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Amiya Kumar Bagchi

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PART I.

GENERAL – THEORETICAL FRAMEWORK

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I

INTRODUCTION

In 1900, India, ‘the brightest jewel in the British Crown’, was one of the poorest nations of the world. Lord Curzon, the then Viceroy, and imperial proconsul *par excellence*, in answer to the critics of British rule, during the debate on the budget for 1901–2, proclaimed India prosperous at Rs. 30 or £2, of income per head per year.¹

The viceregal statement did not go unchallenged: William Digby produced a massively documented indictment claiming that the average Indian was even less prosperous than Lord Curzon had made him out to be, and that he was getting poorer every year, directly as a result of British rule.² F. J. Atkinson, in an attempt to vindicate Curzon’s estimate, produced a detailed calculation showing that the income per head of an average subject of British India was Rs. 39.5, or about £2. 13s. *od.* per year in 1895.³ The best available estimate for Great Britain in 1901, by contrast, puts the income per head at £52 per year.⁴

Atkinson’s estimate for 1895 has been confirmed by Sivasubramonian, who found that the income per head in India (including native states) at current prices was Rs. 42.1 in 1900–1 and Rs. 41.5 in 1901–2.⁵ Atkinson also claimed that there was a sizeable improvement in the standard of living of an ordinary Indian between 1875 and 1895: the income per capita had increased from Rs. 30.5 in 1875 to Rs. 39.5 in 1895. This claim was, however, based on questionable assumptions. Atkinson’s data for 1875 were much more fragmentary than his data for 1895. In arriving at the figure for the increase in per capita income between the two dates, he had assumed that productivity per acre had increased for all the major Indian crops (including rice), as a result of extension of irrigation and improvement in techniques. Although a measurement of productivity change during the period 1875–95 has not been attempted, later records of changes in

¹ In this book ‘India’ is used as a shorthand expression for ‘India and Pakistan’ prior to partition unless otherwise indicated.

² William Digby: *‘Prosperous’ British India* (London, 1901), especially Chapter II.

³ F. J. Atkinson: ‘A statistical review of the income and wealth of British India’, *JRSS*, LXV, Part II, June 1902, pp. 209–72.

⁴ Phyllis Deane and W. A. Cole: *British Economic Growth 1688–1959* (Cambridge, 1967), p. 282. The estimates of national income for British India and for Great Britain are at current prices.

⁵ See S. Sivasubramonian: *National Income of India, 1900–01 to 1946–47* (mimeographed, Delhi School of Economics, Delhi, 1965), Table 6.1.

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productivity do not support Atkinson's claim that, although an ordinary Indian was poor in 1895, he was getting distinctly richer over time.⁶

Most of the investigators who have tried to chart the course of national income in India over the subsequent forty years or so, have concluded that the rate of growth of real national income per head was very small, if not actually negative.⁷ The rate of growth of population over this period must be considered moderate by modern standards: the total population was 285 million in 1901 and 389 million in 1941, which yields a rate of growth of considerably less than 1% per year over the same period,⁸ so a very high rate of growth of population can hardly be blamed for the relative stagnation of incomes. The rate of growth of total agricultural production and the rate of growth of industrial production were both low during these years; and the failure of the industrialization process to get going at an appreciable rate is reflected in the relative stability of the occupational structure. Between 1901 and 1931, the share of industrial workers in the total working force hardly changed, and although there was no detailed occupational census taken for 1941, the evidence available from other sources indicates that the share of the working force employed in industry could not have changed significantly over the decade of the 1930s.⁹ Finally we have the 'puzzling fact' that India was "the first of the oriental countries to feel the impact of industrialism" and yet never completed the transition; whereas Japan, starting later and starting with fewer resources, did complete it'.¹⁰

It is the aim of this book to document and analyse one of the basic reasons for the slowness of economic growth in India, viz., the sluggishness of private investment. Modern industry in India meant, barring a few ordnance factories and a few pigmy-sized demonstration factories, private industry. Hence an enquiry into the pattern of industrial investment is tantamount to an enquiry into the pattern of private industrial investment. This enquiry

⁶ For a contemporary critique of Atkinson's estimate, see William Digby's discussion on Atkinson: 'Statistical review', *JRSS*, LXV, Part II, June 1902, pp. 272-5. For a discussion of later trends in income and the productivity of land, see Chapters 3 and 4 below.

⁷ Daniel Thorner: 'Long-term trends in output' in Daniel and Alice Thorner: *Land and Labour in India* (London, 1962), pp. 82-112; S. J. Patel: 'Long-term changes in output and income in India' in S. J. Patel: *Essays on Economic Transition* (London, 1965), pp. 33-50; and Sivasubramonian: *National Income of India, 1900-01 to 1946-47*. Sivasubramonian's estimate, which is the most comprehensive one yet to be made, puts income per capita in India as a whole, at Rs. 49.4 in 1900-1 and Rs. 61 in 1939-40, at 1938-9 prices, which gives a rate of growth of less than 0.5% per year. Both Patel and Thorner were inclined to put the figure even lower.

⁸ Kingsley Davis: *The Population of India and Pakistan* (Princeton, N.J., 1951), p. 27.

⁹ Daniel and Alice Thorner: "'De-industrialisation" in India' in Daniel and Alice Thorner: *Land and Labour in India*, pp. 70-81.

¹⁰ Davis: *Population of India and Pakistan*, p. 214. The quote within the quote is from Herbert Heaton, 'Industrial revolution' in *Encyclopaedia of the Social Sciences*, Vol. VIII (New York, 1935), pp. 3-13, at p. 9.

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is conducted here at two levels: an attempt is made first to assess the influence of macroeconomic factors on the fortunes of private investment. Secondly, the major manufacturing industries are taken up one by one to find out which factors were specific to those industries and which affected all industries to more or less the same extent.

A major factor influencing private investment in any country is the attitude of the government to industry and the operational content of government policy towards industry. The operational content of government policy in an economy embarking on industrialization under the auspices of private industry is largely, though not wholly, determined by the tariff policy of the government. From this point of view, the history of private investment in India over the period 1900–39 divides naturally into two epochs; up to 1914, there was virtually completely free trade as far as imports into India from other countries were concerned; there was during the First World War some increase in import duties and a shortage of shipping, making trade between India and the rest of the world much less free than before; then in 1923, the Government of India adopted the policy of discriminating tariff protection towards Indian industries, which clearly marked the end of the era of free trade, and the beginning of the epoch of growth of industry under tariff protection.

Hence in this chapter we devote some attention to the major influences on the pattern of private investment in India during the two epochs, assuming for the most part that the constraints on the supply of capital or of other factors of production are not the decisive influence in most cases. The discussion has been kept largely theoretical in order to bring the framework of analysis of later chapters into clearer focus, but concrete illustrations are given for most of the substantive points made.

I.I INVESTMENT IN THE EXPORT INDUSTRIES

Before the First World War, the Indian economy was as open as any in the world had ever been. India's exports consisted of raw materials and food-grains, and simple manufactures such as jute goods, cotton yarn and coarse cotton piecegoods, and plantation products – mainly tea.¹¹ Her imports consisted mainly of manufactured commodities, and these imports made up the major fraction of her consumption of these commodities.

Among the modern industries in which capital was employed on a large scale the most important were cotton manufactures, jute manufactures, coal and tea. Of these industries cotton and jute were the most important manufacturing (as opposed to mining or plantation) industries. While the cotton industry was concentrated mainly in the Bombay Presidency, that is,

¹¹ H. Venkatasubbiah: *The Foreign Trade of India: 1900–1940* (New Delhi, 1946), pp. 31–9 and P. K. Ray: *India's Foreign Trade since 1870* (London, 1934), Chapter 4.

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in western India, all the jute mills worth mentioning were situated in or near Calcutta in eastern India. The two industries were dissimilar in many respects. While the cotton industry was controlled mainly by the Indians, the jute industry was almost the exclusive province of European (mainly British) businessmen. India held a monopoly of raw jute production, whereas she was only one of the major producers of raw cotton; thus while the supply of raw jute in India was a major factor in determining its price, the supply of raw cotton in India had only a negligible influence on its price, which was dominated (on the supply side) by the output of raw cotton in the U.S.A. Jute manufactures were mainly in the nature of capital or intermediate goods, whereas cotton manufactures were primarily intermediate (cotton yarn) or consumption goods (cotton cloth). Finally, while one could visualize a future in which the Indian cotton industry catered entirely to the domestic market, one could not visualize such a future for the jute industry without there occurring a major economic revolution in India.

But before the First World War the two industries had also a number of features in common. More than 90% of the output of jute goods was sold abroad. Similarly, in the case of cotton mills, the major portion of the output of yarn produced by the mills in Bombay City and Island was exported; Bombay City and Island had more than 50% of the total number of spindles and looms located in India at the beginning of the century. The picture was complicated by the fact that Bombay mills also provided cotton yarn and cloth for domestic consumption, and that other centres, of which Ahmedabad was the most vigorous, mainly produced yarn for use by handloom weavers in India and cloth for domestic consumption. But the export market was extremely important for the major centre of industry, viz., Bombay City and Island. Furthermore, although both the cotton and jute industries absorbed domestically produced raw materials, the major fractions of both raw cotton and raw jute were exported; thus the effects of any increase or decrease in the output of cotton or jute manufactures on incomes generated in India were generally swamped by movements in exports of raw cotton and raw jute. Again, both the industries were almost entirely dependent on imports of machinery from abroad, primarily from the U.K. Lastly, although these two industries were the most important ones in the modern manufacturing sector, their contribution to the total national income or the growth of national income was insignificant in relation to the contribution made by the agricultural and small industrial sector, and more particularly, by the exports of raw materials and food-grains. Thus to use some currently fashionable jargon, both the backward and forward linkage effects of the jute and cotton manufacturing industries were rather weak.

It is thus possible to trace the course of investment in these two industries separately, and ignore any feedback effects which the growth of these

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industries may have had on national income, cost of raw materials or demand for their own products, without vitiating the conclusions too much. Furthermore, since these two manufacturing industries were the most important ones as far as the modern industrial sector was concerned and usually accounted for more than half of the total imports of machinery and mill-work for use by the modern industrial sector before the First World War, once we have accounted for investment in the jute and cotton manufacturing industries, we have accounted for the major part of changes in aggregate industrial investment. In order to complete the picture, we also have to take into account developments in the sugar, paper, iron and steel, and cement industries, but the stories of their growth before the First World War are very much special cases and are treated as such in the chapters concerned with the respective industries.

The pattern of investment in the jute industry can be largely explained by following the course of sales of jute goods in foreign markets. The output of the Bombay spinning mills can also be explained by the course of yarn sales to China. It is, nevertheless, rather difficult to fit a rather simple model linking the sales of jute goods and of cotton yarn to the annual levels of investment in the respective industries.

First, let us assume that all entrepreneurs perceive the opportunities for making profit in the same way, that is, that they have more or less had the same experience in terms of sales and costs in the recent past and that they form their expectations on the basis of this experience in the same way. In that case, unless the plans of all the entrepreneurs are co-ordinated their aggregate response to any change – particularly to a favourable change – is likely to be exaggerated. The degree of exaggeration cannot be predicted without detailed knowledge of the financial position of each of the firms and, what is more important, the degree to which a favourable change induces the entry of new firms. One can argue that if the firms try to preserve the same shares of the total market as before, and if all of them correctly anticipate the aggregate change in demand then even without co-ordination of plans the total investment should vary directly with the total increases in sales in the recent past (assuming that reasonable profits are earned), and there need not be any exaggeration of the response to changes in sales or profits on this score. But this assumes that there is no entry of new firms which try to encroach on the market of other firms. The British managing agents interested in the jute industry in India were homogenous enough in their social and business outlook and in their access to information, finance and markets for them to be able to regulate current output in accordance with changes in demand in relation to the supply of jute goods in world markets. But no one managing agency house was in a position to dominate the industry, and several large managing agency houses were trying through a high rate of investment to capture as much

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of the growing market as possible. Furthermore some new managing agency houses also entered the field. Thus neither of the assumptions required to guarantee a close conformity of investment to desired capacity for the industry as a whole was fulfilled.

Secondly, let us assume more realistically that the experience, the expectations and the financial position of different firms do differ. In this case, without detailed knowledge of the way the expectations of different firms are formed, it is not possible to predict the investments of individual firms. However, if expectations follow some simple laws, and if the deviations of expectations of individual firms are distributed around the mean or modal expectations according to some simple rule, then the aggregate result might be predictable even if the distribution of the aggregate investment among different firms is not.¹²

Since with the data at our disposal it is not even possible to form an idea of the law governing the statistical distribution of reactions of individuals to a change in a macroeconomic variable such as total sales of jute goods in foreign markets, we have to be content with very roughly correlating the direction of change in jute sales with the direction of change in the desired stock of capital in the jute industry. One approximation to the 'desired stock of capital' for the industry as a whole would be the amount of expected sales multiplied by the marginal capital-output ratio; however, the aggregate result of the plans of individual firms will normally exceed or fall short of such a desired stock of capital by a substantial margin because of lack of co-ordination of plans among the different firms, and because of possible differences in technical conditions of different firms.

However, the jute industry in India was in a special position. By any criterion it had a substantial lead over its nearest rival, the jute industry of Dundee, in respect of production costs, and this lead was reflected in its growing share in the world market for jute goods. The industry was also formally organized in the Indian Jute Manufacturers' (later Mills) Association and informally organized through a dozen or so British managing agency houses controlling the whole industry. The actions of the jute mills of Calcutta had a substantial impact on the prices of jute goods in the world market. Hence the industry could reasonably take the growth of its own sales into account in making its investment plans assuming that, while it need not fear the sudden disappearance of its major markets abroad through the actions of competitors, it could not also encroach upon the markets of industries located in other countries without inviting retaliation, very often in the form of increased tariffs.

¹² See in this connection, R. Ferber: 'The anatomy and structure of industry expectations in relation to those of individual firms', *Journal of the American Statistical Association*, Vol. 53, June 1958, pp. 317-35; and Earl O. Heady and Donald R. Kaldor: 'Expectations and errors in forecasting agricultural prices', *Journal of Political Economy*, Vol. 62, February 1954, pp. 34-47.

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The rate of growth of the share of the Indian jute industry in the world jute sales was limited by (1) the existence of jute industries in other countries which could carry on so long as the price of jute goods could at least cover the average variable cost of production, since the fixed capital was already there and was quite specific and had a small scrap value, (2) the threat that severe price-cutting by the Indian industry would invite retaliation in the form of increased tariffs on imports of jute goods by consumers of jute and jute goods with jute manufacturing industries of their own, particularly when such price-cutting threatened the survival of the less efficient manufacturing industries, and (3) possible reluctance on the part of British managing agents to encroach too fast on the markets of Dundee. The firms composing the industry would also have reasonably similar expectations because of the similarity in the background of their decision-makers and because of the similarity in the channels of contact with foreign markets (mostly Australia, the U.S.A. and South America). Hence any favourable change in sales and profits evoked similar reactions on the part of most of the firms; this led to a bunching of investment in one period followed by a period in which sales would fall short of output at prevailing prices, leading to a building up of stocks and a fall in profits. The Indian Jute Manufacturers' Association then generally succeeded in restricting hours of work, and the process of sales overtaking capacity would start again, given an expanding world market for jute goods and given the favourable position of the Indian jute-mill industry.

The other major manufacturing industry in India in which investment was taking place on a large scale was the cotton-mill industry. As I have indicated above, Bombay was the main centre for production of yarn for exports, and the Bombay spinning mills depended substantially on the exports of yarn to China. In the nineties of the last century, in spite of foreign exchange troubles and political instability in China, the total exports of cotton twist and yarn from India had increased from 143.2 million lb. in 1889-90 to 242.6 million lb. in 1899-1900. There was then a very sharp break in 1900-1 because of the plague in Bombay when total Indian exports declined to 119.3 million lb.; the total of exports of cotton twist and yarn recovered and reached 298.5 million lb. in 1905-6. But after that a definite stagnation set in; exports of cotton twist and yarn from India were 152.3 million lb. in 1911-12 and 198.9 million lb. in 1913-14.

In contrast to this, the domestic demand for cotton piecegoods in India was increasing steadily except for periods of famine in 1896-7 and 1899-1900, and domestic mill production of cotton piecegoods was also increasing. There was thus a strong incentive even for the Bombay mills to pay greater attention to the domestic market. Since cotton manufacture accounted for more than 36% of total imports of commodities into India between 1900-1

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and 1913-14,¹³ and since cotton mills and handlooms together supplied only about 34% of the total domestic consumption of piecegoods in 1900-1,¹⁴ there was enormous scope for substitution of imports by domestic production. There was also room for substitution of imports from Great Britain by yarn spun in Indian mills. Hence the potential new investment in the Indian cotton-mill industry was governed by three factors: first and foremost, displacement of imported cotton piecegoods, secondly, the defence of the market for Indian yarn in China against Chinese and Japanese competition, and thirdly, the supply of yarn spun in Indian mills in the place of imported yarn for the use of Indian handlooms. A pattern of specialization emerged among the Indian cotton mills corresponding to these three factors governing potential investment. Bombay continued to export yarn to the Chinese market and the investment in the mill industry there continued to be strongly influenced by the rate of the yarn exports to China; the centres away from western India mainly catered to the demand of handloom weavers for coarse yarn; and Ahmedabad within the Bombay Presidency concentrated mainly on supplying cotton piecegoods to the Indian market. But in all the three types of centres the dominant influence was that of the domestic market for cotton piecegoods.

Industrialists and politicians were well aware of the prospect of displacing a very large proportion of imported cotton piecegoods by those produced in India.¹⁵ But before the First World War, the Indian mill owners could not reasonably have aimed at producing the whole of the internal demand for mill-made cotton piecegoods for the following reasons: (a) Lancashire was assumed to have a decided advantage in spinning the finer counts of yarn and weaving the finer varieties of cloth. (b) The major portion of the trading network in manufactured goods was geared to the import of Manchester piecegoods. Indian piecegoods would have to overcome considerable prejudice when they invaded a preserve of Manchester goods. This applied particularly to the market supplied by Calcutta, which was the biggest single

¹³ Venkatasubbiah, *Foreign Trade of India*, p. 28.

¹⁴ See Table 7.1 pp. 226-7 below.

¹⁵ Dadabhai Naoroji and M. G. Ranade were among the eminent public figures advocating and predicting the displacement of foreign piecegoods by those produced in India. See M. G. Ranade: *Essays on Indian Economics* (2nd ed.: Madras, 1906) and S. D. Mehta: *The Cotton Mills of India: 1854-1954* (Bombay, 1954), Chapter 7. The Swadeshi movement after the partition of Bengal in 1905 gave this advocacy a directly political turn. But mill-owners had been conscious of the possibility of spinning higher-numbered counts of yarn and weaving finer cloth at least as early as 1901. See the speeches of the Chairman and of Bomonjee D. Petit in Mill-owners' Association, Bombay: *Annual Report 1901* (Bombay, 1902), pp. 72-3. Bomonjee D. Petit as Chairman of the Bombay Millowners' Association for 1903 came back to the same theme: 'For the last three or four years I have been constantly urging along with my other colleagues that the out-turn of our mills ought to be made to meet the demands of our own country for goods of finer counts which, besides being large, ensure us a ready and profitable market.' Millowners' Association, Bombay; *Annual Report 1903* (Bombay, 1904), p. 170.

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cotton piecegoods market in the East and which was entirely dominated by British managing agency houses with close connection with Great Britain. (c) The cotton grown in India was mostly of the short-staple variety, and was unsuitable for the spinning of finer counts of yarn.

Of these obstacles the last one was the least important. It was the differential advantage in labour costs which gave Indian industry an edge over Lancashire in respect of coarser yarn and cloth. The transport cost of long-staple cotton from Egypt to India or to Great Britain would not be very different; Great Britain had a freight advantage in respect of American cotton. But transport costs were very low in relation to the cost of raw cotton anyway. If Indian mill-owners could convince themselves that Indian labour could spin finer counts of yarn at least as efficiently as they spun the coarser counts, then the long-staple cotton could be imported and woven in Indian mills. The lack of any tariff protection on either cotton yarn or cotton piecegoods and the presence of very definite prejudices against Indian piecegoods in comparison with Lancashire piecegoods of the finer variety meant that Indian mills would have to push ahead cautiously. Some tariff protection would have made all the difference, because then the mills could have tried out new counts of yarn and new varieties of piecegoods on a wider scale. The greater premium placed on long-staple cotton in Indian markets might also have induced Indian cotton-growers to plant the long-staple varieties in larger quantities. Without tariff protection, only the mills of Ahmedabad and an isolated mill or two in Bombay were trying out the production of finer varieties of piecegoods.¹⁶

Total imports of cotton piecegoods into India increased during the period from 1900-1 to 1913-14 by about 50%. It would be tempting to suggest that the target for Indian mills was to satisfy the increment in demand, assuming that the established imports of Manchester goods would remain undisturbed. However, during this period the proportion of better-quality goods in total imports went up substantially and the Indian cotton mills also turned out yarn of finer counts (above 20s) which was largely used for weaving cloth in the mills, but the proportion of yarn above 40s to total yarn output remained very small. In view of this one can reconstruct the history of new investment in the cotton-mill industry in this period by assuming that Indian mills took as their target the production of goods which could be woven with yarn up to 40s; the speed with which this target was approached depended on the resistance of the manufacturers of Manchester goods and their distributors in India, the financial experience of the bigger Bombay companies involved in sales of yarn to China and the experience of the mills which tried to spin finer counts of yarn and weave finer qualities of piecegoods.

From the middle of the First World War import tariffs were imposed on

¹⁶ For documentation and further discussion of the points made, see Chapter 7 below.