

DISCUSSION PAPER

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IDEOLOGY AND INDUSTRIALISATION IN INDIA AND EAST ASIA

by

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### Abstract

The paper discusses Indian industrialisation in historical and comparative perspective. It shows that Indian industrialisation was impressive relative to both other developed and developing countries in the 19th century. But the introduction of protective labour legislation in the 1880's and of creeping protectionism after the First World War biased the pattern of India's industrialisation away from labour intensive industry. It shows that many popular explanation of India's industrial stagnation are not borne out by the facts . It then discusses how for ecological and ideological reasons, as contrasted with the East Asian countries, India's import substitution in intermediate and capital goods has made it difficult for it to adopt the virtual free trade regime for exporters common in East Asia. Finally it provides reasons why despite the hold of ideology the impending fiscal crisis may lead to some liberalisation of internal (industrial and price) but not necessarily external (trade) controls.

Ideology and Industrialisation in India and East Asia

by

Deepak Lal\*

In 1950 if someone had been asked to predict the Third World country most likely to embark on an industrial revolution and with the best prospects of fostering modern economic growth - in Kuznet's sense - the unanimous choice would probably have been India. It had a potentially large domestic market, a relatively diversified natural resource base, a relatively efficient bureaucracy, a political leadership seemingly committed to development, fairly elastic supplies of skilled and semi-skilled labor, and no shortage of domestic entrepreneurship. Yet, despite these favourable factors, apart from creating a highly diversified industrial base, both the absolute level of industrialisation, as well as its contribution to per capita growth has been disappointing, and dismal compared with the experience of the so-called 'Gang of Four' of East Asian countries. Table 1 provides some summary statistics which provide a comparative and historical perspective. India's relative failure to industrialise compared with the relative ease with which the four

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Far Eastern economies have succeeded in transforming their formerly agricultural into fully modern industrial ones, is the focus of this paper.

When I write of India, I shall be referring to the political entity which covered the whole sub-continent till 1947, but only the successor state of that name which resulted from the partition which accompanied Independence from British rule. I shall be treating the historical experience of Indian industrialisation in depth, with only passing references to that of the East Asian economies. This in part reflects my own expertise and partly my desire to tell an analytical story about the sources of the Indian failure. This is the subject of part I of this paper. The second part examines various explanations for India's continuing industrial stagnation and finds them wanting. In this part, the comparative experience of the East Asian countries is brought into the picture. The third and more speculative part of the paper provides more deep-seated reasons - "ideological" and "ecological" - which have in my view led to the very different policies - which I shall argue - ultimately have led to the differing outcomes - in South and East Asia.

In this context we shall also examine the hoary debate about the influence of ideas relative to vested interests in preventing India from switching its industrial and trade policies when these had apparently become inimical for its development. For apart from Hong Kong, the other members of the Gang of Four also underwent an initial phase of forced industrialisation promoted through protectionist trade regimes. But unlike India they switched towards a relatively more neutral trade regime in the early or mid-60s, which most observers consider to have been an important if not the crucial element

in determining their subsequent spectacular industrial and economic growth. <sup>1/</sup>  
Why has India failed to make an equivalent switch, and what are the prospects  
of its succeeding in its latest attempt at liberalizing the trade and  
industrial controls which have shackled its industrial growth? This is the  
subject matter of the third and final part of the paper.

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<sup>1/</sup> See Mason (et al), and Galenson (ed) for the most authoritative available  
surveys of two of the major members of the 'Gang of Four'.

I. 2/

In setting Indian industrialisation in historical perspective, it is important to note that India was one of the pioneers of Third World industrialisation. Moreover, it began its industrialisation in the 1860s at a time when laissez-faire and free trade were the corner stones of Britain's and its colonial economic policies. The rate of growth of Indian industry (10.4 percent per annum) during the latter part of the 19th Century (1868-1900) has not been bettered since (see Table 1). Yet the conventional view cites the historical experience of industrialisation in India as an example of stunted development during the colonial laissez-faire period, in contrast with the post-Independence promotion of a large and diversified industrial base through a network of the most dirigiste industrial policies outside the Communist world. Balogh succinctly expressed this popular view of the effects of 19th Century free trade and laissez-faire on the development of Indian industry:

"The destruction of the large and prosperous Indian cotton industry by Britain without any compensatory long-run advantage to India simply cannot be explained in these terms: it is altogether different from an event such as the end of the silk industry in Coventry. In the latter case there was compensatory expansion. In the former case there was not"  
(p. 11).

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2/ This and the following sections are based on various parts of Lal (1983) and [1986].

Recent research has cast serious doubt on the empirical bases of these historical perceptions fed by influential Marxist and nationalist writings. We cannot go into the details <sup>3/</sup> but the following points need to be noted. First, there is little doubt that the introduction of cheap Lancashire textiles (between 1812 and 1830) destroyed the Indian export trade in cotton textiles, which according to estimates by Maddison, had amounted to about 1.5 percent of national income in 17th Century Moghul India. <sup>4/</sup> The decline of India's trade in textiles was inevitable in the face of the technological revolution taking place at that time in the West. There was as a consequence some undoubted destruction of industry-specific factors of production in the traditional (handloom) textile industry. But from the 1850s with the establishment of modern textile mills using Indian entrepreneurship and capital and imported machinery, manufactured cotton exports from India began to expand. Also, employment in manufacturing industry (primarily in textiles by the 19th Century) increased. With the development of a modern textile industry, Indian products increasingly captured both the domestic and foreign markets they had lost in the mid-19th Century to Lancashire <sup>5/</sup> Thus there was at most a relative decline in the employment and output of the handicrafts sector, as is borne out by the fact that handloom production remains a substantial industry in India. It would be incredible if the

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<sup>3/</sup> See D. Kumar (1983) and Lal (1986) for a fuller discussion and references to this literature.

<sup>4/</sup> Maddison, p. 55.

<sup>5/</sup> Maddison estimates ... "in 1968, Indian mills supplied only 8 percent of total cloth consumption; in 1913, 20 percent, in 1936, 62 percent; and in 1945, 76 percent. By the latter date there were no imports of piece goods" (p. 57).

current size of the handloom industry (supposedly destroyed in the 1820s) were to be explained as the result of government promotion since Independence in 1947.

The growth of modern industry was not, moreover, confined to cotton textiles during the second half of the 19th Century. The first jute mill was set up in 1852, only 3 years after the first cotton textile mill, and the first steel mill was established by the Tatas in 1911. Other industries, including paper, and engineering goods, were also established during the free trade and laissez-faire period. The overall rate of industrial growth was higher in India (4-5 percent per year between 1880 and 1914) than in most other tropical countries, and also exceeded that of Germany (4 percent). As Lidman and Domerese have observed:

"An index of industrial production based on six large-scale manufacturing industries more than doubled from 1896 to 1914.

By 1914 the Indian economy had developed the world's fourth largest cotton textile industry and the second largest jute manufacturing industry" (p. 320-1).

Nor was India's performance in exporting manufactures to be sniffed at during this first phase of industrialisation. By 1913 about 20 percent of Indian exports were of modern manufactured goods. Total exports amounted to 10.7 percent of national income -- a share not reached either before or since this free trade and laissez-faire period. It was India's agricultural export growth rate which was disappointing. Whilst aggregate exports grew by 3 percent per annum between 1883 and 1913, agricultural exports grew at an annual rate of only 1.4 percent. Japan's agricultural exports grew at an annual rate of over 4 percent during the same period.

As Table 1 shows, after this initial burst, the growth rate of Indian industry has been stagnant in the 20th Century. But even in the 1913-38 period, Indian industrial growth was above the world average (see Table 2). However, unlike the pre-1913 period which was broadly one when free trade and hence "border prices" ruled, the period after the First World War saw the introduction, largely for reasons of fiscal expediency, of a system of discriminating protection. Whereas the market price based growth rates of industrial output (value added) in the free trade period were likely to have been close to those in terms of shadow prices, for well-known reasons, this was unlikely to have been the case with the growing divergence between "border" and market prices of tradeables as protection was gradually extended in scope and intensity after 1913.

Nevertheless, even if we judge performance by crude and inadequate criteria such as the rate of growth of manufacturing output, employment and investment, the performance during the pre-1913, free trade period was better than in the protectionist 1919-39 period. Of the industries that were growing in the protectionist period, a proper evaluation of the social return to investment is only available for sugar. (See Lal (1972)) This shows that such investment was socially unprofitable.

Comparing the periods 1900-1913 and 1913-39, industrial employment grew twice as fast, during the free trade as during the protectionist period. (See Table 1) Though the investment rate did not rise, the increase in the volume of investment, combined with a slower expansion of industrial employment, meant a rise in the capital intensity of industrial production. Moreover, if the whole period of protection (from 1913 until the late 70s) is considered then (by fitting Gompertz curves to the relevant time series

data <sup>6/</sup>) it appears from Table 3 that there has been an accelerating trend in the capital employed in industry and a decelerating trend in the labour employed. Since Independence, a decelerating trend has also developed in industrial output. Thus there has been a rising capital labour ratio (see Table 3(A)) in this labour abundant economy!

Even more telling evidence on the growing absolute relative inefficiency of Indian industry is provided by the estimates of total factor productivity growth (TFPG) in the 1960s and 70s for India, Korea, Turkey, Yugoslavia and Japan summarized in Table 4. Nor does it appear that there was any break in this rate of decline in TFPG in India in the mid-60s, when the Indian industrial sector obviously began to stagnate in terms of output growth. We do not have capital stock data for the earlier periods to ascertain whether the negative rate of factor productivity growth in India is just a post Independence phenomenon or whether it goes back to the start of the protectionist period in 1913. Our tentative hypothesis is that the latter is likely. Further support for the declining social profitability of industrial investment in India is provided by estimates of social rates of return on Little-Mirrlees lines that we have made elsewhere (Lal (1980) and summarized in Table 5).

How then does one explain this relatively dismal Indian industrial performance, particularly as compared with the performance of the Gang of Four in the last two decades? There are two obvious sets of policies which differentiate the industrial environment in India as compared with East Asia.

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<sup>6/</sup> See Rudra (1978) for the reasons why this form of curve fitting is desirable, as it enables one to judge whether growth is accelerating, decelerating or constant over the relevant period.

The first, as I have argued above, is protectionism which predates Independence. But India was not unique in this respect in the inter-war period or even in the 50s. The Japanese colonial governments of Taiwan and Korea both introduced tariff protection in the 20s. In the 50s, these members of the 'Gang of Four' as well as Singapore followed the common Third World practice of attempting to foster primary import substitution behind ever higher tariff walls and quantitative import controls.

Moreover, as we have argued above, India's industrial performance, though not as good as in the free trade period, was still above the world average in the protectionist inter-war period. If protection had continued to be offered only through tariffs and at the relatively mild tariff rates (7-30 percent) <sup>7/</sup> of the inter-war years in the post-Independence years, it is likely that though lowering efficiency and labor absorption (for well known reasons), it would still not have led to the large shortfalls in actual below potential social returns as in the post-Independence period.

Equally important, is the need for some explanation for the success of the three dirigiste members of the Gang of Four in switching trade policies in the mid-60s whilst India, despite belated and half-hearted attempts since the devaluation of 1966, has failed to liberalize its foreign trade and industrial controls.

The second difference in the economic environment facing industry in India and East Asia is less well known and discussed, but in my judgment is perhaps as important as that due to differences in the trade and industrial

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<sup>7/</sup> Thus D. Kumar (1983) estimates that "the gross revenue from import duties was 7 percent of the value of imports in 1920-21, 18 percent in 1925-26, and 31 percent in 1931-32" (p. 924).

control regimes. This concerns the industrial labor market. In marked contrast to the Gang of Four, India has had protective factory legislation since the late 19th Century, which has raised the cost of industrial labor to employers to an unquantifiable extent.

Part of the troubles of the India textile industry in the early part of the 20th Century which led it to seek protection, arose from the introduction in 1881--soon after similar rights had been granted to workers in Britain--of legislation to protect industrial labor from perceived abuses. The first of these factory acts was aptly described as "the result of agitation (in the UK) by ignorant English philanthropists and grasping English manufacturers." (Bhattacharya, p.171) As is usual in such alliances, the selfish English protectionist interest was better served by the legislation than the altruism of the philanthropists. By effectively raising the cost of labour they provided an incentive to producers, to choose relatively capital intensive techniques in industrial production. As these laws only applied to the large-scale sector, they presented an entry barrier to small-scale producers seeking to expand. They thus began that fragmentation of the industrial sector in India into the industrial caste system that now exists--with special size categories of industries, each with its own specially legislated conditions of employment and controls on outputs and investments, leading to variously and differentially protected segments of the labor force as well as of the population of industrial firms.

The rights granted to Indian labor in 1881 hobbled the Indian textile industry in competing for exports, and later the domestic market, with the industry of Japan. Lower Indian wages reflected lower efficiency (see Table 6). Whereas the Japanese textile industry as well as those in most of the

Gang of Four were built on using female labor working two shifts a day, "the use of female labor on such a scale was inconceivable in Bombay, nor did the labor laws permit such long working hours." (Ray, p.67). Indian textile producers demanded protection and got it. The large home market, increasingly protected from imports, provided an easy life and gave little incentive to increase efficiency.

By 1950, in marked contrast to the Gang of Four, India "had built up one of the most comprehensive labor codes to be found in any country at India's level of economic development. The standards laid down by the ILO had been accepted and measures were being worked out to attain these standards." (Bhattacharya, p.186).

No quantification of the adverse effects on the relative industrial performance of India with that of the Gang of Four--with their relatively free industrial labor markets--is possible. But some judgments on the effects of the costs of this labor legislation and the attendant growth of trade unionism in India can be formed from Tables 7 and 8. The former shows the number of industrial disputes and mandays lost since the rise of trade unions in 1921 in India. It can be seen that, as early as 1928 nearly 32 million mandays were lost through stoppages, a figure nearly as high as that of about 44 million mandays in 1974 and 1979.

Table 8 is based on the results of a series of in-depth interviews I conducted in India in 1980 of about 20 firms covering both large and small-scale industries, which covered the technological spectrum of sophistication (petrochemicals) to simplicity (soap making). Lal (1980a) provides details of the interviews, whilst table 8 summarizes the responses on some questions concerning the factors which influenced the producers' choices concerning the

recruitment and training of labor, as well as the effects of existing labor legislation and trade unionism on their operations. The dominant impression from the interviews was that firms were behaving as cost minimisers, where the major component of labor costs were perceived to be those attached to "troublemakers" and the resulting impediments to the maintenance of labor discipline resulting from the complex labor legislation granting various legal rights to industrial labor and trade unions. The new neo-classical hierarchial labor market reasons (see Lal (1979a) for a review) for promotional ladders and the usefulness of trade unions as a tool for managing labor did, however, seem to be important for the larger and technologically more sophisticated firms. Despite this, it would be fair to say that most industrial producers look upon existing labor laws and the legal rights granted to trade unions as major (though unquantifiable) costs in their employment decisions.

These two elements of the economic environment--the current highly complex and differentiated effective protective rates facing Indian industry, and the equally complex labor laws it confronts in hiring and firing labor-- seem to me to be crucially different in India and the Gang of Four. Taken together with the system of industrial licensing and all the special reservations for industries by sizes and class for different groups of workers, a vast politically determined set of entitlements has been created in Independent India, which defies any economic rationale.

By contrast the undoubted continuing dirigisme of three of the members of the Gang of Four seems almost like *laizzez faire* to this Indian - though of course it is not! The roots of Indian dirigisme as I have been at pains to emphasise lie in the colonial period, and in understanding the

continuing hold of the resultant Weltanschauung on the Indian mind - particularly of its intellectuals and bureaucrats - it is necessary to explore the reasons why a particular set of ideas associated with their colonial heritage have been found more persuasive by Indians than an earlier set of ideas associated with the same rulers. This will hopefully also provide some reasons why unlike policy makers in the Gang of Four who switched policies, Indian policymakers have tenaciously held on to policies which experience has shown are dysfunctional. We attempt this in the final section. But before doing so it is necessary to dispose of some arguments currently used to explain away the relative failure of India to industrialise compared with the Gang of Four.

II.

There is one set of arguments which seeks to dispose of explanations based on the virtually free trade policies of the Gang of Four as a source of their success. These are essentially based on either a misunderstanding of the modern theory of trade and welfare, or else on a non-sequitor. On this set of arguments, far from the Gang of Four's experience supporting the case for free trade it merely provides support for what Streeten has called 'enlightened discrimination' towards trade and industry - that is for the rational dirigisme of Platonic Guardians.

The essence of the modern theory of trade and welfare is that the case for free trade does not depend upon that for laissez-faire. Whilst as I have argued the policy of free trade followed by the British Raj in the 19th century did not harm Indian industrial development, its policy of laissez-faire can be faulted for well known reasons. Manufacturing industry particularly that producing engineering and capital goods, such as steel, was in part hampered by a shortage of a trained labour force as the example of Tata's steel mills showed. They had to establish their own apprentice school in 1927 for training fitters, welders, machinists, blacksmiths, etc. The private provision of such skills can create economies external to the firm but internal to the economy, and a case can be made for the public provision of such industrial training or else some subsidisation of the private firms training costs.

More important however, is the provision of social overhead capital in the form of power, transport and education. As there are likely to be increasing returns in the production of a large part of this infrastructure -

which also has many of the characteristics of public goods-natural monopolies may emerge if they are privately provided. Some government regulation may be necessary, and given the costs of information required for such regulation, public provision may be desirable.

Though the British did begin to provide this infrastructure, hamstrung as they were by a continual fiscal crisis, they did not do as much in this area of state promotion of industry as they could have. Table 9 shows the differences in the levels of provision of social overhead capital during the last century of British rule and the first decades after Independence. Potentially, an extremely important and desirable change in the economic environment of industry was the increased provision of infrastructure. But this great expansion of social overhead capital has not resulted in a marked change in the economic environment facing Indian industry because of the inefficient utilisation of this public infrastructure.<sup>8/</sup> In fact it is ironical that the following summary by Morris D. Morris of the reasons why industry did not develop faster during the laissez faire period of the British Raj seems to be as applicable to present day dirigiste India:

"Lack of complementary facilities means that the entrepreneur typically had to provide his own power and his own repair and replacement facilities and inventories. Thus he needed not only more fixed capital but more working capital than the same enterprise would require in a developed system. Yet the businessman faced a situation where capital was typically more costly than in developed regions. Because local credit systems were badly

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<sup>8/</sup> See Ahluwalia (1985), Chapter 5, for a demolition of the argument that it is lack of public sector investment on infrastructure rather than its inefficient utilisation which has caused industrial stagnation.

underdeveloped, capital would flow only in fitful fashion... All this suggests that the entrepreneur encountered higher real costs that needed the promise of higher rates of return if a gamble were to be taken... The great areas of uncertainty combined with the obvious objective obstacles to inhibit rapid expansion of modern industry". The major reason for the inefficiencies in the provision of infrastructural services must again be laid at the door of the labour laws which have prevented the efficient utilisation of the large investments independent India has made in developing its infrastructure. This is in marked contrast to the performance of infrastructural public enterprises in East Asia.

Thus if rational government intervention is required but protection is not, we could expect the successful East Asian countries to have a lot of the former and little of the latter. Yet in a recent article Sen quoted Little's assessment of South Korea's development viz:

" The major lesson is that the labour-intensive, export-oriented policies, which amounted to almost free-trade conditions for exporters, were the prime cause of an extremely rapid and labour-intensive industrialisation which revolutionised in a decade the lives of more than fifty million people, including the poorest among them. <sup>9/</sup>

Sen then comments:

" There is indeed much in the experience of "the four" to cheer Adam Smith, and the invisible hand would seem to have done a good deal of visible good. But is this really the "major lesson" to draw from

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<sup>9/</sup> Little (1979), p. 34 (emphasis added).

the experiences of the four? I would now like to argue that this may not be the case." 10/

He goes on (basing himself on Dutta-Chowdhry) to cite instances of government intervention in Korea, such as import controls and export incentives, as a supposed counter to Little's proposition. But this is mistakenly to identify the argument for free trade with laissez-faire. Little himself made clear in the published proceedings of the conference at which he made the statements quoted above that he 'had not used the term "free trade" to be synonymous with "laissez-faire". In fact, he had never said that "laissez-faire" should be adopted'. 11/ It is Sen's mistaken identification of Little's 'major lesson' about the desirability of free trade with Adam Smith's invisible hand of laissez-faire which leads him into the wholly spurious argument that, since the Korean government is interventionist, the Korean success story provides no empirical validation of the case for free-trade policies in the Third World.

Nor does the fact of government intervention imply, as Sen seems to suggest, that intervention is on balance responsible for Korea's success. Indeed, it could be argued that success has been achieved despite intervention. Thus the change in trade policies in the early 1960s from favouring import substitution to broad neutrality between import substitution and exporting - considered to have been a major reason for Korea's subsequent success - entailed the introduction of interventionist export incentives to counteract the effects of import controls which though undesirable from their inception, were not (and have not been) entirely removed. If the inefficient

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10/ A. K. Sen, p. 297 (emphasis added).

11/ Little in ILO, p. 12.

import controls were to be maintained, export incentives were desirable on second-best welfare grounds to restore a position amounting to a virtual free-trade regime for export production. But this does not mean that the import controls which made the export incentives necessary were themselves desirable. It would have been best not to have import controls in the first place, that is, no government intervention in foreign trade. To have two sets of intervention, each to neutralise the harm the other would do alone, is hardly a glowing recommendation for government intervention in trade, and certainly not 'the lesson' that can be drawn from the experience of Korea and other East Asian countries.

Furthermore, the broad neutrality in Korea between production for export and import substitution ended in the mid-1970s, the existing dirigiste machine being used to 'guide' domestic production towards more import substitution in heavy industry and a highly subsidised agriculture. This about-turn has led to both a slackening in the growth rate of income (in 1980, GNP fell for the first time in nearly 20 years - by about 6 percent - after having grown in the late-1960s and early-1970s at annual rates of 10-15 percent) and a rise in the rate of inflation (from about 15 percent a year in the early 1970s to nearly 35 percent in 1980). <sup>12/</sup> The new Korean government has had to re-assess the promotion of heavy industry and seems to be reverting to the former policy of maintaining a rough neutrality between the incentives offered to different branches of industry by restoring the virtual free-trade regime of the earlier period. It should enable Korea to grow in line with its emerging comparative advantage, which lies increasingly in the production of

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<sup>12/</sup> See K. W. Kim.

goods using highly-skilled labour though not necessarily much physical capital. Far from confuting the liberal case for free trade, Korea provides one example of how periods of virtual free trade have been accompanied by a high rate of income growth which has been lowered whenever that policy has been departed from.

There is of course no shortage of explanations - based essentially on insufficient dirigisme - for Indian industrial stagnation. The broad thesis runs somewhat as follows: <sup>13/</sup> Because of the power of the kulaks there has been a general tendency for the agricultural terms of trade to turn against industry which has reduced the demand for industrial products. A purported worsening in the income distribution increased the demand for luxury goods, however, as investment in luxury good production rose even faster, capacity utilisation declined. Furthermore, a purported decline in rural and industrial wages meant that the demand for industrial mass consumption goods fell. Meanwhile foreign capital was "a highly effective mechanism of extracting surplus" from the host country. Finally big private capitalists instead of expanding their productive capacity through capital accumulation have been more concerned for their firms to grow by acquiring subsidiaries through mergers and takeovers.

The factual bases of nearly every one of the above claims is false. The best available study on income distribution is by Dutta (1980). He has used the National Sample Survey (NSS) consumer expenditure data for the 9

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<sup>13/</sup> A. Desai (1981) provides a bibliography of the writings of what we can label the 'radical' school on industrial development. For a representative sample see A. Bagchi (1970), S. Chakravarty (1974), Sau (1980), Vaidyanathan (1977b) and A. Mitra (1977).

years between 1960-61 to 1973-74 to compute two different indices for rural and urban India viz: (i) the headcount measure of the percentage of people below a fixed poverty line, and (ii) Sen's poverty index, which also takes account of the distribution of poverty amongst the poor and which gives more weight per unit of lower incomes. From the same data source he has also computed Gini coefficients to determine changes in the relative inequality of consumption in both urban and rural India.

The measurement of trends in poverty and income distribution is bedevilled by the problem of the choice of the correct index number of prices to be used to determine 'real' consumption changes. <sup>14/</sup> Ideally, expenditure class specific price indices are needed. Dutta uses adjusted estimates made by Murty and Murty of fractile specific price indices to determine real consumption trends. <sup>15/</sup> He makes use of Dandekar and Rath's (1971) estimate of Rs. 15 per capita per month at 1960-61 prices as the rural poverty line, and Rs 20 per capita per month for urban areas. The urban figures having been derived by converting the rural into an equivalent urban poverty line by using the estimated rural urban price differential of 20 percent estimated by Chatterjee and Bhattacharya (1971), and adjusting upwards slightly to take account of "certain imposed and induced needs in urban areas" (p. 126).

His estimates of the two poverty indices and the Gini coefficients of nominal per capita expenditure in urban and rural India are reported in Table 10. Panel (C) of this table also reports the computed linear time trends in these variables. The following conclusions emerge:

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<sup>14/</sup> See the debate between Minhas (1970) and Bardhan (1970).

<sup>15/</sup> See Dutta (1980) part 2 for the details.

- (i) There is no evidence to suggest that there is any trend change in poverty in either the rural or urban sector. <sup>16/</sup>
- (ii) There are, however, cyclical fluctuations in the incidence of poverty, with it rising in the 1960s and declining thereafter.
- (iii) There has been a significant trend decrease in inequality (in terms of the Gini coefficient) in both sectors.
- (iv) The decline in the Gini coefficient has been caused by an absolute fall in the living standards of the top 15 percent of the population in the two sectors, and not by a transfer of consumption from the rich to the poor. This is evident from Dutta's separate estimates of the trends in the mean real per capita consumption of the rich and the poor in the two sectors. He finds that whilst the mean real per capita consumption of the poor shows no trend increase, that of the rich shows a statistically significant decline of 0.8 percent per annum in the rural and 0.7 percent per annum in the urban sector.
- (v) Moreover, as Lal (1976) and Ahluwalia (1978) have shown for interstate data on poverty and agricultural growth, the latter aids rather than hinders poverty redressal, and is also good for equality.

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<sup>16/</sup> This is also Ahluwalia's conclusion (1978) for the rural sector to which his analysis is confined.

Thus, though about 40 percent of the population appears to be poor in both urban and rural areas, there has been no marked impact for better or worse in this ratio over the post-Independence decades. If any immiserisation has taken place, it is of those in the top 15 percent of the income distribution in both rural and urban areas, which has led to a lowering of the concentration ratio, which in any case is low by historical standards. (see Maddison, and Lal (1986)).

Nor have real rural and industrial wages fallen. The falling industrial wage thesis (for instance propounded by Chakravarty) is based on the use of the unsatisfactory Payment of Wages Act (PWA) data, whose coverage is limited to workers earning less than a cut off wage (Rs. 400/month for the 1951 base series). If the more comprehensive data based on the Census of India Manufacturing and Annual Survey of India (ASI) is used then the real wage trends in industry are as given in Table 11 (also see Madan), and show a sustained and continuous rise in real industrial wages between 1951 and 1976/77.

As regards rural real wages, I have surveyed the evidence in Lal (1976) (1984) and do not find any marked decline in rural real wages, which seem to have been determined by the interaction of rural labour demand and supply. As agricultural output has grown at about 2.4 percent in the post Independence period (to 1980), and rural labour supply has increased by about 2 percent per annum, not much of an increase in rural real wages can be expected. Our best estimate (Lal 1984) is that as a result rural real wages have been rising at the compound rate of about 0.4 percent per annum between 1950-1978. Thus the distribution of income has not worsened, real rural and industrial wages have not fallen. Evidence on the other claims is given below.

Table 12 shows the terms of trade for agriculture and manufacturing between 1951 and 1979. There has been no continuous improvement in agriculture's terms of trade. The famed power of the kulaks has certainly not been sufficient to raise agricultural prices above manufacturing ones. Mitra (1977, p. 131) also asserts that as a larger proportion of the marketed surplus of wheat is produced on large farms than on smaller ones, the 'kulaks' have succeeded in raising the price of wheat relative to rice. No such conclusion is warranted from the data presented in Table 12.

On luxury consumption, Desai (1981) notes: "According to figures computed by Mitra (1977, p. 164) from Reserve Bank statistics, the weight of consumer durables in the index of industrial production rose from 2.21 percent in 1956 to 5.68 percent in 1960, 7.84 percent in 1970 and 8.09 percent in 1972. According to Reserve Bank of India (1977 p. 212), however, their weight was only 2.92 percent in 1970" (Desai (1981) p. 387). Any comment would be superfluous.

"The state of foreign capital in the Indian economy is quite significant ... The involvement of foreign capital in the manufacturing industries of India is increasing." (Sau (1980) p. 57). Table 13 gives the ratios of outstanding foreign business investments in India between 1969-1973, and total fixed capital in the manufacturing sector (Census sector of the ASI). Private foreign investment has accounted for about 20 percent of the fixed capital stock (based on book values) in Indian manufacturing and this share is declining. Nor can any 'net drain' from this foreign investment be deduced. There is an obvious fallacy in computing this drain by comparing undiscounted sums of the inflows and outflows on foreign capital account. For if the foreign investor is to get a positive rate of return on his investment,

the undiscounted sums paid out on account of the repatriation of capital and dividends and interest must exceed the inflows which made the outflow possible (see Lal (1975)). Yet the fallacy continues to be perpetrated (as in Sau (1980)) What is more, no overall deleterious effects from the foreign investment that has occurred can be deduced from social cost-benefit studies conducted of these investments in India (see Lal (1975), (1978)). Where the social returns to India were low or negative, the major reason was the high effective protection provided by the system of import controls set up since the late 1950's (see Lal (1975)).

On the concentration of industry, the 'new orthodoxy' fails to note that, the most important cause of the concentration of industry is the growth of the public sector, whose share of output in organized manufacturing has grown from 8 percent in 1960-61 to 30 percent in 1975-76. <sup>17/</sup> In basic industries see Table 14(A) the public sector has a near monopoly of domestic production. Judged by conventional accounting criteria the performance of the public sector has been abysmal compared with the private sector. The latter's performance in itself is not particularly noteworthy as judged by social profitability. But for three industries in which there are both private and public enterprises, some estimates of social profitability (at world prices) by Jha (1985) and summarised in Table 14(B) show the relatively poor public sector performance. It is the growing dominance of an inefficient public sector which should worry those concerned about the evil effects of the concentration of industry rather than any highly debatable tendency for concentration in private industry. In any case, as the continuing debate in

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<sup>17/</sup> Draft Sixth Five Year Plan, P. 184.

developed countries shows, there is no clear economic reason to expect any increase in concentration of industry through mergers or takeovers to be necessarily detrimental in terms of economic welfare.

Thus I take it that, all these special explanations for Indian industrial stagnation which abstract for the environmental variables - protection and labour legislation - are unconvincing.

Little (1979) has already disposed of the other special exogenous factors - such as culture, initial conditions, resource base, etc. which it might be argued enabled the Gang of Four to industrialise faster than India. I need not repeat his arguments, except adding one supplementary point which is relevant both to my discussion in the next section, as well as in dispelling some popular views about the different cultural values engendered by Confucianism as compared with Hinduism. It is true that all the members of the Gang of Four have either predominantly Chinese populations or those historically influenced by Confucian ethics. It might be thought that unlike Hinduism, Confucianism is a 'this worldly' religion which confers a high status on those practising commerce and trade, so that the leaders in the Gang of Four have found the promotion of these elements of a market economy culturally congenial. However, as Mason et al (p. 284-5) note, Confucian culture assigns a low value to businesses activity, and they find it perplexing why it "has accomodated itself to the rise of so many successful entrepreneurs... One possibility is that the modernisation process is subtly, or not so subtly, changing the rank order of Confucian values. In South Korea, indeed, there is substantial evidence that business careers, once denigrated, are now regarded as acceptable rivals to those in government officialdom" (p. 285).

Thus, I would conclude this section by saying that the banal conclusion still holds: different policy choices explain the different industrial outcomes in India and East Asia. What needs still to be explained is why East Asian policy makers with predilections, culture and a heritage of colonial policies very similar to India's (except in the all important area of labour legislation), nevertheless succeeded in switching horses, whereas India has despite some feeble attempts since the mid-60s, still failed to do so.

III.

It is here that the interrelationship of ideas and vested interests needs to be brought in. Though Keynes' dictum about the power of ideas is probably true of the long run, in the medium run - measured in decades - policies generated by certain ideas and ideals can create vested interests which make the reversal of these policies well-nigh impossible when the climate of opinion (in the light of experience) changes. That is one of the major differences between India and the Gang of Four.

During the phase when import substituting forced industrialisation was being promoted in most of the Third World based on the belief in 'export pessimism', the Gang of Four never went much beyond primary import substitution. India by contrast, with the adoption of Mahalanobis' heavy industry strategy, explicitly aimed to import substitute as far back the chain of production as was possible. In this it was successful even though the social cost was enormous. This import substitution in intermediates has made it extremely difficult for India to switch to an 'export promotion' strategy - or more correctly the movement towards a more neutral trade regime (as between exports and import substitutes) - through granting export incentives which offset the biases of trade controls by creating a virtually free trade regime for exporters.

As Krueger (1977) has emphasised: "Korea was able to make a smooth transition to an export-oriented policy in the early 1960's because import substitution had not yet progressed to the development of high-cost intermediate and capital goods industries. In other words, if import substitution in the 1960's had already reached the stage where most imports of

intermediate and capital goods were replaced by domestic production, pressures from domestic industry might have prevented duty-free imports of low cost intermediate and capital goods for export production. Under such circumstances, Korean exporters would have encountered great difficulty in producing export goods efficiently enough to be competitive in world markets". (Mason et al, p. 164).

The Indian policy of and success in import substitution in intermediates and capital goods, by contrast, has meant that when attempts have been made to offset the biases against exports the so-called "indigenous availability" criterion has prevented exporters from freely importing intermediate inputs. Thus unlike Korea, when India undertook the promotion of exports through various export incentive schemes, it created a system as complex and bureaucratic as its system of import allocation. The effect was to create a host of new distortions in the export sector. <sup>18/</sup> Though manufactured exports did increase, (see Table 15) so that, unlike the 50's and 60's, India's export performance (in these crude terms) matched the developing country average, the social efficiency of the form of export subsidisation which promoted these exports is dubious. Table 16 shows the estimates we have made elsewhere (Lal (1979) (1980)) of the social profitability of the exports promoted in a sample of export industries by the export incentive schemes. This shows that the subsidy system has not in general succeeded in raising the implicit exchange rate for goods with higher social export profitability, and that the relative divergences between private and social profitability have been altered by the export incentive system in essentially arbitrary ways, for

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<sup>18/</sup> See Bhagwati and Srinivasan, and Lal (1974).

which no clear economic justification can be provided. One of the major stumbling blocks in the adoption of a rational system has been the opposition from mainly (but not only) public sector intermediate and capital goods producers to the abrogation of the "indigenous availability" criterion. But the creation of these vested interests in India was not inevitable. It was fostered both by ideas and what I shall loosely label 'ecology'.

To take the last first, it is more tempting for planners in countries with large populations, and with a fairly varied natural resource base to attempt the secondary and tertiary phases of import substitution. Thus if domestic iron ore and coal is available the conspicuous production of domestic steel - that intermediate good loved by planners as it is required for both machinery and weapons - is irresistible. What is more (as in steel in India) the country may in fact have a comparative advantage in producing some of these capital and intermediate goods. By contrast it will be less easy for planners in a resource poor country - say a 'rock' like Hong Kong - to justify even to themselves such an obviously irrational development policy. Thus, in terms of the economic dynamics of policy making, apart from the incentives for introducing various other policy induced distortions that an abundant and/or balanced natural resource base creates for policy makers, these ecological pressures to create dysfunctional vested interests provide another reason for looking upon natural resources, in Hla Myint's evocative phrase, as a "precious bane"!

There is another important self-serving reason for rulers of relatively resource poor countries to embrace the culture of commerce and trade despite their ideological predilections. The individuals who at any time constitute the State have at least some interest (even in the most

benevolent of States!) in the tax base which provides them with their means of livelihood. It is a well known stylised fact that external trade is likely to be more important relative to internal trade for relatively resource poor countries (see Kuznets). The self-interest of the rulers in expanding the tax base of a natural resource poor economy which must inevitably depend upon external trade for much of its livelihood can be expected to induce them to set up the property rights required for a mercantile economy (see North, Hicks).

But these 'ecological' factors cannot by themselves explain the tenacious hold of a particular ideology amongst a fairly wide spectrum of Indian officials and economists. Despite its factual basis being controverted they still hold to a view of the world, which is marked by a suspicion of markets, merchants and the profit motive. <sup>19/</sup>

Hicks (1969) has stressed that in the evolution of modern Western economies the rise of the merchant and the market were important preconditions for that phase of modern economic growth "which began as a European accident, (but) has become an obligatory command for the whole world" Baechler (1975). At least since the 6th century BC, (as we have argued elsewhere, Lal (1986)) India has had a substantial and prosperous mercantile class. Yet since its ideological vehicle, the republican anti casteist sects of Buddhism and Jainism lost out to caste in the early Christian era, the ideals and values of merchants's have never had much appeal to India's rulers. The contempt in

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<sup>19/</sup> I am not alone in noticing this consensual vision, amongst Indian intellectuals and bureaucrats expressed for example in the pages of the Economic and Political Weekly and its increasing disjunction from reality. (Lal (1979)). See for instance A. Desai (1981) who has also noticed this disjunction.

which merchants and markets have traditionally been held in Hindu society was given a new garb by the Fabian socialism which so appealed to the newly westernised but traditional literary castes of India.

Not all the politicians who were the inheritors of the Raj showed this "aristocratic" contempt of business and commerce. Gandhi, a Vaishya (bania-merchant caste) by birth, certainly did not, but, after designating Nehru as his successor, he withdrew into the spiritual shadows and, within six months of having achieved Indian Independence, he was dead at the hands of an assassin.

Nehru was a towering personality and an intellectual, but also a Brahmin! He professed to being a Socialist, and was much impressed by the dirigiste example of the Soviet Union in transforming a backward economy into a world power within the lifetime of a generation. He had imbibed the Fabian radicalism of the inter-war period, and, with so many British intellectuals, was an ardent advocate of planning - which was identified with some variant of the methods of government control instituted in the Soviet Union.

But his was not just a phantasy dreamt up in an intellectual's ivory tower. Many businessmen, who, identified their relative success during the last half of the Raj with the gradual erosion of the policies of laissez-faire and free trade, also advocated planning as a panacea for India's economic ills. It was nationalist businessmen who produced the early precursors of post-Independence Indian plans, in their so-called Bombay Plan. Whilst Nehru certainly, but the Nationalist businessmen more doubtfully, admired the Soviet model, Nehru balked at the suppression of liberty that the Stalinist model of development entailed. He hoped, instead, as a good Fabian Socialist, to combine the "order" and "rationality" of central planning with the

preservation of individual and democratic rights in India. Moreover, he was, at least in his own mind, a Socialist. But it is interesting to see what Socialism meant for him. In his Autobiography, he writes:

"... right through history the old Indian ideal did not glorify political and military triumph, and it looked down upon money and the professional money-making class. Honour and wealth did not go together, and honour was meant to go, at least in theory, to the men who served the community with little in the shape of financial reward. Today (the old culture) is fighting silently and desperately against a new and all-powerful opponent - the bania (Vaishya) civilization of the capitalist West. It will succumb to the newcomer ... But the West also brings an antidote to the evils of this cut-throat civilization - the principles of socialism, of cooperation, and service to the community for the common good. This is not so unlike the old Brahmin ideal of service, but it means the brahmanization - not in the religious sense, of course - of all classes and groups and the abolition of class distinctions." 20/

A more succinct expression of the ancient Hindu caste prejudice against commerce and merchants would be difficult to find. The British, unfortunately, had in their later years and despite the commercial origins of their rule in India, taken over most of the Indian higher-caste attitudes to commerce. The brown sahibs, mostly upper caste Hindus like Nehru, found it congenial to adopt these traditional attitudes. What is more, 'Socialism' now provided them with a modern ideological garb in which to clothe these ancient prejudices. Commercial success, as in the past, was to be looked down upon

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20/ Nehru (1936), pp. 431-2.

and the ancient Hindu disjunction between commercial power (and, increasingly, political power) and social status, to continue.

This identification of Socialism with both a contempt for commerce and businessmen, and, by association, that prime symbol of the mercantile mentality - the market - was to colour economic policy making in the new independent India. For 'Socialism' in India has merely provided the excuse for a vast extension of the essentially feudal and imperial revenue economy, whose foundations were laid in ancient India, and whose parameters successive conquerors of India have failed to alter (See Lal, 1986).

Thus, Nehru identified Socialism with bureaucratic modes of allocation <sup>21/</sup> with all that it implies in terms of the power and patronage afforded to the ancient Hindu literary classes which formed much of the bureaucracy. But, in this, Nehru was merely echoing the views of his Fabian mentors.

Thus, in The Discovery of India, he quotes with approbation a statement of R.H. Tawney's that, 'the choice is not between competition and monopoly, but between monopoly which is irresponsible and private and a monopoly which is responsible and public.' He then expresses the belief that public monopolies will eventually replace private monopolies under his preferred economic system which he labels 'democratically-planned collectivism.' Under such a system, he notes: 'An equalization of income will not result from all this, but there will be far more equitable sharing and a progressive tendency towards equalization. In any event, the vast

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<sup>21/</sup> See Lal (1985) for a fuller discussion of the validity of identifying 'socialism,' as it has been in India, with dirigisme and bureaucratic modes of allocation.

differences that exist today will disappear completely, and class distinctions, which are essentially based on differences in income, will begin to fade away' (Nehru (1956), p. 555).

That he envisages this socialist Utopia to be established by the supplanting of the price mechanism, whose essential lubricant is private profit and utility maximization, is evident from the following continuation of the above passage: 'Such a change would mean an upsetting of the present-day acquisitive society based primarily on the profit motive. The profit motive may still continue to some extent but it will not be the dominating urge, nor will it have the same scope as it has today.'

We need not go into the details of the dirigiste system of controls and planning that was progressively set up. <sup>22/</sup> The major point that needs to be made is that, the control system was based on the predilections of engineers and not economists. This has continued to plague discussions of economic policy in India, not least those concerning various aspects of labour-market performance, such as unemployment. An engineer is trained to think in terms of essentially a fixed-coefficients world. The problem of trade-offs, and the consequent notion of opportunity costs, which is central to an economist's thinking, is alien to the conventional engineer's thought processes. <sup>23/</sup> If coefficients are really fixed, then, of course, prices do

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<sup>22/</sup> These are discussed in Lal (1980), which also discusses the optimal forms of government intervention, given the well-known limitations of a policy of laissez-faire, and the consequent need to deal with various forms of 'market failure.'

<sup>23/</sup> Although it should be said that economists, brought up on various fixed-coefficients planning models, have found it easy and natural to slip into this engineering frame of mind, even when they have explicitly been concerned with various economic trade-offs.

not matter and the system of planning without prices, based on quantitative targets to meet fixed "needs" becomes rational. Oddly enough, because this happens, for historical reasons, to be the implicit method underlying the material balance-type planning in the Soviet Union, many Socialists, seeking to achieve their Valhalla by imitating the Soviet Union, have just assumed that the world has little substitutability in production and consumption, and hence, the Soviet-type planning methods are economically rational.

By contrast the Gang of Four and in particular Korea were luckier to have been colonized by the Japanese and to have set up Japan as a model for their development. The famed 'rational picking of industrial winners' by the Koreans was little more than an imitation of the early stages of Japanese development. As this coincided with an efficient development path based on their comparative advantage, this dirigisme has not (except in the mid 70s) proved to be dysfunctional. Moreover, the Japanese model with its close alliance between commerce and government, does not lead to that contempt of business so characteristic of India's elite.

Lest it be thought that these attitudes were and are confined to those self-serving politicians who have found enormous opportunities for increasing their power and patronage from the rent-seeking entailed by the Indian brand of socialism, I would like to quote from the writings of a distinguished Indian economist, who even his worst enemies would not charge with "de traisons des clerics". He has done as much as most to dispel many of

the sillier shibboleths propounded by the "radical" presses. <sup>24/</sup> He rightly discounts the more hysterical reactions about the failures of the so-called Green Revolution and would probably deny most of the assertions made by the "new orthodox" school, and yet he hankers after the same panaceas. The clue is to be found in his heartfelt objection to the IADP strategy in its promotion of the profit motive in agriculture. He writes: "the task of developing agriculture is being entrusted to the greed and the acquisitive spirit which motivates capitalists. In traditional Indian agriculture greed was located and condemned in the professional money lender, the speculative trader, etc. An important discovery of the proponents of the strategy is that the same greed, the same acquisitive spirit, may also be found latent in the cultivators; all the components of the strategy are aimed at further encouraging this spirit....This clearly stated aim seems to have been achieved. The "Holy Grail" which the richer farmers are pursuing is the way of life of the urban middle class; the latter in their turn are craving the comforts of the consumption society of the West." (Rudra (1978) p. 387 emphasis added). Here is an obvious echo of Nehru's sentiments quoted earlier.

This then is the crux of the explanation why so many Indian intellectuals dislike markets and the price mechanism - that these depend upon, even if they do not promote, the greed and acquisitiveness which, as Rudra explicitly states, was looked down upon by the literary and politically

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<sup>24/</sup> Thus there has been a scholastic and in my view futile debate in the pages of the Economic and Political Weekly, about whether India agrarian relations are capitalist, semi-feudal, feudal or colonial. Rudra has sensibly argued that most of this hair splitting is not germane to any understanding of the India rural scene. See Rudra (1974) pp.398-9.

powerful castes in India. It is this Brahminical attitude, today imbibed by a large part of the Westernized stratum of Indian society, which is at the root of that seeming "traison de clerics" which apparently has been taking place in India at least over the last decade.

This contempt for business, moreover, has been allied with a breathtaking ignorance of mercantile activity amongst these literary castes. This is the result of the endogamous and occupationally segregated caste system. In more socially mobile societies there is always a fair chance that the rulers and their courtiers would have had some mercantile relatives who would have provided them some knowledge of the nature of trade and commerce, and the importance of risk taking and entrepreneurship in the process of development. The caste system has, however, cocooned the Indian literary castes from any such influences. <sup>25/</sup> The danger this represented to the prospects of India's economy was masked till fairly recently, when as a result of the Administrative Revolution which has greatly augmented the means whereby the government can extend the hold of the Revenue economy, these literary castes have increasingly intervened in spheres which were traditionally not

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<sup>25/</sup> It may be useful to quote the conclusions of the major historian of the Indian middle classes: "Since India's tradition of caste authoritarianism fitted in well with the Imperial scheme of things, Indian bureaucrats, who usually belonged to higher castes, were quick to step into the shoes of the British who left India in 1947. Bureaucracy thus continued to retain its hold over business in India and is increasing its hold with the extension of the state's economic function. This may be beneficial to the educated middle classes, since as officers of Government they step in as controllers of nationalized industries without any personal stake in them. But it is no gain to the country as a whole. The system of state control in fact stifles the growth of entrepreneurial elements which India has in the past badly needed to speed up production. Traditionally recruited from the literary classes, with no business acumen, civil servants are most unsuited to accelerate production in Indian conditions", (Mishra, p. 340).

their province. Their inbred contempt and ignorance of merchants and markets prevents them both from recognizing the failures of their past misguided interventions as well as in promoting that evolution of a market economy (albeit controlled through measures which supplement the price mechanism), on which, to a large extent, the future economic prospects of Indians now depends.

There are, however, some hopeful signs that this resulting unworldliness of Indian rulers concerning trade and commerce might be changing. What scribblers cannot achieve, inflation and an excess supply of bureaucrats (see Table 17 for the growth of Indian bureaucracy) might at least engender. For as can be seen from Table 18, one of the remarkable features of the changes in the relative wage structure in post-Independent India has been the decline in civil service salaries (particularly of those at the top). The corresponding labour market signals have been received by the children of these literary castes who, from casual empiricism, seem to be turning towards non-traditional but more lucrative careers in business and politics. If this means that, in time, the so-called "policy makers" in India are less contemptuous and ignorant about trade and commerce, then that substitution of bania for brahmin ideals which Nehru so passionately decried, but which is nevertheless essential for India's economic progress, might at last begin to dissolve the intellectual bulwarks of Indian economic stagnation.

Moreover, there also seems to be some hope in the dynamics of what may be termed the political economy of controls. Whereas in the Gang of Four countries the "ecological" reasons cited earlier probably induced an early shift towards a relatively open market economy which is required for development, in India (and in many other Third World dirigiste states) where

these "ecological" circumstances are less favorable, there nevertheless appears to be an inner dynamic which is likely (as currently in India) to lead to attempts to liberalize the economy. Ideas no doubt have some part to play in this conversion, but for an economist the self-interest of the rulers seems to be a more potent source of conversion.

The major reason for liberalization from the viewpoint of many Third World States (as judged by the preliminary results of two sets of multicountry comparative studies) <sup>26/</sup> lies in an attempt to regain control over an economy which seems to be less and less amenable to the usual means of government control. The most important symptom of this malaise is usually a creeping but chronic fiscal crisis (sometimes but not always reflected in a balance of payments crisis) which has in different forms beset most economies --including developed ones--in the last decade (see Lal and Wolf (1986) for a fuller discussion). Its origins lie in the creation by many States of politically determined 'entitlements' to current and future income streams for various groups in the economy (the deserving poor, industrial labor, regional interests, old age pensioners, infant, declining or sick industries--to name just a few). These 'entitlements' being implicit or explicit subsidies to some groups have to be paid for by implicit or explicit taxation on other

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<sup>26/</sup> By the World Bank and Trade Policy Research Centre. The Trade Policy Research Countries' studies with the authors' names in brackets are: Tanzania (Collier et al); Colombia (Garcia); Sri Lanka (Lal and Rajapatirana); Chile (Congdon); Philippines (Bautista), Argentina (Fernandez and Rodriguez) and Brazil (Carvalho). The World Bank studies are: Singapore (B-Y Roberts); Spain (de la Dehesa); Sri Lanka (Cuthbertson); Turkey (Baysan and Blitzler); Uruguay (Spiller and Favaro); Yugoslavia (Havrylyshyn); Argentina (Cavallo); Brazil (Coes), Chile (Hachette and de la Cuadra), Colombia (Blejer); Greece (Kottis), Indonesia (Pitt); Republic of Korea (Kim Kwang-Suk); Pakistan (Guisinger and Nelson), Peru (Nogues), Philippines (Shepherd), Portugal (de Macedo).

groups in the economy. However justifiable on grounds of social welfare, the gradual expansion of this 'transfer State' leads to some surprising dynamic consequences.

The gradual expansion of politically determined entitlements create specific "property rights." The accompanying tax burden to finance them leads at some stage to tax resistance, tax avoidance and evasion and the gradual but inevitable growth of the black or underground economy. This has been the case with both developed and developing countries in the past decade, and the 'black economy' is now variously estimated to account for 15-50 percent of Indian GNP. Faced with inelastic revenues but burgeoning expenditure commitments, incipient or actual fiscal deficits become chronic. These can only be financed by three means: domestic borrowing, external borrowing or the levying of the inflation tax. Many countries particularly those in Latin America have tried all three--with dire consequences. Domestic borrowing to close the fiscal gap leads to crowding out private investment (which generally is the mainspring of growth) and a diminution in the future growth of income --and thus the future tax base. The fiscal deficit may be financed by foreign borrowing for a time, particularly as in the mid-70s when real interest rates were low and even negative. But this form of financing is inherently unstable. Thus if, as happened in the late 70s, world interest rates rise and the ability of the economies to generate the requisite export surpluses to service high debt interest costs is limited due to policy induced distortions inhibiting exports -- for example, the maintenance of overvalued exchange rates and high and differentiated effective protective rates which are an indirect tax on exports -- the debt service ratio can become unviable. Whereupon foreign lending can cease abruptly - leading to the kind of "debt

crisis" which has plagued Latin America in the 80s.

The third way of financing the deficit through the inflation tax is also unviable over the medium run as it promotes a further growth of the black economy, and a substitution of some indirect or direct form of foreign currency based money substitute for domestic money as a store of value. The tax base for levying the inflation tax thus shrinks rapidly. With taxes being evaded, domestic and foreign credit virtually at an end, and with private agents having adjusted to inflation to evade the inflation tax, the government of the day finds its fiscal control of the economy near vanishing point. It may not even be able to garner enough resources to pay the functionaries required to perform the classical State functions of providing law and order, defense and essential infrastructure. This dynamic process whereby the expansion of the transfer state leads to the unexpected and very unMarxian withering away of the State has rarely reached its full denouement, though in some Latin American countries <sup>27/</sup> it must be pretty close!

But well before things come to such a dire pass, attempts are usually made to regain government control. Two responses by the government are possible - an illiberal and liberal one. Fortunately the illiberal one is rarely observed. This consists of a further tightening and more stringent enforcement of direct controls. Tanzania provides an example. However, if this tightening is effective and, as a result, if the private utility of the net of tax income received from legal productive activity declines to the

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<sup>27/</sup> For example, in Peru where it is estimated that over 70% of the labor force in Lima works in 'illegal' activities; the government has no domestic or foreign credit; inflation is high and rising, and nearly 70% of the money supply is in dollar denominated deposits.

level where untaxed subsistence activities are preferable, producers may seek to escape the controls by virtually ceasing to produce the 'taxed' commodities altogether. The tightening and enforcement of controls could lead to an implosion of the economy (see Collier et al (1984) for such an interpretation of recent Tanzanian economic policy and its outcomes). The government might then find that as producers return to untaxable subsistence activities, the very production base over which it seeks control has shrunk or disappeared!

The other responses to regain government control are more usual. These involve regaining fiscal control through some economic liberalization of the economy. These usually half-hearted liberalization attempts involve some tax reforms, monetary contraction and some measures of export promotion to raise the economy's growth rate as well as the yield from whatever taxes are still being paid, also to improve the debt service ratio in the hope that this will lead to a resumption of voluntary foreign lending. But unless the underlying fiscal problem which is largely that of unsustainable public expenditure commitments is tackled, these liberalization attempts have usually been aborted. Without a commitment to rescinding unviable 'entitlements,' the liberalization attempts have tended to worsen the fiscal situation: with the lowering of tax rates and lags in supply response, revenues do not rise and may even fall initially; the necessary reductions in money supply to contain inflation leads to a reduction in even the limited seigniorage being previously extracted; whilst the unwillingness to allow 'exit' entails a rise in the deficits of unviable loss making public enterprises as well as any newly sick units taken over, as the liberalization exerts competitive pressures on unviable firms. Moreover, in those cases where the liberalization attempt has been accompanied by large public or private capital inflows (often to finance

the continuing and at times increasing public sector deficit), there has been an appreciation of the real exchange rate which has sometimes been accompanied by inflationary pressures arising from inappropriate nominal exchange rate policies (e.g., Sri Lanka, see Lal 1985). This has hurt potential export growth, so that when the capital inflows diminish, the incipient fiscal deficit is once again reflected in a chronic balance of payments problem which is then sought to be controlled in the bad old ways, and the liberalization process is reversed.

The above patterns have been observed in a large number of countries which have attempted to liberalize in the 70s. The major lesson I would draw from the preliminary results of the above mentioned two sets of comparative studies is that liberalization is often undertaken to gain fiscal control, but if nothing is done to rescind unsustainable public expenditure entitlements, a stabilization cum balance of payments crisis eventually emerges which undermines the attempt to liberalize the economy.

The lessons for India are obvious. The vast expansion of the Revenue Economy in India has generated a fiscal problem for the State. With some Indian States unable to finance even their salary budgets from tax revenues, and the general explosion in euphemistically termed non-Plan expenditures, the worldwide fiscal crisis is now also manifest in India. But as the Latin American experience in the 70s has shown, it would be a snare and a delusion to hope to postpone the necessary fiscal adjustments by covering the incipient deficits through foreign borrowing. There is no viable alternative to curtailing public expenditures on non-productive 'entitlements'. Thus stabilization of the economy no less than any prospective liberalization also entails a willingness to overcome the resistance of those in the public sector

whose 'entitlements' need be rescinded.

The new Indian Government's professed aim to liberalize the Indian economy can thus be looked upon as a reaction to the past growth of the underground economy in the country, and all that this portends for the area of government control. However, the "ecologically" determined instinct to concentrate on liberalizing domestic rather than the foreign trade components of commodity markets still rules policy. Thus, whilst necessary tax reforms and the dismantling of various inefficient industrial controls are planned, trade liberalization still remains on the back burner. However, as despite the rhetoric, India does not provide a large domestic market for industrial goods, 28/ the danger of liberalizing the domestic market without a simultaneous recourse to trade controls is that, it might fuel the development of a highly protected, concentrated and inefficient domestic capitalism which would justify all the dire predictions India's literary castes have always made about the likely inequitable and sordid outcome of giving business and commerce its head. Thus at least for the immediate future, because of the deadweight of both 'ideas' and 'ecology' as much as the power of vested interests', it seems unlikely that India will be able to use industrialisation as it should to transform the living standards in the spectacular manner of the East Asian Gang of Four.

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28/ Thus in 1981 value added in India's manufacturing industry was slightly lower than in Sweden and Belgium. It was 64 percent of Australia's and 56 percent of Spain. All these comparators are necessarily 'small' economies.

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Table 1

Some Summary Statistics

I. India:

(A) Manufacturing Growth Rates - Value Added  
(constant prices)

	<u>1868 - 1981</u> per cent per annum
1868-1900	10.36
1900-1913	6.00
1919-1939	4.80
1956-1965	6.9
1966-1979	5.5

Source: Derived from data in Heston (1983) and Sivasubramanian (1977) and post World War II rate of growth from the national accounts.

(B) Rates of Growth of Employment in Manufacturing  
Per cent per annum

1902-1913	4.43
1919-1939	2.29
1959-1965	3.60
1966-1979	3.50

Source: Pre independence from Sivasubramanian (1977) Post independence from Ahluwalia (1985) Table A.5.2 & 3.

(C) Rates of Growth of Capital Stock in Manufacturing

1959-1965	13.6
1966-1979	6.8

Source: Ahluwalia (1985) op. cit.

Table 1 (contd.)

II. Level of Asian exports f.o.b. 1850-1950  
(million dollars)

	1850	1913	1937	1950
Ceylon 5	76	124	328	
China 24	294	516	(700)	
India 89	786	717	1,178	
Indonesia	24	270	550	800
Japan 1	354	1,207	820	
Malaya 24	193	522	1,312	
Philippines	n.a.	48	153	331
Thailand 3	43	76	304	

Note: Trade figures refer to customs area of the year concerned. In 1850 and 1913 the Indian area included Burma. The comparability of 1937 and 1950 figures is affected by the separation of Pakistan.

Source: Maddison (1971), Table III-1, p. 59.

III. Korea

(A) Mining and manufacturing growth rate - net value of commodity product (constant price)

	percent per annum
1910-1940	9.7
1953-1960	11.1
1960-1976	18.4

(B) Incremental Capital Output Ratio:

1953-1960	2.59
1960-1974	1.33

(C) Growth Rate of Employment in Manufacturing

1963-1976	12.1% p.a.
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IV. Territory of Taiwan

Rate of Growth of Manufacturing Output (per cent per annum)

1930's	6.0
1953-58	8.9
1958-63	12.6
1963-68	19.7
1968-72	23.1
1972-75	7.1

Table 1 (contd.)

Territory of Taiwan

(a) Compound annual percentage growth rates of total Employment

<u>Years</u>	<u>Growth rate (total)</u>
1952-55	1.2
1955-60	2.1
1960-65	2.3
1965-70	4.3
1970-75	3.8
1975-76	2.5
1952-76	2.9

Source: Lee, T.H., and Liang, K., "Taiwan" in Development Strategies in Semi-Industrial Economies, Bela Balassa and Associates, The John Hopkins University Press, Baltimore, 1982.

Territory of Taiwan

Average Marginal Capital Output Ratios

1952-60	1.68
1960-66	1.97
1966-73	2.20
1975-80	3.96

Source: EPD's Taiwan Statistical Data Book.

Territory of Taiwan

Percentage growth in industrial employment

1952-60	69 percent
1960-66	41.6 percent
1966-75	116.7 percent

Source: Galenson, W., "The Labor Force, Wages and Living Standards", in Galenson, W., (ed.), Economic Growth and Structural Change in Taiwan, Cornell University Press, Ithaca, N.Y., 1979.

Table 2

~~INDEX OF MANUFACTURING PRODUCTION~~  
(Base 1913 = 100)

(A)

Country	Year 1938	Country	Year 1938	Country	Year 1938
South Africa	1,067.1	India	239.7	Roumania	177.9
U.S.S.R.	857.3	Sweden	232.2	Norway	169.2
Japan	552.0	New Zealand	227.4	Canada	161.8
Greece	537.1	Chile	204.2	Latvia	158.0
Finland	300.1	Netherlands	204.1	Germany	149.3
		Denmark	202.1	Czechoslovakia	145.5
		Italy	195.2	Hungary	143.3
		Australia	192.3	U.S.A.	143.0
		World	182.7	Austria	127.0
				U.K.	117.6
				France	114.6
				Poland	105.2
				Belgium	102.1
				Switzerland	82.4
				Spain	58.0

SOURCE: League of Nations, *Industrialization and Foreign Trade*, USA, 1945, Table III, derived in Ray (1979), Table 3, p.16.

Table 3: Parameters of Gompertz Curve Fitted to  
Trends in Various Industrial Sector Variables  
( $Y = k(a)^b$ )

Industrial Production

	<u>k</u>	<u>a</u>	<u>b</u>
1882-1900	506.13	1.07	1.17
1900-1945	368.67	1.32	1.04
1953-1979	457.09	0.11	0.95

Industrial Employment

1902-1946	11511.4	0.058	0.986
1953-1976	2200.1	0.001	0.995

Capital Stock in the Non-agricultural Sector

1948-1967	185.13	25.15	1.02
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Derived from data in Tables 11.10 and 7.4

Note: In interpreting these results, note that

- (i) if  $a < 1$  and  $b < 1$ , the Gompertz curve is increasing at a decreasing rate of growth, with an upper asymptote;
- (ii) if  $a > 1$  and  $b > 1$ , the curve is increasing at an increasing rate of growth, with a lower asymptote.

Source: Lal (1986), Table 11.11.

Table 3(a): Capital Labour Ratios in Indian Manufacturing  
(at 1970-71 prices)

	Registered	Unregistered	Total
<b>I. Fixed Capital Per Worker (Rs)</b>			
1950-51	4662 <sup>1/</sup> (6359)	790	1583
1960-61	12711	2024	4508
1970-71	20056	2402	7670
<b>II. Annual Average Growth Rate (percent)</b>			
1950-71 (20 years)	n.a.	5.72	
1950-61 (10 years)	n.a.	9.86	
1960-71 (10 years)	4.67	1.73	

Note: <sup>1/</sup> Not comparable as the employment figures include workers in electricity. The figure in bracket is for the capital labour ratio for registered manufacturing cum electricity.

Source: U. Datta, Roy Chowdhry (1980)  
Table 6 and Appendix II and III.

Table 4

Total Factor Productivity Growth Estimates

(1959-60 to 1979-80)

	<u>Percent fee annum</u>
India	-0.2 to -1.3
Korea	5.7
Turkey	2.0
Yugoslavia	0.8
Japan	3.1

Source: I.J. Ahluwalia (1985) pp. 132-35. The estimates other than India, are Ahluwalia's based on converting Nishimizu and Robinson's (1982) estimate's derived from a gross production function to a value-added production function as for India.

Table 5

Average social rates of return in Indian manufacturing  
(ASI) (1958-1968)

Year	SWR = W (%)	SWR = 0 (%)	SWR = 0.6W (%)
1958	1.6	36.0	15.4
1960	1.6	39.0	16.6
1961	2.4	37.0	16.2
1962	0.9	29.0	12.1
1963	1.9	29.0	12.7
1964	1.4	26.0	11.2
1968	-6.1	22.6	5.4

Source: Lal (1980), p. 44.

SWR - Shadow wage rate

w - market wage

Table 6

COMPARATIVE LABOUR EFFICIENCY IN JAPAN, INDIA AND BRITAIN  
FOR LOW COUNT COTTON MANUFACTURE IN 1932

Source	Looms per Weaver	Average Efficiency per Loom %	Working Hours Index (Britain = 100)	Wages (Rs per worker per day)
Ordinary looms (Japan)	5.5			
Japan Average	6	95-6	250	2-4
Toyoda Looms	50			
Britain	4	85	100	4-8
India	2	80	125	2

Source: Derived from Ray (1979), Table 17, p. 66.

Table 7 Characteristics of Sample Firms

Firm Product	Firm Size	Technology	Training Provided by the Firm General Specific		Pinching of labour By and From Other Firms	Casual Labour Type Screening of Labour	Use of Existing Workers to Hire Labour	Promotional Ladders	Labour Legislation and Trade Union Pre-ssure as Determinants of Wage Structure	New Neo-classical Type Cost-Minimising Reasons Given for the Wage Structure	Would They Themselves Organise a Trade Union to Ease Supervisory Problems?
1. Shoes	Large	Medium	Yes	Yes	Others pinched	No	No	No	Yes	No	No
2. Oil Mills	Large	High	Yes	Yes	Others pinched	Yes	No	Yes	Yes	Yes	Yes
3. Soap	Small	Low	Yes	No	Others pinched	No	Yes		Yes	No	No
4. Petrochemicals	Large	High	Yes	Yes	Pinched others	No	No	Yes	Yes	Yes	Yes
5. Conglomerate	Large	Medium to High	Yes	Yes	Others pinched	Yes	No	Yes	Yes	Yes	No
6. Printing	Medium	Medium	No	Yes	Pinched others	Yes	Yes	No	Yes	No	No
7. Printing	Small		No	Yes	Others pinched	Yes	Yes	No	Yes	No	No
8. Rubber Plant and Plantation	Large	Medium to Low			Pinched others	Yes	Yes	No	Yes	No	No

Source: Lal (1980)

Table 8  
INDUSTRIAL DISPUTES IN INDIA  
(From 1921 to 1980)

Year	No. of Stoppages	No. of Workers Involved	Man-days Lost
1921	396	6,00,351	69,84,426
1922	278	4,35,434	39,72,727
1923	213	3,01,044	50,51,794
1924	133	3,12,462	87,30,918
1925	134	2,70,423	1,25,78,129
1926	128	1,86,811	10,97,479
1927	129	1,31,655	20,19,970
1928	203	5,06,851	3,16,47,404
1929	141	5,31,059	1,21,65,691
1930	148	1,96,301	22,61,731
1931	166	2,03,008	24,08,123
1932	118	1,28,099	19,22,437
1933	146	1,64,938	21,60,961
1934	159	2,20,808	47,75,559
1935	145	1,14,217	9,73,457
1936	157	1,69,029	53,58,062
1937	379	6,47,801	89,82,257
1938	399	4,01,075	91,98,708
1939	406	4,09,075	49,92,795
1940	322	4,52,539	75,77,281
1941	359	2,91,054	33,30,503
1942	694	7,72,653	57,79,965
1943	716	5,25,088	23,42,287
1944	658	5,50,015	34,47,306
1945	820	7,47,530	40,54,499
1946	1,629	19,61,948	1,27,17,762
1947	1,811	18,40,784	1,65,62,666
1948	1,259	10,59,120	78,37,173
1949	920	6,05,457	66,00,395
1950	814	7,19,883	1,28,06,704
1951	1,071	6,91,321	38,18,928
1952	963	8,09,242	33,36,961
1953	772	4,66,607	33,82,608
1954	840	4,77,138	33,72,630
1955	1,166	5,27,767	56,97,848
1956	1,203	7,15,130	69,92,040
1957	1,630	8,89,371	64,29,319
1958	1,524	9,28,566	77,97,585
1959	1,531	6,93,616	56,33,148
1960	1,583	9,86,268	65,36,517
1961	1,357	5,11,860	49,18,755
1962	1,491	7,05,059	51,20,576
1963	1,471	5,63,121	32,68,524
1964	2,151	10,03,000	77,25,000
1965	1,835	9,91,000	64,70,000
1966	2,556	14,10,000	1,38,46,000
1967	2,815	14,90,000	1,91,48,000
1968	2,776	16,69,000	1,70,14,000
1969	2,627	18,27,000	1,90,48,000
1970	-	-	-
1971	2,752	16,15,000	165,46,000
1972	3,243	17,37,000	2,05,44,000
1973	3,370	25,46,000	2,06,26,000
1974	2,938	28,55,000	4,02,62,000
1975	1,943	11,43,000	2,19,01,000
1976	1,459	7,37,000	1,27,46,000
1977	3,117	21,93,000	2,53,20,000
1978	3,187	19,16,000	2,83,40,000
1979	3,048	28,74,000	4,38,54,000
1980	2,856	19,00,000	2,19,25,000

Source: Karnik (1978), Appendix II, pp. 409-410  
 Nil 1969, thereafter Statistical Abstract of India and Basic  
 Statistics Relating to the India Economy.

Table 9: Pre-war and Post-war Trends in Public Investment (Rs.m.)<sup>†</sup>

Pre-war Years	Gross Public Investment	% of National Income	Annual Change in Public Investment	Annual Change in Railway Investment	Post-war Years	Gross Public Investment	% of Net National Income	% of Gross National Investment	Gross Fixed Investment in Railways
1925-6	644	n.a.	+ 88	+ 58	1948-9	2,100	2.3	25	361
1926-7	735	n.a.	+ 91	+ 81	1949-50	2,570	2.9	28	374
1927-8	827	n.a.	+ 92	+ 81	1950-1	2,620	2.7	28	256
1928-9	750	n.a.	+ 77	+ 84	1951-2	2,860	2.9	25	654
1929-30	814	n.a.	+ 64	+ 69	1952-3	3,035	3.1	29	637
1930-1	670	n.a.	+ 144	+ 173	1953-4	3,375	3.2	30	701
1931-2	488	3.0	+ 182	+ 96	1954-5	4,300	4.5	34	846
1932-3	338	1.5	+ 150	+ 86	1955-6	5,700	5.7	38	1,271
1933-4	334	1.6	+ 4	+ 4	1956-7	6,900	6.1	39	1,505
1934-5	350	1.4	+ 16	+ 30	1957-8	8,300	7.3	46	2,159
1935-6	436	2.2	+ 86	+ 28	1958-9	8,600	6.8	44	2,226
1936-7	359	1.8	+ 77	+ 36	1959-60	7,800*	6.1*	n.a.	1,346
1937-8	358	1.7	+ 1	+ 4	1960-1	9,600†	6.6†	n.a.	2,590

\* Provisional.

† Sources: Estimates of gross public investment in undivided India: J. K. Thavaraj, 'Capital Formation in the Public Sector, 1898-1938' in *Papers on National Income and Allied Topics*, Vol. i, Indian Conference on Research in National Income, London, 1960, pp. 215-30. These figures refer to investment (real asset creation) undertaken by all the public enterprises and state trading organizations belonging to the Central, Provincial, other local governments and other public bodies, except the Port Trusts.

National Income and gross public investment in new India were obtained from C.S.O., G.O.I., *Estimates of National Income, 1948-9 to 1959-60*, New Delhi, 1961, and *Papers on National Income*, op. cit., pp. 122-34. These figures cover investment by the Central and State Governments, Port Trusts, Improvement Trusts, Municipal Corporations, District and Local Boards and Village Panchayats. It also includes railways, post and telegraphs, forests, road transport, irrigation and electricity departments of the Central and State Governments but certain public corporations (e.g. Indian Airlines) are not included. Estimates of gross national investment are given by S. J. Patel in the *Economic Weekly* (Annual Number), January, 1960. Railway investment figures from the Ministry of Railways, G.O.I., *Reports of the Railway Board* (Annual).

Derived in Healey (1965), Table 1, p. 8

Table 10 (A)  
ESTIMATES OF POVERTY IN RURAL AND URBAN INDIA

Year	RURAL		URBAN	
	$P_H^r$	$P_S^r$	$P_H^u$	$P_S^u$
1960-61	38.03	.141	40.40	.156
1961-62	39.30	.133	39.36	.155
1963-64	44.50	.163	42.52	.161
1965-66	47.41	.181	46.43	.180
1967-68	56.20	.234	48.32	.188
1968-69	50.40	.199	45.53	.176
1969-70	49.20	.189	44.40	.168
1970-71	45.40	.170	41.50	.158
1973-74	44.30	.155	38.70	.130

Table 10 (B)  
GINI COEFFICIENTS OF DISTRIBUTION OF PER CAPITA EXPENDITURE

Year	Rural: $G^r$	Urban: $G^u$
1960-61	.323	.348
1961-62	.310	.358
1963-64	.287	.351
1965-66	.297	.347
1967-68	.293	.341
1968-69	.305	.329
1969-70	.293	.340
1970-71	.283	.327
1973-74	.280	.301

Source: Dutta (1980)

Note:  $P_H^r$  ( $P_H^u$ ) Rural (Urban) Poverty (% of population below poverty line)

$P_B^r$  ( $P_B^u$ ) Rural (Urban) Poverty, Sen Index.

$G^r$  ( $G^u$ ) - Gini coefficient Rural (Urban)

Table 10(C)  
LINEAR TIME TRENDS IN DISTRIBUTIONAL VARIABLES (TERMS  
IN PARENTHESIS DENOTE T-RATIOS)

Dependent Variable	Estimated Coefficient		$R^2$	F
	Constant	Time		
$P_H^r$	41.47	.9245 (1.3504)	.270	1.824
$P_S^r$	.154	.0040 (.9795)	.121	.9598
$G^r$	.317	-.004* (3.3807)	.558*	8.837
$R^r$	223.84	-.2487 (.2307)	.01	.063
$P_H^u$	42.72	.0486 (.1066)	.0016	.0112
$P_S^u$	.168	-.001 (.2614)	.036	.2614
$G^u$	.359	-.005** (3.6762)	.616*	11.229
$R^u$	253.16	.788 (.6012)	.049	.3611

\*Indicates that the coefficient is significantly different from zero at the 5 per cent level of significance.

\*\*Indicates that the coefficient is significantly different from zero at the 1 per cent level of significance.

$R^r$  ( $R^u$ ) - richness index rural, (urban) given by the ratio of the mean income of the rich to the mean income in the sector.

Table 11 . TRENDS IN REAL MANUFACTURING WAGES PER WORKER 1939-1976

Year	PWA		ASI & CMI
	Workers Earning Less than Rs. 200/ month (1939=100)	Workers Earning Less than Rs. 400/ month (1951=100)	All Workers (1951=100)
1939	100		
1940	109		
1941	104		
1942	89		
1943	67		
1944	75		
1945	75		
1946	73		
1947	78		
1948	84		
1949	92		
1950	90		
1951	92		100
1952	101		106
1953	98		104
1954	103		106
1955	115		125
1956	106		116
1957	105		111
1958	102	96	116
1959	101	96	119
1960	105	100	127
1961	105	100	132
1962	106	103	138
1963	104	103	142
1964	95	95	133
1965	n.a.	98	135
1966	n.a.	92	135
1967	n.a.	87	130
1968	n.a.	92	137
1969	n.a.	98	147
1970	n.a.	98	151
1971	n.a.	92	158
1972	n.a.	98	n.a.
1973	n.a.	88	155
1974	n.a.	68	137
1975	n.a.	n.a.	146
1976	n.a.	n.a.	160

Source: Satyanarayana (1981)

Tables 1.4, 1.5, 1.6

PWA - Payment of Wages Data

CMI - Census of Manufacturing Indices

ASI - Annual Survey of Indices

Table 12: : SOME PRICE INDEX RATIOS, 1951-1979

Year	Agr/Mfg	Rice/Wheat	Cotton/Agr	Jute/Agr
1951	94.6	94.7	109.3	151.4
1952	87.7	94.0	109.0	108.5
1953	87.6	99.0	104.2	86.3
1954	82.1	98.1	117.3	99.2
1955	80.0	97.8	117.1	131.9
1956	82.9	97.1	117.7	116.0
1957	84.8	103.2	109.4	120.7
1958	86.0	100.4	98.4	104.0
1959	86.6	89.4	96.6	97.2
1960	83.4	107.5	101.6	141.4
1961	73.2	105.1	107.7	181.3
1962	82.8	111.2	96.1	94.4
1963	80.3	119.9	99.6	97.0
1964	89.1	101.3	89.8	95.0
1965	94.9	89.2	82.2	116.2
1966	97.0	102.8	75.6	139.4
1967	84.6	95.2	84.7	108.9
1968	97.1	101.3	81.5	107.5
1969	102.4	96.1	84.0	118.3
1970	101.9	97.3	91.8	99.9
1971	92.7	105.6	111.4	94.4
1972	89.2	106.5	84.5	99.1
1973	97.9	121.9	83.8	80.8
1974	101.2	106.6	98.5	59.8
1975	94.4	111.1	84.4	67.9
1976	88.9	102.9	117.9	81.5
1977	96.9	104.9	115.5	83.5
1978	96.9	102.7	100.4	86.8
1979	89.7	110.4	89.9	96.1

Sources : Calculated from Chandhok, H L (1978); Ministry of Industry (1980).

by A. Desai (1981).

Table 13

FOREIGN INVESTMENT IN THE MANUFACTURING SECTOR

Year	Foregin Business Investment Outstanding Rs. crores	Fixed Capital in the Census Sector Rs. crores	Ratios (1)/(2) %
1969	1619	7609	21
1970	1641	8324	20
1971	1680	8802	19
1972	1756	n.a.	n.a.
1973	1816	10185	18

Source: (1) Table 96, p. 101, Statistical Abstract of India 1978  
Table 37, p. 95, Statistical Abstract of India 1978.

Table 14(A): Share of Public Sector Output in  
Basic Industries

	<u>Percentage</u>
Coal	96.97
Lignite	100.00
Crude Petroleum	100.00
Saleable Steel	74.50
Aluminium	27.90
Copper	100.00
Lead	100.00
Zinc	89.30
Nitrogenous Fertiliser	47.70
Phosphatic Fertilizer	27.30
Telephones	100.00
Teleprinters	100.00

Source: Jha (1985)

Table 14(B): Relative Profitability of Public Sector  
1974-75

Industry	Ratio of value added to GCE at market prices		Ratio of Value Added to GCE at border prices	
	Public	Private	Public	Private
Engineering	11.42	23.12	10.57 <u>a/</u>	18.95 <u>a/</u>
Chemicals	6.26	21.26	4.01 <u>a/</u>	10.07 <u>a/</u>

a/ No attempt has been made to calculate gross capital employed (GCE) at border prices. These figures are valid therefore only for intersectoral comparisons.

Source: Jha (1985). Table 2.

Table 15: STRUCTURE AND GROWTH OF EXPORTS FOR INDIA AND ALL DEVELOPING COUNTRIES, 1960 to 1978

Export	Composition of exports (per cent)				Growth rates of export volume (per cent a year)					
	Developing countries		India		Developing countries			India		
	1960	1978	1960/61	1978/79	1960 to 1978	1960 to 1969	1970 to 1979	1960/61 1978/79	1960/61 1969/70	1970/71 to 1978/79
Food <sup>b/</sup>	42.4	28.7	32.8	27.6	2.8	2.6	2.1	3.0	0.3 <sup>c/</sup>	4.4
Raw materials <sup>d/</sup>	37.4	18.6	18.7	9.3	2.9	2.8	0.7*	3.3	4.3	1.3 <sup>c/</sup>
	(44.7)	(23.4)			(3.4)	(5.0)	(-0.2*)			
Manufacturers <sup>e/</sup>	20.2	52.7	48.6	63.1	11.6	9.9	11.6	6.8	4.5	11.2
	(12.9)	(47.8)			(13.6)	(10.1)	(14.4)			
Total <sup>f/</sup>	100.0	100.0	100.0	100.0	5.8	4.5	5.8	5.1	3.4	7.6

Note: Errors due to rounding. All growth rates are semi-logarithmic least squares trends. Petroleum is excluded throughout.

a/ The indexes for India are those with 1968/69 weights.

b/ SITC 0 plus 1.

c/ The growth rate is not significantly different from zero at the 05 percent confidence level.

d/ SITC 2 plus 4. For developing countries the figures in parentheses show the addition of SITC 68 (refined metals), an insignificant element for India except in a few years when sales from private silver stocks are permitted. For developing countries, however, exports in SITC 68 are important (7.3 percent of exports in 1960) and fall naturally under raw materials.

e/ SITC 5 through 9 for the composition of exports and SITC 5 through 8 for growth rates. For developing countries the figures in parentheses show the results of the exclusion of SITC 68.

f/ Source:

Wolf (1981), Table 2.6, derived from United Nations, Monthly Bulletin of Statistics, special table G; and United Nations Conference on Trade and Development, Handbook of International Trade and Development Statistics, table A.8 (New York: United Nations, various years).

Table 16:

Estimates of various indices for 10 ICICI exporting firms.\*

Firm in industry	$e_a^b$		$e_a^b$		$r^c$ (%)		$r_p^d$ (%)		$r_p^e$ (%)		$r_{pr}^f$ (%)	
	1972	1974	1972	1974	1972	1974	1972	1974	1972	1974	1972	1974
1. Light commercial vehicles	0.48	0.33	0.53	0.33	28	20	6	-9	49	41	44	13
2. Wire ropes	0.33	0.10	0.33	0.16	-27	26	35	6	42	28	-20	22
3. Textile machinery I	0.24	0.13	0.24	0.13	50	75	12	8	14	11	-25	17
4. Textile machinery II	0.12	0.14	0.14	0.14	17	24	-8	-19	4	-3	-4	-11
5. Abrasives	0.04	0.13	0.04	0.13	-55	-38	-42	-31	16	15	-30	-26
6. Electrical equipment	0.08	0.18	0.08	0.18	20	23	-2	-8	3	-2	2	2
7. Castings and forgings	0.12	0.04	0.12	0.04	-10	34	-14	19	24	21	-9	22
8. Steel tubes and pipes	0.90	0.35	0.90	0.35	-5	57	-22	14	14	22	-5	55
9. Textiles	0.05	0.24	0.05	0.24	-3	20	-21	-3	7	9	-19	25
10. Chemicals	0.00	0.00	0.00	0.00	108	32	51	-15	37	1	51	-15
Mean	0.24	0.16	0.24	0.17								
Standard deviation	0.28	0.11	0.28	0.11								

\*Derived from the ICICI export firm survey data.

 $e_a$  = percentage excess of the implicit over the official exchange rate assuming the full capacity imported inputs are *not* provided to exporters, $e_a^b$  = percentage excess of the implicit over the official exchange rate assuming the full capacity imported inputs are provided to exporters, $r^c$  = social rate of profit, $r_p^d$  = private rate of profit assuming all the output is exported, and there are no incentives, $r_p^e$  = private rate of profit assuming all the output is sold in the domestic market, $r_{pr}^f$  = private rate of profit assuming the output is exported and receives the same indirect and direct rate of subsidy as current exports of the firm.<sup>b</sup>Where no premia rates were available as no REP was nominated, the two  $e_a$  values will be the same.<sup>c</sup>The social rate of profit has been derived from the data for each firm with the inputs being shadow priced on Little-Mirrlees lines by using the shadow price estimates in Lal (forthcoming). The capital data was from the balance sheets of the firms. The output was priced at fob prices. The resulting rates of profit are those which would accrue assuming the actual degree of capacity utilisation if inputs and outputs were priced at 'border' prices.<sup>d</sup>This private rate of profit has been obtained by valuing the output at fob prices and the inputs at market prices. The capital figures were taken from the balance sheets.<sup>e</sup>This rate of profit was obtained by valuing the output at fob prices plus total subsidies on actual exports and inputs at market prices. The capital figures were taken from the balance sheets.

Source: Lal (1979), Table 3.

Table 17:  
Employment in the Public Sector

	1901	1911	1921	1931	1941	1951	1960*	1978*
Police (other than village watchman)	2,41,892	2,39,319	2,22,529	2,40,532	..	3,79,721 (4,49,344)*		
Percentage	10.2	9.6	8.9	8.7	..	12.6		
Village officer and servants (including village watchmen)	7,73,397	6,89,828	5,31,400	3,84,177	..	2,37,180 (2,86,935)*		
Percentage	32.8	27.6	21.4	13.9	..	8.0		
Employees of municipalities and district boards	1,07,976	66,381	82,546	1,16,487	..	2,24,249 (2,69,560)*		
Percentage	4.6	2.7	3.3	4.2	..	7.6		
Army, Navy, Air Force, employees of state govt. and union govt. and non-Indian governments	7,95,651	7,17,430	7,93,890	7,07,140	..	13,20,967 (18,23,122)*		
Percentage	33.7	28.7	31.9	25.7	..	51.3		
Total	19,18,916	17,12,958	16,30,365	14,48,336	..	21,62,117 (23,28,961)	54,98,000	129,43,000

Source: K. Mukerji (1965), Table E, p. 74.

1960 and 1978, Basic Statistics Relating to the Indian Economy, 1950-51 to 1980-81, CSO, Table 57.

\* These figures refer only to civilian employees, and are exclusive of public sector employment in railways and manufacturing.

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