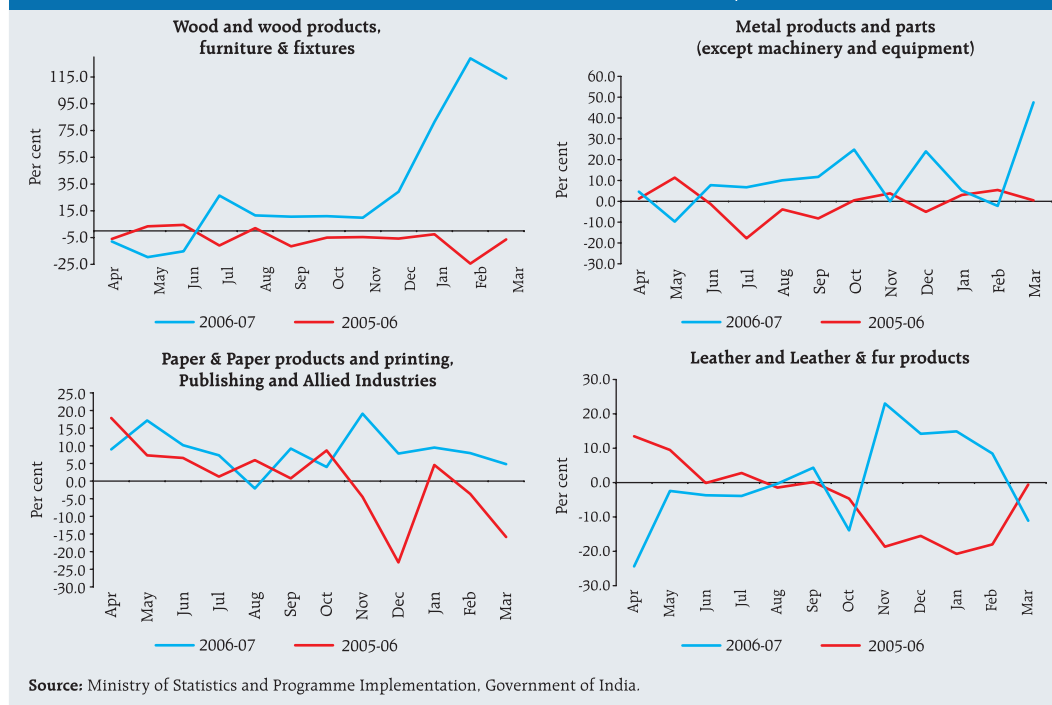
### III. Growth of 17 Manufacturing Groups (2-digit level Classification)

Growth across seventeen manufacturing groups remained well-diversified as 16 out of 17 manufacturing industries recorded positive growth during 2006-07 (Statement 2). Thirteen manufacturing industry groups accounting for 89.8 per cent weight of the manufacturing sector recorded acceleration in growth. The growth was primarily propelled by 'machinery and equipment', 'basic metals and alloy', and 'chemicals and chemical products', which together

contributed nearly 50 per cent to the manufacturing sector growth. Notably, four industry groups; *viz.*, 'wood and wood products', 'metal products and parts', 'paper and paper products', and 'leather and fur products' made a turnaround from negative growth in 2005-06 to positive growth in 2006-07 (Chart 5).

Growth in 'wood and wood products' was impressive as it posted accelerated growth of 29.1 per cent in 2006-07, recovering from the negative growth of 5.7 per cent in 2005-06. Growth in this sector remained negative for the first three months of the year (*viz.* April, May and June) and picked up thereon led by a strong growth in 'particle board' segment. 'Metal products and parts' witnessed positive growth during the year except for the months of May 2006 and February 2007, when it posted negative growth. Growth in this segment was led by higher production of LPG cylinders, agricultural implements, bolts and nuts and razor blades. 'Paper and paper products' recorded higher growth during the year except in August 2006, when it posted negative growth. Growth in this segment was

**Chart 5: Trends in Monthly Growth of Select Manufacturing Industry Groups, which made a Turnaround in 2006-07**



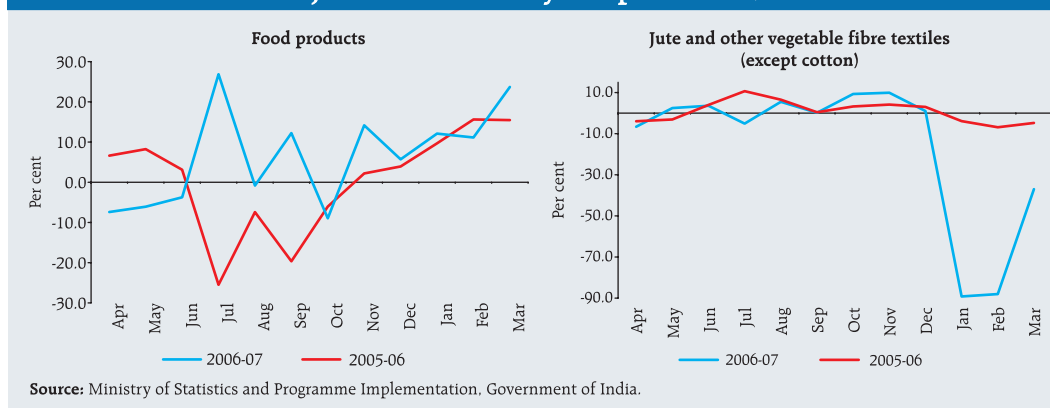
led by higher production of newsprints, corrugated boxes/cartons, paper and paper boards. The recovery in 'leather products' manufacturing group was led by higher production of shoe, western type leather footwear, leather goods and leather garments.

'Food products' group recorded impressive growth despite the fact that growth posted by the segment was negative in five months during the year (Chart 6). The growth in this group was led by higher production of sugar, biscuits, chocolate/sugar confectionery, and mustard oil/rape seed oil. The textiles industry exhibited a mixed performance. While the 'cotton textile' industry recorded accelerated growth and growth in 'textile products

(including wearing apparel)' moderated though maintaining the double-digit growth during the year, 'jute and other vegetable fibre textiles' industry was an exception and recorded negative growth. Monthly growth trend in jute textile industry suggests that growth remained positive only in a few months. There was a sharp dip in production in the last three months, viz., January, February and March 2007 as many of the jute mills remained closed during the period on account of a strike.

'Machinery and equipment' sector exhibited strong growth performance and emerged as the major driver of manufacturing sector growth (Chart 7). The ongoing efforts of capacity addition in the Indian industrial sector provided the

**Chart 6: Trends in Monthly Growth of 'Food Products' and 'Jute Textiles' Industry Groups in 2006-07**

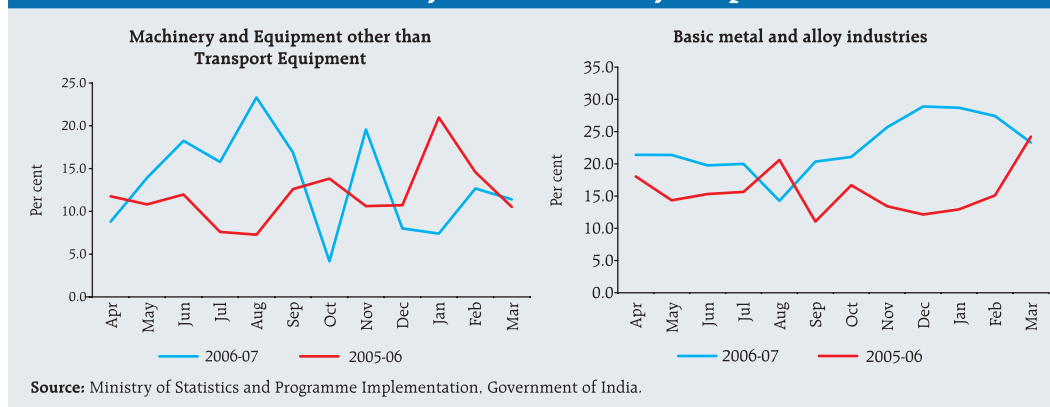


necessary demand impetus and facilitated growth in this manufacturing group. Higher production of complete tractors, diesel engines, boilers, textile machinery, material handling equipment, electric generators, protection system/switch boards, and telephone instruments propelled the growth of 'machinery and equipment' segment. Basic metal and alloy industries maintained the strong growth performance, which was supported by higher production of bars and rods, pig iron, structurals, sponge iron, and aluminum ingots.

#### IV. Summing Up

In sum, the performance of the industrial sector in India during 2006-07 has been upbeat as the year marked the continued rebound in industrial production for the fifth year in succession. The notable features of the industrial growth in 2006-07 were that it remained broad-based and 16 out of 17 manufacturing industry groups recorded positive growth. Another significant attribute of the industrial sector performance in 2006-07 was high

**Chart 7: Trends in Monthly Growth of 'Machinery and Equipment' and 'Basic Metal and Alloy Industries' Industry Groups in 2006-07**



## ARTICLE

Industrial  
Production  
in India:  
2006-07

investment demand, which resulted in capacity expansions in the Indian industrial sector as evidenced in the high growth in capital goods production as well as increased imports of the same. If the present

trend of high investment activity continues, while the demand side for the industrial goods also remains affirm, *ceteris paribus*, the industrial rebound may persist in the next year as well.



| Statement 1: Group-wise Index Numbers of Industrial Production<br>(Base : 1993-94 = 100) |        |         |         |           |                      |         |         |                                     |         |         |
|--|--------|---------|---------|-----------|----------------------|---------|---------|-------------------------------------|---------|---------|
|  | Weight | Index   |         |           | Growth<br>(Per cent) |         |         | Relative Contribution<br>(Per cent) |         |         |
|  |        | 2004-05 | 2005-06 | 2006-07 P | 2004-05              | 2005-06 | 2006-07 | 2004-05                             | 2005-06 | 2006-07 |
| <b>Broad-based Classification</b>  |        |         |         |           |                      |         |         |                                     |         |         |
| Mining   | 10.5   | 153.4   | 154.9   | 163.2     | 4.4                  | 1.0     | 5.3     | 4.3                                 | 1.0     | 3.4     |
| Manufacturing  | 79.4   | 214.6   | 234.2   | 263.5     | 9.1                  | 9.1     | 12.5    | 90.1                                | 93.2    | 91.1    |
| Electricity  | 10.2   | 181.5   | 190.9   | 204.7     | 5.2                  | 5.2     | 7.3     | 5.7                                 | 5.7     | 5.5     |
| General  | 100.0  | 204.8   | 221.5   | 247.1     | 8.4                  | 8.2     | 11.5    | 100.0                               | 100.0   | 100.0   |
| <b>Use-based Classification</b>  |        |         |         |           |                      |         |         |                                     |         |         |
| Basic Goods  | 35.6   | 177.9   | 189.8   | 209.3     | 5.5                  | 6.7     | 10.3    | 20.9                                | 25.4    | 27.2    |
| Capital Goods  | 9.3    | 229.6   | 265.8   | 314.2     | 13.9                 | 15.7    | 18.2    | 16.4                                | 20.0    | 17.6    |
| Intermediate Goods   | 26.5   | 211.1   | 216.4   | 242.4     | 6.1                  | 2.5     | 12.0    | 20.3                                | 8.4     | 27.0    |
| Consumer Goods   | 28.7   | 224.4   | 251.4   | 276.8     | 11.7                 | 12.0    | 10.1    | 42.6                                | 46.3    | 28.5    |
| Consumer Durables  | 5.4    | 303.5   | 349.9   | 382.0     | 14.3                 | 15.3    | 9.2     | 12.9                                | 14.9    | 6.7     |
| Consumer Non-Durables  | 23.3   | 206.2   | 228.8   | 252.6     | 10.8                 | 10.9    | 10.4    | 29.6                                | 31.4    | 21.8    |

**Source:** Ministry of Statistics and Programme Implementation, Government of India.

**Statement 2: Seventeen Major Industry Groups of Manufacturing Sector**  
(Base : 1993-94 = 100)

|   | Weight      | Index   |         |           | Growth<br>(Per cent) |         |         | Relative Contribution<br>(Per cent) |         |         |
|---|-------------|---------|---------|-----------|----------------------|---------|---------|-------------------------------------|---------|---------|
|   |             | 2004-05 | 2005-06 | 2006-07 P | 2004-05              | 2005-06 | 2006-07 | 2004-05                             | 2005-06 | 2006-07 |
| <b>Acceleration</b>   | <b>71.3</b> |         |         |           |                      |         |         |                                     |         |         |
| 1. Wood and wood products, furniture & fixtures                             | 2.7         | 74.8    | 70.5    | 91.0      | -8.5                 | -5.7    | 29.1    | -1.3                                | -0.7    | 2.4     |
| 2. Basic metal and alloy Industries   | 7.5         | 196.1   | 227.0   | 278.9     | 5.4                  | 15.8    | 22.8    | 5.3                                 | 14.8    | 16.6    |
| 3. Transport equipment and parts  | 4.0         | 283.7   | 319.7   | 367.7     | 4.1                  | 12.7    | 15.0    | 3.1                                 | 9.2     | 8.2     |
| 4. Cotton textiles  | 5.5         | 126.3   | 137.0   | 157.3     | 7.5                  | 8.5     | 14.8    | 3.4                                 | 3.8     | 4.8     |
| 5. Machinery and Equipment other than Transport Equipment                   | 9.6         | 279.4   | 312.8   | 357.1     | 19.8                 | 11.9    | 14.2    | 30.9                                | 20.5    | 18.3    |
| 6. Non-metallic mineral products  | 4.4         | 244.3   | 271.1   | 306.0     | 1.5                  | 11.0    | 12.9    | 1.1                                 | 7.6     | 6.6     |
| 7. Rubber, plastic, petroleum and coal products                             | 5.7         | 192.2   | 200.5   | 226.0     | 2.4                  | 4.3     | 12.7    | 1.8                                 | 3.0     | 6.3     |
| 8. Metal products and parts (except machinery and Equipment)                | 2.8         | 166.3   | 164.4   | 183.2     | 5.7                  | -1.2    | 11.4    | 1.8                                 | -0.4    | 2.3     |
| 9. Chemicals and chemical products except Products of Petroleum & coal      | 14.0        | 238.6   | 258.5   | 282.8     | 14.5                 | 8.3     | 9.4     | 29.6                                | 17.9    | 14.6    |
| 10. Food products   | 9.1         | 167.3   | 170.6   | 185.4     | -0.4                 | 2.0     | 8.7     | -0.4                                | 1.9     | 5.8     |
| 11. Paper and paper products and printing, Publishing and Allied Industries | 2.7         | 230.7   | 228.6   | 247.7     | 10.5                 | -0.9    | 8.3     | 4.1                                 | -0.3    | 2.2     |
| 12. Wool, silk and man-made fibre textiles                                  | 2.3         | 249.0   | 248.9   | 269.1     | 3.5                  | 0.0     | 8.1     | 1.3                                 | 0.0     | 2.0     |
| 13. Leather and Leather & fur products                                      | 1.1         | 156.9   | 149.3   | 149.9     | 6.7                  | -4.8    | 0.4     | 0.8                                 | -0.6    | 0.0     |
| <b>Deceleration</b>   | <b>7.5</b>  |         |         |           |                      |         |         |                                     |         |         |
| 14. Textile products (including wearing apparel)                            | 2.5         | 219.6   | 255.5   | 285.0     | 19.2                 | 16.4    | 11.5    | 6.3                                 | 5.8     | 3.2     |
| 15. Beverages, tobacco and related products                                 | 2.4         | 345.9   | 400.3   | 445.7     | 10.8                 | 15.7    | 11.3    | 5.6                                 | 8.3     | 4.7     |
| 16. Other manufacturing industries  | 2.6         | 221.2   | 276.9   | 298.3     | 18.5                 | 25.2    | 7.7     | 6.2                                 | 9.1     | 2.4     |
| <b>Negative</b>   | <b>0.6</b>  |         |         |           |                      |         |         |                                     |         |         |
| 17. Jute and other vegetable fibre textiles (except cotton)                 | 0.6         | 107.2   | 107.7   | 90.7      | 3.7                  | 0.5     | -15.8   | 0.2                                 | 0.0     | -0.4    |

Source: Ministry of Statistics and Programme Implementation, Government of India.