
UNIT 36 PATTERNS OF INDUSTRIALIZATION

Structure

- 36.1 Introduction
- 36.2 What is Industrialization?
- 36.3 Measurement
- 36.4 Periodization
 - 36.4.1 1850-1914
 - 36.4.2 1914-1939
 - 36.4.3 1939-1947
- 36.5 Enterprise
 - 36.5.1 Bird Heilgers & Co.
 - 36.5.2 Birla Brothers
- 36.6 Why No Take-Off?
- 36.7 Summary
- 36.8 Exercises
- 36.9 Suggested Readings

36.1 INTRODUCTION

Before the British conquest of India (1757-1818), which coincided with the Industrial Revolution in England (c.1750-1830), India was famous for its artisan industries. In fact, India was then the world's leading textiles producer and exporter.

What happened afterwards is a matter of debate among historians.

The point at issue is the fate of industrial activity in colonial India. The debate is an old one. Around the beginning of the twentieth century, there was a sharp exchange between Romesh Chunder Dutt, a Congress leader and economic historian, and Lord Curzon (1899-1905), the then Viceroy of India. Dutt maintained that British policy in India caused a widespread destruction of handicrafts and cottage industries. Lord Curzon was concerned to prove, on the contrary, that British India had experienced economic improvement.

That India did not experience an industrial revolution, as did England, Germany, the United States of America and Japan, is not in dispute. Beyond that there is no agreement. One view, shared by both Indian nationalists and Marxist historians, is that the colonial rule de-industrialized the Indian economy. The opposite view, propounded among other works by *The Cambridge Economic History of India* (vol. II, 1983), is that some amount of industrialization occurred in British India.

The question therefore arises: What happened in colonial India: some industrialization or absolute de-industrialization?

36.2 WHAT IS INDUSTRIALIZATION?

Before we consider that question, we must ask ourselves a prior question: what is meant by industrialization?

In England, where the industrial revolution first occurred, industrialization meant the growth of large-scale industry. In India, too, factories and mills appeared in the second half of

the nineteenth century, but at that time, they were not of sufficient size to make much difference to the vast Indian population and its occupational structure. Industry was mainly cottage industry. In the period between 1900 and 1947, large-scale industry became a more significant part of the Indian economy. Here we are concerned with large-scale industry alone. However, we cannot ignore the question of growth or decline in handicrafts and cottage and small industries. As soon as we begin to consider the rate of industrialization, we have to take into account of what happened to artisans and their manufacturers? For, at least until the outbreak of the Second World War (1939-1945), they contributed more to industrial production than did labourers in mines, mills and factories. It is only in course of the war that large-scale industry outweighed small-scale industry. So, how can we exclude the performance of small-scale industry in considering the question of industrialization in British India? It would be unwise to do so.

What, then is industrialization in the Indian context?

Several alternative definitions are possible. Industrialization may mean the rapid growth of *large-scale* industry, so that it becomes a significant sector in the economy. By this definition, industrialization might have occurred in India during the period 1900-1947, but it did not happen on any appreciable scale in the *nineteenth century*. Mills and factories did appear in the late nineteenth century for the first time but their contribution to industrial production was small.

An alternative definition of industrialization would be the growth of the output of both large-scale and small-scale industry, so that the share of the secondary sector (i.e. the industrial sector, as opposed to the primary or agricultural sector) in the total production might increase at the expense of agriculture. By this definition, it appears that the share of industry in the total production went down in the nineteenth century (i.e. some de-industrialization might have occurred) and then it went up in the twentieth century (i.e. industrialization occurred in some measures).

Yet another definition of industrialization would be increase in employment (as distinct from output) in industry at the expense of employment in other sectors of the economy. By this definition, it appears that no clear change occurred in the relative share of industrial employment (taking factories and artisans together) during the period when census operations were conducted between 1872 and 1951. In other words, the census yielded no evidence in favour of either industrialization or de-industrialization.

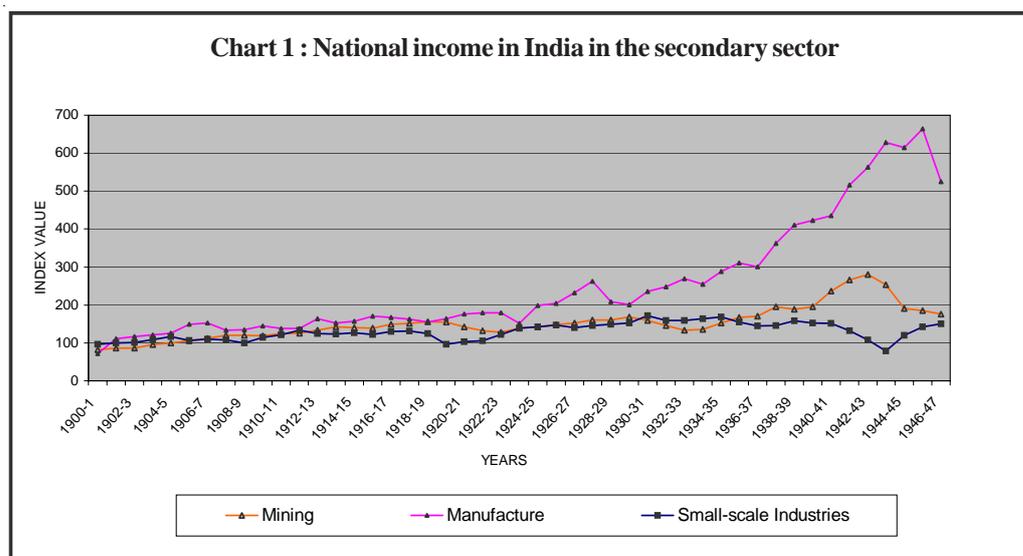
All these definitions must be considered when we try to judge the rate of industrialization (if it occurred at all) in British India.

36.3 MEASUREMENT

Let us first look at the statistical evidence relating to large-scale industry in India. The evidence relating to the twentieth century is reliable, but it is not so good for the nineteenth century. The most well known estimate for the nineteenth century is the one made by Alan Heston in *The Cambridge Economic History of India*. His guess is that large-scale mining and manufacturing contributed Rs. 53 million to India's national income in 1868-69, and Rs. 1023 million in 1899-1900, at constant prices. But large-scale industry began from scratch, so this increase made practically no difference to the economy as a whole; for

large-scale industry's contribution to the national income was only 0.17 per cent in 1868-69 and not more than 2.65 per cent in 1899-1900. The Indian economy was still predominantly agricultural, and as far as industrial production is concerned, large-scale industry was less than a quarter of the size of small-scale industry at the beginning of the twentieth century. India was still a country of peasants and artisans in 1900. That is why Romesh Chunder Dutt did not give any attention to large-scale industry when he wrote *The Economic History of India* at the beginning of the twentieth century. At that time it was still marginal to the economy.

During the period from 1900 to 1947, large-scale industry grew sufficiently to become a sizeable sector in the Indian Economy. (See Chart 1) We have reliable statistical calculation of the growth of India's industry and national income for this period by S. Sivasubramonian, who presented his findings in articles in *The Indian Economic and Social History Review* in 1977 and 1997, and subsequently in *The National Income of India in the Twentieth Century* (2000). His findings may be briefly summarized here. First of all, it is clear from his statistics that there was no de-industrialization in the twentieth century. Even if there had been de-industrialization in the nineteenth century (some scholars would dispute this, see Unit 33 of the present Block for the de-industrialization debate), such a trend is definitely ruled out after 1900. Instead, Sivasubramonian's statistical series reveals some degree of industrialization between 1900-1947. (See Chart 1) However, it is equally clear from the same series that this industrial development was weak and halting.



Source: Based on Sivasubramonian (1977), pp. 491-92. Average of 1900-01 to 1902-03 = 100.

The pattern of this industrial development will become clearer if we look at certain points that emerge from census data, and from Sivasubramonian's measurements of national income and its sectoral distribution. These points are the following:

- 1) Factory output rose rapidly between 1900-1946, by as much as 4.41 per cent per annum. How did the output of the factories rise so fast? It did so due to an increase in the output per worker, and also because of the multiplication of factories. It is estimated that output per factory worker increased by 47.9 per cent during the period. (See Table 1) This clearly, does constitute what we might call industrialization.

Table 1
Net output per engaged person at 1948-49 prices

Industry (1)	(Rs)		
	1900-01 (2)	1946-47 (3)	Percentage change (4)
Agriculture and allied industries	426	425	-0.2
Mining	1,841	763	-58.6
Manufacturing	1,653	2,445	+47.9
Small scale and cottage industries	409	548	+34.0
Railways and communications	1,442	2,358	+63.5
Government administration	552	922	+67.0
Other commerce and transport	753	1,206	+60.2
Professions and liberal arts	417	624	+49.6
Domestic	229	316	+38.0
All sectors excluding house property	453	553	+22.0

Source: S. Sivasubramonian, 'Revised estimates of the national income of India, 1900-01 to 1946-47' *Indian Economic and Social History Review*, Vol. 34, No.2 (April-June), 1997, Table-4, p. 136.

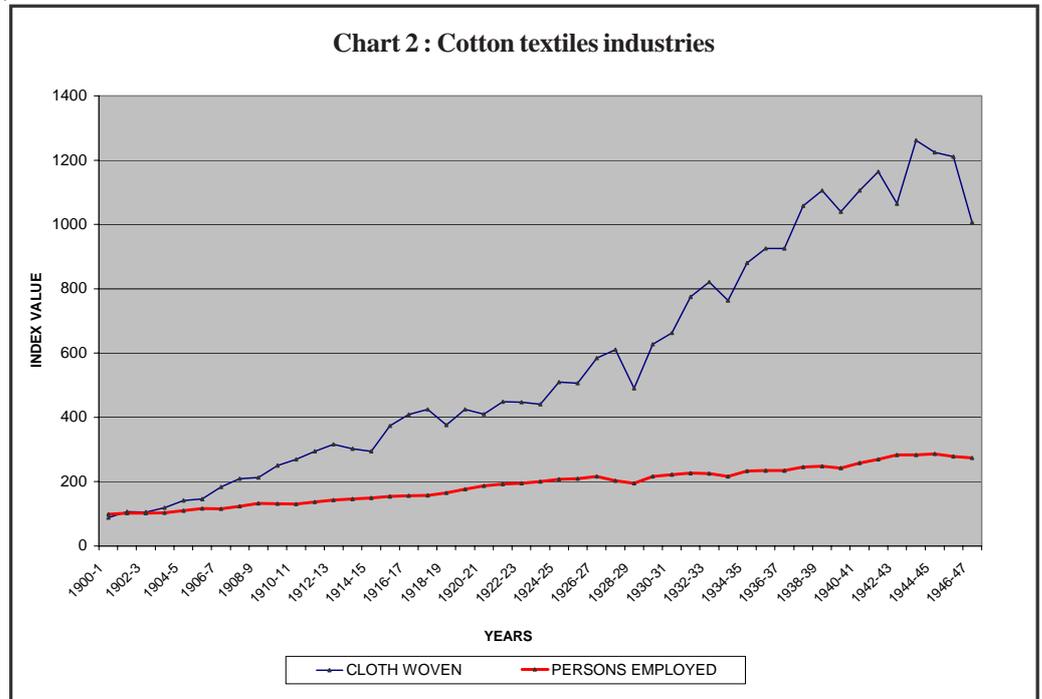
- 2) Yet it is evident at the same time that employment in the factories did not increase fast, at least not as fast as their output. This is true both for the Cotton Textile as well as Iron and Steel industries (See Charts 2 and 3) The number of factory workers, taking undivided India as our unit (that is, including Pakistan after 1947), rose from 584 thousand in 1901 to 2844 thousand in 1946. (See Table 2) These are census figures, and they do not reflect an industrial revolution. What they reflect is some degree of industrialization. De-industrialization, of course, is ruled out, whether one looks at the factories in terms of either output or employment.

Table 2
Average daily number of workers employed in factories, 1900-1 to 1946-7

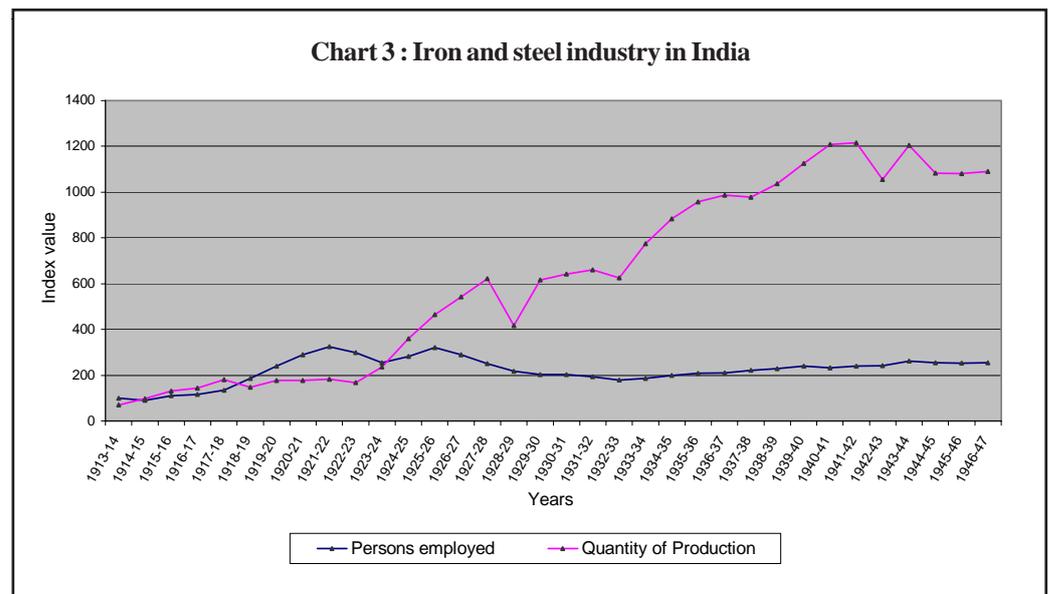
(in thousands)

Year	All In- dustries	Year	All In- dustries						
1900-1	584	1910-11	957	1920-1	1389	1930-1	1624	1940-1	2144
1901-2	617	1911-12	933	1921-2	1467	1931-2	1541	1941-2	2156 (2492)
1902-3	642	1912-13	1003	1922-3	1419	1932-3	1522	1942-3	2282 (2638)
1903-4	666	1913-14	1023	1923-4	1458	1933-4	1526	1943-4	2436 (2816)
1904-5	766	1914-15	1089	1924-5	1506	1934-5	1706	1944-5	2614 (2916)
1905-6	803	1915-16	1073	1925-6	1547	1935-6	1759	1945-6	3121
1906-7	893	1916-17	1141	1926-7	1585	1936-7	1819	1946-7	2844
1907-8	871	1917-18	1163	1927-8	1588	1937-8	1958		
1908-9	894	1918-19	1213	1928-9	1576	1938-9	2037		
1909-10	929	1919-20	1303	1929-30	1657	1939-40	2050		

Source: S. Sivasubramonian, *National Income of India in the Twentieth Century*, OUP, New Delhi, 2000, pp. 201-203, Table 4.2.



Source: Based on Sivasubramonian (New Delhi 2000), pp. 208-210, Table 4.3. Average of 1900-01 to 1902-03 = 100.



Source: Based on Sivasubramonian (New Delhi, 2000), pp. 245-252, Tables 4.24 - 4.26. Average of 1913-14 to 1915-16 = 100.

- 3) The total output of the artisans increase slowly during the period between 1900-1946. (See Chart 1) Sivasubramonian's estimate of the increase of output in the small-scale and cottage industry is 0.46 per cent per annum. (See Table 3) Yet strange to say, the number of artisans, going by the census figure of 1901 and 1951 (Pakistan included), Still, the per head output of the artisans increased by 34 per cent between 1900-1946. (See Table 1) Looking at the record of the artisans industries, this is a mixed kind of industrialization, if one may consider this industrialization at all. Consider the facts together: the number of artisans goes down; their output per head increases; and in consequence of these two facts, the total artisan output does achieve some increases, but not much. On the other hand, as mentioned above, the total output of large-scale industry has in the meanwhile increased rather rapidly. (See Chart 1 and Table 1)

Table 3

Comparative Average Annual Growth Rates by Sector/Subsector

(per cent)

Sector	1900-01 to 1910-11	1910-11 to 1920-21	1920-21 to 1930-31	1930-31 to 1940-41	1940-41 to 1943-44	1943-44 to 1946-47	1900-01 to 1943-44	1900- to 1046-47
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
PRIMARY	1.78	-1.72	1.74	0.24	1.75	-2.33	0.59	0.39
Agriculture	1.95	-2.51	2.09	0.19	2.03	-2.96	0.53	0.30
SECONDARY	3.30	-2.34	5.46	0.26	2.47	0.58	1.69	1.62
Manufacturing	6.72	2.46	2.99	6.17	13.42	-5.83	5.16	4.41
Small-scale and cottage industries	2.58	-4.19	6.80	-3.00	-8.57	10.56	-0.21	0.46
TERTIARY	2.42	1.50	2.31	2.08	1.58	-4.85	2.04	1.58
Railways and communications	6.34	4.80	-0.10	1.45	8.40	3.84	3.45	3.48
Government administration	2.64	0.94	5.06	3.82	-9.80	0.0	2.15	2.00
Other commerce and transport	2.47	2.20	0.90	2.93	9.47	-13.19	2.62	1.51
Other services	1.71	-0.02	3.66	0.02	-7.64	7.40	0.68	1.10

Source: S. Sivasubramonian, 'Revised estimates of the national income of India, 1900-01 to 1946-47' *The Indian Economic and Social History Review*, Vol. 34, No.2 (April-June), 1997, Table-7, p. 141.

- 4) Now let us consider the large-scale industry and small scale and cottage industry together to get the whole picture. Sivasubramonian's measurements reveal an increase of production by 1.68 per cent per annum in the industrial sector as a whole. This is considerably lower than the figure of 4.41 per cent per annum cited earlier, which was the rate of increase in factory output. (See Table 3) Evidently, the rate of growth was pulled down by the slower rate of increase of artisan output. Nevertheless, the output of the handicrafts did increase. In consequence, the share of industry as a whole in the net domestic product went up from 10.8 per cent in 1900 to 14.9 per cent in 1946.

We may conclude, from the above measurements, that industrial production increased (See Charts 2 & 3) in the twentieth century, though it might have decreased in the nineteenth century. By world standards, the performance of the Indian industry in the twentieth century was not so bad, in fact rather good. According to a League of Nations' study entitled *Industrialization and Foreign Trade*, industrial production in India and in the world increased by 139.7 per cent and 82.7 per cent respectively between 1913-1938. India's industrial performance between 1913-1938 was better than the world average. According to the League of Nations, the Soviet Union and Japan did better than India during the period, but on the other hand, industry grew faster in India than in the USA, Britain, Germany, France, Netherlands, Italy, Canada, Australia and a number of other countries. At the same time, one must bear it in mind that the level of industry was still low in India compared to all these advanced countries.

36.4 PERIODIZATION

If we take the nineteenth century and the twentieth century together, what result do we obtain for the colonial period as a whole? Was there industrialization, or de-industrialization? As indicated earlier, there are two distinct criteria for measurement of industrial performance: output and employment. Did the share of industrial output increase or decrease compared to the output of agriculture and the service (tertiary) sector? Alternatively, did the share of industrial employment in total employment increase or decrease relative to the other sectors? The answers to these questions are not certain.

It is likely that industry, taking organized and cottage industries together, had a lesser share in total employment in 1947 than, say in 1800. On the other hand, both the total product and the industrial product increased many times during the period. While no measurement of this is possible we may guess that industry's share in the total product might have been pretty much the same in 1947 as it was in 1800, after deducting the probable decline of the nineteenth century from the certain rise of the twentieth. And, to take another indicator into consideration, per capita industrial output is certain to have been substantially higher in 1947 than in 1800.

However, the structural changes that took place in the economy between 1800 and 1947 are so imponderable, that these comparisons are in a sense meaningless. What is relevant is that large-scale industry, with which we are concerned here, became a substantial sector in the Indian economy between 1850 and 1947. Furthermore, its growth was rapid. After 1900 and before that, though output was not so big in itself, the annual rate of its growth was quite high.

It is therefore necessary to have some sense of the distinct periods through which this industrialization (in the sense of the rapid annual rate of increase of production in large-scale industry) took place. Broadly speaking, it is possible to distinguish three periods: 1850s-1914, 1914-1939 and 1939-1947. In terms of products, markets, production centres and the entrepreneurial groups involved in industrialization, the period up to 1914 is quite distinct from the period that followed the outbreak of the First World War in 1914. Again, certain new features appear with the outbreak of the Second World War (1939), features which are prominent in 1947 and afterwards. There is a certain over-lap in this periodization, nevertheless the distinctions in the time series are meaningful.

36.4.1 1850-1914

The jute and cotton mills appeared in Bengal and Bombay respectively, in course of the 1850s. A small number of coal mines and tea gardens had appeared in Eastern India even before this, the Ranigunj colliery (financed by Alexander & Co. of Calcutta) in 1820 and the Assam Tea Company (incorporated in London) in 1839.

The nineteenth century witnessed the virtual monopolization of India's shipping and foreign trade by British firms. Since the industries that appear at this time, tea, coal, jute and cotton catered initially to foreign markets. It is not surprising that British expatriate firms in Calcutta and Bombay and a number of companies in London had a predominant presence in the early industries. The mining and plantation products (coal and tea) and light manufactures (jute and cotton) were typical colonial products; meant mostly for export and not for consumption in the country. In other words, they created no domestic demand for industrial goods. The new industrial products, moreover, were (except for coal) consumer products rather than capital goods, so they did not add to the country's productive industrial capacity.

The cotton mills in the Bombay Presidency, though at first engaged in exporting cotton threads (yarns) to markets in China, gradually extended their operations from the foreign to the home markets, and from spinning yarns to weaving fabrics. It is in this area that Indian enterprise first made its mark. Among the Bombay mill owners, European, Jewish, Parsee, Khoja and Bhatia firms figured prominently as managing agents, and the Ahmedabad cotton mills were mostly owned by the local Bania capitalists.

In Calcutta on the other hand, an exclusive set of European managing agency houses dominated the complex of the tea, coal and jute industries that had sprung up in the hinterland of the great colonial port city. Among them again, six big expatriate firms acting as managing agents, namely Andrew Yule & Compnay, Jardine, Skinner & Compnay, Bird & Company, Shaw Wallace & Company, Begg Dunlop & Compnay, and Heilgers & Co. controlled more than half the rupee capital invested in the three industries in 1914: 51 per cent of tea, 57 per cent of jute and 52 per cent of coal. The European managing agents, who enjoyed the patronage of the British authorities, did not encourage Indian entry in this oligopolistic complex of industries.

It should be noted that the Tatas of Bombay were producing a little steel in this period, but before 1914 this was not of sufficient quantity to make much difference to India's industrial capacity. Production began in a small way at Jamshedpur in 1911. Overall, the big houses in industry at the outbreak of the First World War were expatriate British firms based on the colonial port cities of Calcutta, Bombay and Madras, and as managing agents they controlled mining, planting and light manufacturing companies which catered mostly to foreign markets, where their advantage lay. During this period, Indian industry received no protection from duties on imported industrial goods. The open Indian economy encouraged imports and exports, and light manufacturers grew under expert-oriented European enterprise. There was not much large-scale industrial activity catering to domestic industrial needs.

36.4.2 1914-1939

At the end of the First World War, the European managing agency houses still dominated business and industry, but, by the end of the Second World War (or even before), this domination, though yet not at an end, had been shaken. The European domination, it has been speculated by India's leading economists such as Amartya Kumar Sen and Amiya Kumar Bagchi, might have been a factor inhibiting balanced and over-all industrial development. Amartya Sen commented on the early pattern of Indian industrialization: 'It is most significant to note that the two manufacturing industries that provided the basis of the British industrial revolution, namely cotton textiles, and iron and steel, were both developed mainly by Indian and not British industrial enterprises. British enterprise confined itself apart from transport, mainly to export industries, e.g. tea, coffee, indigo, jute goods and to extractive and trading operations'. Sen speculates that this might have been part of the reason for India's under-development, and for her failure to achieve an industrial revolution based on the domestic market and increasing internal consumption.

After 1914, however, Indian industrialization began to occur at a faster pace, and in fact as S. Sivasubramonian has pointed out the pace was sustained through the First World War (1914-1918), the Great Depression (1930-1937) and the Second World War (1939-1945). (See Charts 1, 2, 3 and Table 3) This was in strong contrast with the setbacks that the advanced industrial countries suffered during these events. Several new features distinguished India's industrial performance during the period 1914-1939 compared to the period before 1914. In the first place, the new industrial concerns were mostly founded by Indian business communities, especially as Thomas

A. Timberg's study shows, by the Marwaris. Second, the new products were still mainly consumer goods rather than capital goods, and the cotton mills considerably expanded their output of piece goods (as against the yarns, which had been the predominant form of their output at the outset). For the first time, too, steel, an important factor in the productive capacity of any industrial economy, began to be produced in significant quantity, especially after the Tata Iron and Steel Company's works at Jamshedpur houses tried their hands at other types of industry, especially sugar mills and paper mills, which proliferated in the 1930s. Third, the new industrial products catered to the domestic market, unlike tea and jute, which were sold abroad. Fourth, industry began to move inland from the earlier centres in Calcutta and Bombay.

What is the explanation for these positive developments? Amiya Bagchi has suggested that the First World War and Great Depression weakened the British economic grip over India. At the same time, the growing nationalist challenge compelled the colonial government to give heed to the Indian demand for economic development. In consequence, the government, for the first time, granted some measure of protection to industry by imposing a protective tariff over imported industrial goods in the 1920s. Imports of industrial goods had been interrupted even before this by the war. Moreover, wartime speculation and profiteering had led to the accumulation of capital in the hands of Indian business communities, and they were now eager to extend their operations from trade and speculation to industry. In these circumstances, Indian business houses began investing their accumulated assets in new forms, especially cotton mills, jute mills, sugar mills and paper mills. They breached the virtual monopoly, which the British expatriate firms had hitherto enjoyed in business and industry. A process of industrialization based on import substitution in the domestic market, now protected by tariff, was under way.

36.4.3 1939-1947

Industrialization based on selling consumer goods in the protected domestic market had certain definite limits in a poor country like India. Per capita consumption was low, so the scope for profitable investment in things such as cotton piece goods, sugar and paper was also narrow. In such market conditions, as Amiya Bagchi has pointed out, no industrial revolution could occur; industrial investment would go on only until imports had been substituted, and would hit a ceiling thereafter. There were signs by the late 1930s that this was beginning to happen.

Then the Second World War broke out, and a new chapter in Indian industry began. This time again, Indian business houses, such as Tata, Birla, Walchand, JK and Shriram, took the lead. The effects of the war seriously weakened the European managing agencies, which still depended on exports. By this time a new type of foreign firm, the multi-national 'India Limiteds', had appeared on the scene, and they sought to capture the potential domestic market for technology intensive goods. However, Indian business houses, now much stronger than earlier, began to compete in this field too.

In these circumstances, the scope of industrial investment in India widened from the production of consumer goods to the pioneering of capital goods. The extraordinary requirements that arose out of the Second World War, together with the machinery requirement of the newly established consumer goods industries of the inter war period, generated a profitable market for capital goods industries for the first time. At the same time, the big Indian business houses began seeking an outlet for their

accumulated profits from the steel, cotton textiles, sugar, paper and construction industries, and were attracted towards the new, technology-intensive metallurgical, chemical and engineering industries.

The technological problems in setting up the basic and heavy industries were extremely complex. Moreover, there were wartime constraints upon imports of essential plant and machinery for setting up the new industries. The plans of the Indian industrial houses and the new multinational groups were therefore impeded by many difficulties. Even so workshops multiplied. At the beginning of the war there were no more than 600 workshops capable of producing engineering components. Before the war was over, 15,000 engineering workshops were supplying the Government of India's urgent war requirements. Again, the war needs of the Government speeded up the production of aluminium: the Indian Aluminium Company (1938), set up by a joint British-Canadian multinational group, and the Aluminium Corporation of India (1937), managed by the J K Group [Juggilal Kamlapat], commenced production in 1943 and 1944 respectively; when independence arrived, the two groups together were producing more than the total pre-war demand for aluminium in India, but demand had increased so much in the meanwhile that they could meet only 22.5 per cent of the total demand, the rest being imported from abroad. The house of Tata set up Tata Chemicals in 1940 and the Tata Locomotive and Engineering Company (TELCO) in 1945. The Walchand Group set out to build ships, aeroplanes and motor cars during the war, but like the Birla Group which was also interested in producing motor cars, was obstructed by the Government of India which was also interested in producing motor cars, was obstructed by the Government of India which wanted Indian industry to concentrate on producing munitions of war. Still, the slow structural shift of industry towards the production of heavy chemicals, machine tools, aircraft, automobiles, locomotives, ships and other basic and heavy industries began during the Second World War and would continue during the Five Year Plans.

36.5 ENTERPRISE

Industry in colonial India was typically promoted and managed under the managing agency system. A private firm would promote a number of joint stock companies and it would hold a contract for managing their operations in the capacity of managing agent. As Blair B. Kling has noted, British expatriate firms in Calcutta, Bombay and Madras were increasingly employed as local agents of companies floated in Britain, and by 1914 British managing agents managed both the sterling and the rupee companies that dominated the tea, jute and mining companies. This promoted a system of horizontal concentration. In fact, the biggest of the early managing agencies achieved a concentration of diverse concerns - profitable tea, jute, coal and steam navigation companies and other interests of proven profitability. The European managing agencies were overall conservative rather than bold, they insisted on sound finance, and were not disposed to venture into new lines such as the chemical and metallurgical industries. They controlled the profitable expert-oriented industries through racially exclusive chambers of commerce such as the Bengal Chamber of Commerce, the Indian Jute Mills Association and the Associated Chambers of Commerce (ASSOCHAM).

Interestingly, the Indian business houses, which were more often than not family firms belonging to the traditional merchant castes and communities, also showed a preference for managing joint stock companies through the managing agency system, thereby replicating the same horizontal concentration of industrial interests. The early

cotton mills in Bombay and Ahmedabad were promoted in this way; and later on the other industries, even the engineering, metallurgical and chemical industries, were controlled through the parent firm of managing agents. Overall, Indian managing agency houses showed more initiative than the British expatriate firms did in the first half of the twentieth century, and so the greater part of industry gradually shifted from European to Indian management. The history of two Calcutta managing agency houses, one British and the other Marwari, may be briefly explored here for a comparative view. Bird & Company, later Birds, Heilgers & Company, was a leading member of the European dominated Bengal Chambers of Commerce and of ASSOCHAM. Birla Brothers, on the other hand, took a lead in organizing the Indian Chambers of Commerce (Calcutta) and the Federation of Indian Chambers of Commerce and Industry (FICCI) in protest against the racial exclusiveness of the European Chambers of Commerce. Incidentally, ASSOCHAM and FICCI emerged in the 1920s as all India bodies opposed to each other, one imperialist in disposition and the other nationalist in sentiment. Bird and Birla, as prominent members of the rival business confederations, offer an interesting contrast.

36.5.1 Bird Heilgers & Co.

Bird Heilgers & Co., along with Adrew Yule & Co. and Jardine Skinner & Co., constituted the trio of the most influential members of the European-dominated Bengal Chambers of Commerce. As Maria Misra, who has studied the expatriate British firms in India, says, Bird was a 'typical' managing agency firm. Like the other European managing agencies. Bird expanded its concerns until the end of the First World War, and thereafter began to stagnate and then contract. Founded in 1860s Bird & Company was originally a firm of labour contractors to the East Indian Railways and other railway companies. In the 1870s it lost these lucrative labour contracts to competitors, and shifted into new concerns; coal mines in the 1870s and 1880s, jute mills in the 1890s, and paper mills in the 1900s. The firm expanded rapidly so that the outbreak of the First World War, it controlled the largest block of investment in jute and coal in India. In 1913 it was the managing agent for nine jute mill companies, three coal companies, one paper mill company, a small engineering works, and was engaged in export of raw jute and raw cotton; besides, it owned an insurance company. European managing agencies were all heavily involved in foreign trade alongside the export-oriented industries and Bird's special line was export of raw jute. F.W. Heilgers, another European managing agency with smaller interests in jute and coal and a controlling interest in the Titagarh Paper Mill (the largest paper mill in India), merged with Bird in 1917. The combined houses and their companies had a capital of Rs. 20 crores, revenue of Rs. 3 crores and employees numbering over a hundred thousands. During the First World War and immediately after, Bird, Heilgers & Company floated a number of new concerns, especially light engineering companies, but these 'war babies' soon collapsed in the depression that followed the post-war boom, and thereafter, the firm lost its spirit of adventure. At the end of the war, it had planned the largest steel works in Asia, the United Steel Corporation of Asia Limited (TUSCAL), but it never got around to floating it. The losses Bird Heilgers suffered, amounting to Rs. 1.25 crore, made them wary of ventures beyond the firm's normal experience, and henceforth disposed them in favour of 'sound' concerns such as jute mills. Even there a shock awaited them: 'Indians are determined to get into our industry', exclaimed the head of the firm Sir Edward Benthall, as no less than seven Indian jute mills, led and encouraged by G.D. Birla, broke into the European monopoly. As its Indian competitors expanded their concerns in new fields such as sugar, paper, metallurgy, chemicals and engineering

during the 20s, 30s and 40s. Bird Heilgers drew back into its 'core', jute mills and trade overshadowing everything else, next the coal mines, Titagarh coming not far behind and its other manufactures falling behind the burgeoning concerns of the Indian managing agencies that rose from the bazaar.

36.5.2 Birla Brothers

Like Bird Heilgers & Co., Birla Brothers Limited was also an industrial managing agency, and like Bird Heilgers, Birla Brothers. was at the same time involved in trade heavily. While Bird Heilgers stagnated after 1919, Birla Brothers, formed in 1919, expanded rapidly. The Marwari firm (they were Maheswaris from Pilani in Rajasthan), with a capital of Rs. 50 lakhs at the start, grew out of earlier family concerns, namely, Shivnarain Baldeodas (Bombay, 1879), Baldeodas Jugalkishore (Calcutta, 1903), and Ghanshyamdas Murlidhar (Calcutta, 1911). Shivnarain and Baldeodas were respectively the grandfather and father of Ghanshyamdas (G.D. Birla the founder of Birla Brothers.), and Jugalkishor was G.D.'s elder brother. The family rose out of an obscure position in the Bazaar. The first known ancestor, Seth Shivnarain's father Shobharam (G.D.'s great grandfather), was the clerk of a Marwari firm of Hyderabad. He was posted in the desert town of Nawalgarh in Rajasthan on a salary of Rs. 10. Shivnarain, who for his part had a retail shop in Pilani, migrated to Bombay in 1857 and there he became a seth speculating in opium, in partnership with his son Baldeodas. 'Shivnarain Baldeodas' shifted its headquarters to Calcutta during the plague epidemic of 1896 in Bombay, its net worth being then Rs. 1.5 lakh. In Calcutta, the Birla firm, under a new partnership called 'Baldeodas Jugalkishore', speculated in opium, and then began trading in opium, silver grain, linseed, Manchester cloth, and Japanese cloth. The Birla family became a member of a profitable opium syndicate of Calcutta in 1911. In that year, G.D. Birla began trading on his own account, as a broker in raw jute and gunny bags to Bird Heilgers, Andrew Yule, Jardine Skinner and other big European houses.

With the outbreak of the First World War, the Birlas reputedly grew from a party worth Rs. 20 lakhs to a party worth Rs. 80 lakhs, thus providing themselves with the capital to enter industry under G.D. Birla's leadership. The wartime profits they made were derived principally from two sources; speculations on silver prices (Baldeodas Jugalkishore) and trade in raw jute, jute fabrics and jute shares (Ghanshyamdas Murlidhar). At the end of the war, the Birlas were second only to the European firm of Ralli Brothers in the export of raw jute. In 1911 the Birla family concerns were consolidated under G.D. Birla as the modern firm of Birla Brothers, which, while carrying on trade, at the same time thrust into the jute mill industry, breaking a tenacious European monopoly. Birla Jute Manufacturing Company (1919) started production in 1920, and in the same year, a cotton mill was acquired in Delhi. In the 1930's the newly protected domestic market encouraged G.D. Birla to set up upcountry sugar mills and paper mills: Bharat Sugar Mill Ltd. in Saran, Bihar (1931), New Swadeshi Sugar Mills Ltd. in Champaran, Bihar (1931), Awadh Sugar Mills Ltd. in Sitapur, Uttar Pradesh (1932), Upper Ganges Sugar Mill Ltd. in Bijnore, Uttar Pradesh (1932). New India Sugar Mills Ltd. in Darbhanga, Bihar (1933), Orient Paper Mills Ltd. in Brajnagar, Orissa (1936), and Sirpur Paper Mills Ltd. in Hyderabad (1938). Finally the Birla Group extended their operations from the manufacture of consumer's goods to the production of capital goods. On the eve of the Second World War G.D. Birla pioneered the Textile Machinery Corporation (Texmaco) with a paid up capital of Rs. 1 crore, and then in 1942 he floated the Hindustan Motors Limited with a paid up capital of Rs. 4.96

crores. Actual production of textile machinery, however, began because of wartime difficulties, only in 1946, and motor cars were not assembled, because of the same reason, before 1947. On the eve of independence, the share capital of the Birla Group amounted to Rs. 24.8 crores.

At the end of the Second World War and especially after Independence, the European managing agencies passed one by one into the control of Indian managing agencies, especially big Marwari houses. In the technologically more complex industries that now sprang up, there were tie-up arrangements between the Indian managing agencies and the big multi-national companies, which entered the field. Independent India inherited from the colonial period a strong indigenous business class.

36.6 WHY NO TAKE-OFF?

Soon after independence, the economic historian Daniel Thorner noted that despite some achievements, India's development under the British had been 'strangely lopsided.' There was no industrial revolution and no 'take-off' into sustained economic development. The question is why a take-off did not occur? One view blames Indian backwardness; the opposite view blames British policy in India. Morris David Morris, who belongs to the former school of thought, emphasizes the technological backwardness of the Indian economic structure, and he elaborates on how this prevented sustained investment in large-scale industry. Amiya Kumar Bagchi, who belongs to the latter school of thought, is of the opinion that this backwardness was produced by colonial economic policies, and he highlights the throttling system of monopoly that held up industrialization in the high noon of empire. There is no consensus among economic historians about the reasons behind India's failure to achieve an industrial revolution.

Statistical research has never established one point. In the period 1900-1947, the rate of growth of large-scale industry was relatively high; but this growth began from a low level. In fact, there was not much organized industry in 1900, and the economy was overwhelmingly agrarian. Even the faster rate of industrial growth, therefore, could not transform the economy from an agricultural to an industrial one. The performance of agriculture, as S. Sivasubramanian's statistical series on national income established was poor between 1900-1947, and this pulled down the rate of over-all economic growth despite a considerable degree of industrialization. Moreover, artisan industries expanded after 1900, but at a lower rate than factory industries. Industry grew, but it did not transform agriculture or the economy.

36.7 SUMMARY

Industrialization in the European context has been usually associated with the growth of large-scale industries. In India, till the twentieth century, industrial production was based on the cottage sector. So it is difficult to study the developments in the factories without reference to what was happening to small-scale production.

How do we measure the process of industrialization? Economists and historians commonly use two different measures. First, they calculate the growth of output of each sector (primary/ secondary/ tertiary), and their relative weights. Second: they estimate the changes in employment and distribution of work force in different sectors. By considering both these measures we see that factory industries did not grow in the nineteenth century, but expanded in the twentieth. Between 1900 and 1946 the national income from secondary sector increased substantially, and factory output went up more

rapidly than the number of workers engaged, implying an increase in the net per capita output per engaged person. This expansion did not, however, lead to a take off into sustained growth. While industrialization did occur in the twentieth century, the figures tend to over state the magnitude of growth since the base level from which it started was very low. The process of industrialization was halting and lopsided. Capital goods industries did not grow, and production was limited to consumer goods. This Unit traces the phases through which industrialization occurred in the twentieth century, and the process through which the Indian capitalists acquired business power.

36.8 EXERCISES

- 1) Discuss the nature of industrialization during 1900-1946.
- 2) Account for the fluctuating trends of industrial production in the different phases of industrialization in India.
- 3) Analyse the impact of World Wars on Indian industries.
- 4) Discuss the role of commercial enterprises in the growth of Indian Industries during the pre-independence period.
- 5) Examine the growth pattern of Bird Heilgers & Company and Birla Brothers enterprises.

36.9 SUGGESTED READINGS

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