

## CHAPTER V REGISTERED MANUFACTURING

### Coverage

5.1. For purposes of domestic product estimation, the entire manufacturing industry is subdivided into two broad sectors, viz., manufacturing—'registered' and 'unregistered'. The registered manufacturing sector covers all organised manufacturing and processing establishments (classified as factories), which are registered under Section 2m(i) and 2m(ii) of the Indian Factories Act, 1948 (IFA).

5.2. According to the IFA, a Factory is defined as 'any premises including the precincts thereof (i) whereon ten or more workers are working or were working on any day of the preceding twelve months, and in any part of which a manufacturing process is being carried on with the aid of power or is ordinarily so carried on or (ii) whereon twenty or more workers are working or were working on any day of the preceding twelve months, and in any part of which a manufacturing process is being carried on without the aid of power or is ordinarily so carried on—but does not include a mine subject to the operation of the Mines and Minerals (Regulation & Development) Act, 1957 or a 'railway running shed'. 'The manufacturing process' is defined as 'any process for (a) making, altering, repairing, ornamenting, finishing, packing, oiling, washing, breaking up, demolishing or otherwise treating or adapting any article or substance with a view to its use, sale, transport, delivery or disposal, (b) composing types for printing, printing by letter press, lithography, photogravure or other similar process or book binding, (c) constructing, reconstructing, repairing, refitting finishing or breaking up of ships or vessels'. Establishments registered under the Indian Factories Act but not engaged in manufacturing activity, such as those providing water and sanitary services, recreation and cultural services, personal services and generation, transmission and distribution of electricity are excluded from the scope of the manufacturing sector and treated under the activities of "services" and "electricity" respectively. Similarly, operation of cold storage, though classified under manufacturing is not covered here but included under trade, hotels and restaurants and storage. Railway workshops are however, included under registered manufacturing sector and not under railways. Similarly, mints, ordnance factories and other manufacturing establishments are covered under manufacturing instead of under government services (administration). Value of

goods produced in defence establishments are also included in this sector.

### Methodology and Source Material

#### Estimates at current prices

5.3. The estimates of net domestic product, i.e., net value added from this sector are worked out by the production approach. Accordingly, from the value of output (comprising value of products and by-products manufactured, value of work done for customers, value of adjustments in stock and sale value of goods sold in the same condition as purchased) deductions are made on account of inputs i.e., costs of (i) basic raw materials used up in production, (ii) fuel and electricity consumed, (iii) services purchased from outside and (iv) allowance for consumption of fixed capital involved in the process of production to arrive at the estimate of net domestic product.

5.4. The National Sample Survey Organisation (NSSO) carries out annually a survey of industries known as Annual Survey of Industries (ASI). This survey provide industry-wise estimates of employment, output, input and capital employed separately for the census and the sample sectors<sup>28</sup>. Because of the time lag in the availability of detailed results of ASI the net value added estimates for the more recent years are prepared from 'Summary Results of Factory Sector' containing combined results of census and sample sectors. This report is brought out within a year of the conduct of the survey. Data in respect of defence production are, however, collected independently as they are not covered under ASI.

5.5. The gross/net value added figures in respect of the census sector as available from ASI are unadjusted for non-responding units. These are blown up by the ratio of total employment in all the factories to the total employment in the reporting factories. The employment in the defaulting factories are specially collected by NSS for this purpose and such adjustments are effected at the state level at the two digit level of National Industrial Classification, 1970 (NIC-70). [Appendix 5.1 and 5.2].

5.6. The estimates of value added obtained from ASI include banking charges paid by the manufacturing establishments. The value of such services forms a part of the income originating in the banking and insurance sector and as such, is deducted from the value added of the

<sup>28</sup> Factories employing 50 or more workers with power or 100 or more workers without power constitute the census sector. The remaining factories viz. employing 10 to 49 workers with power or 20 to 99 workers without power constitute the sample sector.

registered manufacturing sector. In the absence of adequate details, adjustment for imputed bank charges<sup>29</sup> are made only at the aggregate level.

**Estimates at constant prices**

5.7. The estimates of net value added at 1970-71 prices are obtained by deflating the two digit level (NIC-70) industry-wise value added estimates at current prices with the help of relevant wholesale price indices (EA, base 1970-71) for all the years where ASI data are available. For the 1972-73 for which no survey was conducted, the estimates are prepared by moving forward the 1971-72 constant price estimates by using the index of industrial production of two digit level of NIC-70.

5.8. The estimates of gross value added at constant prices are prepared by applying the ratio of gross value added to net value added for each year (as implicit in the current prices estimates) to the estimates of net value added at constant prices for the respective years. These estimates are also adjusted for imputed bank charges using the ratio of imputed bank charges to net value added as obtained in the current price series.

**Reliability, Objectivity and Current Status of Data**

5.9. ASI data relating to both census and sample sectors are quite comprehensive and can

be considered reliable. For the sample sector, the sampling design ensures through suitable stratification and sample size that estimates of adequate reliability are available at (i) the three digit level of NIC-70 at the all-India level, (ii) at the state level for all industries together and (iii) for each state also for the first two major industries at three digit level (i.e. the first two industries when arranged by size of employment). The geographical coverage of ASI is fairly complete from 1965 onwards. It includes all the states and union territories except Sikkim, Nagaland, Mizoram, Dadra & Nagar Haveli and Lakshadweep. However, there is a time lag in the publication of the detailed reports. The estimates, to begin with are prepared using summary reports which become available with a time lag of 1-2 years.

5.10. The net value added estimates at constant prices are prepared using the deflation method. The ideal method for working out the constant price estimates is the double deflation method. The applicability of this method depends on quantification of all items of output and input, the availability of detailed itemwise data on quantity and value of output and input and matching of the items between the base year and the year for which estimates are being prepared. Also the method involves estimation at very detailed levels of items and is not feasible particularly for multiproduct industry groups.

<sup>29</sup> The nature of these services and the method of imputation of their values are described in the Chapter XI relating to Banking & Insurance.

**APPENDIX 5.1 : MATCHING OF NATIONAL INDUSTRIAL CLASSIFICATION AND INDIAN STANDARD INDUSTRIAL CLASSIFICATION (RELATING TO MANUFACTURING ONLY)**

National Industrial Classification, 1970 (NIC-70)		Indian Standard Industrial Classification (ISIC)*
code	major group/group(s)	group code
20-21	manufacture of food products . . . . .	20
22	manufacture of beverages, tobacco and tobacco products . . . . .	21,22
23	manufacture of cotton textiles . . . . .	} 23,293,29
24	manufacture of wool, silk and synthetic fibre textiles . . . . .	
25	manufacture of jute, hemp and mesta textiles . . . . .	
26	manufacture of textiles, products (including wearing apparel other than footwear) . . . . .	} 25,26,35
27	manufacture of wood and wood products, furniture and fixtures . . . . .	
34	manufacture of metal products, and parts, except machinery and transport equipment . . . . .	
28	manufacture of paper and paper products and printing, publishing and allied industries . . . . .	27,28
29	manufacture of leather and leather and fur products (except repairs) . . . . .	241,29
30	manufacture of rubber, plastic petroleum and coal products . . . . .	30,32,391,393
38	other manufacturing industries . . . . .	394,395,399
31	manufacture of chemicals and chemical products (except products of petroleum and coal) . . . . .	31,392
32	manufacture of non-metallic mineral products . . . . .	33
33	basic metal and alloy industries . . . . .	34
35	manufacture of machinery, machine tools and parts (except electrical machinery) . . . . .	36
36	manufacture of electrical machinery, appliances and supplies of parts . . . . .	37
37	manufacture of transport equipment . . . . .	381,382,383,385, 386,389
97	repair services . . . . .	242,384

\* Description of ISIC codes in Appendix 5.2

NOTE : Industries above have been so grouped as to avoid splitting up of groups below the 3 digit level.

APPENDIX 5.2 : DESCRIPTION OF INDIAN STANDARD INDUSTRIAL CLASSIFICATION (RELATING TO MANUFACTURING ONLY)

major group/ groups	description
20	food manufacturing industries (except beverage industries)
21	beverage industries
22	tobacco manufacture
23	manufacture of Textiles
241	manufacture of Footwear
242	repair of footwear
243	manufacture of wearing apparel (except footwear)
244	manufacture of made up textile goods (except wearing apparel)
25	manufacture of wood and cork (except manufacture of furniture)
26	manufacture of furniture and fixtures
27	manufacture of paper and paper products
28	printing, publishing and allied industries
29	manufacture of leather and fur products (except footwear and other wearing apparel)
30	manufacture of rubber products
31	manufacture of chemicals and chemical products
32	manufacture of products of petroleum and coal
33	manufacture of non-metallic mineral products (except products of petroleum and coal)
34	basic metal Industries
35	manufacture of metal products (except machinery and transport equipment)
36	manufacture of machinery (except electrical machinery)
37	manufacture of electrical machinery, apparatus appliances and supplies
381	ship building and repairing
382	manufacture of rail road equipment
383	manufacture of motor-vehicles
384	repair of motor-vehicles
385	manufacture of motor cycles and bicycles
386	manufacture of aircraft
389	manufacture of transport equipment not elsewhere classified
391	manufacture of professional and scientific measuring and controlling instruments
392	manufacture of photographic and optical goods
393	manufacture of watches and clocks
394	manufacture of jewellery and related articles
395	manufacture of musical instruments
399	manufacturing industries not elsewhere classified