

A COMPARATIVE STUDY OF GROWTH & INVESTMENT OF INDUSTRIAL SECTOR IN INDIA

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Abstract:

Industrialisation plays an important role in the economic progress of underdeveloped countries, like India and Investment and capacity additions are critical for sustained industrial growth. The purpose of this paper is to make a comparative study of growth & investment of Industrial sector in India. After recovering to a growth of 9.2 per cent in 2009-10 and 2010-11, growth of value added in industrial sector, comprising manufacturing, mining, electricity and construction sectors, slowed to 3.5 per cent in 2011-12 and to 3.1 percent in the current year. The manufacturing sector, the most dominant sector within industry, also witnessed a decline in growth to 2.7 per cent in 2011-12 and 1.9 per cent in 2012-13 compared to 11.3 per cent and 9.7 per cent in 2009-10 and 2010-11, respectively. The growth in electricity sector in 2012-13 has also moderated. With improved business sentiments and investor perception and a partial rebound in industrial activity in other developing countries, industrial growth is expected to improve in the coming financial years.

Keywords: -Industry, Performance, Industrial Growth, Investment

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Introduction

The economy of India is the tenth-largest in the world by nominal GDP and the third-largest by purchasing power parity (PPP). Industry is the production of an economic good or service within an economy. Manufacturing industry became a key sector of production and labour in European and North American countries during the Industrial Revolution, upsetting previous mercantile and feudal economies. This occurred through many successive rapid advances in technology, such as the production of steel and coal. Following the Industrial Revolution, perhaps a third of the world's economic output is derived from manufacturing industries. Many developed countries and many developing/semi-developed countries (People's Republic of China, India etc.) depend significantly on industry. Industries, the countries they reside in, and the economies of those countries are interlinked in a complex web of interdependence.

The industrial revolution led to the development of factories for large-scale production, with consequent changes in society. Originally the factories were steam-powered, but later transitioned to electricity once an electrical grid was developed. The mechanized assembly line was introduced to assemble parts in a repeatable fashion, with individual workers performing specific steps during the process. This led to significant increases in efficiency, lowering the cost of the end process. Later automation was increasingly used to replace human operators. This process has accelerated with the development of the computer and the robot.

Classification of Industry

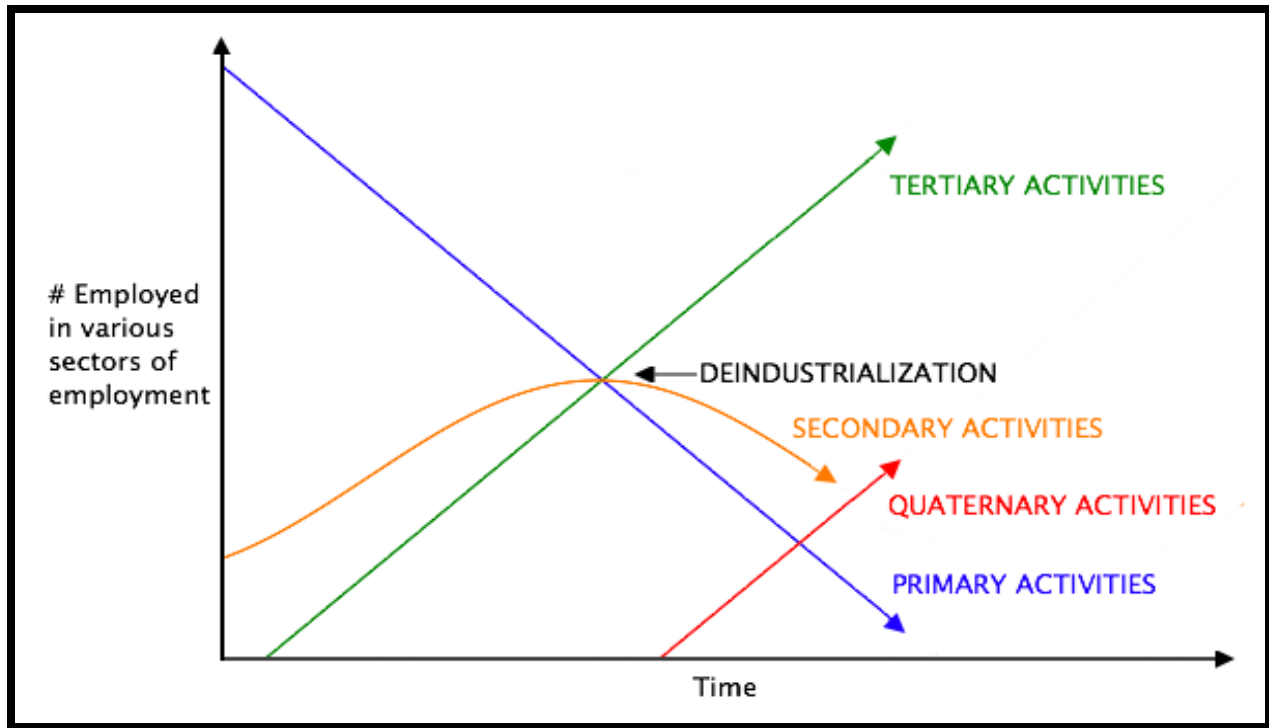
Industries can be classified in a variety of ways. At the top level, industry is often classified into sectors: Primary or extractive, secondary or manufacturing, and tertiary or services. Some authors add quaternary (knowledge) or even quinary (culture and research) sectors. Over time, the fraction of a society's industry within each sector changes.

Sector	Definition
Primary	This involves the extraction of resources directly from the Earth, this includes farming, mining and logging. They do not process the products at all. They send it off to factories to make a profit.

Secondary	This group is involved in the processing products from primary industries. This includes all factories—those that refine metals, produce furniture, or pack farm products such as meat.
Tertiary	This group is involved in the provision of services. They include teachers, managers and other service providers.
Quaternary	This group is involved in the research of science and technology. They include scientists.
Quinary Sector	Some consider there to be a branch of the quaternary sector called the quinary sector, which includes the highest levels of decision making in a society or economy. This sector would include the top executives or officials in such fields as government, science, universities, nonprofit, healthcare, culture, and the media.

There are many other different kinds of industries, and often organized into different classes or sectors by a variety of industrial classifications. Market-based classification systems such as the Global Industry Classification Standard and the Industry Classification Benchmark are used in finance and market research. These classification systems commonly divide industries according to similar functions and markets and identify businesses producing related products. Industries can also be identified by product, such as: chemical industry, petroleum industry, automotive industry, electronic industry, meatpacking industry, hospitality industry, food industry, fish industry, software industry, paper industry, entertainment industry, semiconductor industry, cultural industry, and poverty industry.

Clark's Sector Model



Growth of Industries

The index of industrial production (IIP) with 2004-5 as base is the leading indicator for industrial performance in the country. Compiled on a monthly basis, the current IIP series based on 399 products/product groups is aggregated into three broad groups of mining, manufacturing, and electricity. The IIP as an index shows both the level of production and growth. Overall industrial performance, as reflected by the IIP continued to moderate from Q1 of 2011-12 with growth turning negative in Q1 of 2012-13, before improving to 2.1 per cent in Q3 of 2012-13. The Mining sector production has contracted in the last six quarters. The contraction in the current year was largely because of decline in natural gas and crude petroleum output. Manufacturing, which is the dominant sector in industry, also witnessed deceleration in growth, as did the electricity sector. There was, however, a sharp pick-up in growth in October 2012 with manufacturing growth improving to 9.8 per cent, the highest recorded since June, 2011. Growth, however, turned negative in November and December, 2012 and was placed at (-) 0.8 per cent and (-) 0.6 per cent respectively.

Table 1: Growth Rate of Industries from 2010-13 (In Percent)

	Weight	2010-11	2011-12	2011-12				2012-13		
				Q1	Q2	Q3	Q4	Q1	Q2	Q3
General	100	8.23	2.89	6.98	3.18	1.18	0.63	-0.28	0.41	2.13
Mining	14.16	5.23	-1.97	0.65	-4.06	-4.22	-0.37	-1.53	-0.69	-3.25
Manufacturing	75.53	8.95	3.00	7.72	3.36	1.09	0.35	-0.84	0.25	2.61
Electricity	10.32	5.55	8.16	8.26	10.54	9.57	4.53	6.40	2.83	4.40
Basic goods	45.68	5.97	5.48	7.47	7.00	4.36	3.41	3.31	2.21	2.72
Capital goods	8.83	14.75	-3.97	16.99	-5.84	-16.1	-6.85	-20.1	-8.06	-0.95
Intermediate goods	15.69	7.39	-0.62	1.83	-0.83	-2.90	-0.51	0.83	1.47	2.35
Consumer goods	29.81	8.56	4.37	4.46	4.77	7.72	1.05	3.93	1.40	2.48
Consumer durables	8.46	14.16	2.60	2.71	7.87	4.91	-4.13	8.04	0.07	3.17
Consumer Non-durables	21.35	4.26	5.86	5.93	2.05	10.09	5.28	0.58	2.61	1.92

Source: Central Statistical Organisation (CSO)

In terms of the use- based classification of industries, the capital goods sector sustained negative growth in the last six quarters. Growth in the consumer durable sector continued to fluctuate, turning negative in Q4 of 2011-12, 0.7 per cent in Q2 and 3.2 per cent in Q3 of 2012-13. Pickup in growth in October was generally broad based with consumer goods, capital goods, and intermediates showing improvement in performance. The growth of consumer durables 16.9 per cent was the highest in the last 20 months

Table 2: Manufacturing Growth Rate (In Percent)

	Weight	2010-11	2011-12	2011-12				2012-13		
				Q1	Q2	Q3	Q4	Q1	Q2	Q3
food products & beverages	7.28	7.0	15.4	17.4	12.3	22.1	11.0	-0.9	0.9	6.7
Tobacco products	1.57	2.0	5.4	4.1	-5.0	16.7	7.2	-5.9	-11.1	-4.2
Textiles	6.16	6.7	-1.3	-2.3	-0.3	-4.7	1.8	9.0	5.4	6.2
Wearing apparel	2.78	3.7	-8.5	-4.9	-9.4	0.0	-18.2	-6.4	5.4	-0.4
Luggage, handbags, saddlery, harness & footwear	0.58	8.1	3.7	5.4	7.7	0.2	1.7	8.8	-0.4	9.8
Wood & products of wood	1.05	-2.2	1.8	-8.1	1.7	9.2	4.8	-2.2	-3.5	-15.3
Paper & paper products	1.00	8.6	5.0	6.7	4.2	5.4	3.8	0.6	1.4	0.3
Publishing, printing & reproduction of recorded media	1.08	11.2	29.6	10.7	7.4	41.9	55.9	13.6	16.7	-14.3
Coke, refined petroleum, products & nuclear fuel	6.72	-0.2	3.5	6.0	4.7	1.8	1.7	1.6	7.9	13.1
Chemical & Chemical Products	10.06	2.0	-0.4	3.5	-2.1	-0.5	-2.3	-1.2	6.4	3.0

Rubber & plastic Products	2.02	10.6	-0.3	-2.5	-0.1	-2.5	3.9	6.9	-2.1	-0.2
Other non-metallic mineral products	4.31	4.1	4.8	-0.5	6.2	8.4	5.2	7.5	-0.2	-4.3
Basic metals	11.34	8.8	8.7	15.6	13.6	4.6	2.4	2.3	0.2	5.0
Fabricated metal products	3.08	15.3	11.2	15.8	12.1	12.9	6.2	2.9	0.6	-9.7
Machinery & equipment	3.76	29.4	-5.8	-1.7	-2.0	-3.8	-13.2	2.4	-3.8	-10.4
Office, accounting & computing machinery	0.31	-5.3	1.6	28.2	0.1	-5.3	-9.5	-1.8	-21.5	-14.7
Electrical machinery	1.98	2.8	-22.2	25.5	-27.7	-49.5	-26.4	-43.7	-10.5	33.2
Radio, TV & communication equipment	0.99	12.7	4.3	-6.7	16.5	11.6	-5.0	18.3	4.1	4.5
Medical, precision & optical instruments	0.57	6.8	10.9	-2.2	-1.9	36.0	12.2	15.5	7.4	-17.7
Motor vehicles, trailers & semi-trailers	4.06	30.2	10.8	20.1	8.00	7.6	9.00	0.3	-5.6	-4.2
Other transport	1.82	23.2	11.9	19.1	16.3	11.1	3.1	0.7	-4.7	0.4

equipment										
Furniture; other manufacturing	3.00	-7.5	-1.8	-0.1	-0.5	-6.4	-0.6	-8.2	-9.2	7.7

Source: Central Statistical Organisation (CSO)

<http://indiabudget.nic.in>

The IIP provides data for 22 sub-groups of the manufacturing sector. Cumulatively during April-December 2012, four manufacturing sub groups with a weight of 14.5 per cent in the IIP recorded a growth in excess of 5 per cent. Seven sub-groups with a weight of 37.0 per cent had a positive growth and eleven sub-groups with a weight of 24.0 per cent had a negative growth, the highest negative growth of 14.6 per cent being shown by electric machinery and apparatus. Negative growth has persisted in tobacco products, office accounting and computing machinery and wood and wood products. On the positive side, however, growth in some of the labour intensive industries particularly textile has shown improvement in the last three quarters. Growth has also turned significantly positive for leather and food products in the Q3. Growth, as with the broad group of the IIP, has varied across manufacturing subgroups and over time.

Investment and Capital formation in Industrial Sector

Gross capital formation (GCF) in the industrial sector comprising mining, manufacturing, electricity and construction recorded an average growth of 13.2 per cent during 2004-5 to 2011-12. Growth turned negative during 2008-9 and again in 2011-12. The combined industry sector in 2007-8 accounted for 55 per cent of total GCF (excluding valuables) in the country, which declined 44.4 per cent in 2011-12

Table 3: Gross Capital Formation in Industries (In Percent)

	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Rate of growth of GCF in Industry (per cent) Share of Sectors of Industry in overall GCF (per cent)	46.7	18.3	22.0	24.7	-24.5	24.2	22.3	-10.8
Mining	3.7	4.4	4.4	4.3	3.6	3.6	3.8	3.8
Manufacturing	34.1	34.2	34.8	38.1	26.8	32.9	34.7	27.9
Registered Manufacturing	24.3	29.0	27.9	32.5	24.1	27.8	29.7	24.9
Unregistered Manufacturing	9.7	5.3	6.9	5.6	2.7	5.1	5.1	3.0
Electricity	5.3	5.5	5.6	5.4	6.3	6.2	6.6	6.8
Construction	5.4	4.9	7.0	7.2	5.7	4.8	5.3	6.0
Share of Industry in GCF	48.4	49.0	51.8	54.9	42.5	47.5	50.4	44.4
Share of GCF in industry	59.0	63.6	69.2	78.7	56.9	64.7	72.5	62.4
Share of GCF in manufacturing as per cent of GDP in manufacturing	76.0	81.1	83.2	97.3	64.1	78.3	86.8	68.6

Source: CSO

<http://indiabudget.nic.in>

The decline in overall share of GCF in industry in the total GCF for the economy and overall negative annual growth during 2008-09 and 2011-12 was largely due to a negative growth in GCF in the registered and unregistered manufacturing sector. Share of the registered manufacturing sector in overall GCF declined from a peak of 38.1 per cent in 2007-08 to 27.9 per cent in 2011-12. As percentage of GDP originating from industry, the share of GCF reached 78.7 per cent in 2007-08, though it moderated to 62.4 per cent in 2011-12. The GCF of the registered manufacturing sector in 2008 had reached a level of over 97 per cent income of this sector.

Conclusion

Industrial sector has been hit hard by the deceleration in investment for the second successive year. As per the latest first revised estimates of GDP, gross capital formation in the manufacturing sector in 2011-12 (at 2004-05 prices) had declined by 18.8 per cent as compared to 2010-11. Lower foreign direct investment inflows in key industry and infrastructure sectors during April-October 2012 at \$ 6.19 billion against the inflow of \$18.66 billion during the same period of the previous year have further constrained investment in these sectors. Apart from weak investment climate, industrial sector performance remained subdued due to infrastructure bottlenecks. Industrial growth rate moderated due to sharp decline in output of natural gas; subdued performance of the coal sector and its resultant impact on thermal power generation; and slow pace of project implementation in rail, road, and ports sectors. In the medium term it is therefore crucial to accelerate the output of core sectors and speed up implementation of crucial big ticket projects. To attract more investment and talent, incubators need to be allowed to distribute profits back to investors. With some of these changes industrial growth could become steadier.

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