Pattern of Industrial Growth in West Bengal during 1980-1991: Structural Demand and Agriculture-Industry Relations

Abstract

For the period 1980-1991, we can clearly identify three trends in the industrial development of West Bengal – a secular relative decline in terms of employment and value added in manufacturing industries vis-à-vis other states, an ancillarization and flexibilization of production into small-scale factories with less than 20 workers, and a differential impact of this ancillarization on basic goods and consumer goods industries, with the former performing much better than the latter. Viewed through the theoretical lens of structural demand and agriculture-industry relations, the stagnation of consumer goods industries during this period poses a puzzle, considering the spectacular growth of agricultural output during the 1980s. I suggest that tying together three factors – the impact of the 'Green Revolution' on West Bengal's agriculture, the nature and effect of the Left Front's land reforms, and the role of rural commercial capital, can in turn hold together three outcomes in a single explanation – high agricultural growth, mass poverty among the rural poor and the poor growth of consumer goods industries during 1980-1991.

1. Introduction

In 1946, on the eve of India's independence from British rule, the state of West Bengal ranked first among all states in terms of total employment in manufacturing industries and was second only to the Bombay presidency in terms of value added in manufacturing (Table 1).

Table 1: Registered Factories and Factory Employment in Major Indian Provinces

Year 1946	No. Of Registered Factories	Total No. Of Employees	Value Added (Rs. Crore)
West Bengal	1218	509120 (33.62)	57.32
Bombay	959	500267 (33.03)	87.66
Madras	1244	144931 (9.57)	15.25
Uttar Pradesh	559	166763 (11.01)	21.71
Bihar	316	93523 (6.18)	19.66

Note: Figures in brackets give percentages of the all-India totals
Source: Dasgupta (1998)

Four decades later, in 1987, it was ranked fourth in terms of employment and fifth in terms of net value added, accounting for only 8.9% of the all India net value added for organized industries[1] (Table 2). This trend continued up to the mid to late 1990s. By 1997, West Bengal's share in the all India net value added for manufacturing industries was down to 6.63% (Table 2) and the state was just marginally ahead of the underdeveloped province of Bihar (Table 2). From the mid-1970s up to the mid 1990s, this trend was also accompanied by the large-scale flexibilization and ancillarization of production into small-scale units (less than 20 workers), usually manned by contractual labour (Raychaudhuri and Chatterjee 1998). The third and final trend during 1980-1991 was a differential impact of this ancillarization on basic goods and consumer goods industries, with the former performing much better than the latter (Table 4).

Table 2: Total Employment[2] and Net Value Added in Manufacturing Industries for Major Indian States

	1987 (Factory[3] Sector)		1997 (Factory Sector)	
	Total Employment	Net Value Added (Rs. Thousands)	Total Employment	Net Value Added (Rs. Thousands)
West Bengal	1469268 (9.5)	50184221 (8.9)	1664114 (8.7)	194900098 (6.63)
Maharashtra	2442570 (15.8)	124000000 (22)	3072348 (16.1)	678000000 (23)
Gujarat	1343370 (8.7)	57600000 (10.2)	1754506 (9.2)	284000000 (9.7)
Andhra Pradesh	1425724 (9.2)	24500000 (4.3)	2396570 (12.5)	235000000 (8)
Karnataka	775958 (5.1)	26400000 (4.7)	556432 (3)	73500000 (2.5)
Tamil Nadu	1767624 (11.4)	56300000 (9.9)	2544150 (13.3)	265000000 (9)
Uttar Pradesh	1505284 (9.7)	51900000 (9.2)	1535238 (8)	284000000 (9.7)
Bihar	773270 (5)	38100000 (6.6)	545640 (2.9)	187000000 (6.4)
India	15458228	564000000	19099755	2940000000

Note: Figures in brackets are percentages of the all-India totals
Source: Calculated from Annual Survey of Industries

In this paper, I seek to understand the *nature* and *causes* of this *pattern* of industrial growth that West Bengal witnessed during 1980-1991. Specifically, I focus on the importance of structural demand and agriculture-industry relations. Through a review of two literatures – the large literature on land-reform and agricultural growth on the one hand and the relatively smaller literature on West Bengal's industrialization on the other, I suggest that combining their respective insights can help us understand the overall trajectory of the state's industrial development during 1980-1991. The paper is organized as follows. In the next section, I motivate the adoption of the lens of structural demand and offer a typology of industries in West Bengal based on the markets they *primarily* cater to. Section 3 builds on this typology to argue that *if the role of demand is acknowledged*, then the pattern of industrial growth during 1980-1991 poses a puzzle that has not been adequately answered in the existing literature. In section 4, I offer a possible solution to this puzzle in terms of agriculture-industry relations by drawing on the

literature on land reform and agricultural markets in West Bengal. The conclusion briefly summarizes the main argument.

2. Structural Demand and its Sources: A Typology of Industries for West Bengal

Going against the argument that the period of planned interventionist industrialization in India (1951-1991) failed due to inefficiencies on the supply side, a number of critics on the Left focused on the issue of structural demand during the 1970s (Bagchi 1970; Patnaik 1972; Mitra 1977), thereby raising the question of the relationship between income distribution and growth. In analyzing the consequences of worsening income inequality for industrial growth, they also brought to the fore the more specific issue of agriculture-industry relations.

Chaudhuri (1998) provides a succinct summary of this literature, which emphasizes that worsening income distribution, by reducing the purchasing power of the majority of the population, can slow down the growth of industries. There can be many ways to conceptualize the specific manner in which this occurs. Here I briefly discuss three of the most influential formulations.

First, Bagchi (1970) analyzed income distribution in the context of the import-substitution-industrialization (ISI) strategy. He argued that without a change in property relations, even an ISI strategy would end up with severe problems. Specifically, if income inequality worsens owing to structural exploitation, the demand for mass consumer goods from lower income groups falls. This results in excess capacities in the relevant industries and also in the capital goods industries catering to them. Therefore, further investment and growth in these areas is discouraged. Moreover, this problem is not solved by the rising incomes of the rich, who demand increasing amounts of either luxury goods or imported goods.

Second, Mitra (1977) argued that the vast improvement in the terms-of-trade (TOT) of agriculture vis-à-vis industry from the early 1960s to the mid-1970s was due to a political arrangement entered into by the urban bourgeoisie and the rural oligarchy. Minimum prices as well as the administered prices for agricultural commodities, particularly those products where surplus-producing rich farmers were the majority, were repeatedly raised. This meant that the urban workers as well as the poor net-food-consuming agricultural workers suffered from higher food costs. The final result was industrial stagnation due to adverse movements in both demand and supply factors. Rising prices of food reduced demand for manufactures among both rural and urban workers whereas high prices of raw materials eroded profitability of many agro-based industrial units.

Finally, whereas Mitra conceptualized agriculture-industry relations in terms of the politically motivated network of administered prices, Patnaik (1972) emphasized the more direct link between agricultural growth (and incomes) and industry. In his model, Patnaik argued that a slowly growing agriculture can impose limits on industrial growth,

since the former implies rising food prices, lower real wages and lower consumer demand. The government, fearing accelerated inflation, may also reduce its investment, thereby precipitating a slump. In more concrete terms, Raj (1976) argued that despite the 'Green Revolution', the overall rate of growth in agriculture remained modest and this affected industrial growth from the demand side by reducing agricultural incomes and on the supply side by slowing down the supply of raw materials to agro-based industries.

These studies focused on the overall Indian experience. Their analysis emphasized the crucial importance of markets and aggregate demand for industrial expansion. Before I explain why focusing on the specific experience of West Bengal from the lens of structural demand poses a puzzle for the period 1980-1991, it needs to be noted that consumption demand and private investment are only a part of aggregate demand. Exports and government expenditure are also components of demand that may sometimes be able to compensate for the lack of direct consumer expenditure. In fact, Chandrasekhar (1988), among others, has argued that expansion in government expenditure was a major factor behind the modest all-India industrial recovery during the late 1970s and early 1980s. Although the argument ran that the government expansion could not be sustained as it was based on external borrowing that led to a balance-of-payments crisis, the existence of the government and external markets as sources of demand does mean that we need a workable typology of industries to better understand the *pattern* of industrial growth in West Bengal during 1980-1991.

Developing such a typology is not straightforward however, since industries do not serve either foreign or local markets exclusively. There is also no reliable data source on the final destination of goods produced within West Bengal. Moreover, the state inherited many industries from the colonial era, which may have changed their sales patterns after independence to a considerable degree[4]. Nevertheless, based on the existing literature on both aggregate figures as well as disaggregated analyses of particular industries (most notably jute), the following classification can be used as a starting point for analyzing the observed pattern of industrial growth.

(i) **Export-oriented (Colonial)** – This group of industries includes the ones developed during the colonial period that depend on foreign markets for a sizeable part of their demand. The two most obvious examples I will refer to are tea and jute.

(ii) **Basic** – This group includes industries such as iron and steel, coal, engineering and petrochemicals. Whereas some of these took off during the colonial period (coal), others were established during the early days of planned industrialization, such as the iron and steel plant at Durgapur and the engineering units at the Howrah Industrial Complex. Still others, such as petrochemicals, have grown to prominence only during the last two and a half decades. Nevertheless, what these industries have in common is that the bulk of their demand comes from the government or from other industries. In short, they do not depend directly on final consumer markets for demand, although indirectly they might.

(iii) **Consumer Goods** – This includes industries that produce for direct sale in final markets. In West Bengal, these have included paper, bicycles, electronic goods and garments, among others. In terms of the arguments regarding the importance of agricultural development to industrial growth, it is this group of industries that is likely to be most relevant. In other words, the level of purchasing power in the home market, highly likely to be influenced by agricultural growth and incomes, is most likely to immediately impact the demand for this group of industries.

(iv) **Export-oriented (New)** – Finally, there is a group of new industries that have grown since the early to mid-1990s and cater to a large extent to global markets. The key example here is leather and leather products, wherein West Bengal accounts for 13.5% of India's exports (IBEF 2011). Although the leather industry has really taken off *after* the period under consideration in this paper, its inclusion here is warranted on the grounds that it strengthens the arguments made in sections 3 and 4.

Thus, we see that adopting the lens of structural demand allows us to emphasize the importance of both local and global demand in West Bengal's industrial development. It enables us to revisit the link between distribution and growth, with an emphasis on agriculture-industry relations for the growth of consumer goods industries. Finally, we must not forget that the creation of an industrial base through agricultural development was an explicit policy aim of the Left Front (LF) government in West Bengal when it embarked on its land reform programs in 1978. Instead of focusing on reviving several 'sick' industrial units, the LF in its early days resolved to focus on agrarian reform that would improve rural income levels and create the basis for broad-based industrial growth (Das and Mahmood 2015). Crucially, the LF's policy turn towards industrialization in 1994, ultimately leading to forcible land acquisitions at Singur and Nadigram and the government's demise, was justified using the same rationale that it was a mere *continuation* of the reforms in agriculture (Bhattacharjee 2007; Dasgupta 2009). For all of these reasons, an analysis of the kind undertaken in this paper is timely.

3. The Puzzle of the 1980s

Before stating why the experience of 1980-1991 poses a puzzle when viewed through the lens of structural demand, it is instructive to briefly review West Bengal's industrial development within the larger Indian context from independence in 1947 up to 1980. To do so, we can think of two sub-periods, 1951-65 and 1965-80, with different all-India dynamics. This periodization has been used both to analyze growth and distribution at the national level (De and Vakulabharanam) as well as to understand India's experience with regard to industrial growth in particular (Chaudhuri 1998)[5].

3a. 1951-65 – The trauma of partition

For 1951-65, two non-demand[6] factors must be emphasized at the outset. First, the impact of the partition of India, which divided the erstwhile Bengal province into West Bengal and East Pakistan, cannot be overemphasized. The massive waves of migration meant

that during the decade 1951-61, West Bengal's population grew at the rate of 32.80%, as against 21.51% for India as a whole (Census 2011, Government of India). This created a strain on the state's old colonial-era infrastructure that was scarcely equipped to deal with the shock. In fact, many of the poorer migrants ended up settling as squatters along railway tracks and engaged in a multitude of informal occupations to survive (Chatterjee 2004). The partition also had a negative impact on the hugely important jute industry, primarily through a disruption of the supply of raw jute from East Pakistan. In combination with the inability of the new management to modernize ageing units, it meant the beginning of a long period of decline for the region's once-glorious jute mills. Second, the central government's policy of freight equalization for coal and steel, introduced in 1956, certainly robbed the whole mineral-rich eastern region of India of a comparative advantage[7]. When we look at the demand side for the first three groups of industries in our typology, some clear explanations emerge. For the export-oriented colonial industries, particularly jute, the impact of the Great Depression was considerable. The drastic fall in demand also led to a slowdown in net investment (Bagchi 1998). Simmons (1987) has estimated that jute output grew by 11.7% less than its trend value during the 1930s. Moreover, the possible recovery of the sector after independence was not helped by the fact that immediately after 1947, the central government imposed a tax on jute exports (Bagchi 1998). Although the exports of tea continued apace during the 1950s, it was not enough to make up for the poor condition of the jute industry. The basic industries, such as iron and steel and engineering, were established through public-sector investment during the 1950s. This served to dampen to some extent the burden of unemployment resulting from migration and the poor contributions of the export-oriented industries. Finally, it is not hard to see why one would not expect the consumer goods industries to have grown significantly during this period. Boyce (1987, p.68) estimated that the kinked exponential growth rate of agricultural output during 1949-64 was a mere 1.20%. The low level of agricultural incomes was not helped by the fact that West Bengal possessed a very complex and highly unequal structure of land holding relations since the Mughal period[8], while the land-man ratio was badly affected by the migration. Overall therefore, the sub-period 1951-65 was not very propitious for the growth of consumer goods industries.

3b. 1965–1980 – The agriculture-industry trade-off

During 1965-80, there was a general slowdown in industrial growth in India. This was caused by the large decline in public investment, which in turn was an outcome of successive droughts in 1966 and 1967 that forced the government to focus completely on implementing the 'Green Revolution' (Chaudhuri 1998). The Indo-Pak war of 1965 also drained a substantial amount of government resources at a time when the Indian economy was constrained by savings as well. For the export-oriented industries, demand factors do not have much explanatory power for this period, particularly because the capitalist crisis of the 1970s was one of profitability rather than realization (Vakulabharanam 2014). Thus, the decline of the jute industry in particular, seems to have been more a result of mismanagement and asset-stripping rather than low demand (Sen 1983). However, the basic industries, dependent as they were to a large extent on public investment and government demand, were affected badly by the lack of government orders. This had a

negative impact on output as well as employment in the states, particularly in public sector units (Table 3). As can be seen from Table 3, the greatest immediate impact of the slowdown after 1965 was on employment in West Bengal, since the state produced a substantial amount of engineered goods demanded directly by public sector enterprises and the central government. Finally, the kinked exponential growth rate of agricultural output in the state climbed marginally to 2.27% during 1965-1980 (Boyce 1987, p.68). Thus, the possibility of demand-driven growth of consumer goods industries was still limited.

Table 3: Employment and Net Value Added in the Factory Sector for Various States

	Total Employment			Net Value Added (Rs. Crore)		
	1965	1970	1978	1965	1970	1978
West Bengal	879640	750000	834000	354.5	395.7	999.5
Maharashtra	707190	830000	1044000	425.3	771.6	2148.9
Gujarat	340453	363000	491000	140.9	239.9	772.3
Andhra Pradesh	217653	255000	431000	51.5	107.6	410.3
Tamil Nadu	364925	441000	547000	149.5	269.6	836.6
Uttar Pradesh	296169	317000	554000	114.5	187.9	530
Bihar	212020	232000	326000	118.7	166.8	493.4
Karnataka	173456	195000	290000	77.1	167.1	573.5

Source: Annual Survey of Industries

3c. Structural Demand during 1980-1991 – Does agriculture matter?

Although the global capitalist crisis of the 1970s did not have a major impact on the export-oriented jute and tea industries, two other factors during 1980-1991, beyond the immediate control of the economic actors in the state, affected their performance. For jute, the growing importance of synthetic substitutes such as *polypropylene* had a disastrous effect. Boyce (1995) estimated that between 1970 and 1992, jute imports to North America and Western Europe from Bengal fell from 1 million to 52000 tonnes and the real price of jute fell by 70 per cent. Although Boyce primarily discusses the impacts of this on the small jute-growing farmers of Bangladesh, it surely had an impact on the jute mills of West Bengal as well. For the tea industry, a similar loss of a consolidated market occurred with the break-up of the Soviet Union. Moreover, competition from a group of new tea-exporting countries such as China, Kenya and Sri Lanka meant that India's share in world exports of tea declined from 42% during 1951-60 to 21.91%

during 1981-90 and further to 13.35% during 2001-04 (Nagoor 2009). There have been many recent reports on the closure of tea gardens in North Bengal and the resultant misery and deaths of workers (Das 2016). However, many of these closures seem to be attributable in part to mismanagement and asset-stripping as well (Majumdar 2016).

Both the basic goods industries as well as the consumer goods industries did not fare as well in West Bengal as their all-India counterparts during 1980-1991. As mentioned earlier, this resulted in the state experiencing a *relative* decline in terms of the all-India value added in organized industries. Moreover, beginning in the mid-1970s, both these groups of industries experienced a strong growth of small-scale factories and ancillarization of production. Raychadhuri and Chatterjee [R&C] (1998) estimated that between 1984-95, small factories in West Bengal (with employment between 1-19 workers) registered a growth of 3% per annum. Simultaneously, factories with 20-99 workers grew at 2% whereas large factories with more than 100 workers experienced a negative growth rate[9]. This is a clear case of flexibilization of work that occurred in both basic goods industries as well as consumer goods industries. However, the effects on the two were different (Table 4 and Figure 1).

Table 4: Average Annual Linear Growth Rates of Net Value Added in Basic and Consumer Goods Industries[10]

Year	Basic Goods Industries	Consumer Goods Industries
1980-81	13	-5.59
1984-85	8.4	-15.6
1989-90	26.9	18.2
1980-1991	9.95	7.33

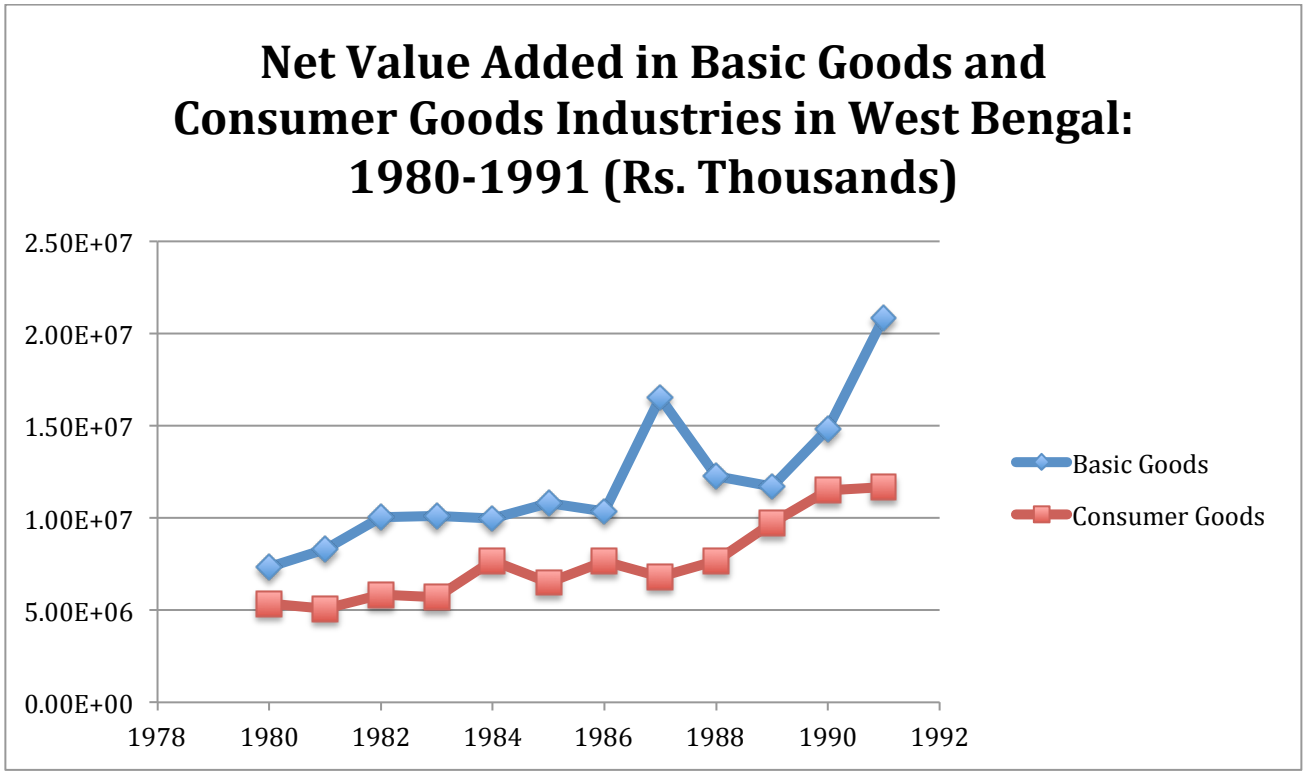
Source: Calculated from Annual Survey of Industries

Table 4 shows that during the first half of the 1980s, net value added in consumer goods industries showed a decline whereas basic goods industries managed to grow. It is only in the second half of the 1980s that consumer goods industries managed to register decent growth. Nevertheless, the average growth rate for the whole period 1980-1991 was higher for basic goods industries. Moreover, Figure 1 below shows that the absolute level of value added was also consistently higher for basic goods as compared to consumer goods industries, although the former was also prone to sharper fluctuations. Thus, by all measures, the performance of basic goods industries in West Bengal during 1980-1991 was unambiguously better than consumer goods industries.

R&C explain the difference and its cause as follows. In the basic and capital goods industries, the firms involved were able to attain a reasonably large scale of operation with the help of *government demand.* In this case, ancillarization almost acted as an 'interlocking system' that proved beneficial to the industry as a whole, although the parent units generally captured most of the gains from productivity, as happens most frequently under flexibilization. On the other hand, for the consumer goods industries which 'faced consumer demand through a market mechanism', subcontracting proved to be a *negative factor in their growth*. Clearly, in terms of our typology, this distinction is

crucial. The relatively better performance of the basic goods industries is certainly also a result of the increased public investment during the 1980s. However, R&C explain the poor performance of the consumer goods industries as a result of the absence of vertical integration in the final stages that caused quality to fall. In turn, R&C attribute this to the 'peculiar risk perception of producers'. Thus, the concluding policy suggestion is for the government to prop up demand for the basic industries even more but simply to act as a supplier of basic infrastructure for the consumer goods industries.

Figure 1



The question that arises now is this – are demand factors relevant in explaining these trends? The answer depends on precisely what we are trying to explain. If we are trying to explain the secular decline in West Bengal's *relative* position vis-à-vis other states, demand factors may not be very relevant. Indeed, two political factors seem salient in explaining the *continued* trend of *relative* decline during the 1980s. First, the granting of industrial licenses to different states by the central government seems to have been motivated more by political rather than economic factors (Raychaudhuri and Chatterjee 1998; Bagchi 1998; Datta 2005). This means that West Bengal received a lower than deserved share of the renewed public sector investment of the 1980s. Thus, there is some truth to the argument that the central government consistently discriminated against the more progressive LF government. Second, the argument that labour militancy (or at least the perception of it) led to capital flight and ancillarization of production (R&C), also seems to have some merit. As noted by many, the LF government did maintain a hostile attitude towards industrialists in the first decade of its reign (Das and Mahmood 2015; Datta 2005). Besides these political factors, supply-side factors may be relevant to

explain the overall decline in West Bengal's share of the all-India value-added. Technological obsolescence, asset-stripping as well as long-run secular decline, combined with faster industrial growth in other states, may explain the change in West Bengal's *relative* position within India. Without an analysis of long-run trends of factors such as profitability, productivity and industrial relations for the state, the reasons for the secular decline in West Bengal's *relative* position cannot be answered unequivocally[11].

Nevertheless, this does not mean that the specific *pattern* of industrial growth during 1980-1991, particularly the differential impact of ancillarization on the basic goods and consumer goods industries that R&C delineate, cannot be analyzed further through the lens of structural demand. Without denying the importance of the supply-side factors emphasized by R&C then, we should look for demand-side explanations for a typology that is itself based on sources of demand. Specifically, the conditions within the agricultural sector must be analyzed. It is here that the puzzle of the 1980s stands out starkly. As mentioned before, agricultural growth rates had been meagre in West Bengal from 1949-1980 and it lagged behind other states such as Gujarat and Maharashtra (Table 5).

Table 5: Compound Growth Rates of Agricultural Production for Major States in India (1952-53 to 1964-65)

State	Agricultural Production Growth Rate (Per Cent Per Annum)
Gujarat	4.55
Tamil Nadu	4.17
Mysore	3.54
Bihar	2.97
Maharashtra	2.93
Andhra Pradesh	2.71
West Bengal	1.94

Source: Dasgupta (1998)

However, aggregate agricultural output grew at the rate of 6.4% during the period 1980-91 (Saha and Swaminathan 1994), an outcome usually attributed to the land reforms and the strengthening of *Panchayati Raj* (local governance) initiated by the LF in 1978 (Banerjee, Gertler and Ghatak 2002). One would expect that through an increase in agricultural incomes, this would address the problem of structural demand for consumer goods and hence that sector would grow quickly. However, the actual experience suggests the exact opposite. To explain this puzzle, we need to delve deeper into the nature of the LF's land reform and its impact on agrarian class structure and incomes.

4. The limits of tenurial land reform

A considerable body of literature has developed during the last three decades on the nature, scope and consequences of the land reform undertaken by the LF government. It has been a bone of contention in the development literature, with some authors (Kohli 1987; Banerjee, Gertler and Ghatak 2002) praising the land reforms as resulting in improved productivity and rural prosperity and others arguing that the reforms consistently excluded the rural poor from the largesse of the state (Mallick 1992) and that the main beneficiary of the reforms has been a new agrarian elite enjoying economic and political hegemony (Ruud 1999). Without trying to resolve this debate, I will focus on the reasons why, despite spectacular agricultural growth, the land reforms may not have been enough to solve the problem of structural demand for consumer goods industries.

Before analyzing the nature and content of the land reforms however, the question as to whether the argument of improved agricultural incomes causing a wage-led growth of consumer goods industries makes sense must be answered. Tables 6 and 7 provide a clear answer.

Table 6: Sectoral Employment in West Bengal in percentage terms[12]

Year	Agriculture	Manufacturing	Services
1981	57.36	16.66	22.44
1991	52.96	15.96	25.69

Source: Giri (1998)

Table 7: Sectoral Composition in percentage terms of Net State Domestic Product at Factor Cost in West Bengal (At Constant 1980-81 prices)

Year	Agriculture & Allied	Industry	Services
1981	31.63	21.98	46.38
1991	30.91	18.09	50.99

Source: Ministry of Statistics and Programme Implementation, Government of India

During the period under consideration (1980-1991), agriculture continued to contribute close to one-third of the NSDP of West Bengal, whereas its contribution to employment decreased by roughly 5 per cent. The share of industrial production, on the other hand, declined in terms of both output and employment, with the tertiary sector growing in importance. This is consistent with the all-India story but clearly shows that improved incomes of agricultural workers could have an impact on the demand for consumer goods.

4a. A brief history of the reforms

The land reforms initiated by the LF had three main components (Dasgupta 2009).

1. An outright redistribution of ceiling surplus land among the landless and land poor.

2. Tenancy reforms, entitled Operation Barga (OB), which involved the official registration of sharecroppers by the state. Crucially, it also enabled the sharecroppers to hold on to a larger share of the total output (the target was 75%).

3. An elaborate system of decentralized governance (*Panchayati Raj)* that also aimed to provide local governments with a degree of financial autonomy to carry out developmental projects.

Of the three components, the tenancy reform was undoubtedly the most important and broad-based. The redistribution of land can at best be called limited, with only 3.5% of the net sown area being redistributed between 1977 and 2003 (Dasgupta 2009). The recording of *bargadars* (sharecroppers) on the other hand, encompassed a large number of beneficiaries. By the year 2000, an estimated 1.6 million sharecroppers had been recorded (Sarkar 2006), with the bulk of this (about 1.2 million) being completed by the mid-1980s (Kohli 1987). Notwithstanding the important argument made by some (Mallick 1992) that the government underestimated the total number of sharecroppers at 2 million instead of the more realistic figure of 3.3 million, the LF's achievements were certainly significant. Combined with the implementation of local governance and regular *panchayat* elections since 1978, these reforms certainly provided a great degree of economic security to sharecroppers. As we know, the decade of the 1980s also witnessed spectacular agricultural growth.

Two questions pose themselves at this point. One, how do we reconcile this with the poor performance of consumer goods industries? If we accept the answer provided by dissenters that the land reform only benefited a new group of elite rich peasants, one could ask what explains the tremendous agricultural growth of the 1980s. These two questions are obviously related and cannot be answered easily in an either/or manner. Instead of the entrenched positions usually taken on this question, I suggest that tying together three factors – already emphasized in the recent literature on West Bengal – can provide a starting point for providing more comprehensive answers to these questions. It will be clear that while some of these factors can be attributed to a lack of political will of the LF government, others are an outcome of central government policies and yet others are, to some extent at least, inherent limitations of tenurial land reform itself.

4b. Whither the 'Green Revolution'?

First, in accounting for the agricultural growth of the 1980s, a greater cognizance of the role of the 'Green Revolution' is needed. As Sarkar (2006) points out, probably a large part of the growth of the 1980s can be explained by the introduction of high yielding *boro*

(winter crop) rice cultivation. In fact, during 1980-1991, *boro* cultivation grew at the rate of 12.45% whereas the overall growth of agricultural output was 6.4% (Saha and Swaminathan 1994). During the 1980s, the *panchayats* were also expected to distribute 'mini-kits' and input packages consisting of high yielding varieties (HYV) of seeds to farmers (ibid.). The importance of the new agricultural strategy can be seen more clearly if one compares the experience during 1965-80 – the years immediately following its implementation – with the preceding sub-period of 1949-64.

Table 8: Kinked Exponential Growth Rates for Output of Individual Crops

Crop	**1949-64**	**1965-80**
ALL CROPS	1.20	2.27
Aman rice	0.90	0.71
Aus rice	2.08	3.10
Boro rice	7.60	22.43
Wheat	2.22	20.31
Jute	2.72	2.08
Gram	-1.73	-3.21
Other Pulses	1.79	-1.71
Mustard	-1.25	2.63
Sugarcane	3.54	-3.73
Potatoes	3.96	7.10
Barley	1.68	0.87
Linseed	1.01	4.21
Til (Sesamum)	-0.89	19.67
Tobacco	-0.30	0.75

Source: Boyce (1987)

Table 8 clearly shows that the most dramatic impact of the introduction of HYV seeds and improved technology was on 3 crops – wheat, which saw the most consistent increases in output across all Indian states, sesamum, indicating a shift towards cash crops in West Bengal after the onset of the new agricultural strategy and *boro* rice, which is a winter crop grown with irrigation water that accounted for most of the spread of HYV rice cultivation. Of course, the fact that the growth of *boro* output fell from 22.43% during 1965-80 to 12.45% during 1980-91 whereas aggregate growth improved from 2.27% to 6.4% means that on average the growth rates of other crops improved during 1980-91. While this does suggest an impact of the land reforms on the security of tenure and thereby on production, we should be careful in drawing a direct link between the reforms and the output growth during the 1980s.

Moreover, an explanation of the growth of the 1980s only in terms of the land reforms cannot account for the drop in the growth rate of foodgrains during the 1990s, when it fell to 2.39% (Dasgupta 2009). Thus, a more plausible explanation is that the land reforms provided greater work security and incentives to tenants but the actual process of production owed a great deal to the implementation of 'Green Revolution' innovations. Emphasizing the role of the green revolution means that the slowdown of the 1990s can

be explained by a combination of local and national factors – the lack of adequate irrigation to support water-intensive *boro* cultivation, inadequate productivity increase, inadequate local demand and the combination of rising input prices and falling output prices that made cultivation less profitable (Sarkar 2006).

4c. Long-run effect on tenants' living standards

The lack of adequate local demand and insufficient productivity increase directly lead to the second point. This concerns the effect of the tenancy reforms on the long-run living standards of the sharecroppers. This is indeed crucial for our argument concerning local demand for consumer goods. An important contribution in this regard has been made by Dasgupta and Pellegrini (2009). Using data from the National Sample Survey on the consumption expenditure of tenants, they use a difference-in-differences methodology to compare the growth of consumption expenditure of tenants with that of non-tenants between 1983 and 1994[13]. They find no significant difference in the consumption expenditure of the tenant beneficiaries of OB. Although the control group of non-tenants is probably too broad for a convincing comparison, a similar exercise carried out with respect to tenants in Bihar, Uttar Pradesh and Orissa shows that tenants in West Bengal fared significantly better than their counterparts in Bihar and Uttar Pradesh but not in Orissa.

A possible explanation of this anomaly lies in the nature of the tenurial reform itself. As mentioned earlier, Operation Barga aimed to provide tenants with two things – security of tenure and a higher crop share. The sharecroppers were registered to prevent eviction and were also mandated to receive 75% of the crop. In cases where the landlords paid the entire costs of non-labour inputs, the sharecroppers were entitled to 50%. However, the flip side of this is that in the post-reform era, the majority of the tenants had no cost-sharing arrangements with the landlords. Table 9 brings out the issue clearly.

Table 9: Percentage Distribution of Sharecropping Contracts According to Different Crop and Cost Sharing Arrangements, 1976-2000

Time Period	Crop Sharing (Tenant's Share)				Cost Sharing by the landlord	
	75%	More than 50%	50%	Less than 50%	Exists	Does not exist
1976	6.4	14.1	66.9	19	66.7	33.3
2000	49.2	80.8	19.2	0	9.2	90.8

Source: Dasgupta (2009)

Table 9 clearly shows that between 1976 and 2000, crop sharing and cost sharing moved in opposite directions. This has two implications. First, assuming that the level of input usage increased from 1976 to 2000, the tenants could be better off if and only if the increased cost burden of input use was more than offset by the extra value of the crop received. While this is an extremely complex calculation dependent crucially upon terms of trade movements, the Dasgupta and Pellegrini (2009) results suggest that the new

arrangement probably hurt tenants. In fact, if we find no significant difference in tenants' living standards between 1983 and 1994, then it is perhaps reasonable to assume that post-1991, the lack of institutional credit, rising input prices and falling output prices owing to liberalization may have sealed the fate of the tenant beneficiaries for the worse. The second implication is for productivity. It is highly likely that the security of tenure provided by the reforms induced a higher labour effort from the tenants. While this would improve the physical productivity of land, the overall productivity may also depend on a more efficient use of non-labour inputs. Given that the reforms provided tenants with a higher output share but burdened them with higher input costs as well, the impact on the use of non-labour inputs is ambiguous. This may be one of the reasons for the lack of sustained productivity increase lamented by Sarkar (2006).

4d. The role of Rural Commercial Capital

Rather than focusing on property relations and the structure of production per se, Barbara Harriss-White (2013) has argued that an explanation of the continued persistence of poverty for the majority of the agricultural population in West Bengal may be better sought in the structure and functioning of markets. Focusing on the most important market – rice – she has argued convincingly that rural markets are persistently segmented into two broad groups. On the one hand, there is large-scale rural commercial capital built from surplus appropriated through rent, interest and exchange. The surplus is controlled through webs of credit and debt managed by credit agents, with the main aim of securing paddy supplies to rice mills, and to reduce their riskiness by protecting 'comparatively wide margins between paddy and rice prices' (p.23). Rice-mill capitalists, in a position to borrow from nationalized banks, distribute credit through informal channels that far exceed formal credit to the rural poor. On the other hand, there is a population of smaller-scale husking mills, supplemented by many thousands of self-employed petty commodity traders, transporters as well as direct producers, who try to expand by intensifying their self-employment. Crucially, they are prevented from accumulating by the very same exchange relations in which they are embedded. In short, Harriss-White argues that while wage workers are exploited on labour markets, petty producers, even when they are not directly working for an employer, can be exploited through four transactional processes — through the rent for their premises, the loans they contract to purchase inventory, the raw materials purchased, and the commodity markets on which they buy and sell (p.37). This is an important argument since it emphasizes that attacking the structure of property in immediate production, while essential, may not be enough if the entire structure of commercial circulation and exchange remains unchallenged.

Indeed, Harriss-White argues that the LF government did not attack this structure of exploitation, and the 'reforms in production [did not affect] the structure of property in rice *markets*' (p.26), where the LF was 'actually protecting…the equivalent of the very class it was challenging in production' (p.26). She further asserts that the marketing margins of commercial capital were protected politically, often by the government's own Public Distribution System and the network of administered prices. Paradoxically, this ended up hurting smallholders who may have been net consumers of food. Moreover, the LF also backed away from progressive taxation of the agro-commercial elite. This argument fits well with that of dissenters who have argued that the LF encouraged

reduced labour militancy in rural areas during the 1980s to ensure the political support of an emergent *kulak* class (Bhattacharya 1999).

Thus, these three factors – the impact of the 'Green Revolution' on overall agricultural growth, the limitations of tenurial reform and the functioning of rural commercial capital, when combined with the theoretical lens of structural demand, allows us to tie together three things in a single explanation – high agricultural growth, poverty among the majority of the rural poor and the poor growth of consumer goods industries during 1980-1991.

4e. Implications for Class Structure

What are the implications of all this for rural class structure? After the abolition of *zamindari* in 1954, rural power in terms of landed property became completely vested in the *jotedars* who owned and controlled the actual cultivation of land (Ray and Ray 1975). Beneath them existed the strata of a mass of sharecroppers and landless workers. The land reforms of the LF were supposed to empower the two lower strata and generate demand for industrial goods (Dasgupta 2009). However, for reasons outlined above, this did not occur in the two decades after the reforms. Indeed, as Table 10 below shows, the reforms of the LF seem to have been implemented at a time when the incidence of sharecropping was falling sharply. Thus, by the early 2000s, we find that 41.6% of rural households were landless (Sarkar 2006), only 4.9% of holdings reported share tenancy (Table 10) and a growing trend of reverse tenancy was taking hold (Harriss-White 2013). Thus, what seems to have happened is that erstwhile small-holders and tenants were either losing or giving up their cultivation rights and working as agricultural labourers. This is almost akin to a reversal of land reforms and could be due to two factors. First, the national-level neoliberal reforms of the 1990s increasingly made small-scale farming unviable owing to rising input prices and falling output prices. The lack of formal credit has meant that the commercial capital that Harriss-White analyzes is able to extract surplus in the form of rent and interest from petty producers.

Table 10: Incidence of Tenancy in Rural West Bengal 1971-72 to 2002-03

Time Period	% Of holdings reporting share tenancy	% Of area leased in under share tenancy	% Of holdings reporting fixed rent	% Of area leased in under fixed rent	% Of holdings reporting leased in area	% Of area leased in
1971-72	30.64	17.34	1.37	0.64	34.56	18.74
1982	11.01	6.85	2.68	1.82	23.1	12.3
1991-92	8.51	4.83	3.72	2.11	14.4	10.4
2002-03	4.90	3.10	7.85	5.10	14.10	9.30

Source: Dasgupta (2009)

Second, the very nature of the tenurial reform and the low land-man ratio in West Bengal meant that the reforms never provided rural households with an adequate income. The low supply of land above the land-ceiling meant that the average amount of land redistributed was 0.11 hectares (Dasgupta 2009). This meant that more than 90% of new land recipients and about 83.5% of sharecroppers did not find yearlong employment on their own land (Chakraborti 2003). As a result, West Bengal has not seen the rise of a class of wealthy independent peasant producers, which in turn has precluded the 'farm-to-factory' route of industrialization that Damodaran (2008) analyzed for some South Indian states. Rather, a class of seasonal migrants has emerged who seek informal employment in cities to supplement their agricultural income (Mukhopadhyay 1998).

5. Conclusion

The main argument put forward in this paper is that the lens of structural demand remains a useful one to understand the *pattern* of industrial growth in West Bengal during 1980-1991. To understand the long run, secular decline in West Bengal's *relative* position, we need a longer run analysis of profitability, productivity and industrial relations. Similarly, the phenomenon of ancillarization and flexibilization of production is a broad one that may not be best explained by local factors. Thus, to argue that the LF government consciously promoted informalization to maintain political power (as Sarkar 2006 does), requires much more empirical support. Moreover, the ancillarization of production that R&C (1998) focus on and the informal work that seasonal migrants from rural areas engage in are likely to be very different, even though neither is identical to self-employment. In fact, Mukhopadhyay (1998) acknowledges that informal work can lie anywhere in the whole spectrum between self-employment and ancillarization. Hence, focusing more narrowly on the differential effect of ancillarization on different industry groups, I have argued that creating a typology based on the *primary* sources of demand may enable us to better understand the *differential* impact of ancillarization on basic and consumer goods industries. In particular, a focus on the impact of the 'Green Revolution', the nature and effect of the LF's land reforms, and the role of rural commercial capital can tie together in the same explanation the phenomena of high agricultural growth, poverty among the majority of the rural poor and the poor growth of consumer goods industries during 1980-1991. Politically, this implies that a sole focus on ownership of productive land cannot by itself bring about progressive change if the structure of commercial circulation and exchange remains unchallenged.

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Notes

1 The all-India net value added has been calculated for the following 19 major states of India – Andhra Pradesh, Assam, Bihar, Delhi, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal. During most years, these states constitute almost 95% of the total value added in the country.

2 Throughout this paper, the figures on employment refer to the total number of employees – that is both workers as well as supervisors.

3 For the Annual Survey of Industries, the Central Statistical Organization divides the units into two sectors - (i) Census and (ii) Sample or Factory. The census sector involves full enumeration covering all industrial units in 5 less industrially developed states – Manipur, Meghalaya, Nagaland, Tripura, and Andaman & Nicobar Islands – and all units having 100 or more workers in the other states and union territories (UTs). The sample sector involves stratified random sampling of units in states other than those considered industrially less developed, although strata involving 4 or less units are included in the census sector.

4 This also means that any analysis of the pattern of industrial growth necessitates a distinction between long-run secular factors affecting certain industries and short-run fluctuations affecting relatively newer industries. The paucity of long-run data that runs from the colonial period to the present makes this a formidable task.

5 These studies also show another structural break at 1991 when neoliberal reforms were introduced. Although the focus of this paper is on the period 1980-1991, reference will be made to this changed policy-climate in the 1990s to understand its impact on the pattern of industrial growth in the state.

6 Since the emphasis here is on structural demand, I have clubbed all other factors under the rubric of non-demand. Depending on one's focus, these may be further classified into supply-side (efficiency) factors, policy shocks etc.

7 While this policy certainly robbed West Bengal of a comparative advantage, on its own it does not explain why the state would perform badly in the long-run in a competitive situation.

8 This complex structure consisted of a class of hereditary revenue collectors (*zamindars* and *taluqdars*) and a class of men known as *jotedars* who actually owned and controlled the cultivation of land within the village. Beneath these two powerful classes there existed sharecroppers, under-tenants (*raiyats*) and landless workers. The enactment of the *Permanent Settlement* by the British in 1793, while greatly enhancing the powers of the *zamindars* to obtain enhanced rates from the villages, did not change this basic structure as such. See Ray and Ray (1975) for an insightful discussion of the role played by *zamindars* and *jotedars* in the rural politics of Bengal in the nineteenth and early twentieth centuries.

9 Although R&C run their regressions for all industries and not according to the typology used here, apart from jute and tea no other industry at the time depended primarily on export markets. Thus, the results are reasonably robust for our purposes.

10 In calculating the growth rates for Table 4, the following industries were classified as basic industries – Saw milling and planing of wood, Coke oven products, Refined petroleum products, Basic chemicals, Other chemical products, Man-made fibers, Rubber products, Plastic products, Glass and glass products, Non-metallic mineral products not elsewhere classified (n. e. c.), Basic iron and steel, Basic precious and non-ferrous metals, Casting of metals, Structural metal products, tanks, reservoirs & steam generators, Other fabricated metal products and metal working service activities, General purpose machinery, Special purpose machinery, Office, accounting & computing machinery, Electric motors, generators & transformers; electricity distribution & control apparatus, Insulated wire and cable, Accumulators, primary cells & primary batteries, Other electrical equipment n. e. c., Electronic valves and tubes & electronic components, Television and radio transmitters & apparatus for line telephony and line telegraphy;

television and radio receivers, sound or video recording or reproducing apparatus and associated goods, Medical appliances, instruments and appliances for measuring, checking, testing, navigating and other purposes, except optical instruments, Motor vehicles; bodies for motor vehicles; trailers and semi-trailers; parts & accessories for motor vehicles & their engines, Building & repair of ships and boats, Railway and tramway locomotives & rolling stock, Transport equipment n. e. c. and Furniture. For calculating net value added by consumer goods industries, the following groups were included – Production, processing and preservation of meat, fish, fruit, vegetables, oils and fat, Dairy products, Grain mill products, starches and starch products & prepared animal feeds, Other food products, Beverages, Tobacco products, Spinning, weaving and finishing of textiles, Other textiles, Knitted and crotcheted fabrics and articles, Wearing apparel except fur apparel, Footwear, Products of wood, cork, straw & plaiting materials, Paper and paper products, Publishing, Printing and service activities related to printing, Man-made fibers, Plastic products, Glass and glass products, Domestic appliances n. e. c., Electric motors, generators & transformers; electricity distribution & control apparatus, Electric lamps & lighting equipment, Television and radio transmitters & apparatus for line telephony and line telegraphy; television and radio receivers, sound or video recording or reproducing apparatus and associated goods, Medical appliances, instruments and appliances for measuring, checking, testing, navigating and other purposes, except optical instruments, Optical instruments and photographic equipment, Watches and clocks, Motor vehicles; bodies for motor vehicles; trailers and semi-trailers; parts & accessories for motor vehicles & their engines and Furniture. Owing to the fact that the products of certain groups of industries can be meant either for final consumption (both by consumers and/or the government) or for further use in production, the following industries have been included in both basic and consumer goods industries – Man-made fibers, Plastic products, Glass and glass products, Electric motors, generators & transformers; electricity distribution & control apparatus, Television and radio transmitters & apparatus for line telephony and line telegraphy; television and radio receivers, sound or video recording or reproducing apparatus and associated goods, Medical appliances and instruments & appliances for measuring, checking, testing, navigating and other purposes except optical instruments, Motor vehicles; bodies for motor vehicles; trailers and semi-trailers; parts & accessories for motor vehicles & their engines and Furniture.

11 In general, there is a dearth of studies on long-run profitability trends in India's industrial sector. Sau (1989), Balakrishnan and Babu (2003), Felipe and Kumar (2010) and Basu & Das (2015) are the only four studies thus far and they focus on the all-India experience. More disaggregated work at the state level on this issue is needed.

12 Figures in the table do not add up to 100 since the Census data includes activities other than agriculture (such as mining and quarrying) in the 'primary' sector and activities described as 'other secondary' in the secondary sector apart from manufacturing.

13 The time-period considered by Dasgupta and Pellegrini (2009) is precisely the period when the tenancy reforms had been reasonably consolidated and the neoliberal reforms of the 1990s had not yet become very widespread. Thus, the results cannot be attributed to the effects of neoliberal reforms on tenants' living standards.