

De-Industrialisation: Alternative View

Author(s): Tirthankar Roy

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De-industrialisation: Alternative View

'De-industrialisation' is an argument that British India, which started with a large and well-developed manufacturing tradition, saw a decline in its traditional industry during the colonial period, and that the modern industry which grew in its place did not compensate for the loss in employment and income. This essay presents an alternative view, which suggests that traditional industry did not decline, that it changed in organisation and character, and that these changes shaped the future course of Indian industrialisation.

TIRTHANKAR ROY

We are familiar with the term 'de-industrialisation'. In India, it is an argument about the historical roots of underdevelopment. It is an argument that British India, which started with a large and well-developed manufacturing tradition, saw a decline in its traditional industry during the colonial period, and that the modern industry that grew in its place did not compensate for the great loss in employment and income. What happened to traditional industry, or the 'handicrafts', during the British rule has been a lively topic of debate for economic historians,¹ mainly because this case is used to illustrate the adverse impact of colonialism on India.

This essay, presents an alternative view, which suggests that traditional industry did not decline, that it changed in organisation and character, and that these changes shaped the future course of Indian industrialisation. [for statements – classic and modern – of decline of industry and the origins of underdevelopment, see the discussion in Chandra 1966: Chs II and III and Bagchi 1976]. The essay is divided into three sections: I shall define de-industrialisation, criticise it, propose an alternative thesis and discuss some wider relevance of that alternative.

'De-industrialisation' Defined

At 1800, India had a significant presence in the world as a manufacturing

country. Possibly about 15-20 per cent of its working population, or 15-20 million persons were employed in industry at that time. Important industries were spinning and weaving, manufacture of leather and leather goods, a range of metal work, carpets and rugs, and so on. These industries did not use machinery, and were not organised in large-scale factories, nor regulated by any law. In fact, most of the production units were family-labour oriented or 'households'. I call such activities 'traditional industry'. By contrast, any unit that used machinery and the large-scale factory, and was more or less regulated, can be called 'modern industry'. By this definition, modern industry is obviously a product of the industrial revolution, since machinery, regulation and the large factory are all relatively new inventions.

The industrial revolution in the 19th century deeply affected traditional industry in India. Trade between India and the world increased dramatically, and modern industry in Britain began to compete with traditional industry in India. In particular, products of the mechanised textile industry in Britain began to compete with handmade yarn and cloth in the Indian market. What was the net effect of this 'globalisation'.

'De-industrialisation' is a theory that suggests that the net effect was negative. The theory consists of four propositions. – Traditional industry declined in India. – It declined because of technological obsolescence, that is, it declined because

hand-tools began to compete with machinery, and lost.

– It is implied that this battle, which occurred in the market-place, was forced by Britain's commitment to free trade as an engine of growth.

– Closer economic relationship with Britain did create some modern industries in India such as the textile mills, but this creative role of globalisation did not compensate for the destructive role. One of the reasons why modern industry did not grow enough is that, it was a kind of implant rather than an extension or evolution out of traditional industry. [for statements – classic and modern – of decline of industry and the origins of underdevelopment, see the discussion in Chandra 1966: Chs II and III and Bagchi 1976].

To sum up, de-industrialisation means a decline in traditional industry that (a) derived from technological obsolescence; (b) was sustained by colonial policies; and (c) remained uncompensated. The term makes an explicit contrast between Britain, which experienced 'industrialisation', and her major colony India, which experienced de-industrialisation, at the same time and due to the same set of causes, namely, trade and technological change. Britain too experienced a decline in its traditional industry, but modern industry played a compensatory role there. In India, on the other hand, "foreign economic penetration intensified...ruin and pauperisation of the artisans...arrested industrial development put sharp limits to their...conversion into an industrial working class" [Joshi 1963].

Before we go further, let us get a brief intellectual history of this concept. The idea had two distinct roots. The first is an Indian nationalist tradition represented by R C Dutt, Dadabhai Naoroji and somewhat later by Jawaharlal Nehru [Chandra 1966:ch II]. The second root is the Marxist theories of imperialism.² In the post-war period, both these schools were revived in history, in development studies, and in Indian historiography. In this last scholarship, de-industrialisation became a part of what can be called the left-nationalist view of the impact of colonial rule on the Indian economy. It has not only been the most popular worldview among historians

working in India, but has also become a kind of unquestioned official ideology, and in that capacity has shaped the average Indian's sense of history in an overwhelmingly powerful way.

All these schools hold the perfectly acceptable view that economic and political changes from the 18th century led to decline in some activities and growth in some others. The left-nationalist view can be defined in terms of two propositions: that the decline outweighed the growth; and that both decline and growth derived from such global factors as world trade and colonial strategies.

In more detail the story is as follows. Pre-British rural India consisted of self-sustaining egalitarian 'village communities', producing their own subsistence. British rule, by its revenue policy, forced production for the market and, thus, broke up these communities. Production for the market was not profitable enough, leading to widespread rural indebtedness. Many peasants lost their land and turned into tenants or labourers. On the other hand, the moneyed people who came to control or own land were by nature averse to productive investment. The net result was stagnation along with increasing poverty and inequality. De-industrialisation added to rural poverty by pushing many former artisans into agriculture [for two versions of this story of increasing misery, different only in minor detail, see Patel 1952, and Bagchi 1982: Section 4.4 and references to de-industrialisation].

II Criticism

I shall now de-industrialisation by way of criticising the evidence it is based upon. Three types of evidence tend to be cited for or against de-industrialisation. These relate to (a) the textile industry, (b) industrial employment, and (c) national income. Let me, at the outset, state how of these sets of data support or disprove de-industrialisation. Cotton spinning by hand was a major industry that became extinct in competition with British machine-made yarn between roughly 1820 and 1880. This is no doubt an important case of technological obsolescence. On the other hand, it is really the only significant case of technological obsolescence, and one case cannot be generalised into a theory of industrial decline. Census statistics suggest an apparent fall in the share of manufacturing in total workforce between 1881

and 1931. This result can be questioned in two ways. First, it is partly a spurious result given rise to by census definitions. Second, decline in industrial employment can be, and I shall argue needs to be, explained by causes other than technological obsolescence. Finally, real income in manufacturing increased between 1900 and 1947. Rising incomes surely cannot be called de-industrialisation. Let us now look at these three sets of evidence more closely.

Textiles: Cotton spinning is such a clear case of obsolescence in traditional industry that the proponents of de-industrialisation tend to get obsessed with this one example. However, spinning by hand is really the only example of a major traditional industry in crisis. Handloom weaving too declined in the 19th century both because of technological obsolescence and because of the loss of a certain foreign market. But it declined only partly. Not only that, in the early 20th century, handloom cloth production and labour productivity was rising. Clearly, their market was a secure one, despite the fact that the productivity per hour of a handloom was only about 15-20 per cent that of a power-driven loom.

Why was handloom cloth being sold along with mill cloth, despite such an unbridgeable gap in productivity and costs of production? Over time, the handlooms benefited from the availability of cheap machine-spun yarn, and a number of other improved tools, such as the 'fly-shuttle loom' or new warping machines. But these changes do not explain their survival. For machine yarn constituted no advantage over the mills, which also used the same yarn, in fact more cheaply than did the handlooms. And all the other innovations together were incapable of bringing handloom productivity anywhere near the productivity of a power-driven loom. So, how did the handloom survive?

The most acceptable answer to this question was suggested half-heartedly in earlier studies on the textile industry, and has been explored more fully in a recent scholarship on textile history. The answer is market segmentation. Handlooms and mills had comparative advantages in different types of cloth. The cloths that the handlooms were better able to make had mass demand. Within this market, long-distance trade expanded in the British period. As a result, there was capital accumulation within the handloom industry. In this view, the new tools and pro-

cesses that came to be used increasingly in the handloom industry were the effect, rather than the cause, of their survival [see, among others, Roy 1993].

To sum up the textile experience, it had two aspects: competition with modern industry as in spinning, and segmented markets between traditional and modern industry as in handloom weaving. Now, given that there are very few examples of the former case, it seems more acceptable to believe that the latter represents the general industrial situation better. That is, spinning was an exception, and the general case was that modern and traditional industry did not compete, but served different markets and produced different goods. I shall return to this point below.

Census employment statistics: There is an apparent problem in using census data to test de-industrialisation. Employment statistics begin from 1881 whereas the competition between Indian traditional industry and British modern industry began much before that date. Can it be said that de-industrialisation happened in the early 19th century, and that it slowed down from the late 19th century? So that even if the census shows no strong sign of de-industrialisation, that does not deny that a decline occurred before the census period?

Now, if de-industrialisation is defined as a general process of technological obsolescence, such an assertion cannot be made. Technological obsolescence is an irreversible process. It does not make sense to say that traditional industry failed to compete with machinery in 1850, but successfully competed with machinery in 1900. If it became obsolete in 1850, it must become even more obsolete by 1900, because the pace of technological progress is always faster in the machinery-using industry compared with the tool-using ones.

But in a rather special sense, such an assertion can be made. It is possible that certain sectors of traditional industry competed with modern industry, whereas other sectors did not. It is also possible that the former not only declined in competition with modern industry, but the process of decline was completed in the early 19th century, before the census data begins. The spinning example weakly illustrates such a hypothesis. A considerable part of the decline in hand-spinning had indeed happened before the census began, whereas in the early 20th century we see a substantial stability in handloom weaving. But

this is true of textiles, is it true of industry in general? Unlikely. In the early 19th century, Britain herself was semi-industrialised. The only modern industry that counted in India's foreign trade was textiles. Other than textiles, there are almost no examples of significant competition and technological obsolescence. Textile was clearly an exception, and cannot be generalised into a story about industrial decline in the early 19th century. Furthermore, in concrete terms we really know very little about the early 19th century to say whether traditional industry as a whole declined in scale.

Authors sympathetic to the left-nationalist interpretation have not usually been nuanced about timing. Nor have they been careful about the distinction between competing and non-competing sectors. Census data on aggregate employment have been used as the major and clinching evidence supporting de-industrialisation. What do these data show? The censuses tell us that industrial employment declined steadily and sharply, between 1881 and 1931. It declined from about 20 million to 13-15 million, while at the same time, employment in agriculture increased from 71 to 100 million. The percentage of workers in agriculture increased from 62 to 71, and that in industry declined from 18 to 9. The decline in industry was concentrated in small-scale industry, in units not officially classified as factories. Employment in registered factories, which included all of modern industry, expanded from possibly less than a hundred thousand in 1881 to 1.6 million in 1931. Employment outside these units, which consisted mainly of traditional industry, fell from about 20 to 12-14 million.

Does this suggest a big decline in traditional industry and a ruralisation of employment? There are two sets of critique suggesting that it does not. The first questions the statistics, and the second questions the interpretation drawn from it.

Daniel and Alice Thorner were the first and the most persuasive authors to argue along the former line [Thorner, D 1962; Thorner, A 1962]. They suggested that these shifts in occupational structure were probably spurious and arose from three problems with the census definitions. First, there was a category called 'general labour' in the early censuses, which almost certainly meant agricultural labour, and should be seen as part of the agricultural work-

force. Second, in the early censuses (especially 1881 and 1891), the broad sector 'industry' often included occupations that involved selling rather than making goods. 'Makers' and 'sellers' could be separated from the detailed occupational classes, but not entirely. Therefore, they argued, the broad classes manufacturing and trade should be seen jointly (at least for 1881-1901) for making comparisons between censuses. Third, the data on women workers are not reliable mainly because women in household production units tended to be routinely and wrongly classified as 'workers'. Daniel Thorner proposed that it is better to look only at the male workforce data, which became an accepted practice among economic historians after Thorner's article.

When these three adjustments are done, employment statistics shows almost no significant sectoral shift. Employment in agriculture (including general labour) as a proportion of total employment increased marginally from 74 to 76 per cent, and that in industry (manufacture-cum-trade) declined from 18 to 15 per cent. A decline certainly, but not a large one.

The basic finding of these pioneering works, that occupational structure shows little change during the British Indian censuses, has not been questioned. Having said that, the three adjustments may appear somewhat drastic. The most controversial perhaps is excluding women's data. Indeed, women's employment experience drives most of those statistical trends that can be interpreted as de-industrialisation. Women's participation in industry declined dramatically in the census period, and the share of women in industrial employment declined steadily from about 40 per cent in 1881 to 13 per cent in 1971, after which it began to increase slowly. If women's data are ignored, de-industrialisation weakens greatly. But should women's data be ignored? The Thorner's seem to argue that the earlier percentages were inflated by a reporting problem, which led to the inclusion in the work-force of those primarily employed in household duties and marginally in commercial production. This long decline was not purely a reporting problem. It tells an important story, which has nothing to do with de-industrialisation, and which we shall miss if we ignore women's data altogether. I shall come to this point later. Finally, while the Thorner's work modifies the scale of the decline in traditional industry, it does not dispute that the decline happened.

Let us now consider the second critique of employment data, which does not dispute a decline in employment, but questions what it means. Does decline in employment mean technological obsolescence? Doubtful, because the correlation between industries that experienced employment decline in the census period and industries that experienced competition from modern industry, appears to be weak. As I said before, it is difficult to find a significant example of technological obsolescence other than cotton spinning. Foreign trade statistics show that, excluding a few types of textiles, the most important Indian imports in the early 20th century were non-competitive imports, such articles as intermediate goods, machinery, metals, railway construction materials, etc. Far from de-industrialising India, these imports contributed to India, these imports contributed to India's industrialisation. Rather little of Indian imports consisted of manufactured consumer goods, and what consumer goods were imported (such as wines and spirits) consisted of new products for which there was no Indian substitute. In other words, foreign competition and technological obsolescence were an exception than the rule. On the other hand, the fall in employment was a general phenomenon. Employment declined in a number of industries where no serious competition was in existence (such as food products, dress and toilet, wood, ceramics, construction, etc). We need to explain these declines in employment, but we cannot do so by competitive imports.

A further doubt on de-industrialisation arises from the argument, made by Krishnamurty (1967) that a fall in industrial employment can result from rising average capital-intensity, and not from a general decline in demand for manufactured goods. How do we test this? If incomes in industry increased, even as employment fell, that could mean rising capital intensity. Let us see what the income data tell us.

National income: Sivasubramanian (1965) estimated what became the standard national income series for British India. This series begins from 1900. These data suggest that total and per worker real income in industry grew at significant rates (in the range 1.5-2.0 per cent per year) between 1901 and 1931. On the basis of this finding, several authors, J Krishnamurty and Deepak Lal (1988: 186) for example, suggest that a decline in traditional industry did happen, but it was more than

compensated for by the growth of capital-intensive modern industry within India. Daniel Thorner himself reached more or less the same conclusion based on his reading of the census data. In this view, what we see in census and income statistics is the beginning of a large-scale substitution of labour by machinery within India.

But this is plainly unrealistic. Enterprises answering to Lal's description "fully fledged industrial, mechanised, and factory-based" engaged a tiny percentage of industrial employment (4-6 per cent) in the early 20th century. With such marginal weight in employment, it is not credible that modern industry could compensate for the decline in traditional industry even in income. Clearly, we need to look more closely into the earning power of traditional and small-scale industry itself.

National income data shows strong signs that in fact real incomes increased within traditional industry as well. More surprisingly, income per worker probably increased at a faster rate in this sector than in modern industry.³ Evidence of productivity increase is strong also in specific industries like handloom textiles, tanning, and metal work. In textiles, real value added unquestionably increased, and in all of them, output indicators show growth whereas employment indicators show stagnation or fall [Sivasubramanian 1997: 127-29; Roy 1999].

Now, neither a rise in total income, nor a rise in productivity, is consistent with decline in markets. Rise in income almost certainly means total output increased. Why should supply increase if demand was depressed? Rise in productivity means somebody invested in better methods and better organisation. Why would anyone do that if the market for traditional industry was doomed? So, if employment declined it cannot be because of competition and shrinking markets. There must be another reason.

To sum up, de-industrialisation explains employment decline by technological obsolescence. But this is an unsatisfactory explanation for three reasons. First, de-industrialisation misreads the evidence on textiles, and generalises from only one example, cotton spinning. Second, the association between falls in employment and technological obsolescence is rather weak, that is, there were several sectors where employment fell but no significant competition happened. Third, it is inconsistent with productivity and income

growth within traditional industry. We need an alternative theory to explain how employment can decline in traditional industry and yet there can be rise in productivity.

III Commercialisation Thesis

There is an alternative, which starts from two premises. First, traditional and modern industries were not competitive at all. By and large, traditional industry made labour-intensive consumer goods for which there was no mechanised alternative available, or such alternatives were not profitable because capital was relatively costly in India. Secondly, traditional industry changed not due to external competition, but due to internal competition. Internal competition was an effect of increasing market transactions. As a result of internal competition, there was a decline in less productive and less efficient organisations such as household industry, and an expansion in more efficient and more productive organisations such as units employing wage labour. This process led to a net contraction in employment and yet a rise in total and average income. I shall call this alternative story 'commercialisation'.

I shall now discuss commercialisation in more detail. The raw material comes from recent research on traditional industry [among others, Roy 1999]. I shall not describe this raw material, but only state the major conclusions.

The 60 years between the opening of the Suez Canal (1869) and the great depression (1929) were a period of rapid commercialisation in India. Long-distance trade expanded and regional markets integrated on an unprecedented scale due to, mainly, three factors: foreign trade, modern transport and communication, and the definition of contract law and private property rights. The effects, which were quite dramatic, are well researched for agriculture. It is not so well-recognised that traditional industry was also transformed by commercialisation. Production for subsistence, production under various types of non-market and barter distribution arrangements such as 'jajmani', and production for local, rural, periodic and other spot markets declined in favour of production on contract for distant markets. Such a process had begun before the 1860s, and it certainly continued beyond 1930, but the intervening period saw its

full impact unfolding. This rise in long-distance trade had two types of effects: increased competition, and changes in industrial organisation.

Commercialisation increased competition within traditional industries. In textiles, leather, metal-work, etc., we see numerous cases of small remote manufacturing traditions decaying from the late 19th century because either they were not known for good quality products or were located too far from marketing and transportation networks. At the same time a few large agglomerations emerged, these became concentrations of production, trade, capital and labour. Artisans migrated in increasing numbers. These migrations created or extended markets in labour and capital, and encouraged the hiring of labour.

Industrial organisation changed in two ways. First, long-distance trade had made information and working capital essential resources, but these were scarce resources. The small number of entrepreneurs who had access to these resources expanded scale of business, could take closer control of the manufacturing process, and sometimes make technological experiments and improvements. Capitalists and labourers became more clearly distinguishable. So did employer-employee relationships. Second, competition among manufacturers led to increased specialisation and division of labour. There are two major examples of specialisation. Formerly, many rural artisans performed agricultural labour on the side, such as tanners and coarse cotton weavers in most regions. Such part-time industrial activity generally declined whereas specialised artisans survived. A second example is the decline of household industry in favour of small factories employing wage labour. The family as a production unit had certain advantages, but it also had disadvantages, such as it could not specialise enough, or could not be supervised closely enough.

It is this competitive decline of the family that explains the long downward trend in women's participation in industry. For women formerly used to work in industry mainly as members of the household. When the household declined as a unit of production, women workers exited industry, and were replaced by male hired labour. Women are returning now to the factory, not because the household is coming back, but for other factors that influence women's participation in the factory.

Both 'de-industrialisation' and 'commercialisation' theses agree that employment in traditional industry declined in colonial India. They disagree on the explanation. The former explains the decline by competition between nations of unequal technological capability. This explanation should be rejected on two grounds: (a) there is evidence of productivity and income growth within Indian traditional industry, which is not consistent with technological obsolescence; and (b) there are very few examples of industries in India where such external competition occurred. The alternative thesis being proposed here is that, traditional industry changed in organisation due to increasing market exchange and resultant internal competition. The decline in employment followed from internal competition. But, equally, as a result of internal competition, there emerged segments of growth and capital accumulation. The commercialisation story, thus, explains not a one-dimensional decay, but a duality in the experience of traditional industry. The net result was a positive one, as increasing productivity in this sector suggests.

There are three ways in which this alternative story matters to our views about development and industrialisation.

First, at the level of theories of history, there is a difference. We are looking at British India more from Adam Smith's point of view, rather than the Marxian viewpoint that has ruled post-independence Indian historiography. Marx and the Marxists were too preoccupied with technological change. Smith, by contrast, was concerned with markets, competition and efficiency. In this sense there is a shift in accent.

Second, the commercialisation story suggests several areas of continuity between the past and the present. The processes have not finished happening. There are three points of continuity. The first is the overwhelming importance of labour-intensive industry in employment. The majority of manufacturing workers even now work in small unregulated factories, use simple general purpose tools, and a great deal of manual skills. In that respect the past and the present are not different, and they are not different because India's factor-endowment has changed relatively little in the long run.

A second example of continuity is that, many small-scale labour-intensive industries today have traditional roots. For example, many powerloom operators today were handloom weavers by ancestral occupation. If we investigate the background of today's powerloom capitalists, we find that then great-grandfathers of some made money in long-distance trade in handloom cloth, or raw material, in the inter-war period. De-industrialisation cannot explain how this happened, the commercialisation story can. To repeat a point mentioned already, commercialisation created segments of decline and segments of growth. It is these segments of growth that form the major link between the past and the present of Indian small-scale industry.

A third example of continuity is organisational change. Post-independence censuses suggest a continuous decline in household industry, and shift of employment out of families into tiny factories. The rate of employment growth in industry since 1961 has been rather small, only about 1.2 per cent per year. But in fact, like in British India, this small growth rate of industrial employment in independent

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Development Alternatives

India is an illusion, being the average between a negative growth of employment in family enterprises, and a very high growth rate of employment in unregistered factories. Our story shows that the shift from families to small factories did not begin at 1947, but started long ago and due to increasing competition within traditional industry.

Finally, the alternative story matters to views about industrialisation as a global process. De-industrialisation suggests that the 19th century globalisation which industrialised Europe, destroyed industry in Asia. Our story suggests that there was no essential difference between Europe and Asia in the beginning of industrialisation. At different times and places – 18th century Europe, early 20th century Japan, and British India – a similar form of industrialisation began that was based on utilising labour more productively, rather than on replacing labour by machinery. The key process was commercialisation and modernisation of traditional industry. Such a process was stimulated by long-distance trade, and resulted in capital accumulation. In the course of this transition, there was a persistence of traditional organisations in the short run, and a movement towards the labour market in the long run. These messages are now well known to historians of early modern Europe and east Asia. We suggest that south Asia is an example of the same thing. If, however, such common roots gave rise to different levels of prosperity, that difference needs to be explained not by such global factors as trade or colonialism, but by local variables and also by what happened after the British rule ended.⁴ 

Notes

[This is the text of the Ninth Daniel Thorner Memorial Lecture of the Indian Statistical Institute, delivered at the Reserve Bank of India, Mumbai, on February 11, 2000. I am grateful to Alice Thorner for her comments on the text of the lecture, especially for pointing out an error in it. I wish to thank members of the audience for their comments and questions, which led to revision and elaboration of some of the arguments.]

1 Daniel Thorner was a historian. He made a brief but influential contribution on the theme of this essay [Thorner 1962; Thorner and Thorner 1962]. One of his main interests was the expansion of western European capitalism in Asia. He wrote the first major study on the railways and steam shipping in India [Thorner 1950], he is known for

works done singly or with Alice Thorner on occupational structure, land reforms and rural development [Thorner and Thorner 1962; Thorner 1956] and on the peasantry [Thorner 1987]. As students in the university, we read Thorner and appreciated his lucid style. Later as researchers we went back to these writings for their ideas and arguments. For a research in the early 1980s these ideas often struck as surprisingly non-ideological and unconventional.

2 Karl Marx saw England fulfilling a 'double mission' in India, one destructive and the other creative. The destruction of industry was an example of the former role. The railways built with foreign capital were an example of the latter. Lenin and other early theorists of imperialism explored the latter role, which they felt would become stronger as export of capital from rich to poor countries became inevitable for the survival of capitalism in the west. A post-war scholarship, led by Andre Gunder Frank, argued that such forms of globalisation further retarded the poorer countries.

3 Total income calculations for 'small-scale industry' in Sivasubramanian (1965; 1997), rest on two sets of data. The first is census employment in industry (also includes construction) outside official factories. The second is an average wage index for the small-scale sector, derived from a large number of wage and earning estimates for different occupations, time points, and types of worker. When we say that total income increased despite a fall in employment, it means the income estimates show increase in real terms. This income series has problems, but the problems are not so bad as to call into serious question the conclusion that income per worker rose in small-scale industry. The finding that 'small-scale industry' experienced productivity growth of the order that Sivasubramanian finds it did has surprised other commentators on Indian national income, such as Alan Heston and Angus Maddison. But no alternative method or estimate has been used or recommended that can upset this result. In the essay cited, Sivasubramanian has defended the finding with additional qualitative evidence from recent scholarship on traditional industry.

4 How did local contexts matter? Population growth is an example. A labour-intensive industrialisation can transform itself into a capital-intensive industrialisation only when rates of growth in supply of labour begin to fall below those in demand for labour. In India, that turning point has been delayed by sustained high rates of population growth. How did post-independence policies matter? India after independence had the option – which Japan had exercised until a decade or two previously – of selecting a growth path based on export of labour-intensive manufactures. India's deliberate withdrawal from export-led growth deprived the small-scale industry of external markets. And the Gandhian bias for protecting small-scale

industry deprived them of healthy competition. When India returned to globalisation, predictably the industries that benefited the most from export opportunities were labour-intensive small-scale industries. But by then, what India had to offer the world was a small-scale manufacturing sector that had serious problems of accumulated inefficiency.

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