

CHAPTER 14

INDUSTRY

14.1 Significance of Industrial Sector: Industrial growth in the country has, in terms of long run trend, remained aligned with the growth rate of gross domestic product (GDP). The long-term average annual growth of industries comprising mining, manufacturing, and electricity, during the post-reform period between 1991-2 and 2011-12, averaged 6.7 per cent as against GDP growth of 6.9 per cent. Inclusion of construction in industry raises this growth to 7.0 per cent. The share of industry, including construction, in GDP remained generally stable at around 28 per cent in the post-reform period. Standard deviation of the average share was very small and the coefficient of variation under 5 per cent validates this stability. The share of manufacturing, which is the most dominant sector within industry, also remained in the 14-16 per cent range during this period. The share is modest when compared to that of China (above 40 per cent) and some of the East Asian countries (above 30 per cent).

Employment in the Industrial Sector									
	Persons employed (million)			Share in employment (%)			Share in GDP (%)		
	1999-2000	2004-2005	2009-2010	1999-2000	2004-2005	2009-2010	1999-2000	2004-2005	2009-2010
Mining	2.3	2.6	2.9	0.6	0.6	0.6	3.0	2.9	2.3
Manufacturing	43.8	56.1	52.4	11.0	12.2	11.4	15.1	15.3	16.0
Electricity	1.0	1.2	1.3	0.3	0.3	0.3	2.3	2.1	2.0
Construction	17.5	26.1	44.2	4.4	5.7	9.6	6.5	7.7	7.9
Industry	64.6	85.9	100.7	16.2	18.7	21.9	26.9	27.9	28.1

Source : The numbers have been derived applying NSSO segment-wise workers population ratios and Labour force participation rates to the population.

Note : Employment as per usual principal and subsidiary status (UPSS) basis.

14.2 Employment in the industrial sector increased from 64.6 million persons in 1999-2000 to 100.7 million persons in 2009-10. The share of industry in total employment increased from 16.2 per cent in 1999-2000 to 21.9 per cent in 2009-10. However, the increase was largely on account of expansion of employment opportunities in the construction sector, from 17.5 million in 1999-2000 to 44.2 million in 2009-10.

----Economic Survey 2012

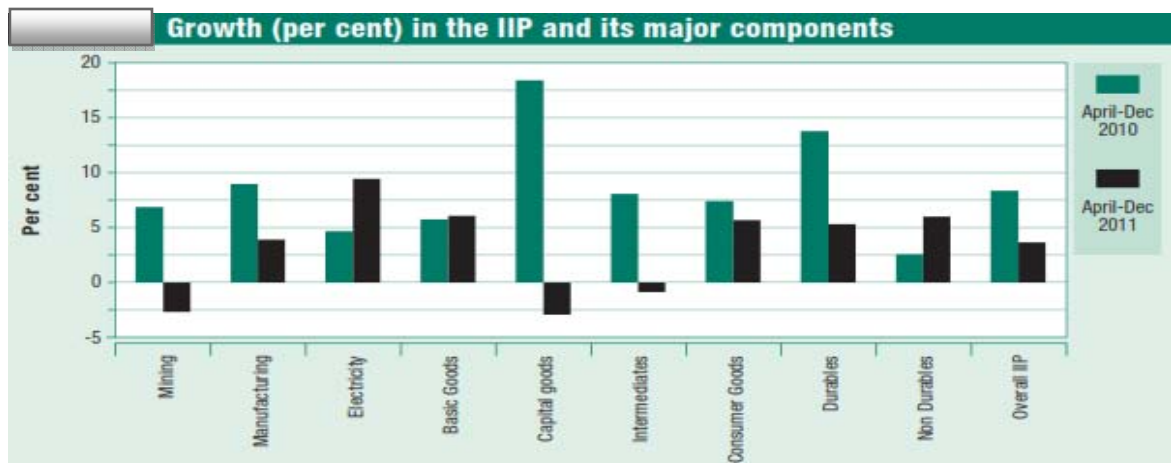
Industrial Statistics in India :

14.3 Trends in performance of Industrial sector are primarily monitored through Index of Industrial Production (IIP) (monthly) and Annual Survey of Industries, ASI. Whereas enterprise surveys pursuant to Economic Census provide an idea about the dynamics of unorganized sector. Ministry of Statistics & PI, through active involvement of both Central Statistics Office & National Sample Survey Office , is the backbone of Industrial Statistics in India even though various Ministries/Departments (Department of Industrial Policy & Promotion, Ministry of Commerce & Industry , Ministry of Micro Small & Medium Enterprises, Ministry of Corporate Affairs, Indian Bureau of Mines, Ministry of Mines, Office of Textile Commissioner, Coffee/ Tea Boards etc) maintain their own statistics.

14.4 Central Statistics Office , MOSPI, besides compiling information on Industrial Statistics in form of IIP and ASI results has also been responsible for updation of industrial classification and development of new classifications in harmony with the worldwide developments to enable comparability. National Industrial Classification (NIC)-2008 is the latest Industrial classification developed by CSO on the lines of International Standard Industrial Classification (ISIC)Rev 4. The structure of NIC- 2008 is identical to the structure of ISIC Rev.4 up to 4-digit level 'class'.

14.5 Various sources of Industrial Statistics along with their limitations and recent developments may be seen in the last section of the chapter.

14.6 **Index of Industrial Production** : The index of industrial production (IIP), released each month by CSO, MOSPI , is the key indicator of industrial performance. The new IIP series with 2004-5 as base was released in June 2011 replacing the earlier IIP series with base 1993-4. Recent industrial growth, measured in terms of IIP, shows fluctuating trends. Growth had reached 15.5 per cent in 2007-8 and then started decelerating. Initial deceleration in industrial growth was largely on account of the global economic meltdown. There was, however, a recovery in industrial growth from 2.5 per cent in 2008-9 to 5.3 per cent in 2009-10 and 8.2 per cent in 2010-11. Fragile economic recovery in the US and European countries and subdued business sentiments at home affected the growth of the industrial sector in 2011-12. Overall growth during April-December 2011 was 3.6 per cent compared to 8.3 per cent in the corresponding period of the previous year. Growth of IIP in terms of its major components is indicated in the figure below:



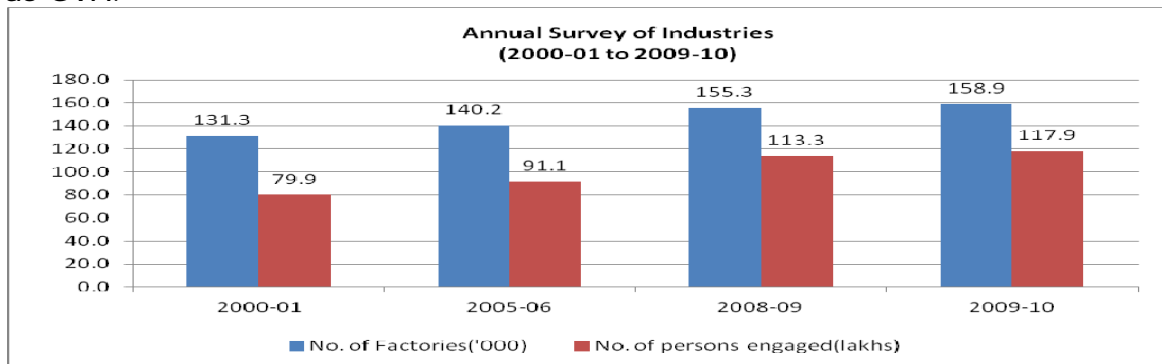
14.7 There was a contraction in production in the mining sector, particularly in the coal and natural gas segments in the current fiscal year (April-December). Contraction in output resulted in its contribution to growth turning negative. The electricity sector witnessed an improvement in growth in the current year. This sector contributed 22.6 per cent to overall industrial growth, which was more than twice its weight in the IIP. Growth also moderated in the manufacturing sector from 9.0 percent in April-December 2010 to 3.9 per cent in April-December 2011.

14.8 In terms of use-based classification of the IIP, in the current year (April-December) basic goods with a growth of 6.1 per cent and consumer nondurables with a growth of 6.1 per cent had relatively better growth compared to the corresponding period of the previous year. There was moderation in growth in other segments of the IIP and negative growth was observed in the capital goods and intermediates segments. The highest contribution to growth in the current year was from the basic goods segment, which at 65.7 per cent exceeded its weight in the IIP. The contribution of consumer non-durables at 28.1 per cent also exceeded its weight in the IIP. Volatility in growth was seen across all broad sectors of IIP.

14.9 **Annual Survey of Industries:** The Annual Survey of Industries (ASI) is the principal source of organized manufacturing statistics in India. It provides statistical information to assess and evaluate, objectively and realistically, the changes in the growth, composition and structure of organised manufacturing sector comprising activities related to manufacturing processes, repair services, gas and water supply and cold storage. The Survey is conducted annually under the statutory provisions of the Collection of Statistics Act 1953, and the Rules framed there-under in 1959, except in the State of Jammu &

Kashmir where it is conducted under the State Collection of Statistics Act, 1961 and the rules framed there-under in 1964. The ASI extends to the entire country except the States of Arunachal Pradesh, Mizoram, Sikkim and Union Territory of Lakshadweep. It covers all factories registered under sections 2m (i) and 2m (ii) of the Factory Act, 1948. The survey also covers bidi and cigar manufacturing establishments registered under Bidi and Cigar Workers (Condition of Employment) Act, 1966 and employing 10 or more workers using power and 20 or more workers not using power. Although the scope of the ASI was extended to all registered manufacturing establishments in the country, establishments under the control of the Defence Ministry, oil storage and distribution units, restaurants and cafes and technical training institutions not producing anything for sale or exchange were kept outside the coverage of the ASI. The latest available results of ASI pertains to year 2009-10, field work for which was carried out during 2010-11.

14.10 Considering all economic activities, estimated total number of factories in operation, as per ASI 2009-10, was 158,877. The factories engaged about 117.92 lakh persons in its various operations. Total value of output as per ASI results was worth Rs. 37.33 lakh crores during 2009-10 and total Gross Value Added (GVA) was worth Rs. 6.97 lakh crores. So far as manufacturing sector is concerned, an estimated number of 149,130 factories were under operation in this sector. The sector engaged nearly 114.09 lakh persons and it had contributed worth Rs. 35.66 lakh crores of output to the Indian economy and Rs. 6.60 lakh crores as GVA.

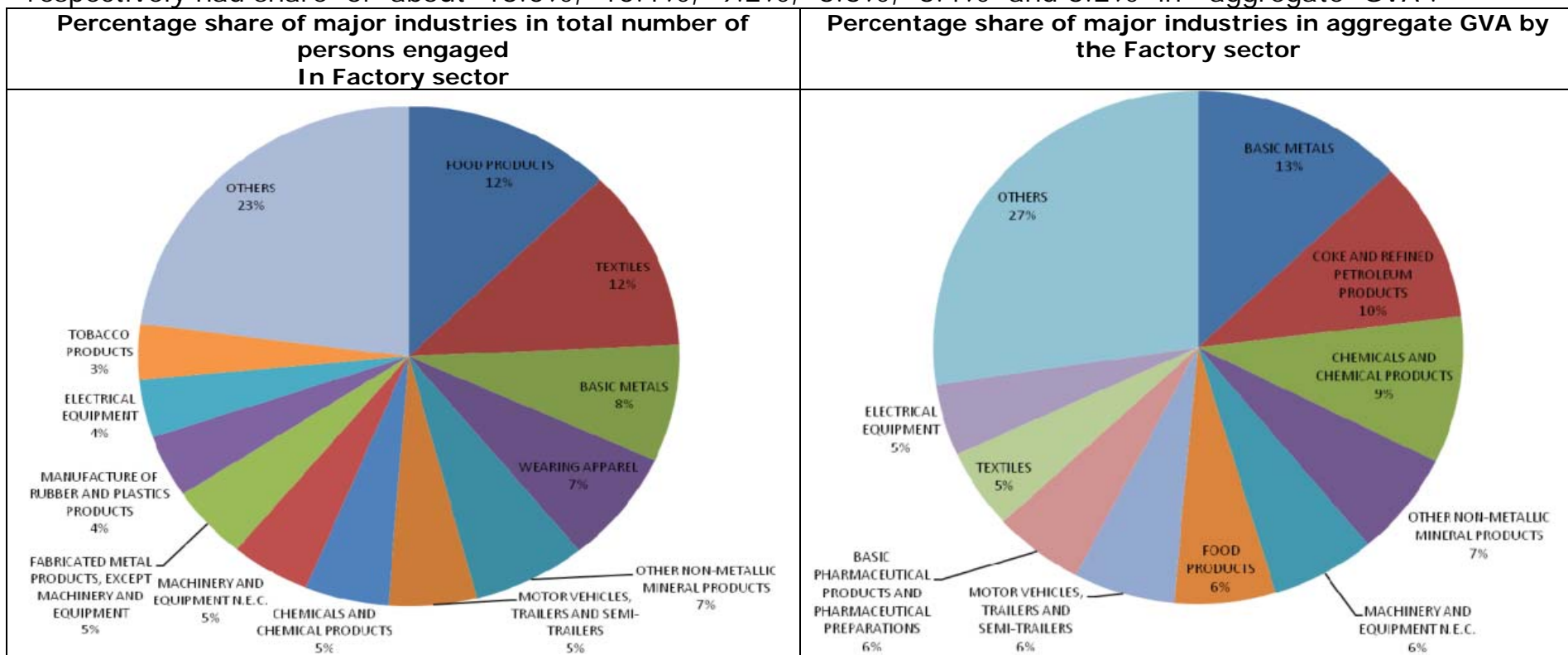


14.11 **Statewise Comparison : Employment & GVA** : The top five States in terms of employing persons in the factory sector were Tamil Nadu, Maharashtra, Gujarat, Andhra Pradesh and Karnataka respectively engaging about 18.9 lakh, 15.1 lakh, 11.6 lakh, 11.3 lakh and 8.9 lakh persons. These five States together had engaged more than half (55.8%) of total manpower engaged by the factory sector of the country. The same five States were also the major ones in terms of their percentage shares in aggregate GVA – although their relative positions were different. Maharashtra topped in terms of its percentage share (19.4%) in aggregate GVA, which was followed by Gujarat (15.5%), Tamil Nadu (10.3%), Andhra Pradesh (7.1%), and Karnataka (6.2%)

Industry Wise Comparison : Employment & GVA

14.12 Out of 28 industries in terms of National Industrial Classification (NIC) 2-digit codes under the coverage of the survey, major employment providing industries in terms of percent share in overall employment in factory sector were Food products (12%), Textiles (12%), Basic Metals (8%), Wearing Apparel (7%), Other Non-Metallic Mineral Products (7%), Motor Vehicles, Trailers & Semi-Trailers (5%), Chemicals & chemical Products (5%), Machinery & Equipment Not Elsewhere Classified (5%), Fabricated Metal Products Except Machinery & Equipment (5%), Rubber & Plastic Products (4%), Electrical Equipment (4%), and Tobacco Products (3%) .

14.13 Top six industries in terms of their percentage share in aggregate GVA were Basic Metals, Coke and Refined Petroleum Products, Chemicals and Chemical Products, Other Non-Metallic Mineral Products, Machinery and Equipment Not Elsewhere Classified, and Food Products. They respectively had share of about 13.0%, 10.1%, 9.2%, 6.6%, 6.4% and 6.2% in aggregate GVA .

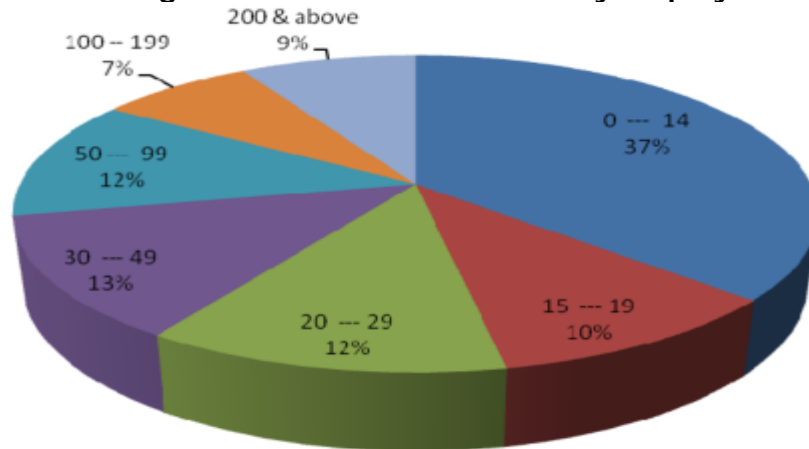


14.14 **Size of Factories:** More than one-thirds (36.6%) of the factories had employed 14 or less persons although their share in aggregate GVA was very nominal (1.9%). On the contrary, there were some factories with employment of 5,000 and above (0.2% of total number of factories) with a substantial share (13.9%) in aggregate GVA. Employment range wise characteristics are summarised below:

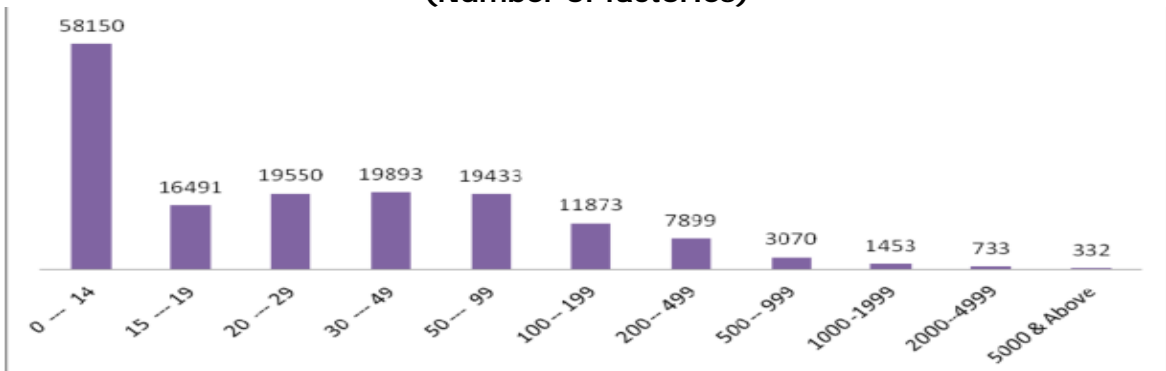
Percentage shares of a few broad employment ranges of factories in overall aggregate for three selected characteristics

Employment Range	All sectors/activities combined			Manufacturing sector only		
	Number of factories	Total persons engaged	Aggregate GVA	Number of factories	Total persons engaged	Aggregate GVA
0-14	36.6	3.9	1.9	36.6	3.8	1.9
15-49	35.2	12.7	7.0	34.9	12.2	6.7
50-99	12.2	11.3	7.1	12.1	10.9	6.7
100 or more	16.0	72.1	84.0	16.4	73.1	84.7
All	100.0	100.0	100.0	100.0	100.0	100.0
1000 or more	1.6	26.7	37.9	1.7	27.5	39.4

Percentage Distribution of Factories by Employment Range

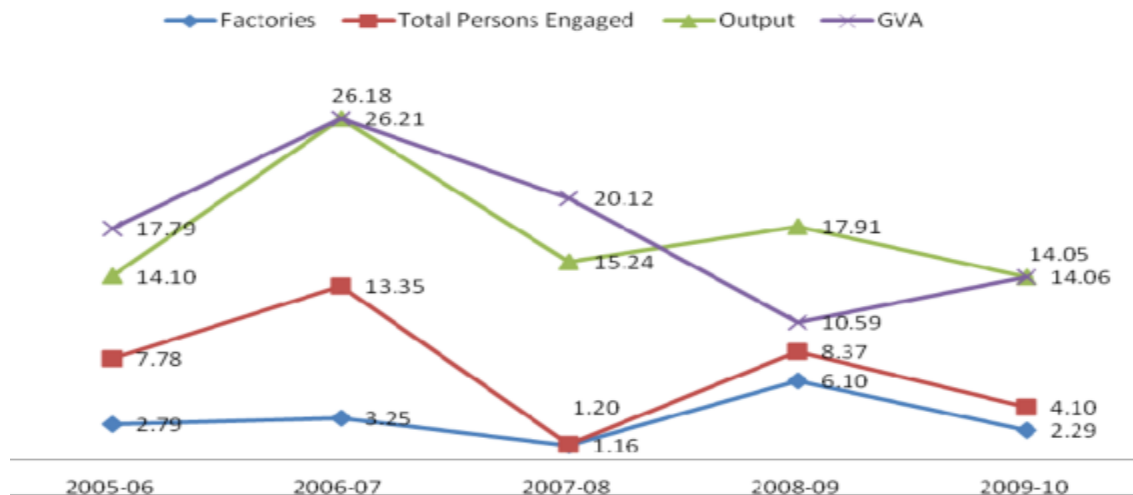


Distribution of Factories by Employment Range (Number of factories)



14.15 **Growth during last five years** : During 2009-10, total number of factories grew by 2.3% with the increase resulting in growth rates of 4.1% in total number of persons engaged, 14.1% in total value of output, and 14.1% in aggregate GVA. Following figure indicates the growth of the indicators over last five years.

Annual Growth rates (%) of various indicators of Annual Survey of Industries



Technology & Energy Efficiency in Manufacturing :

14.16 Technological depth of organized manufacturing, defined in terms of increase in share of value added, indicates a worsening trend in organized manufacturing during the post-reform period. The share of inputs as per cent to output actually increased from 77.2 per cent during 1981-91 to 77.3 per cent during 1991-2001 and further to over 80 per cent in the last decade. This indicates that the growth of Indian industry in general, particularly the organized manufacturing sector, was largely driven by increase in use of inputs. There has, however, been significant improvement in use of energy. The ratio of expenditure on fuel to output declined from 8.2 per cent during 1981-91 to 7.0 per cent during 1991-2001 and further to 4.3 per cent in 2009-10. Industry is becoming increasingly conscious of energy efficiency.

14.17 There has been an increase in profitability in organized manufacturing, with the ratio of profit to output increasing from 3.52 per cent in 1981-91 to 10.72 per cent in 2007-8. However, thereafter there has been a moderation in the ratio of profit to output to 8.67 per cent in 2009-10. Profitability of organized manufacturing seems to be

considerably dependent on the rate of interest on its outstanding credit and emoluments paid to workers. A trend of moderating interest rate from 1998-9 until 2007-8 resulted in the ratio of profit to output increasing from 6 per cent to 10.7 per cent. Hardening of interest rates in 2008-9 substantially reduced the ratio of profit to output. The decline in rate of interest, however, did not result in any improvement in profit/output ratio in 2009-10

Some Key Parameters of Organized Manufacturing in India							
CHARACTERISTICS	1981-1991	1991-2001	2001-2006	2006-2007	2007-2008	2008-2009	2009-2010
Number of factories	101905	127431	132419	144710	146385	155321	158877
Value of output (₹ billion)	1450	6469	13923	24085	27757	32728	37228
In per cent							
Input/output	77.20	77.26	81.04	80.89	80.09	81.32	81.54
Fuel/output	8.21	7.01	5.76	4.99	4.67	4.65	4.34
Capital invested/labour (₹ '000)	133	498	872	1037	1225	1355	1638
Emoluments/output	8.75	6.18	4.35	3.68	3.80	3.96	3.95
Profit/output	3.52	5.58	7.44	10.02	10.72	9.07	8.67
Interest Rate of Interest	11.90	15.31	11.96	9.64	11.34	12.80	11.06

Micro, Small, and Medium Enterprises (MSMEs)

14.18 Worldwide, the micro small and medium enterprises (MSMEs) have been accepted as the engine of economic growth and for promoting equitable development. The major advantage of the sector is its employment potential at low capital cost. The labour intensity of the MSME sector is much higher than that of the large enterprises. The MSMEs constitute over 90% of total enterprises in most of the economies and are credited with generating the highest rates of employment growth and account for a major share of industrial production and exports. In India too, the MSMEs play a pivotal role in the overall industrial economy of the country. In recent years the MSME sector has consistently registered higher growth rate compared to the overall industrial sector. With its agility and dynamism, the sector has shown admirable innovativeness and adaptability to survive the recent economic downturn and recession. The MSME sector in India constitutes enterprises with investment in Plant & Machinery **less than Rs ten Crore in case of manufacturing & less than Rs five Crore in case of services sector.**

14.19 As per available statistics (4th Census of MSME Sector 2006-07), this sector employs an estimated 59.7 million persons spread over 26.1 million enterprises. It is estimated that in terms of value, MSME sector accounts for about 45% of the manufacturing output and around 40% of the total export of the country.

14.20 With respect to MSMEs have been collected/compiled for the first time in 2006-07 and hence include both the manufacturing and service sectors. Till the year 2005-06, data in the Table 14.8 refers to small scale industry only. Following graphs indicate the trends in MSME sector both in terms of employment and production(fig 2009 onwards are based on projections)





14.21 Sources of Industrial Statistics:

- **Economic Census**, carried out by **Central Statistics Office, Ministry of Statistics & PI**, provides **frame for all enterprises once in five years**. High volatility (rise & deaths of units) in the unorganized sector, however, necessitates more frequent updation of the frame. Efforts towards preparation of **Business Register** to provide a frame on real time basis is a step in this direction.
- **Annual Survey of Industries** conducted by **National Sample Survey Office, Ministry of Statistics & PI**, Government of India, is the chief source of information for the **organized manufacturing**. It covers units registered under Section 2m (i) & (ii) of Factories Act i.e. Units using power with 10 or more workers or those having 20 or more workers without using power. The survey also covers bidi and cigar manufacturing establishments registered under Bidi and Cigar Workers (Condition of Employment) Act, 1966. The frame of units under Factories Act is maintained by **Registrar of Factories**, which may not be always very updated. Directorate of Economics & Statistics (DES)/State Statistical Bureaus (SSBs) also conduct their own Annual Surveys.
- **Enterprise surveys** carried out by **National Sample Survey Office, Ministry of Statistics & PI** in various NSS rounds provide information regarding the **unorganized sector**.
- **Index of Industrial Production (IIP)**, compiled by **Central Statistics Office, Ministry of Statistics & PI**, provides monthly information on the movement in production. Besides manufacturing, mining & electricity are also covered in IIP. The

information, for most of the items included in IIP is provided **Department of Industrial Policy & Promotion (DIPP), Ministry of Commerce** . However **Indian Bureau of Mines (IBM)** provides information wrt Mining Sector , **Central Electricity Authority** provides information wrt Electricity and various Boards viz **Coffe Board, Tea Board**, Office of **Textile Commissioner etc** provide information wrt some of the items.

- **Ministry of Corporate Affairs** maintains information wrt units registered under Companies Act 1956, Government Companies & Indian subsidiaries of foreign Companies .Information on a few selected parameters is collected online after implementation of **MCA21** whereas Registrar of Companies , spread all across India provide information wrt newly registered companies on monthly basis. In order to capture extended information on economic performance of companies , the Ministry is trying to implement reporting through **XBRL**.
- **Ministry of Small Micro & Medium Enterprises (MSME)** provides information wrt smaller units. Office of DC (MSME) provides annual estimates wrt various parameters. The Ministry also conducts **Census** and Final Report of the Fourth All India Census of Micro, Small & Medium Enterprises 2006-2007 for the Registered Sector has been brought out. In order to estimate unregistered MSMEs in the country, a sample of 10,312 villages and 568 towns at All-India level were selected for data collection of enterprises. The data processing work of the Fourth All India Census of MSMEs, unregistered sector is under progress.

References:

- Annual Survey of Industries 2009-10 , Vol I, Ministry of Statistics & PI.
- MSME Annual Report 2011-12, Ministry of Micro Small & Medium Enterprises
- Economic Survey 2012 , Ministry of Finance