OCCASIONAL PAPER NO. 137

'REGIONAL SPECIALIZATION AND MARKET CONVERGENCE REVISITED' : INDIA'S INTERNAL COMMODITY TRADE, c. 1850-1920

DEBDAS BANERJEE

AUGUST 1992

CENTRE FOR STUDIES IN SOCIAL SCIENCES, CALCUTTA

CENTRE FOR STUDIES IN SOCIAL SCIENCES, CALCUTTA

OCCASIONAL PAPER SERIES

Some recent papers in the series : reference to subsequent publication is given in brackets

53. Agricultural Marketing in a Colonial Setting : An Introduction.
SAUGATA MUKHERJI

54. Towards a Corract Reading of Lenin's Theory of Imperialism (*Economic and Political Weekly*, July 30, 1983).
AMIYA KUMAR BAGCHI

55. Refugees in West Bengal : A Study of the Growth and Distribution of Refugee Settlements within the CMD.
PRANATI CHAUDHURI

56. Induction of Computers in India
PARTHASARATHI BANERJI

57. Encounters and Calamities : The History of a North Indian Qasba in the Nineteenth Century. (R. Guha ed., *Subaltern Studies*, II).
GYANENDRA PANDEY

58. Poverty and Fertility : A Review of Theory and Evidence (*Economic and Political Weekly*, Annual Number, May 1983).
N. KRISHNAJI

59. The Colonial State Peasant Resistance in Bengal 1920-1947 (*Past and Present*, No. 110, Feb. 1986).
PARTHA CHATTERJEE

60. Calcutta Metropolitan District in the Urban Context of West Bengal (1651-1981)
ASOK SEN and ALOK BANERJEE

61. The Bourgeoisie and Politics in West Bengal (Rakhahari Chatterjee (ed) *Politics in West Bengal Institutions. Processes and Problems*. Calcutta, World Press, 1985. Also translated into Bengali in *Aneek*, Vol. XX, No. 5, November 1983).
SANJEEB MUKHERJEE

62. Migrants in the Calcutta Metropolitan District 1951-1971
ASOK SEN and ALOK BANERJEE

63. The Growth of the Machine Tool Industry in India
UTTAM KR. BHATTACHARYA

64. The Ahom Political System : An Enquiry into the State Formation Process in Medieval Assam : 1228-1714 (*Social Scientist*, December, 1983)
AMALENDU GUHA

65. The Transition from Feudalism to Capitalism (*Economic and Political Weekly*, July 28, 1984 Review of Political Economy)
ASOK SEN

66. Weber, Gramsci and Capitalism (Forthcoming in ICSSR Delhi Seminar Volume on Marx, Marshall, Schumpeter and Keynes)
ASOK SEN

67. Neo Vaishnavism to Insurgency : Peasant Uprisings and the Crisis of Feudalism in late 18th century Assam (Ashok Mitra ed. *The Truth Unites : Essays in Tribute to Samar Sen*, 1984)
AMALENDU GUHA

68. Some Observations on the Trend of Urbanisation in West Bengal.
SUNIL KUMAR MUNSI

69. The Congress and the Nation, C. 1917-1947
GYANENDRA PANDEY

70. Price of Rice and Land Transfer in the West Bengal Districts (1905 6-1941-42)
MANOJ KUMAR SANYAL

71. Women and Industrialisation in Developing Countries.
NIRMALA BANERJEE

72. The 1983 Assembly Poll in Assam : An Analysis of its Background and Implications.
KEYA DASGUPTA
AMALENDU GUHA

73. Eco-Development Debate : A Critical Review
RAMACHANDRA GUHA

74. Cotton Handloom Manufactures of Bengal 1870-1921.
RUMA CHATTERJEE

75. Agrarian Class Formation in Modern Bengal 1931-1951
SAUGATA MUKHERJI

Occasional Paper No.137

'REGIONAL SPECIALIZATION AND MARKET CONVERGENCE' REVISITED: INDIA'S INTERNAL COMMODITY TRADE, c.1850-1920

DEBDAS BANERJEE

AUGUST 1992

Centre for Studies in Social Sciences, Calcutta
10, Lake Terrace
Calcutta-700029

A B S T R A C T

Colonial historiography states that the 'comparative advantage' dictated the international division of labour and thereby India's structure of production, exports and imports. The external trade and international prices of India's exportables determined comparative advantage of the different regions in India and, in effect the regional specialization. Further, the interregional trade, thus, led to the formation of a national market. However, data suggest that there was not a single set of terms of trade by which the comparative advantage of a particular region could be calculated. We postulate that under the colonial rule the processes of convergence and the fragmentation of the domestic economy at various levels proceeded simultaneously; the 'dynamic' of change operated from outside the domestic economy.

I. Introduction

Colonial India could be divided into a number of regions in terms of the traditional skill, the productivity of soil, and also the agro-climatic conditions.[1] Inter-regional exchange of commodities had been going on for a long time in India -- long before 1850. Before the regions were connected by railways, goods flowed along the great rivers, namely, the Ganges, the Jamuna, the Brahmaputra, the Indus, and their numerous tributories and artificial canals, and along the few well-constructed roads and the numerous dirt tracks across the country. The relatively highly populated regions of Bengal, Assam, North-Western Provinces and Oudh (presently, U.P.), Punjab, and Sind, that is the sub-Himalayan or alluvial region spread over an area of about 626,000 square miles could use rivers for much of their goods traffic. The sparsely populated central region comprising Central Provinces, Berar, and the Native States of Rajputana and Central India, Hyderabad, and Mysore, embracing an area of about 465,000 square miles, did not possess any easily navigable rivers. Notwithstanding this, enormous quantities of goods were traded between the regions by peddlers, and caravans using surface roads (Cumberlege, 1882). The trade along the coastal regions of Madras and Bombay was also very substantial.

The interregional trade was not a sum of peddling activities. Rather, the trade conducted at the peddling level was supplemented by the trading activities of the comprehensive and coordinated organizations (Chaudhuri, 1979; Bayly, 1983). However, the interregional trade and its links with foreign trade prior to c.1850 did not lead to the development of a comprehensive 'national' market. There were as many markets as there were towns and ports, each other with its own money, its own weights, its own measures, its own customs (van Leur, 1955: 214). Yet these were not completely closed economies. The traditional network of internal trading, however, was interrupted by the colonial rule. The imposition of transit and town duties by the East India Company led to the segmentation and contraction of the markets. The heavy duties on the interregional movements of goods damaged the local base of production of such goods as cotton handlooms, sugar, etc. which were concentrated in a few places and used to move almost freely throughout India. Apparently, the transit and town duties may appear part of the company's policy of revenue augmentation. But the discriminatory principle that was adopted in the implementation of the policy indicates the plan for the creation of a market for British goods.

The withdrawal of the transit and town duties in the 1830s and 1840s followed by the development of railways seems to have began a new era. However, in a large agrarian economy divided into distinct regions with, obviously, a common currency but where the factors of production were, in the real sense, immobile, was the merging of markets so abrupt as postulated by, among others, Hurd (1983) and Derbyshire (1987)? The argument advanced in favour of the development of

a national market, during the second half of the nineteenth century, points to the converging trend of the absolute prices of rice and wheat in different places in India and postulates that the supply and demand functions of the different markets gradually aggregated to form one supply and one demand function, towards the end of the nineteenth century (cf. Hurd, 1975). Apart from the ambiguity in the nature of data on which the exercise is based, most of these writings also do not contain any analysis of the process of price formation. Apparently, the 'convergence theories' have obtained certain supporting results out of data available in the official statistics. However, they have not gone beyond the numerical figures. Hypothetically, the easy availability of credit, say, in Bombay might have generated a set of prices which turned out to be, more or less, similar to that in Bengal while, in fact, credit was dear in the latter. In other words, it was credit, in this case, which acted as the leveller while prices did vary.

The substantial buying-selling activities of the larger corporate trading agencies at places (markets) connected by railways might narrow the gap between the prices in various markets. But the behaviour of prices at places located far away from the railheads, and of the remaining part of the aggregate traded goods, which of course constituted the greater proportion, remain unexplained. Was it that the prices at the local bazaars in the country-side plus the transport costs (by pack bullocks or bullock carts or by country boats) upto the rail-bazaars determined the price level at the latter ? If it was so then certainly the local costs of production and the prices of substitute foodgrains in the local markets, determined the prices that

prevailed at the different local markets, instead of the international prices. The price of the major crop of any particular region was one of the important factors determining the prices of other agricultural commodities. Thus, while wheat prices determined the prices of other crops in Punjab, it was rice in Bengal, or cotton in the Central Provinces, or jute in the eastern Bengal districts (see, e.g., Mukherji, 1971). This particular 'association' is derivative of the process of peasant differentiation and the position of different classes of peasants as net buyers or sellers of grains, in particular regions. Generally, attention has been concentrated on the 'superior' and exportable grain crops, and not enough weightage has been given to the prices of millets which were the staple food of the poorer people in many parts of India. It is found that when the superior grains were exported out of a particular region, an upward movement in the prices of millets occurred in local markets (Bagchi, 1989 : 10). Thus, the volume of the marketed exportable, say, wheat, in a particular region depended, with a time-lag, upon the relative price of wheat to the prices of millets. In areas of poor peasants' cultivation the supply - response to 'international' price was much less significant than in areas like 'canal colonies' in Punjab.

Further, the degree of convergence of the separated output markets into the unique national market is largely determined by the degree of interlinkages of the various factor and output markets. The producers and consumers may have the right kind of market information yet they may not be 'free' to take part in the market due to various institutional barriers, and this kind of a situation strengthens fragmented

markets. Thus, the different land relations in different parts of India assumes importance in defining the boundaries of the markets as well as their structures (see, e.g., Nagaraj, 1985). Whether the ryots brought their produce freely to the market, or the mahajans, or the landlords brought to the market the cultivators' produce which the latter parted with as rent, etc., or else, whether the trader-advance brought the goods to the market, reflected the interlinkages of the land-credit-market which varied from region to regions; the supply function varied equally.

A large number of cotton growers in the Madras Presidency carrying the produce on their own to the city-markets and selling almost in a free market by auction (Baker, 1984 : ch.4) was certainly an exception. Most of the commodities exported from India flowed from the fields to the points of exports through the channels of large business organizations. Large European business houses like Gaddum & Co. buying cotton from the hinterland of the Bombay port (Vicziany, 1979), the export firms like Harvey penetrating deep into the countryside for cotton and groundnut (Baker, 1984 : ch.4), the European jute barons in Bengal (Bagchi, 1972: ch.8), were supposedly the great levellers of prices by dint of their substantial transactions. However, much larger proportion of the production of many of the exportables were exchanged beyond the boundaries of the exporters' market.

It is argued by many that the stable demand offered by the market and canalized through the organized trading net-work increasingly reduced the fluctuations in the prices as well as the disparity between the various markets. The crucial determinants like land-tenure system, private money lendings,

credit availability are often ignored in many writings analyzing the relationship between foreign trade and commercialization. In fact, our exercise would show that there was practically no positive significant correlation between exports of foodgrains and their absolute yields in Punjab, United Provinces, Bengal and, partly, in Central Provinces. While yields remained more or less stable exports fluctuated widely during 1890-1920.

Moreover, the fact that is being overlooked in the recent literature is the wide variations in the standards of weights and measures in India. The latter turned out to be an integral part of the colonial mode of exploitation whereby the price of a particular commodity varied widely between different local markets. This is tantamount to multiple solutions of the calculation of 'comparative advantage' for the country as a whole. The colonial historiography dealing specifically with the economic transformation in India, in general, has made 'Indian economy' as the unit of analysis and failed to recognize that whatever economic integration that India achieved in c.1947 was simply not there in the nineteenth century or even in the first quarter of the twentieth century. The analysis has invariably presumed an integrated national market and the rule of a single price, whenever attempts have been made to insinuate the positive role of the newly opened up foreign trade, supposedly based on comparative advantage, since c.1850.

The internal trade can be postulated as a special kind of international trade involving a common currency. And, the mechanism of various economic adjustments for a particular region depends on (a) the money flow, and (b) changes in the terms of trade between the major exportables of the region and

its importables. For instance, the favourable terms of trade of a region with a manufacturing base in relation to agricultural or plantation based regions would imply, ceteris paribus, resource transfer from the latter to the former.

The way the underdevelopment of colonial India despite her consistent export surplus is explained the underdevelopment of many regions within the country has to be probed in the same manner. For instance, Assam by virtue of exports of tea was an export surplus region. Yet Assam remained one of the most backward regions in India. As the head offices of almost all the tea gardens in Assam were located in Calcutta only a marginal proportion of the sale-proceeds of tea flowed back to the province, as payments to workers, etc. The same was the case for the province of Bihar and Orissa which alone exported about 30 per cent of the aggregate volume of internal export trade, on account of, mainly, mineral resources.

The other problem of adjustment of the regions was not so much due to the changes in the terms of trade as to the multiple prices of exportables and importables. Even during the period when international terms of trade favoured agricultural produce the discriminatory practices of the large trading houses ruled out the possibility of accruing 'gains' to the agro-based regions. The mechanism of export-led growth, in fact, turned out to be export-led exploitation. There was not a single set of terms of trade by which the gains of the comparative advantage of a particular region could be calculated. Moreover, the income-multiplier effect of trade was dampened more by the fact that the export-incomes of most of the regions had increasingly been spent for paying for imported foreign goods like cotton manufactures, sugar, etc. from the post-cities. It was the high marginal propensity to

import from the port-cities that was responsible for the low level of generation of regional incomes. Once the indigenous bases of production of such goods are eroded, import becomes the only alternative for the inhabitants of the regions, and its volume is likely to increase keeping pace with, among others, the increase in population.

The forms of market and the unequal exchange between the metropolitan cities and the countryside as was effected through the 'multiple' terms of trade accelerated the transfer of resources to the metropolitan cities that began with the rise of the corporate trading houses having head quarters in the port-cities and beyond. It is hypothesized that the flow of resources from the countryside is the essential precondition of growth of industries in the cities, and economic growth, in general. However, our exercise would suggest that the volume of potential investible resources generated in Bengal, Bombay and Madras, through both internal and foreign trade during 1890-1900, did not get transformed in to actual investments in manufacturing in either Bengal or Madras (Banerjee, 1988). The measure of 'economic drain' from colonial India may perhaps explain the form of utilization of the resources that flowed out from the countryside. And, this type of interregional imbalance was reproducing itself in a more and more acute form which the post-colonial economy inherited.

Here we postulate that under colonial rule the processes of convergence and the fragmentation of the domestic economy at various levels went ahead simultaneously. The railway network and the rate of freight, for instance, divided India de facto into a few regions specialized in one or a few economic products. These regional economies were then linked

up with the grand metropolitan -- the United Kingdom. The specific 'ties' of the particular regions with the metropolitan country generated disparate impulses of growth and development in these different regions.

The present text is organized in the following way : Section II deals with, as a prelude, the implications of the transit and town duties. In Section III, some aspects of the development of railways in India in this context are discussed. This is followed, in Section IV, by a discussion on the significance of the different standards of weights and measures in India. The internal trade as revealed from the data in the Rail and River-borne Trade of India (GOI), 1890 to 1920, have been analyzed in Section V.

II. Colonial penetration and the erosion of traditional linkages : the imposition of transit and town duties[2]

Internal movements of goods by road and river were subjected to duties for a long time. After the war of 1763, when Meer Kasim was replaced by the Ex-Nawab Meer Jaffer and with whom the company entered into a treaty by which the traditional duties were revived on all except the English traders. In 1788, Lord Cornwallis abolished all restrictions on inland transit except on goods coming from Benaras, Oudh, or elsewhere beyond the Company's domain. It was again revived in 1801, and finally was consolidated by a Regulation of 1810.

The pre-British transit duties were tolls, rather than duties. 'They are levied separately in each pergunnah through which the goods pass. They are very light and very simple being fixed upon well understood quantities, as an ox

or camel load. ...No pass is required to be taken out.... on arriving at a chokey,[3] the merchant pays the customary toll which is so light that he never thinks of running any risk by attempting to evade it....' (Trevelyan, 1835 : 2).

The customary practice was to impose duty in proportion to the distance they were carried, paying by instalments as they proceeded; and if they were only carried to an adjoining district the burden of tax was very trifling. Under the new system, however, the aggregate of all the instalments which used only to be levied on goods proceeding to the longest distance was considered as the standard and applied to the whole internal trade of the country (Trevelyan, 1835).

The trade in the lower province of Bengal used to be carried primarily by the rivers upon the banks of which was situated the great marts. But in the upper provinces trade was partly carried on by the Ganges and the Jamuna and a large quantity including the whole of the salt trade was carried on through various other channels between Bengal, and Oudh and Central India. This great volume of trade crossed the open frontier at almost every point from Mirzapure to Saharanpur - a distance of about 70 miles. The attempt to intercept it in the manner applied in the Lower Provinces proved to be ineffective. Thus, supposedly, came the town duties, too (Banerjee, 1966).

Undoubtedly, these duties had a significant impact upon the interregional flow of goods. The traditional exchange of goods based on the kind of 'natural' advantages of particular regions was greatly affected. Trade within the respective regions could continue with the same kind of structure of

production. But those which were 'surplus' in certain commodities suffered greatly. In other words, the network of markets (i.e. exchange places) as it developed over time got fragmented further.

Indigeneous manufacturing was affected relatively more. For instance, duty on raw hides was 5 per cent ad valorem; on being tanned or manufactured into leather an extra 5 per cent was charged; and when these were made into boots, shoes, and slippers, a further 5 per cent duty was made making a total of 15 per cent. Again, raw cotton was charged 5 per cent; when made up into yarn, an extra 7.5 per cent was charged; when manufactured into piecegoods, an additional 2.5 per cent; and, if it happened to be dyed after a rowannah (Custom-house pass) had been taken out for it as white cloth, it was liable to an additional charge of 2.5 per cent, that is 17.5 per cent altogether. Similarly, refined sugar, sugar-candy, shell lac, refined saltpetre, oil and a variety of other articles were liable to very high rates of duty (Trevelyan, 1835). However, the non-Indians were given a differential treatment. For instance, a European sugar manufacturer at Khulna (in eastern Bengal) obtained from the government the privilege of having the canes in progress to his manufactory passed at the chokeys free of duty (ibid : 5).

Moreover, by the Tariff of 1810, the same rate of duty was levied upon both the imported (by sea) goods and those which entered into the inland trade. After the renewal of the Charter of 1813, English iron and metals were allowed to be imported duty-free and many other articles were allowed reduced-duty while the inland duties remained the same. For instance, English cotton yarn on importation paid 2.5 per cent

while indigenous yarn paid no less than 7.5 per cent (Trevelyan, 1835).[4]

During the 20 year period upto 1832-33, cotton piecegoods which had been the great export staple of India reached the verge of collapse. Not only did they become uncompetitive in the external market the restricted internal market tended to ruin the old production-bases, too. A tentative estimate shows that the share of cotton textiles, in particular, in the total consignment of north India (called the Upper Provinces and Western Provinces) towards Calcutta along the Ganges declined from 24 per cent in 1819-20, to 4 per cent in 1832-33 (Kessinger, 1983 : Table 3.4).

There were about 133 custom chokeys along the Jumna in between the point where it entered the British territory and converged with the Ganges at Allahabad. The trade flows along the Ganges were intercepted, in between Hardwar and Calcutta, at about 106 custom chokeys. Apart from collection of the stipulated duties, these chokeys were in fact, the points of harassment and extortions by the people manning those. The right of search conferred upon the chokey officers had become a powerful instrument of extortion over and above the legal dues. Trevelyan commented : 'No legal limit exists to the power of search vested in the chokey officers. If they thought proper, they might oblige merchants to turn out the contents of their boats or carts, to enable them to count, weigh, or examine, and there is no restriction to prevent them from requiring even boxes to be broken open, to enable them to satisfy themselves regarding their contents' (1835 : 32-3). When a day's detention is a day's demurrage, the revenue loss per boat, of the traders, could easily be

guessed under such a system where the detention period was proportional to the bribes offered. 'When respectable people in the provinces, who have capital lying idle on their hands, and who probably complain of the difficulty of finding employment for it, are asked, why they do not engage in trade, they almost invariably reply, that they cannot submit to supplicate every low peon on four rupees a month, who has the power of detaining their goods under pretence of searching them' (Trevelyan, 1835 : 65).

The petty traders suffered more compared to the big merchants. The latter not only employed experienced agents to accompany their goods, but they had always persons on their part residing at the head custom-house, to supply them at need with rowannahs and to take care of their interests when they got into trouble. And several gomashtas (representative) were often to be seen at a single chokey. Moreover, the big merchants set up arratdaree (wholesale godown) in the outskirts of a town to receive imported goods and then got the same smuggled inside the town, and thus evaded the substantial town duties. The small traders turned out to be uncompetitive (Banerjee, 1972 : 86-9).

The big merchants were generally engaged in the network of the export-import trade of the country while the small traders were primarily carrying on the internal trade outside that network. The exchange between neighbouring districts and regions done by the small traders were thus seriously impeded. The agricultural output in the alluvial provinces bordering on the Ganges and Jumna was, in general the same from one end to the other. Indigo, sugar, cotton, tobacco, etc. were produced everywhere but not in equal

proportions. The effect of introducing such barriers to the internal flow of goods was the growth of numerous autarchic regions -- devoid of the 'dynamic' aspect of comparative advantage. Further, while the finer manufactures yielded about 25 per cent of the inland custom revenue (Trevelyan, 1835 : 73) the growth of such products suffered relatively more as they travelled longer distances. The finer cloth of Bengal, for instance, used to be exported substantially to the North-Western Provinces and Oudh. The system also discouraged large scale manufacturing at a single place.

However, the volume of exports to foreign countries, during the period, from Calcutta did not decline (Chaudhuri, 1983 : Tables 10.4 and 10.5). This perhaps explains the reason why the transit and town duties are not usually considered as significant in the literature on trade (see, e.g., ibid). However, the entire scheme of internal duties was intended to (a) augment the revenue, (b) augment the supply of raw materials to sea-ports for exportation, and (c) destroy the indigenous manufacturing-base and simultaneously increase the imports of British manufacture. While the inland-duty was levied indiscriminately in the interior upon all goods a drawback was allowed, varying in amount according to circumstances on that portion of the goods which was exported from Calcutta (see Trevelyan, 1835 : 84).

The instances of discriminatory treatment meted to Indian staple exports other than cotton textiles, and the foreign importables are plenty. British merchants of Calcutta had greater interest in indigo plantation and its trade; so special privileges were granted in favour of indigo (Trevelyan,

1835 : 165). According to the law also, the whole class of maritime imports of the Bengal Presidency, whether of English or foreign produce or manufacture, after having paid import duty at Calcutta, may be taken duty-free to any part of the country (ibid : 43). By the Tariff of 1810, the same rate of duty was leviable upon goods imported by sea as upon those which were transported from place to place in the interior. But after the renewal of the Charter of 1813, English iron and metals were allowed to be imported duty-free, and all other English goods, spirituous liquor excepted, at only 2.5 per cent. When this change took place, equality demanded a corresponding reduction in the rates of inland duty. This however was not done, and hence arose the anomaly of foreign goods enjoying a preference in the home market over the produce of indigenous industry in the range of 2.5 to 10 per cent (ibid : 8). In other words, the tariff actually acted as a bounty to British manufacture. And, as a matter of fact, Indian cotton handlooms were liquidated even without the competition of the machine. Machinery only precipitated its destruction and made its decline look more cataclysmic (Tripathi, 1979 : 166).

That a system of high internal transit duties on trade had given an unfair advantage to British imported goods has not been recognised in many writings. For instance, Chaudhuri (1983), argues that the competitiveness of British manufactured articles pushed up the indigenous demand for those, and, thus, 'the process led to the economic enrichment of both the trading partners' (p.809). The great dislocation of the growing network of markets in the hinterland was, however, not the concern of those Ricardians who are used to calculate the 'comparative advantage' on the cif-fob prices at the seaports.

* * *

It is evident from Table 1.1 that (a) percentage of imports into Calcutta from parts of India beyond the Company's dominions increasingly became insignificant; (b) the direction of internal flows of goods changed drastically; exports from Calcutta to the hinterland became very significant in terms of value, over the years.

Table 1.1

Internal trade of Bengal through Calcutta in selected years during 1807-1832

(in lakh S.R.)

Year	Imports from the Company's dominions	Imports from other parts of India	Exports to the Company's dominions	Exports to other parts of India
1813-14	218	37	71	2
1822-23	425	32	153	4
	Imports by land		Exports by land	
1825	565	16	139	neg.
1832	494	4	117	4
	Imports into Calcutta		Exports from Calcutta	
1807	345		55	
1812	279		72	

Source: Bengal Commercial Reports (respective years) as quoted in Tripathi, 1979 : Tables 25, 53, 62.

Notes : S.R. = Sicca Rupees; 100 Sicca Rupees = 116 current Rupees; neg. =negligible

Table 1.2 shows that for all the staple exportables, excepting indigo, the volume of trade through Calcutta drastically declined between 1819 and 1827 and this had an adverse impact upon the production of these articles. The decline was solely due to the internal trade barriers. There are other reasons, too, such as the financial crisis of the Calcutta-based merchants (see Tripathi, 1979). But the partial correlation between the transit and town duties, and the decline of imports into Calcutta has not been thoroughly studied. That it impeded the growth of internal trade was, however, agreed to by John Adam who became the acting Governor-General, pending Lord Amherst's arrival, and suggested their total abolition (Tripathi, 1979 : ch.5).

Table 1.2

Goods imported by land into Calcutta, 1819 and 1827

(in '000 S.R.)

Articles	1819	1827
Cotton piecegoods	1,26,53	44,15
Silk piecegoods	16,87	4,55
Indigo	1,05,92	1,51,70
Silk	78,72	77,82
Cotton	40,15	37,41
Sugar	48,70	21,38
Saltpetre	29,25	13,15

Source: Bengal Commercial Reports, 1819-20 to 1827-28 as quoted in Tripathi, 1979 : Table 63.

The transit and town duties in the Bengal Presidency was finally abolished in 1836 while it was still in vogue in both the Bombay and Madras Presidencies. The system in the other Presidencies was, however, much less injurious compared to Bengal. The different systems of trade barriers, however, had differential impact upon the growth pattern of the various regions in the following years after the abolition of the duties.

In Bombay, highest rates of duty were imposed on articles like spices, dyes (including, indigo), drugs, groceries, etc. (called Kirana). The second group consisted of grain and pulse and were generally rated at half of the Kirana rate. And, cloths belonged to the third group within which silk clothes paid about double the duty fixed upon cotton fabrics. In general, however, the rates were comparatively low. On the other hand, in Madras, green vegetables, firewood, grain, and, to note, cotton and cotton yarn were exempted from transit duties. In addition, in Bombay, town duties were levied on shawls, pepper and spices, betelnuts, cotton piece goods, wax candles, and saltpetre at a flat of 4 per cent upon the prime cost. However, cotton and cotton manufactures remained outside the network of the town duties too, in Madras. Articles like tobacco, betel, ganjah, bhang and godack only were subjected to the duties in Madras. Nevertheless, the town duties in both Bombay and Madras Presidencies were unlike that in Bengal where it was full of inequalities, anomalies and complications (see, for a detailed account of the duties in Bombay and Madras, Banerjee, 1966).

However, in Bombay, the transit duties were abolished, in 1838, and the town duties in 1844. And, in the Madras Presidency, both the transit and town duties were abolished in 1844. The impact of the duties in those presidencies were not so much due to the rates as it was due to the degree of interruptions, and the associated harassments by the chokey personnels, on the free flow of goods between pergunnahs, districts and regions.

In brief, the system of inland duties left a long-run impact upon the Bengal Presidency and the parts of the northern and central India which, for exchange of own production, depended greatly upon the Presidency. The other two presidencies were relatively less affected. The extent of loss in cotton textiles in Bengal, alone, was stupendous. This was not the case for Bombay, or Madras, either. Twomey (1983) estimates that the decline, between 1790 and 1830, of the textiles employment alone was to the extent of 3 lakh FTJEs (full time job equivalents) in India. This drop was not evenly distributed in the economy, and the loss of employment in Bengal must have been 244,000 while for the rest of India it was 56,000 FTJEs. Increased exports of silk textiles might have absorbed only 10,000 weavers in Bengal, and the increase in imported yarn might have given employment to 20,000 weavers though not to spinners (Twomey, 1983). If we add the depressionary impact of the transit duties upon the metal and leather production the loss of employment would be even more.

Moreover, the economies of production at a larger scale had discontinued. The location of industries shifted to the sources of raw materials. This was true especially for bulky low-valued commodities, e.g., jute and wollens. Sugar, of various degrees of refinement, was made almost in

every district of Bengal and Bihar where sugarcane was grown. High valued articles like crafts dealing in precious stones, jewellery, gold and silver thread-work, ivory carving, etc., were localized in the cities. But manufacturing of low-valued goods, e.g., brass utensils, leather work, paper became more generally dispersed (Bhattacharya, 1983).

Thus, the kind of regional or local specialization which developed over the long years were disallowed to grow further. Instead, numerous autarkic regions developed. In the next section, we would see the implications of those autarkic regions being again connected by railways, in a later period.

III. Impact of the development of railways : a reappraisal

The railways facilitated greatly the internal movements of goods by reducing the costs of transportation and making the transportation easier and faster. Although the development of railways was initiated on a different basis of economic calculations (see Rao, 1978) it had the potential to be one of the major determinants of the development of a national market. It linked up the different regional economies with the world economy in general, and the British economy in particular. India's first railway lines were built, under the guaranteed system, to connect the major agricultural regions with the major ports of Bombay (1853), Calcutta (1854), and Madras (1856). The railway network slowly but steadily expanded and by 1920-21 there were 56,980 kilometres of track compared to 1,349 kilometres in 1860. This railway network was managed by a complex system of ownership of private companies, government agencies and princely

states which had an important bearing upon the development of the different regions.

The freight structure, in particular, inhibited interregional trade. It amply shows that the railways were meant for purposes other than fostering interregional trade. The freight to and from ports was much lower than those for comparable inland distances. The sub-division of the country into too many railway systems and the absence of telescopic through rates on a continuous mileage basis over several systems often acted as a check to free internal movement of traffic (Ghose, 1911; Sanyal, 1939). As the bulk of the wagons used to move towards the sea-ports railway companies charged lower rates for the back haul to the interior than for carriage of similar distance between two inland points. This had certainly facilitated the movements of imported goods from the ports to the hinterlands, with a price-advantage over domestic produce.

The freight for imported sugar, for instance, was 0.157 pie per maund per mile from Howrah to Sutna, a distance of about 615 miles, while the indigenous sugar had to pay 0.225 pie per maund per mile in order to move from Luckeserai to Kanpur, about 422 miles away. Again, while the G.I.P. Railway charged Re.0-13-6 per maund of imported sugar from Bombay to Kanpur (about 840 miles) the sugar produced in Oudh paid Rs.1-2-4 per maund as freight from Kanpur to Akola, for a much shorter distance (about 649 miles) (Ghose, 1911 : 12-3). Further, the freight for carrying imported matches from Bombay to Delhi were the same as those for carrying matches made in Ahmedabad to Delhi even though Ahmedabad was 483 kilometres closer (Hurd, 1983). Moreover, the spatial diffusion of the steam-based power using technology,

which was the state-of-the-art in the nineteenth century, was stunted owing to high freight for coal. The cost of extraction, however, was not comparatively high since coal was located near the surface (Rungta, 1970 : 174) and the mine-workers' wage rate was too low. But the East Indian Railway's monopoly over access to the major coalfields made it costly to transport coal by rail (Hurd, 1983). Thus imports from Britain could compete with Indian coal at the site of demand. The access to coalfields by the Bengal-Nagpur Company, after 1901, did not alter the situation as a duopoly was formed immediately (ibid). Only when the railway rates for coal were reduced by 41-50 per cent in 1906 the output and the consumption of Indian coal recorded substantial increases. Further, while the raw cotton traffic to Calcutta was principally for export and that to Bombay for local manufacture, railway charges were 11 annas per maund in favour of Calcutta, for instance, at the Kanpur market (see Report on the Rail-borne Traffic of Bengal, Government of Bengal, 1889-90 : 17), and so on.

The rates were devised in such a manner that the cost of exporting India's staple exportables, the primary commodities, went down, and the interregional trade turned out to be costlier. It is argued, however, that (a) railways brought about commercialization, and (b) with the decline in transport costs brought about by railways regional specialization became widespread (see, e.g., McAlpin, 1974; Hurd, 1983; Derbyshire, 1987). Hurd (1983) puts the phenomenon of increasing exports in the following terms : "Between 1903 and 1919-20, when railway rates fell sharply, farmers took advantage of the cheaper rates and exported more of their output' (p.760).

We use Blyn's (1966) series on yield, and RRTI (GOI)-data on imports into and exports from some of the provinces by rail and river during 1891-92 to 1920-21, in order to find out whether the trend of yield and net exports of the major foodgrains from the respective provinces were in any way correlated. The correlation coefficient (r) is measured between annual net exports of (a) wheat (b) rice, and (c) wheat, rice, jowar and bajra all taken together, on the one hand, and their respective one-year 'lagged' yield per annum, in each of the selected provinces, viz., Central Provinces (CP), United Provinces (UP), Bombay-Sind, Punjab (including North-Western Frontier Provinces), and Bengal (including Bihar and Orissa). The incompleteness of data in both Blyn (1966), and RRTI (GOI) have restricted our analysis to the selected crops in selected provinces. Table 1.3 shows that the two variables were associated, although partially, only in Punjab and Bengal. In the latter the 'relationship', however, was inverse (for rice not in the husk).

The poor and sometimes negative association between the two variables in other provinces viz., CP, UP, and Bombay-Sind could not be attributed to the wide fluctuations in yield compared to that of net exports. Our calculations of the coefficient(s) of variation for yield and net exports separately for wheat, rice, and the aggregate of the major foodgrains in the respective provinces show that the annual yield was relatively stable while exports fluctuated extensively (Table 1.4). The major reason for fluctuations in exports from the provinces is fluctuations in foreign exports. Thus, had export opportunities been so important for the increase in yield in colonial India the widely fluctuating exports would have had a dampening effect on cultivation as a

Table 1.3

Correlation coefficient(r) [1] between yield and net exports of selected provinces, 1890-1920

Province	Aggregate yield and net exports of rice, wheat, jowar and bajra together	Yield of wheat and net exports of wheat	Yield of rice and net exports of rice
Central Provinces	(-)0.1566	0.3570	
United Provinces	(-)0.2530	0.1694	
Bombay-Sind	(-)0.0627	0.0770	
Punjab	0.5121	0.5668	
Bengal			(-)0.4816[2]

Notes: 1. 'r' has been calculated from the functional relationship : $y_t = f(x_{t-1})$; n=29.

2. Data on yield are Blyn's revised series (1966 : Appendix Table 9A). Since 1906-07, 'Eastern Bengal' had been separated out from the internal trade data on Bengal, and combined with Assam, in RRTJ. For the sake of comparability 'r' is being calculated for the 14 years during 1891-92 to 1905-06.

result of increased uncertaintly and risk of the cultivators. In fact, the regional diversity in agricultural production and its growth were dependent upon other crucial factors than railways and foreign exports such as, extension of irrigation facilities, lanc tenurial system, etc. (see Raj, et. al., 1985). For further illustration it can be seen that, among the selected provinces, only in CP the average size of landholdings was as large as 20-25 acres. Cultivation in

relatively large holdings with wage labour is known to have been there from the early nineteenth century. Rents and taxes were comparatively low, and pasture and fuel were available in plenty. Hence, there might have been the inducement to grow and export wheat (Rao, 1978).

Table 1.4

Coefficient of variation of the annual yield of foodgrains in, and net exports from selected provinces, 1891-1920

Province	Wheat		Rice		Total of wheat, rice, jowar and bajara	
	Yield	Net exports	Yield	Net exports	Yield	Net exports
United Provinces	20.3	90.5			16.0	127.0
Central Provinces	30.8	101.2			20.7	138.8
Punjab	24.1	51.5			24.3	54.0
Bombay-Sind	34.8	240.4			22.8	(-)832.0
Bengal			18.3	33.3		

Sources : For data on yield, see Blyn (1966); and the net export figures have been computed from RRTI (GOI), various issues.

Note : a) The annual average net exports being (-)29.6 thousand tons.

The factor that is crucial in any analysis of commercialization in Indian agriculture, particularly in the case of foodgrains, is the extent to which the exports constituted the marketable surplus of any particular region. The 'negative' coefficients in some of the provinces as evident in Table 1.3 although not statistically significant is still a problem that needs further probing. Otherwise, it is difficult to explain the decline in aggregate yield due to the previous year's increase in exports, particularly as the average prices of both wheat and rice are found to have upward trends.

The negative 'r' in the case of Bombay-Sind is largely explained by the status of the region as a net importer of rice and wheat in fourteen years out of the thirty year period, 1891-1920. In CP and UP, the annual net exports were not proportionate to the aggregate availability of the food-grains, viz., rice, wheat, jowar and bajra, as measured by the yield plus imports minus exports. As a result, the increased exports of wheat, mainly, had induced the common cultivators to shift to the cultivation of 'inferior' staples like jowar and bajra in the next cropping season, as a 'hedge' against scarcity. The yield of jowar and bajra per acre being much lower compared to either rice or wheat, the yield of rice, wheat, jowar and bajra, in aggregate, declined. Moreover, the disproportionate exports of wheat from those provinces pushed up its market price particularly at times when the wheat-growers themselves turned out as buyers in the market. Simultaneously, the excess demand for the 'inferior' staples pushed up their prices also. Thus, the poor cultivators were induced to allocate resources in favour of growing 'inferior' staples. However, the changes in the cropping pattern was not a 'once for all' phenomenon as the requirements of cash to

meet the land-dues, debt repayments, and to purchase various consumption necessities were there. Further, this was a relatively common phenomenon among the poor cultivators who did not have a 'surplus' in excess of their consumption requirements to fall back upon. Hence, there was no discernible trend (decline) in net exports from any particular province during the period. By and large, while gross exports were autonomous of factors internal to the provinces peasant differentiation and the position of different classes of peasants as net buyers or sellers of grains determined the aggregate composition of the output of foodgrains, in different provinces. The 'export-led exploitation' was much more revealing in Bengal from where the bulk of the exports of rice to Britain took place; increased exports discouraged the cultivators to grow more rice (see Table 1.3). The exports of rice can not have benefited the rice-growers in Bengal, and thus induced substitution of rice by jute cultivation which the cultivators found relatively remunerative. Similarly, in CP and UP also, the cultivators increasingly substituted foodgrains by non-foodgrain cultivation, as measured by the proportion of areas under the respective crops (Blyn, 1966 : Appendix Table 4C). But, did that really help to improve the situation by way of increasing the imports of foodgrains ?

Our estimate of the per capita availability of the major foodgrains (rice, wheat, jowar and bajra) further reveals the immiserization of the peasants in different provinces. In Table 1.5, the per capita availability in the selected provinces have been calculated from the volume of yield plus net imports into the different provinces. The per capita net availability of the selected foodgrains in CP and Up increased in 1901 over that in 1891; thereafter declined. In

Greater Bengal, using Blyn's revised series of yield of rice (1966 : Appendix Table 9A), we find that the availability first declined in 1901 over that in 1891, thereafter increased in 1911, but again declined in 1921. The decline during 1891-1901, in Bengal, is largely explained by the rapid expansion of jute cultivation. But what remains to be explained is that why the 'supposed' increase in the aggregate income owing to jute cultivation did not effect an increase in imports from other provinces or from abroad to maintain the required annual 'stock' of the principal food of the province. The problem further compounded during 1911-21 as the population increased and the land-man ratio became more and more unfavourable to per capita output. However, the declining trend of the per capita availability in the provinces as a result of the high level of exports compared to the annual yield could have been offset by a rate of increase in productivity per acre greater than that of population. Incidentally, data show that the per acre yield of those crops remained stagnant (see Blyn, 1966 : ch.VII). The increase in the net availability in Bombay-Sind since 1901, on the other hand, perhaps reflect the facets of growth of the cotton mills, primarily, as Mishra (1985) suggests that Bombay Presidency between 1900 and 1920 did not experience sustained agricultural growth.

Punjab, which is often cited as the model of commercialization, regional specialization and prosperity, shows an even more dismal picture in terms of the per capita availability of the selected foodgrains (Table 1.5). It was much lower than any of the selected provinces in all the years during 1891-1921, except in 1911. The relative

Table 1.5

Per capita net availability[1] of foodgrains (rice, wheat, jowar and bajra) in selected provinces, 1891-1921

(in seers)

Province	1891	1901	1911	1921
Central Provinces (including Berar)	161.6	280.3	240.4	136.7
United Provinces	90.0	124.7	120.4	110.3
Bombay-Sind	182.8	152.1	163.1	186.4
Punjab[2]	55.8	74.7	140.9	71.7
Greater Bengal[3]	160.4	148.3	177.0	142.0

Sources: Blyn, 1966 (yield-data); RRTI, GOI (internal trade-data); and Census GOI, 1891, 1901, 1911, and 1921 (population-data).

Notes: (1) (Yield plus net imports)/Population.

(2) As Blyn (1966) has not reported the yield of rice in Punjab, we have considered only the yield of wheat and, jowar and bajra. However, the net import - figures include rice. To note, Bengal, Madras, UP, Assam, CP, and Bombay-Sind produced about 99 per cent of the aggregate yield of rice in British India (excluding Burma). Hence, the yield of rice in Punjab would affect our results only marginally, if at all.

(3) Only rice including rice in the husk has been considered; yield-data are from Blyn's modified series (1966 : Appendix Table 9A).

increase in the availability in 1911 is partly attributable to the decline in population between 1901 and 1911 (see Census, 1901 and 1911). But the bumper yield of wheat in 1911 perhaps explains a little more. The average yield of wheat in Punjab was 3106 thousand tons during 1901-10 (10 years) while it was 3641 thousand tons in 1911 (Blyn, 1966: Appendix Table 3A). One may question the reliability of the yield-data (see, e.g., Dewey, 1974; Heston, 1978) but it has to be explained why it was particularly underestimated in Punjab (see, in this connection, Mishra, 1983).[5]

One of the reasons that may explain the low availability in Punjab is that while in 1891 the net exports of wheat constituted 33.4 per cent of the yield it declined to 28.5 per cent in 1901, and further to 23.9 per cent in 1911. But, in 1920-21, net export was more than 36 per cent of the yield and thus reduced the availability for the indigenous population. If we add the yield of barley and maize (the volume of net imports of these could not be calculated) to the aggregate net availability of rice, wheat, jowar and bajra, the per capita availability was slightly more, i.e., 101.9 seers in 1891, 108.2 in 1901, 191.7 in 1911, and 104.2 seers in 1921. The high concentration of land particularly in the canal colonies (see, e.g., Ali, 1988) perhaps explain a little more, in terms of the relatively depressing conditions of living, in general, in rural Punjab. Commercialization produced a class of agricultural labourers which, however, comprised an amalgam of tenants-at-will, petty peasants and field labourers (Mishra, 1982). In the late nineteenth century, the growing indebtedness of the peasantry, particularly of the latter class, was the most obvious feature of the Punjab

rural economy. The development of irrigation had a positive impact on the peasantry but the full impact was not visible till the 1920s and 1930s (Mishra, 1982; Ali, 1988).

The expansion of the railway network, however, created one of the pre-conditions of the development of a national market by enhancing the penetration of the corporate trading organizations deep into the countryside. They organized channels of trade in exportables and importables, in many places, and they set up firms for pre-export processing, such as cotton ginning and pressing (Vicziany, 1979), indigo and jute baling (Buchanan, 1934), groundnut processing (Baker, 1984), and, of course, tea and coffee. They then transshipped the produce to the port-cities from the supply-base in a readily exportable form. However, as we will see in the next section, the colonial state itself adopted measures which tended to fragment the markets, sometimes in a novel fashion. Further, organized credit and finance tended to be monopolised by big business organizations with control over the local markets in many regions. Smaller traders and producers acted as their agents and subcontractors (see Bagchi, 1972; Vicziany, 1979; Bayly, 1983; Baker, 1984).

In brief, the fragmentation of the domestic economy into a few regions was effected through the alignments of the railway network, rates of freight and division of the internal market among a handful of trading houses. The product composition of each of the regions may seem to indicate regional specialization. But the domestic economy had hardly benefited from the latter. Rice from Bengal and Assam, for instance, was supposed to be exported abroad only; inland trade was discouraged by a high rate of freight (see,

for a detailed commodity-wise discussion on railway rates, Ghose, 1911 : 81-138). The corporate export-import organizations in most of the instances adhered to the regional boundaries and tied those regional economies with the grand metropolitan, as particular 'areas of exploitation'.

IV. Variations in weights and measures and price dispersion in the Indian market

Weights and measures in India, at least upto the first quarter of the twentieth century, had never been settled upon an organized system for the country as a whole, or for provinces. The diversity was horizontal as well as vertical. The intrinsic value of a standard weight or measure of particular article was different in different places and in different types of transactions. This was often reflected in the variations in prices in different places. The price of the second sort rice, in 1864, in the Madras markets was found to be Rs.359 per Madras garce while that at Salem not less than Rs.377, at Coimbatore Rs.441 (Gover, 1865). To note, these places were within a few hours' ride of each other, and the trains used to run every day between the places. Colonel Baird Smith observed in his report on the famine in the North-West Provinces that, owing to poor communications, in one bazaar, famine prices might be ruling, while, in another, not thirty miles off, the price was not more than one-fourth of that for the same quantity. Gover (1865), however, commented: 'in a season so dry as that which caused the famine, the whole country must have been ore road, hard as iron, ... some other cause must have contributed to prevent exchange between districts so close' (p.3). Every village almost, certainly every talook throughout India, had measures differing in some respects from every other

(see, for the list of place-wise variations in weights and measures throughout India, Gover, 1865). Gover quoted with approval the remarks of one of the chief traders in Madras "I never can tell what I am buying nor how I am selling. My agents inform me that rice is at so much the seer, while in another quarter it is double that price. I take advantage of the opportunity, invest largely, and expect great profits. When the transaction is closed, I find I have lost greatly. The seer in the first place was perhaps less than half the size of that in the other. No two villages hardly have the same measures, and to ensure success, I should need an agent in every place, each with infinite opportunity for deception" (1865:4).

Moreover, the same standard was not used in weighing different commodities at different places. In Calpee, for instance, cotton was sold by the seer of 75.5 tolas while rice by measures containing 66 tolas when the transaction was wholesale, and 80 tolas if it was retail (Gover, 1865). One maund of cotton was not equal to one maund of wool. At Azimgarh cotton was sold by the seer of 80 tolas, ghee and salt by 95 tolas, and corn, in wholesale, by 108 tolas (Banerjee, 1966). Measures for buying often differed from that of selling in many districts. Also, Calpee was not an exception -- different standards were used in wholesale and retail transactions in a number of places. At Madras, the wholesale transaction of copper used to take place at 111 tolas a seer while that for retail transaction was 243 tolas (ibid).

The first attempt to adopt a unified system of weights was in 1833 when James Princep, the Assay Master of Calcutta, addressed a letter to the Mint Committee suggesting the adoption of 180 grains as the standard for the tola weight, and the making of seer weights of 80 of these tolas. By Act VII of 1835, the Sicca rupee was abolished, and since then the only rupee coin has been the rupee of a 180 grains. The new maund of 82.286 lbs. avoirdupois standard was adopted by the Customs authorities, and also by the merchants and traders of Calcutta. In 1840, the standard was extended to Bombay, but throughout the Madras Presidency little was done for its introduction for at least 20 years after Act VII had been passed (GOI, 1914).

The Provincial governments of Bengal, Bombay, and Madras made independent attempts, thereafter, to standardize the measures throughout the provinces but to no avail. In 1870, the Secretary of State refused sanction to the recommendations made by a Committee that was formed by the Governor General in council on the ground that the clauses were too severe, and too extensive as they applied to all persons engaged in trade (GOI, 1914 :17). The recommendations were modified and in August 1871 a new Act was introduced.[6] In March 1872, however, the Secretary of State ordered all steps for introducing the Act to be suspended until the arrival of the new Viceroy (Lord Northbrook). It was further held up as the East Indian, Bombay, Baroda and Central India, the Great Indian Peninsula Railways, and the Eastern Bengal Company were unwilling to introduce the new weights on their lines. At this time the difficulty experienced in obtaining comparable data on agriculture, railway and trade owing to the diversity of weights throughout India reopened the question of weights (GOI, 1914 : 18). In October 1875, the Government

of India decided that the Indian maund of 40 seers (of 80 tolas) should be the standard in use on Guaranteed and State Railways.

The Government of India meanwhile was not prepared to consider compulsion with a view to securing a uniform system of weights and measures and gave municipal bodies the power to prescribe weights and measures for the use of the people whom they represented. But that did not confer a similar power upon the District Boards.

Again, in 1912-13, a committee was formed to consider the question of the feasibility of securing uniform weights and measures in India. But the recommendations had not been given effect to until in 1930s, when the matter was again taken up by the Royal Agricultural Commission.

The long persistence of the great anomalies in weights and measures in spite of the fact that the colonial government undertook long-run changes in many other aspects of economy and society perhaps indicate the efficacy of the system as part of the colonial mode of exploitation; the use of multiple prices in trade, in general.

The port-cities of Calcutta and Bombay, through which bulk of the export-import business with England was carried out, adopted the standard of 80 tolas a seer and 40 seers a maund as early as in 1830s. Instead, in Madras, which was mainly engaged in Asian trade the standard was adopted after quite a long time. Major trading centres in the countryside, the municipalities of the provinces began to adopt, in 1880s, the standard that existed in the port-cities; exactly since when the volume of foreign trade of India began

to expand substantially. Apparently, the extension of the standard to the hinterlands was brought about by the railways. But what is being overlooked is that the major exportables and importables of India, by 1870s, were brought under the network of the European trading organizations. To the extent these organizations directly participated in the market in the hinterland the standardization was essential.

But, what impeded the set of standards to cross the boundaries of the trading centres ? If the commercial transactions of the countryside with the 'domain of foreign exports' were really substantial, in absolute or relative terms, the adoption of a standard by the numerous petty cultivators would have been spontaneous, especially when the buyers were organized and big, and the 'illiterate' cultivators, in general, were unaware of the arithmatic of conversion. In some of the writings on international trade, railways and prices in colonial India, the processes of price formation in an underdeveloped agrarian economy have been assumed as identical to that for a developed 'standardized' capitalist economy.

The network of agricultural marketing was broadly separated into activities relating to (a) the internal trade, and (b) the buying and selling in connection with foreign exports (Diagram-I). Sometimes they overlapped, especially at times of famines and scarcity. Our estimates show that, except for wheat in Punjab the proportions of exports of food and non-food crops, from the provinces, to the aggregate yield of the respective provinces did not normally exceed 10 per cent. Thus the bulk of the internal trade remained outside the coverage of the Indian rail and river-borne trade statistics. In such a situation and in the midst of a high

degree of variation of the standard of weights and measures from place to place can we believe in a 'single' price ruling the domestic market in India during the period ?

By the law of a single price it is not meant that the price would be the same in a remote bazaar as in say Calcutta, or at Kanpur. For high-volume and low-value articles, transportation cost would cause significant differences in prices in a remote bazaar and in the railheads. But what appears to be the weakness of the estimates of convergence of prices (by a measure of coefficient of variation) of rice and wheat in various markets in India, in Hurd (1975), is that the calculations are based on the price - data published in the Prices and Wages in India, GOI. The latter source does not mention the actual prices at which transactions took place. The actual prices of particular quantities at particular places were 'officially' converted into the price for the standard of 80 tolas a seer, and then reported in the GOI publication[7].

It is often assumed that since the 1870s (see, e.g., Latham and Neal, 1983; McAlpin, 1983) the domestic prices of exportables had been increasingly determined by international prices. Further, the calculations of 'comparative advantage' are based upon that set of prices. Let us assume that prices of the domestic produce were determined exogenously, and the product-mix was adjusted accordingly. Now suppose, irrespective of the cost of production, the price of wheat at Kanpur, for procurement for exports abroad, was unique and quoted in terms of 80 tolas a seer. Then, the price would seem relatively unremunerative for the cultivators who used to bring their produce to Kanpur by pack-bullocks or bullock-carts from a distance of,

say, about 50 miles compared to those cultivating in the vicinity of Kanpur, due to the costs of transportation. The variation in the standard of weights could be an added disincentive. Notwithstanding the fact, if that price was to prevail everywhere, the spread of price-induced commercialization would have been localized within a narrow hinterland of the town connected by railways.

Alternatively, the diversity of the standard of weight and measure could be utilized to increasing the volume of exports, as and when necessary. When 'price per seer' was quoted and seer-weight differed from place to place the 'single price' did disintegrate into many. One could argue that when the 'offered' prices are quoted in seer of 80 tolas the variations in seer-weight would automatically be neutralized. For instance, according to the argument, suppose in place X, 55 tolas make a seer and the price per seer (of 80 tolas) is quoted as, say, Rs.10. Then, at place X, the 'offered' price would automatically be Rs.6.88. In this way, there would be no discrimination in prices. But, to note, tola-weight in terms of grains, again, itself varied from place to place. For instance, in Patna, 209 grains made a tola while at Belgaum it was equal to 176.25 grains (Gover, 1865).

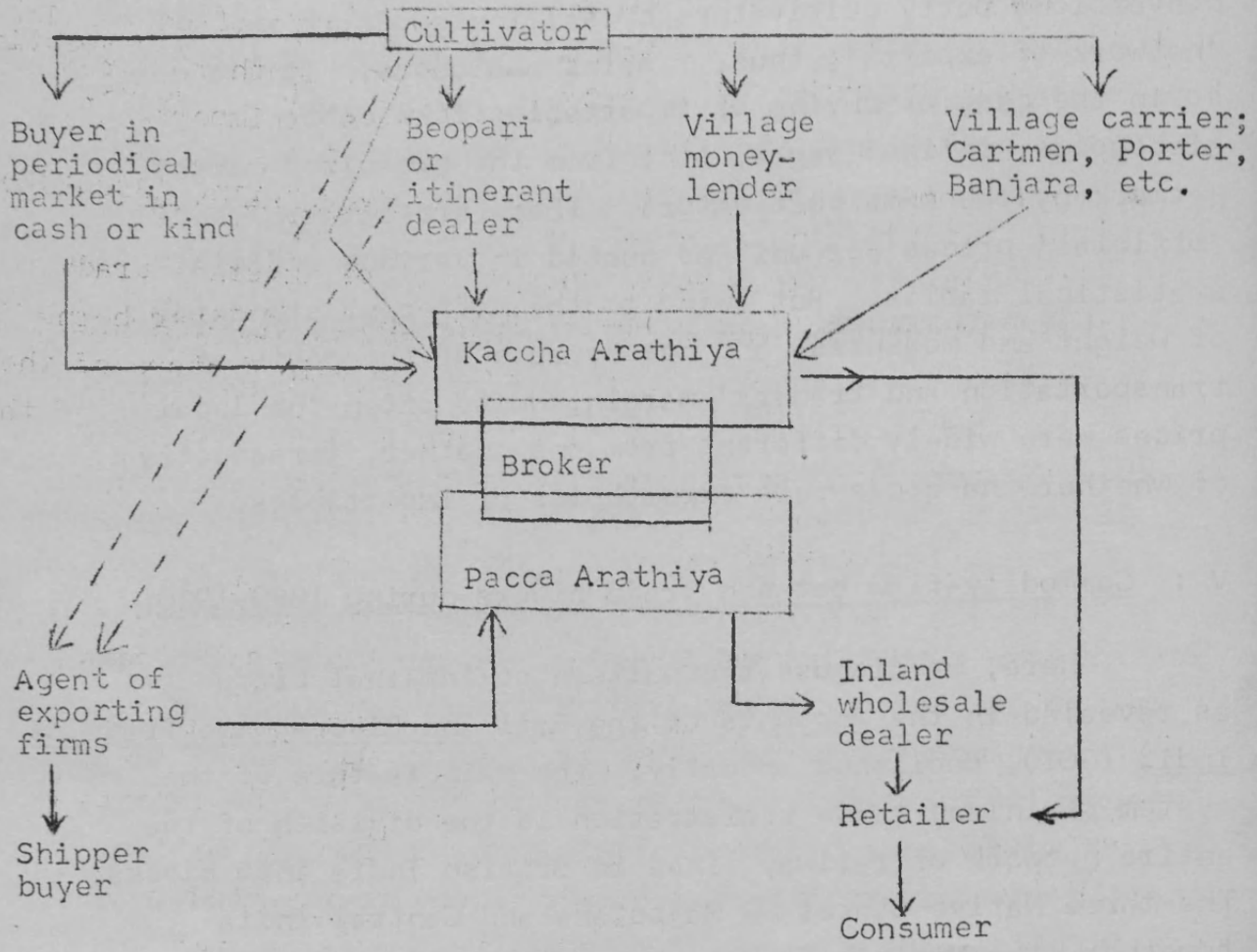
Thus, it is difficult to conceive that the price in the international market determined the terms of trade in the local market. Rather, the price was determined locally by partial supply-demand conditions, and the margin of difference between the 'export price' and the 'local bazaar price' -- most often a positive sum -- accrued to the exporting firms; the network of marketing organization (see Diagram I) acted as the lever.

The 'gains' that is assumed to have accrued to the numerous unorganized 'illiterate' (lacking knowledge of conversion) petty cultivators by selling goods to the 'network of exports', thus, remains ambiguous. It was more so in the case of buying of importables like cotton piecegoods, refined sugar, etc. from the organized market network by the same cultivators. There are data on the 'official' prices per unit as quoted in various official statistical tables. But owing to the different standards of weight and measures, and not because of the costs of transportation and traders' margin, quite often the local prices were widely different from one another, irrespective of whether the goods were exportables or importables.

V : Commodity-flow between trade blocks during 1880-1920

Here, we discuss the pattern of internal trade as revealed in the Accounts of the Rail and River-borne Trade of India (GOI), published annually. The main feature of the system of inland trade registration is the division of the entire network of railway lines in British India into blocks. The three Native States — Rajputana and Central India together, the Nizam's Territory, and Mysore - are also included. The trade registered was the trade which came into, or went out of, each block by rail, exclusive of passing traffic. In consequence of the arrangements of blocks mentioned above, the trade shown in the tables under the head 'Bengal' was the trade of the province of Bengal excluding Calcutta, the trade of which is shown separately; and similarly the trade credited to Bombay, Sind and Madras was the trade of those provinces excluding Bombay port, Karachi, and the eight principal seaports of Madras.

Diagram I : The agricultural marketing organisation in colonial India



Source: Radhakamal Mukherjee, (1939), 'Agricultural Marketing' in idem (ed.). Economic Problems of Modern India, Vol.I, London : Macmillan.

Note : In actual practice the functions sometimes overlap and encroach upon each other.

The trade of Native States which lay within the external boundaries of a British province is included in the trade of the province. Rail-borne trade was not registered in Burma.

The work of registration was performed by the principal railway audit offices which registered the goods carried for delivery to consignees on their own lines or passing over their lines for delivery on connected lines.

The required information was collected from railway invoices which, among other particulars, showed the description of goods, the stations from which they were sent and at which they were received, and their gross actual weights.

As the Native States were not supposed to furnish returns, the trade between one of the three principal blocks formed of Native States and another was not ascertainable. The trade between each of those three principal blocks and British Provinces was, however, obtained thus -- the imports into the provinces represented the exports from the Native States, and the exports from the provinces represented imports into Native States.

The river-borne trade between Bengal and Assam, Bengal and United Provinces, UP and Assam, and Punjab and Sind was also registered and the results combined with the statistics of rail-borne trade.

The river-borne trade represents the trade carried by country boats, as well as the trade carried by inland steamers. The boat traffic was registered at certain selected river stations by clerks who collected the required information

from the boatmen, and forwarded the returns to the provincial officers; that carried by steamers was registered by the steamer agents or by clerks from provincial offices who extracted the information from the invoices recorded in the offices of the steamer companies. The trade carried partly by rail and partly by river, when booked through and carried by steamers running in connection with railways, was recorded by the railway audit offices concerned.

The value of the traded consignments had been computed from the recorded quantity data by the Department of Statistics (for some years by the Dept. of Agriculture and Revenue), GOI, for the period 1880-81 to 1899-1900, using appropriate prices.

We have computed most of the statistics with the available data on quantity only as the Source discontinued to mention the values of trade after 1899-1900. This has obviously narrowed down the scope of interpretations of the data.

The multiple directions of the flow of commodities notwithstanding, the bulk of the internal trade took the route from and to the three port-cities of Calcutta, Bombay, Karachi, and the ports in Madras which were connected by railways, viz. Pondicherry, Negapatam, Tuticorin, Calicut, Cocanada, Vizagapatam, and Cuddalore. Among the ports, Calcutta alone handled about more than 50 per cent of the aggregate inland trade.

Let us first make use of the data on the values of trade available in RBTI, GOI upto 1899-1900. All the port-cities had negative balance of trade, both in terms of quantity and value, in all the years during 1890-1900.

Interestingly, the balance of exports and imports, for each of the ports, was greater when measured in terms of quantity than when it is expressed in values. This amply shows that the port-cities imported relatively low-valued articles from the hinterlands while they used to export relatively high-valued articles to the hinterlands reflecting the unfavourable terms of trade of the countryside with the port-cities. In other words, the unit value of exports from the countryside to the port-cities was much lower than that of imports (see Table 1.6). In 1895-96, for instance (see Table 1.6), the net imports into Calcutta was about 60 per cent of the volume of aggregate trade of Calcutta, but only 31 per cent when measured in terms of the values of the traded goods. There was no sign of improvement in the terms of trade of the hinterlands over the years.

The results are not always similar for Madras (see Table 1.6). The nature and composition of foreign trade carried through the Madras ports was not similar to that of other ports in India. Naturally, the kind of commodities that the Madras ports imported from, and exported to the hinterlands was significantly different from others. A large proportion of Madras's foreign exports comprised artisan and factory goods like manufactured hides and skins. In addition, relatively high-value plantation produce, in general, moved in greater amount than the farm produce into the Madras ports from the hinterlands (Table 1.7). On the other hand, a significant proportion of foreign imports into the Madras ports consisted of such low-value items like foodgrains. The exports of such goods to the hinterlands made the latter's terms of trade less unfavourable compared to similar others (Table 1.8).

Table 1.6: Net imports (M-X) into four major port-cities as percentage of the aggregate trade (T), 1890-1900

/Ration (%) : $\frac{M - X}{T}$ /

Year	Calcutta		Bombay		Madras		Karachi	
	Q	V	Q	V	Q	V	Q	V
1890-91	59	20	39	22	23	15	60	4
1891-92	60	28	46	23	13	13	64	19
1892-93	59	31	50	30	-3	15	40	2
1893-94	54	29	54	30	-3	19	63	15
1894-95	57	31	41	22	8	25	64	7
1895-96	60	31	40	29	6	26	47	2
1896-97	51	30	27	22	14	20	8	-16
1897-98	52	25	15	10	3	15	46	- 4
1898-99	66	28	47	25	-3	13	65	12
1899-1900	63	32	17	14	8	17	55	15

Source: Computed from RRTI (GOI).

Notes : Q = quantity of trade; V = value of the trade.

The aggregate foreign trade (imports + exports + re-exports) of Madras Presidency with Britain declined from 59.7 per cent in 1890/1, to 52.5 per cent in 1895/6, and further to 49.0 per cent in 1900/1. But simultaneously, trade with Japan, Ceylon, Burma, Straits Settlements, in aggregate, increased from 16.5 per cent to 21.1 per cent, and to 28.0 per cent in 1890/1, 1895/6 and 1900/1, respectively (see ASFTI). The increase in Asian trade of the Madras ports bears significance. Unlike European trade, the Asian trade was not strictly differentiated, for India, between manufactured importables and primary exportables (see Baker, 1984: chps. 2 and 4).

Table 1.7: Madras Presidency : foreign exports by type of goods as percentage of total exports in each quinquennium during 1890-1900

Quinquennium	Farm produce	Plantation produce	Other raw materials	Artisan and factory goods
1891/2 - 1895/6	36.5	17.4	0.2	38.5
1896/7 - 1900/1	35.8	14.2	2.1	40.4

Source: As computed in Baker (1984:114) from ASFTI (GOI).

Notes : Farm produce : grain, fruit and vegetables, oilseeds, spices, raw cotton, raw tobacco, animals, dyes; Plantation produce : rubber, coffee, tea; Other raw materials : fish, raw hides and skins, timber, manure; Artisan and factory goods : sugar, twist and yarn, piecegoods, manufactured tobacco, oils, oilcake, coir, manufactured hides and skins.

The share of each trading block to the aggregate internal export trade shows that Bengal far exceeded others with more than one-third share in her credit (see Table 1.11). Next to Bengal was North Western Provinces and Oudh, till 1904-05. It is interesting to find that Central Provinces and Berar, Punjab, and North Western Provinces and Oudh, that is the prime commercial regions increased their respective shares in the national aggregate till 1904-05, which thereafter declined.

The trend growth rates of the volumes of imports into, and exports from the provinces (excluding the chief seaports), the Native States, and the chief seaports, during

1890/1 - 1920/1, is summarized in Table 1.9. The aggregate internal trade, in terms of the weights of commodities, increased at the trend rate of 4.22 per cent over the period of 32 years. However, for the provinces, the rates were different owing to various reasons.

Table 1.8: Madras Presidency : foreign imports by type of goods as percentage of total imports in each quinquennium during 1890-1900

Quinquennium	Food	Raw materials and intermediate goods	Fuels	Capital goods	Consumer goods
1891/2 - 1895/6	12.1	26.4	2.3	8.3	43.9
1896/7 - 1900/1	17.0	26.3	1.6	7.0	40.1

Source: As computed in Baker (1984 : 115) from ASFTI (GOI).

Notes : Food : grain, betel, provisions, sugar; Raw materials and intermediate goods : raw cotton, timber, iron and steel, other metals, twist and yarn, chemicals, dyes; Fuels : coal, fuel and other oils; Capital goods : building and engineering materials, machinery and millwork, railway plant, vehicles; Consumer goods : matches, kerosene, manure, instruments, drugs, hardware, liquor, tobacco, piecegoods, paper, glass.

The rate of growth of imports into the provinces of Bombay, Sind, Madras, North-Western Provinces and Oudh, Punjab, Central Provinces, and Assam was significantly greater than that of exports from each of the provinces. The discrepancies

between the rates of growth of imports into, and exports from Bengal (including Bihar and Orissa), and Central Provinces and Berar, were much less compared to others. Taking the British provinces as a whole, imports grew at the rate of 5.08 per cent compared to a lower rate of growth of exports, i.e., 4.44 per cent. This carries special significance as bulk of the trade of the provinces were carried with the port-cities, instead of being inter-provincial trade. On the other hand, in the Native States, except for Mysore, the trend of growth of imports and exports more or less balanced each other (Table 1.9).

The trend of inland trade of Calcutta port-city was quite different from others, viz., Bombay, Karachi and Madras. In contrast to others, Calcutta's exports to the rest of India grew at a faster rate than her imports. For the other port-cities, it was the imports which far exceeded the rate of growth of exports to the countryside. This is further corroborated by the accounts of the trade-balances of the provinces of Bengal, Bombay, Madras and Sind including that of the ports within the geographical boundaries of the provinces (Table 1.10). The three provinces other than Bengal consistently maintained excess of imports (in quantity) over exports, during 1890-1920. Bengal, on the other hand, had positive balance of trade since 1891-92 until Bihar and Orissa, as a province, was separated out in 1912. Thereafter the position reversed due to heavy imports of bulky coal and coke, metallic ores, and other minerals like marble and stone from the province of Bihar and Orissa into Bengal, in order to be exported abroad, in bulk mainly the metallic ores to U.K.) (see ASFTI, GOI).

Table 1.10: Commodity balance of trade (exports less imports) of the provinces (including the ports within the provinces) of Bengal, Bombay, Madras, and Sind in selected years during 1890 - 1920[1]

(in '000 maunds)

Year	Bengal	Bombay	Madras	Sind
1890-91	- 2192	- 17613	- 1047	- 6377
1895-96	3602	- 13485	- 1614	- 7210
1905-06	11315	- 29343	- 5032	- 5665
1910-11	40241[2]	- 50422	- 3997	- 27158
1915-16	- 95072[3]	- 85435	- 13350	- 31519
1920-21	-118034	- 92896	- 13391	- 32832

Source: RRTI, GOI.

Notes : 1) The exports from, and imports into the province to and from the port(s) within the geographical boundaries of the province have been deducted from the aggregate trade of the province and the port(s) together.

2) Eastern Bengal and Assam, and Chittagong formed two separate trade-blocks in the Source.

3) Since 1912-13, Bihar and Orissa formed a separate trade-block in the Source.

Madras's including ports) net importer status is primarily due to the foreign exports of the native states of Nizam's Territory and Mysore which passed through the Madras ports. Similarly, Sind's excess imports is largely explained by Punjab's exports via Karachi port. On the other

hand, Bombay used to import cotton in bulk, for her domestic use in mills as well as for foreign exports, from CP, UP, Rajputana and Central India.

The relative importance of the types of goods handled by a particular port assumes a different dimension in the port-hinterland trade, and thereby the growth of the hinterland. For instance, the imports of sugar from Mauritius did not have the same effect on the cultivation of sugar-cane in all the regions in British India. Likewise, the imports of British cotton piecegoods had differential impacts on the indigenous cotton manufacturing in various regions, depending on the marketing network of the port-city based export-import organizations.

From the data available in RRTI, GOI, 1890-1920 we define the hinterlands of the four major ports as :

Calcutta - Assam, Bengal, Bihar and Orissa, United Provinces of Agra and Oudh, and Central Provinces;

Bombay - Bombay Province, United Provinces, Punjab, Central Provinces, and the Native States;

Madras - Madras Province, Nizam's Territory, and Mysore;

Karachi - Punjab, Sind and Baluchistan.

The proportion of trade of the hinterlands to the aggregate inland trade handled by each port kept on changing. For instance, of the aggregate exports from Central Provinces and Berar to various tradeblocks, Calcutta's share increased during 1905 - 1920, while the latter's share in the aggregate imports into the former remained marginal. However, being hinterlands of both the Calcutta and Bombay ports, Central

Provinces and the United Provinces draw special attention as regards the nuances of the activities of the large trading organizations based in the two different port-cities.

The changing volume of trade of particular regions in the countryside with the different port-cities, could partly be explained in terms of the load-rates and other facilities offered by the different railways from time to time. Apart from specific general freight, normally, railways encouraged bulk loads, filling whole wagons. However, of the four major railways, i.e., East India, North-Western, Bengal-Nagpur, and the Great Indian Peninsula Railways, East Indian Railways offered special and low scale rates for grain, pulses and seeds on the load per wagon being not less than 380 maunds. The other three railways charged their lowest rates on actual weight (Ghose, 1911 : 51). The result was that, for instance, while small Indian dealers in Bombay were able to make direct shipments of grain, seeds, cotton, myrabolan etc. in small volumes, i.e., less than the full wagon-load and fetched special low rates from G.I.P., Railways, in Calcutta, it was the bigger firms only, most often controlled by Europeans, who could carry the grain and seeds trade. Ghose (1911 : 52-3) writes :

> 'In Calcutta, the grain and seeds trade is entirely in the hands of the bigger firms, and the dealers with a small capital can hardly think of trading in wheat or seeds, required in Calcutta either for local consumption or for export. 380 maunds of wheat would cost up-country at least Rs.900 .... so that a merchant must have about Rs.1000 to get a wagonload of wheat in Calcutta, providing also for railway freight. In Bombay, a petty dealer with a capital of say Rs.250, is free to bring about 75 maunds of wheat from up-country and sell the same to

> the shipping firms, paying the railway the same rate of freight as those bringing in car loads .... The smaller merchant is thereby enabled to avoid the commission agency charges or interest on a much larger sum of money, which a petty merchant in Calcutta would be required to borrow, at a high rate of interest, if he chose to trade in grain and seeds, the minimum quantity of which must be 380 maunds to get the benefit of the lowest rate of railway freight'.

The item-wise flow of principal articles from and to each tradeblock, as quoted in RRTI up to 1900 help us to understand the production - consumption pattern of each of the blocks. Since the development of the railway network, the cotton ginning and pressing factories started developing in the countryside under the patronage of the big exporting firms (Vicziany, 1979; Baker, 1984). Similarly, in the Madras Presidency groundnut was primarily processed in the countryside and then brought to the Madras ports (Baker, 1984). The green tea was not brought to Calcutta to be processed there, either. However, raw or tanned hides and skins was one of the principal exports of many of the tradeblocks to the Madras ports, to be processed there in bulk. Besides Madras, Kanpur was perhaps the only other centre where hides were processed mainly to meet the demands for boots and saddlery of the army.

It is found that Berar, Rajputana, Central India, and Punjab and UP all exported cotton piecegoods to other blocks. Nizam's Territory, however, mainly produced raw cotton and imported foreign piecegoods. But, in all the cotton cultivating regions, there was a significant inflow of mill-spun yarn, European and Indian. The inflow of foreign piecegoods was also quite substantial. In fact, while the

handloom weavers turned to mill-spun yarn they retained the advantage in the production of the most artistic and elaborate garments as well as in the most durable fabrics of very coarse cloth. For instance, Burhanpur (CP) scarves and saris made from cloth consisting of a warp made from flattened gold wire interwoven with silk and a weft of fine cotton were still bought by women for weddings and similar festivities; so were dupattas and saris made fom a mixture of silk and cotton with brilliant edgings and borders of silk and gold threads (Harnetty, 1991). The trade figures also show that Bombay's cotton piecegoods had limited indigenous market in the adjoining regions. In fact, indigenous piecegoods of UP, Rajputana and Central India, and Madras flowed into Bombay, in bulk. Bombay's cotton twist and yarn had high demand only in Madras apart from that within the province itself. In fact, the supply of yarn from the Empress Mills in Nagpur, which was the first mill in India to adopt the ring-spinning frames, to the adjacent regions was quite large. Mysore, as is evident from RRTI, might have developed the manufacturing of twist and yarn which found outlet in Madras. Exports of cotton piecegoods from Mysore was marginal, and she used to import those from Bombay and Madras.

Interestingly, while European cotton piecegoods was one of the major items of exports from Calcutta to its hinterland salt played that role for the Bombay and Madras ports.

Assam, as revealed in the trade statistics, did not have even rice mills and thus used to export the rice in the husk to Bengal in exchange of husked rice. She was exceptional in another respect too. Unlike others, Assam had

trade relations only with Bengal including Calcutta, and remained more or less isolated.

On the other hand, United Provinces of Agra and Oudh, Punjab, and the princely states of Rajputana and Central India formed a trade triangle which was quite significant at that time in terms of volume and diversity in traded goods as well. However, as percentage of the aggregate internal trade, the volume of trade in between the three blocks declined over time. A substantial part of the traded goods moved according to the seasonal supply-demand imbalance in foodgrains like rice, wheat, jowar and bajra, gram and pulse. That apart, UP imported European piecegoods, grain and pulse, raw skins of sheep etc., and salt from Punjab, and coal and coke, raw cotton, and salt from Rajputana and Central India. In exchange, UP exported rice, in which she was a major producer, refined and unrefined sugar, and indigenous cotton piecegoods in substantial volume to the other two regions. Although UP witnessed the early rise of a variegated production-base of consumer goods she became stagnant in the later period of development (Table 1.11).

It is further evident from Table 1.11 that the volume of exports of Bengal far exceeded others. This was partly due to the bulk weight of coal and coke, and metallic ores from the regions which later formed the province of Bihar and Orissa. During 1913-14 to 1920-21, the latter's share in the national aggregate exports was highest owing to the exports of coal, metallic ores, and other minerals like marble and stone. It is interesting to find that the Central Provinces including Berar also used to export metallic ores in bulk, more than twice the volume of

exports from Bihar and Orissa. Yet, both Bihar and Orissa and Central Provinces including Berar remained backward compared to many other regions.

In brief, the internal movements of agricultural and some of the manufactured goods in between the provinces do not clearly indicate any trend towards regional specialization during the period. While, for instance, the per capita availability of foodgrains varied significantly among the provinces the volume of interprovincial trade in grains and pulses remained more or less stagnant. Thus the regional specialization, as visualized by a few economic historians, was hardly evident. However, viewed from the perspective of Britain's imports of various goods from various regions in India, we witness certain regional location patterns. Prices and the market structure were such that the primary exportable producers' move towards specialization, depending on the regional conditions, only depressed their conditions of living, and ultimately they returned to a more or less uniform crop-mix across all the regions (see, in this connection, McAlpin, 1974). Further, the economies of many of the regions in the countryside which once showed, although for a brief period, signs of progress could not sustain the rate of growth, or even got retarded, thus failing to achieve economic transformation. The corporate trading network with the 'nucleus' in the port-cities reduced internal trade to a largely one-way traffic of resources including capital to the port-cities, and thus reduced greatly the income multiplier effect of the trade in the hinterlands (Banerjee, 1988).

* * *

/ I am grateful to Amiya Bagchi and Saugata Mukherji for their valuable comments and suggestions on the earlier draft, though neither should be held responsible for any of the interpretations advanced. /

Table 1.9

Trend rate of growth (%) of imports and exports during 1890-1920

Trade Block	EXPORTS			IMPORTS		
	Growth rate	r2	t-statistic	Growth rate	r2	t-statistic
British Provinces (ex. chief seaports):						
Bengal	5.46	0.9184	18.710	5.67	0.7332	9.283
Bombay	3.00	0.8156	11.754	5.31	0.8561	13.761
Sind	2.82	0.6532	7.707	6.64	0.7804	10.543
Madras	3.66	0.8581	13.728	4.81	0.9200	18.907
N.W-P.& Oudh	2.57	0.4680	5.317	3.84	0.8416	12.874
Punjab	3.76	0.6241	7.243	6.29	0.9079	17.509
C.P. & Berar	3.23	0.7318	9.251	3.83	0.8548	13.546
Assam	2.56	0.0690	1.815*	3.74	0.1076	2.177
TOTAL:	2.56	0.6939	8.443	4.79	0.9163	18.444
Native States : Rajputana & Central India	3.67	0.7732	10.330	3.90	0.7852	10.692
Nizam's Territory	4.52	0.9249	19.561	4.74	0.7950	11.009
Mysore	1.01	0.3311	4.043	2.69	0.8117	11.602
TOTAL:	3.79	0.8825	15.289	3.74	0.8582	13.736
Chief Seaports:						
Calcutta	3.44	0.8393	12.764	2.90	0.7037	8.638
Bombay	2.97	0.6968	8.499	4.43	0.7284	9.173
Karachi	3.54	0.2488	3.357	5.00	0.5508	6.245
Madras ports	3.75	0.8963	16.399	4.31	0.9160	18.417
TOTAL:	3.39	0.8240	12.090	3.57	0.8760	14.832
GRAND TOTAL	4.22	0.9484	23.873			

Source: Computed from RRTI (GOI).

Notes :
1) Bengal includes Bihar and Orissa.
2) Trend growth rates are calculated using: $Y = a+bt$, and $g = b/y$.
3) (*) denotes significant at 5% level.
4) The results for Assam are poor due to merging of data of Eastern Bengal with Assam in 5 years, in the Source.

Table 1.11

Percentage of exports of each of the trading blocks to the aggregate exports in internal trade, 1889-1920 (Average of four years)

Trade block	1889-90 to 1892-93	1893-94 to 1896-97	1897-98 to 1900-01	1901-02 to 1904-05	1905-06 to 1908-09	1909-10 to 1912-13	1913-14 to 1916-17	1917-18 to 1920-21
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Bengal	34.2	34.7	39.9	37.7	38.9	33.4	19.1	19.5
Bombay	6.7	7.0	5.0	4.9	4.9	4.5	4.8	4.5
Sind	2.2	2.1	1.6	1.9	1.8	1.3	1.5	1.5
Madras	4.9	4.9	5.2	5.3	5.1	4.9	4.6	4.2
N.-W.P. & Oudh	9.6	7.7	10.5	11.1	5.9	7.8	5.9	6.2
Punjab	6.5	7.8	4.7	7.7	7.2	6.9	6.0	5.9
CP & Berar	7.1	5.4	4.4	5.2	4.7	4.7	4.6	4.4
Assam	3.5	2.9	2.1	2.6	2.0(1)	-	1.3	1.5
Bihar & Orissa	-	-	-	-	-	27.2	28.8(2)	31.0
Eastern Bengal & Assam	-	-	-	-	6.0(3)	6.4(4)	-	-
Chittagong	-	-	-	-	0.6(5)	-	-	-
Raj. & CI	4.1	4.4	3.4	3.0	2.7	3.2	3.5	3.3
Nizam's Territory	1.7	2.4	2.7	2.7	2.8	2.5	2.7	2.4
Mysore	1.2	1.1	0.9	0.6	0.8	0.6	0.6	0.6
Chief Seaports:								
Calcutta	8.8	9.5	8.8	7.5	8.6	7.7	8.0	6.9
Bombay	5.1	4.6	5.6	4.7	4.8	4.5	3.7	3.6
Karachi	1.2	1.5	1.1	1.6	3.1	2.1	1.5	0.9
Madras	3.1	3.7	4.0	3.5	3.1	3.3	3.1	3.2

Source: Computed from the Rail and River-borne Trade of India, GOI.

Notes :
(1) for 1905-06 only;
(2) for 1912-13 only;
(3) for 3 years during 1906/07-1908/09;
(4) for 2 years during 1909/10-1910/11;
(5) for 5 years during 1906/07-1910/11.

Notes

1. Since data were collected only for provinces and presidencies, our classification of the regions would coincide with these political boundaries. Although such a classification of regions is rather crude and does not obey any simple economic or ecological criteria, distinct differences in production and trade patterns can be discerned in the data collected by official agencies.

2. Transit duties were levied upon various articles of commerce and collected at specified stations within the country. Town duties were but transit duties levied upon a number of articles on their entrance to the towns.

3. Custom-house post.

4. For a detailed study on the 'discriminatory' schemes of duties, see Trevelyan, 1835.

5. Mishra (1983) has criticised both Heston, and Dewey's attack on Blyn as one-sided and biased view of the historical material on hand. He suggests that while the collection of various kinds of data in the British period left much to be desired, agricultural statistics can still be used with care.

6. Section 2 of the Act is as follows : "The primary standard of weight shall be called a Seer, and shall be a weight of metal in the possession of the Government of India, equal, when weighed in vacuum, to the weight known in France as the Kilogramme des Archives".

7. Mody (1982) has also studied the spatial dispersion of foodgrain prices during the period 1897-1933 with the data available in the Statistical Abstracts of British India, GOI. He has refuted the hypothesis of convergence of prices or, in other words, the integration of the internal markets. In the case of wheat, which being the most commercialized of the supply, the spatial dispersion of prices was most clearly evident.

References

Abbreviations used:

CEHI : Cambridge Economic History of India
CUP : Cambridge University Press
GOI : Government of India
IESHR : Indian Economic and Social History Review
OUP : Oxford University Press

Ali, I. (1988). The Punjab under Imperialism, 1885-1947. Delhi: OUP.

Bagchi, A.K. (1972). Private Investment in India, 1900-1939. Cambridge : CUP.

----, (1989). The Presidency Banks and the Indian Economy, 1876-1914. Calcutta : OUP.

Baker, C.J. (1984). An Indian Rural Economy, 1880-1955 : The Tamilnad Countryside. Delhi : OUP.

Baldwin, G.B.(1959). Industrial Growth in South India. Glencoe.

Banerjee, D. (1988). Some Quantitative Aspects of the Changes in Manufacture in India, 1880-1900. CSSSC, Occasional Paper No.101.

Banerjee, T. (1966). Internal Market of India, 1834-1900. Calcutta : Academic Publishers.

----, (1972). History of Internal Trade Barriers in British India, Vol.I : Bengal Presidency (1765-1836). Calcutta : The Asiatic Society.

Bayly, C.A. (1983). Rulers, Townsmen and Bazaars : North Indian Society in the Age of British Expansion, 1770-1870. Cambridge : CUP.

Bhattacharya, S. (1983). Eastern India in D. Kumar (ed.), CEHI, Vol.2.

Blyn, G. (1966). Agricultural Trends in India, 1891-1947. Philadelphia : University of Pennsylvania Press.

Buchanan, D.H. (1934). The Development of Capitalistic Enterprise in India. New York : Macmillan.

Chaudhuri, K.N. (1983). Foreign Trade and Balance of Payments: 1757-1947, in D. Kumar (ed.), CEHI, Vol.2.

Chaudhuri, K.N. and C.J. Dewey (eds.) (1979). Economy and Society : Essays in Indian Economic and Social History. Delhi : OUP.

Cumberlege, N.R. (1882). Some Account of the Banjarrah Class. Bombay.

De, B. et.al. (eds.). (1976). Essays in Honour of Professor S. C. Sarkar. New Delhi : People's Publishing House.

Derbyshire, D. (1987). Economic Change and the Railways in North India, 1860-1914. Modern Asian Studies, 21(3).

Dewey, C. (1974). The Agricultural Statistics of the Punjab, 1867-1947. Bulletin of Quantitative and Computer Methods in South Asian Studies, March.

Ghose, S.C. (1911). Indian Railways and Indian Trade. Calcutta : Bose Library.

Gover, C.E. (1865) Indian Weights and Measures : Their Conditions and Remedy. Madras.

Government of Bengal (GOB), Report on the Rail-borne Traffic in Bengal, various issues, Calcutta.

Government of India (GOI), (ASFTI), Department of Commercial Intelligence and Statistics, Annual Statement of (the Seaborne) Trade (and Navigation) of British India (with Foreign Countries), (author and title vary), various dates. Calcutta.

GOI, Census, 1901, Vol.I-A, Part II, Calcutta.

GOI, (RRTI), Department of Statistics, Accounts relating to the Trade Carried by Rail and River in India, various dates. Calcutta.

GOI, Director General of Statistics, Prices and Wages in India, Calcutta.

GOI, (1914), Report of the Weights and Measures Committee, 1913-14. Simla : Central Press.

GOI, Statistical Abstract for British India, various dates.

Harnetty, P. (1991), 'Deindustrialization' Revisited : the Handloom Weavers of the Central Provinces of India, c.1800-1947. Modern Asian Studies, 25(3).

Heston, A. (1978). A Further Critique of Historical Yields Per Acre in India. IESHR, Vol.15(2).

Hurd, J. II. (1975). Railways and the Expansion of Markets in India, 1861-1921. Explorations in Economic History, July, 12(3).

Hurd, J.M. (1983). Railways in D. Kumar (ed.), CEHI, Vol.2.

Kessinger, T.G. (1983). North India in D. Kumar (ed.), CEHI, Vol.2

Latham, A.J.H. and L. Neal (1983). The International Market in Rice and Wheat, 1863-1914. Economic History Review, May, 36(2).

McAlpin, M.B. (1974). Railroads, Prices, and Peasant Rationality : India, 1860-1900. Journal of Economic History, September, 34(3).

McAlpin, M. (1983). Price Movements and Fluctuations in Economic Activity, 1860-1947. in D. Kumar (ed.), CEHI, Vol.2.

Mishra, S.C. (1982). Commercialization, Peasant Differentiation and Merchant Capital in Late Nineteenth Century Bombay and Punjab. Journal of Peasant Studies, 10(1).

Mishra, S.C. (1983). On the Reliability of Pre-Independence Agricultural Statistics in Bombay and Punjab. IESHR, Vol.20(2).

Mishra, S.C. (1985). Agricultural Trends in Bombay Presidency, 1900-1920: The Illusion of Growth. Modern Asian Studies, 19(4).

Mody, A. (1982). Population Growth and Commercialization of Agriculture : India, 1890-1940. IESHR, Vol.19(3 & 4).

Mukherjee, R. (1939). Agricultural Marketing. in idem (ed.), Economic Problems of Modern India, Vol.I, London, Macmillan.

Mukherji, S. (1971). Trade in Rice and Jute in Bengal : Its Effect on Prices, Cultivation and Consumption of Two Crops in early 20th century : 1900/01-1920/21. unpublished Ph.D. thesis, Jadavpur University.

---, (1976). Imperialism in Action through a Mercantilist Function. in B. De, et.al. (eds.). Essays in Honour of Prof. S.C. Sarkar.

Nagaraj, K. (1985). Marketing Structure for Paddy and Arecanut in South Kanara. in K.N. Raj, et.al. (eds.) Commercialization.

Raj, K.N., N. Bhattacharya, S. Guha and S. Padhi (eds.). (1985). Essays on the Commercialization of Indian Agriculture. Delhi : OUP.

Rao, G.N. (1978). Political Economy of Railways in British India, 1850-1900. Artha Vijnana, December, 20(4).

Rungta, R.S. (1970). The Rise of Business Corporations in India : 1851-1900. Cambridge : CUP.

Sanyal, N. (1939). Communications and Transport. in R. Mukherjee (ed.). Economic Problems.

Trevelyan, C.E. (1835). Report upon the Inland Customs and Town Duties of the Bengal Presidency, 2nd edn. Calcutta : Baptist Mission Press.

Tripathi, A. (1956, 1979). Trade and Finance in the Bengal Presidency, 1793-1833. Calcutta : OUP.

Twomey, M.J. (1983). Employment in Nineteenth Century Indian Textiles. Explorations in Economic History, 20.

Van Leur, J.C. (1955). Indonesian Trade and Society : Essays in Asian Social and Economic History, The Hague.

Vicziany, M. (1979). Bombay Merchants and Structural Changes in the Export Community, 1850-1880 in K.N. Chaudhuri and C.J. Dewey (eds.). Economy and Society.

* * * * *

PUBLICATIONS OF
CENTRE FOR STUDIES IN SOCIAL SCIENCES, CALCUTTA

PROCEEDINGS OF CONFERENCES & SEMINARS

1. Change and Choice in Indian Industry, ed. by Amiya K. Bagchi and Nirmala Banerjee (Calcutta, K.P. Bagchi & Co., 1981).

2. Tribal Polities and State Systems in Pre-Colonial Eastern and North Eastern India ed. by Surajit Sinha (Calcutta, K.P. Bagchi & Co., 1987).

3. The Indian Nation in 1942, ed. by Gyanendra Pandey (Calcutta, K.P. Bagchi & Co., 1988).

PERSPECTIVES IN SOCIAL SCIENCES

1. Historical Dimensions (Calcutta, Oxford University Press, 1977).

2. Three Studies on Agrarian Structure in Bengal, 1850-1947 (Calcutta, Oxford University Press, 1982).

3. Economy, Society and Polity Essays in Honour of Professor Bhabatosh Datta (Calcutta, Oxford University Press, 1988).

ABSTRACTS OF ARTICLES

Abstracts of all articles written by CSSSC academic staff :

I. 1973-1977 (CSSSC, 1979)
II. 1977-1980 (CSSSC, 1981)

1. SUNIL MUNSI : Geography of Transportation in Eastern India under the British Raj, Calcutta, K.P. Bagchi & Co., 1980.

2. NIRMALA BANERJEE : Demand for Electricity, Calcutta, K.P. Bagchi & Co. 1979.

3. SOBHANLAL DATTA GUPTA : Comintern, India and the Colonial Question : 1920-1937. Calcutta, K.P. Bagchi & Co., 1980.

4. PARTHA CHATTERJEE : Bengal 1920-1947, The Land Question. Calcutta, K.P. Bagchi & Co., 1984.

5. সুধীর চক্রবর্তী : কৃষ্ণনগরের মৃৎশিল্প ও মৃৎশিল্পী সমাজ (কলিকাতা, কে. পি. বাগচী এ্যান্ড কোং, ১৯৮৫)

6. বিনোদরঞ্জন দাশগুপ্ত : বাংলা কীর্তনের ইতিহাস (কলিকাতা, কে. পি. বাগচী এ্যান্ড কোং, ১৯৮৯)

7. দেবেশ রায় : উপনিবেশের সমাজ ও বাংলা সাংবাদিক গদ্য : উনিশ শতকের প্রথমার্ধ নিয়ে কিছু অনুধ্যান (কলিকাতা, প্যাপিরাস, ১৯৯০)

8. AMALENDU GUHA : Medieval and Early Colonial Assam : Society, Polity, Economy, Calcutta, K.P. Bagchi & Co., 1991.

PUBLIC LECTURES

R.C. Dutt Lectures on Political Economy
(Published by Orient Longman, Calcutta)

1.	ASHOK MITRA	: Terms of Exchange and Accumulation : The Soviet Debate. 1977.
2.	KRISHNA BHARADWAJ	: Classical Political Economy and Rise to Dominance of Supply and Demand Theories. 1978.
3.	B.N. GANGULI	: Some Aspects of Classical Political Economy in the Nineteenth Century Indian Perspective. 1979.
4.	I.S. GULATI	: International Monetary Development and Third World : A Proposal to Redress the Balance. 1980.
5.	V.M. DANDEKAR	: Peasant-Worker Alliance : Its Basis in the Indian Economy. 1981.
6.	SUKHAMOY CHAKRAVARTY	: Alternative Approaches to a Theory of Economic Growth : Marx, Marshall and Schumpeter. 1982.
7.	AMIT BHADURI	: Domination, Deterrence and Counterforce : An Analysis of Strategic Objectives and Doctrines in the Superpower Arms Race. 1985.
8.	ASHOK RUDRA	: Some Problems of Marx's Theory of History, 1988.
9.	PRABHAT PATNAIK	: Time, Inflation and Growth : Some Macro-economic Themes in an Indian Perspective. 1988.

10. A. VAIDYANATHAN : India's Agricultural Development in a Regional Perspective, 1988.

11. KANTA RANADIVE : The Political Economy of Poverty, 1990.

S.G. Deuskar Lectures on Indian History and Culture

(Published by K.P. Bagchi & Co., Calcutta)

1. MAHESWAR NEOG : Socio-Political Events in Assam Leading to the Militancy of the Mayamariya Vaisnavas. 1982.

2. SUMIT SARKAR : 'Popular Movements' & 'Middle-Class' Leadership in Late Colonial India : Perspectives and Problems of a History from Below. 1983.

3. SATISH CHANDRA : The 18th Century in India : Its Economy and the Role of the Marathas, the Jats, the Sikhs and the Afghans. 1986.

4. TAPAN RAYCHAUDHURI : Three Views of Europe from Nineteenth Century Bengal. 1987.

5. ROMILA THAPAR : The Mauryas Revisited. 1987.

6. RANAJIT GUHA : An Indian Historiography of India : A Nineteenth-Century Agenda and its Implications. 1988.

7. BIMAL KRISHNA MATILAL : Confrontation of Culture, 1988.

8. BRAJADULAL CHATTOPADHYA : Aspects of rural settlements and Rural Society in Early Medieval India, 1990.

9. HIREN GOHAIN : The Idea of Popular Culture in the Early Nineteenth Century Bengal, 1991.

76. Trends of Change in the Bhakti Movement in Bengal.
HITESRANJAN SANYAL

77. Forestry and Social Protest in British Kumaun, C 1823-1921
RAMACHANDRA GUHA

78. Class Community and Nationality Formation ; A Theoretical Exploration Through Two Case Studies.
JAVEED ALAM

79. The Cotton Mill Industry of Eastern India in the Late Nineteenth Century
BHUBANES MISRA

80. Christian Missionaries and Labour Migration to Assam Tea Gardens in Colonial Times.
RAMKRISHNA CHATTERJEE

81. Scepticism and Mysticism in Indian Philosophy.
BIMAL KRISHNA MATILAL

82. Wastelands Colonization Policy and the Settlement of Ex Plantation Labour in the Brahmaputra Valley : A Study in Historical Perspective.
KEYA DASGUPTA

83. Tramworkers of Calcutta : Some Reflections on Unionisation and Political Experience 1920 to 1930.
SIDDHARTHA GUHA RAY

84. The Decline of the Ahom Kingdom of Assam 1765-1826.
AMALENDU GUHA

85. Indian National Congress and the Indian Bourgeoisie : Liaquat Ali Khan's Budget of 1947-48.
RAGHABENDRA CHATTOPADHYAY

86. Engineering Research Institute, Technology Development and Economic Growth : A Case Study
UTTAM KUMAR BHATTACHARYA

87. Unevenness of development in a national economy A case study of West Bengal Industries.
DEBDAS BANERJEE

88. An Early British Government Initiative in the Genesis of Indian Planning.
RAGHABENDRA CHATTOPADHYAY

89. The Tebhaga Movement in Bengal, 1946—47.
SATYAJIT DASGUPTA

90. Peasants, Natural Resource Use and State Intervention in Nanchilnadu, C. 1850—1940.
M.S.S. PANDIAN

91. Poverty and Sex Ratio—Some Data and Speculations.
N. KRISHNAJI

92. Dhanbad, Exception or Model.
GERARD HEUZE

93. Nationalism as a Binding Force : The Dialectics of the Historical Course of Nationalism—I
BARUN DE

94. The Nationalist Resolution of the Women's Question
PARTHA CHATTERJEE

95. Gramsci's Concept of Commonsense : Towards a Theory of Subaltern Consciousness in Hegemony Processes.
ARUN K. PATNAIK

96. Industrialization to Indigenization : A Study on Cultural Reformulation of a Tribe in Orissa.
GOVINDA CHANDRA RATH

97. Technological Self-reliance and underdevelopment.
AMIYA KUMAR BAGCHI

98. An Appraisal of the Indo-British Commodity Trade : 1871-1887 (*Journal of Development Studies*, Vol. 26, No. 2, January, 1990).
DEBDAS BANERJEE

99. Feminist Literary Criticism :A New Look at Old Things.
SANJUKTA DAS

100. The Local State and Rural Policies : A Study of Digapahandi Block 1957—1983.
ARUN K. PATNAIK

101. Some Quantitative Aspects of the Changes in Manufacture in India 1880—1900.
DEBDAS BANERJEE

102. Agricultural Price Policy : A Survey with Reference to the Indian Foodgrain Economy.
N. KRISHNAJI

103 The Story of Kassimbazar : Silk Merchants and Commerce in the Eighteenth Century.
RILA MUKHERJEE

104. The Mentality of Subalternity : Kantanama or Rajdharma.
GAUTAM BHADRA

105. Keynes, India the Gold Standard (Dipak Banerjee (ed.) *Essays in Economic Analysis and Policy : A Tribute to Bhabatosh Datta*, OUP, Delhi, 1991)'
AMIYA KUMAR BAGCHI

106. Representation and Class Politics in the Theatre of Utpal Dutt.
HIMANI BANERJEE

107. The Stricture of Structure or the Appropriation of Anthropological Theory (*Review*, Vol. XIV, No. 1, Winter 1991)

ANJAN GHOSH

108. Bankimchandra and the Making of Nationalist Consciousness I : Signs of Madness.

SUDIPTA KAVIRAJ

109. Bankimchandra and the Making of Nationalist Consciousness II : The Self Ironical Tradition.

SUDIPTA KAVIRAJ

110. Bankimchandra and the Making of Nationalist Consciousness III : A Critique of Colonial Reason.

SUDIPTA KAVIRAJ

111. Caste and Subaltern Consciousness (in Ranajit Guha (ed.) *Subaltern Studies*, VI, Delhi, OUP 1989).

PARTHA CHATTERJEE

112. The Limits of 'Economic Man' (Dipak Banerjee ed. *Essays in Economic Analysis and Policy : A Tribute to Bhabatosh Datta*, OUP, Delhi, 1991).

ASOK SEN

113. Technological Diffusion : A Study Based on Indian Agriculture.

INDRANI GHOSH

114. Trends in Peasant Indebtedness and Dispossession : West Bengal Districts (1901-41).

MANOJ KUMAR SANYAL

115. Peasant Indebtedness and Dispossession : A Study in the Registered Debt and Sale of Land in West Bengal Districts (1901-41).

MANOJ KUMAR SANYAL

116. Problems of the Study of Indian History : With Particular Reference to Interpretation of the 18th Century. (Presidential Address of the Indian History Congress, Dharwar Session, Proceedings Volume, 1988).

BARUN DE

117. The Decline of India's Cotton Handicrafts : 1800-1905 a Quantitative Macro-Study.

AMALENDU GUHA

118. Reification of Intellect.

ARUN K. PATNAIK

119. Public Sector Industry and the Political Economy of Indian Development.

AMIYA KUMAR BAGCHI

120. Is there any Transfer Burden of Debt ? (*Economic and Political Weekly*, June 16-23, 1990, Vol. 25, No. 24-25).

PRABIRJIT SARKAR

121. New Technology in Indian Newspaper Industry—A Critical Appraisal.

RANABIR SAMADDAR

122. The Chandernagore—Jugdia Letters : A Look at the Feic's East Bengal Trade from 1750 to 1753.

RILA MUKHERJEE

123. Some Aspects of the Policy on Technical and Industrial Education in India under Colonial Rule : From late Nineteenth Century to Independence.

SAUGATA MUKHERJI

124. Silk Production in West Bengal : A case of Stunted Commercialization.

DEBDAS BANERJEE

125. The Slave of Ms. H. 6

AMITAV GHOSH

126. The Lengthening Shadow of New Technology Over The Institutionalised Process of Wage Settlement.

RANABIR SAMADDAR

127. The Bindery Workers of Daftaripara : 1. Forms and Fragments

ASOK SEN

128. The Bindery Workers of Daftaripara : 2. Their own life-stories.

ASOK SEN

129. Sepoy Mutiny and the Uprising of 1857 in Bundelkhand.

TAPTI ROY

130. Theories of Worsening North-South Terms of Trade from Prebisch-Singer to Emmanuel : A Survey and Synthesis (Helena Lindholm (ed.) *International Political Economy, Padrigu Papers*, 1992).

PRABIRJIT SARKAR

131. On The Political Economy of the Choice of a Trade Regime.

AMIYA KUMAR BAGCHI

132. Bengali Novel . Readings From Old Narrative Literature.

DEBES ROY

133. Poverty, Work and Gender in Urban India

NIRMALA BANERJEE

134. Land Tax, Property Rights and Peasant Insecurity in Colonial India.

AMIYA KUMAR BAGCHI

135. Some Socio-Political Implications of The Cognomen 'Tipu Sultan'.

BARUN DE

136. Development and Women : Some Experience of The Mulberry Silk Production in West Bengal.

DEBDAS BANERJEE