2009

Relations of Production and Modes of Surplus Extraction in India: An Aggregate Study

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Working Paper

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by

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Working Paper 2009-12

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RELATIONS OF PRODUCTION AND MODES OF SURPLUS EXTRACTION IN INDIA: AN AGGREGATE STUDY

(September, 12, 2009)

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Abstract: This paper uses aggregate-level data, as well as case-studies, to trace the evolution of some key structural features of the Indian economy, relating both to the agricultural and the informal industrial sector. These aggregate trends are used to infer: (a) the dominant relations of production under which the vast majority of the Indian working people labour, and (b) the predominant ways in which the surplus labour of the direct producers is appropriated by the dominant classes. This summary account is meant to inform and link up with on-going attempts at radically restructuring Indian society.

Keywords: relations of production, modes of surplus extraction, India.

JEL Classification: B24, B51.

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Men make their own history, but they do not make it as they please; they do not make it under self-selected circumstances, but under circumstances existing already, given and transmitted from the past.

The Eighteenth Brumaire of Louis Bonaparte, Karl Marx.

PART ONE: AGRICULTURE

INTRODUCTION

Assessing the nature and direction of economic development in India is an important theoretical and practical task with profound political and social implications. After all, any serious attempt at a radical restructuring of Indian society, if it is not to fall prey to empty utopianism, will need to base its long-term strategy on the historical trends in the evolution of the material conditions of life of the vast majority of the population. Attempting to build on past debates and as part of on-going attempts at radical transformation of Indian society, this paper tries to provide a summary account of the evolution of some key structural features of the Indian economy over the last few decades.

In providing this summary account, we connect with and speak to issues thrown up by earlier work on characterizing Indian society. The primary, though implicit, reference point for this paper is the "mode of production" debate that occupied scholars and activists in India during the 1970s and 1980s.[1] This paper is an attempt to revisit that debate in the light of new data that has since become available; it is also an attempt to widen the analytical and empirical focus beyond the agricultural sector, the sole concern of the "mode of production" debate. While it is true that agriculture continues to "employ" the vast majority of the working people in India, the last few decades have also witnessed the slow and erratic growth of an industrial and services sector. A large part of the working class now constantly shuttles between these sectors, as much as they physically move between regions and states. Hence it is important to include this growing non-agricultural sector in any analysis of the evolution of the Indian economy.

The principal questions that motivate this study are: what types of production relations does the vast majority of the working population in Indian agriculture and industry labor in? How is economic surplus appropriated from the direct producers? The aim is to understand the material conditions under which the working population labors and the manner in which it is exploited.

The analysis is largely pitched at the aggregate level, complemented, wherever possible, with micro-level studies and data. While a study of the structural evolution

[1] Thorner (1982a, 1982b, 1982c) summed up the debate and Patnaik (1990) contains a selection of the key articles.

of the Indian economy is of interest in itself, this paper uses trends in the structural evolution of the Indian economy to make inferences about the mode of generation, appropriation and use of the surplus product in Indian society.[2] The focus on surplus appropriation, in turn, is motivated by the Marxist idea that the *form* of extraction of unpaid surplus labour provides the key to understanding the structure and evolution of any class-divided society. This important insight was most clearly articulated by Marx in Volume III of Capital:

> "The *specific economic form* in which unpaid surplus labour is pumped out of the direct producers determines the relationship of domination and servitude, as this grows directly out of production itself and reacts back on it in turn as a determinant. On this is based the entire configuration of the economic community arising from the actual relations of production, and hence also its specific political form. It is in each case the direct relationship of the owners of the conditions of production to the immediate producers - a relationship whose particular form naturally corresponds always to a certain level of development of the type and manner of labour, and hence to its social productive power - in which we find the innermost secret, the hidden basis of the entire social edifice, and hence also the political form of the relationship of sovereignty and dependence, in short the specific form of the state in each case." (page 927, Marx, 1993; emphasis added.)

The emphasis on the *form* in which surplus labour is extracted from the direct producers is important and worth dwelling on a little. Every class divided society rests on the appropriation of unpaid surplus labour of the direct producers; the fact that one group of people can, due to their location in the process of production and their relationship to the means of production, appropriate the surplus labour of another group is what defines a class. The appropriation of the surplus labour of direct producers by the ruling class is as much true of a feudal organization of production as it is of a capitalist mode of production. What distinguishes the two is the *form* in which this surplus labour is appropriated by the ruling classes, not the fact of surplus extraction *per se*. It is only in the capitalist mode of production that the surplus labour of the direct producers, i.e., the workers, takes the form of surplus *value* and is mediated through the institution of wage-labour. While this makes the exploitation of workers less apparent under capitalism, it also distinguishes the capitalist mode of production from non-capitalist modes, where the appropriation of surplus labour is much more visible, direct and brutal. For instance, in the feudal organization of society in Medieval Europe, the surplus labour of the serf was immediately visible as the work he did on the lord's land; the surplus labour took the form of the product of the serf's labour. The visibility of exploitation, understood as the appropriation of unpaid labour time of the direct producers, is lost under capitalist relations of production; it is obscured by the institution of wage-labour.

[2] For an incisive analysis of the use of the notion of surplus for economic analysis see Baran (1957).

This study attempts to identify the evolution of the modes of appropriation of surplus labour in India *indirectly* by studying the evolution of key structures of the Indian economy at the aggregate level. The underlying assumption of the whole study is that the evolution of the aggregate economic structures, like ownership patterns in the agrarian economy, the evolution of labour forms like tenancy, wage-labour, bonded labour, the size-distribution of firms in the informal sector, the patterns of employment and migration, the importance of merchant and finance capital, etc., can provide useful and reliable information about the mode of surplus extraction. While it is possible to form a picture of the aggregate evolution of the Indian economy using data available from sources like the National Sample Survey Organization (NSSO), the Agricultural Census, the Census of India – and that is precisely what we do in this study - we are fully aware of the limitations of such aggregate accounts. Many micro-level variations are lost in the aggregate story and so, wherever possible, the aggregate picture is complemented with case studies.

The study is broadly divided into two sections, one dealing with the agrarian economy and the other with what has come to be called the “informal” industrial sector. This twin focus is motivated by several considerations. First, the agrarian economy accounts for the largest section of the country’s workforce and population; this makes it a natural focus of any study which attempts to understand the evolution of the Indian economy and society at the aggregate level. Second, while the non-agrarian economy consists of the industrial and the services sector, the majority of the workforce in these two sectors is, again, found in what has been called the “informal” sector; that is why this becomes one of the foci of this study. Third, to the extent that an understanding of the relations of production (and forms of surplus extraction) is at issue, the “formal” industrial and services sector are probably beyond the domain of any debate; most serious scholars and activists would agree that the “formal” sector is characterized by capitalist relations of production. Since, what seems to be at issue is the “correct” characterization of the relations of production and forms of surplus extraction in the agrarian economy and the non-agricultural “informal” sector, this study focuses on precisely these two as an intervention in the broader debate about the characterization of Indian society.

PART I: AGRICULTURE

Framed in the backdrop of massive mobilization of the rural poor against intolerable conditions of existence in the late 1960s, expressed politically in the eruption of the Naxalite movement and its brutal suppression by the Indian state, the “mode of production” debate brought together some of the most prominent Marxist social scientists in India in their attempt to characterize the agrarian structure in India. Was it capitalist or was it semi-feudal? What were the main classes in rural society? How should India’s relationship with imperialism be factored into the

characterization of Indian society? What kind of revolutionary political strategy followed from the political economic analysis? These were some of the main questions around which the debate was organized.

The time is probably ripe for revisiting this debate, for going back and taking another look at the issues raised and the questions asked. There are at least two reasons for this. First and foremost, we are probably once again witnessing the mobilization of the rural poor against the continued poverty and misery that has become their lot under the post-colonial Indian state. The numerous peoples' movements, ranging from anti-SEZ (Special Economic Zone) struggles and movements against displacement and for rights over common property resources to the Maoist movement, are political expressions of this enormous rural churning. This provides a backdrop which is very similar to that provided by the late 1960s in India; this backdrop, this objective reality of peoples' struggles, impels us to once again ask fundamental questions about the structure and dynamics of Indian society. Second, more than two decades have elapsed since the "mode of production" debate ended in the early 1980s; these two and a half decades have seen several changes in the direction of policy of the Indian state, the most notable being the wholesale adoption of the neoliberal economic framework. Did this policy change impinge on the structure of the Indian economy? If so how? With the passage of time, we also have access to more and possibly better quality data about the Indian economy; this new data can be fruitfully used to empirically evaluate many of the claims thrown up during the "mode of production" debate. It is for all these reasons, and with motivations very similar to those of the participants in the previous debate, that we wish to revisit the mode of production debate, starting with an analysis of the agricultural sector and then moving on to the "informal" industrial/services sector.

A. SECTORAL COMPOSITION AND AVERAGE SIZE OF HOLDINGS

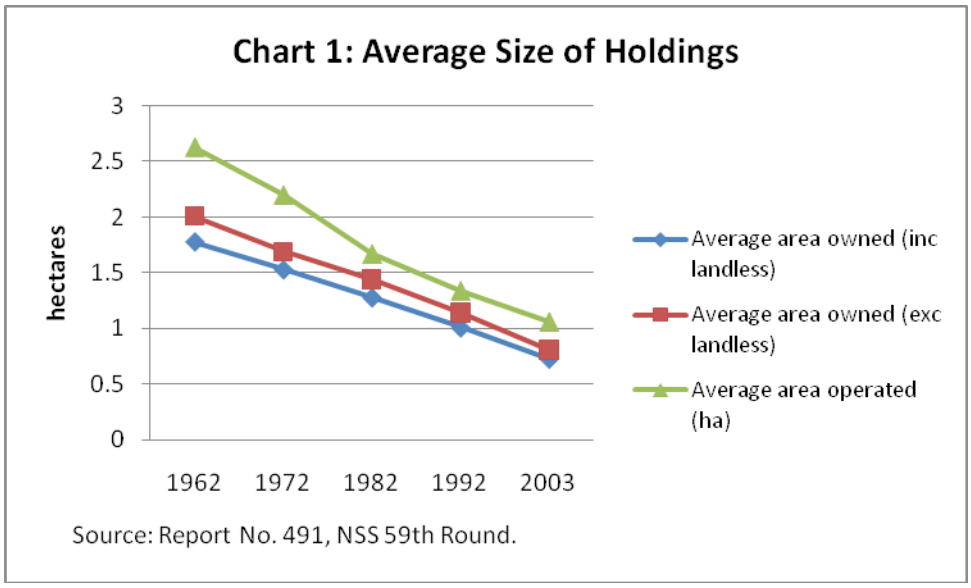
Probably nothing gives a better introduction to the grim story of Indian agriculture than a simple picture of the sectoral composition of the three sectors of the Indian economy, in terms of share of total value added and share of total employment. While the share of value added coming from agriculture has declined sharply from around 56% in 1950 to about 17% in 2007, the share of the total labour force engaged in agricultural activities has displayed a much slower decline, as shown in Table 1. This has effectively trapped the largest section of the Indian workforce, for lack of alternative employment opportunities, in an extremely low productivity sphere of production, leading to extremely low incomes and consumption expenditures. The continued reliance of a large majority of the population on agriculture, which adds an ever declining share of the value added to GDP, clearly underlines the failure of any meaningful structural transformation of the Indian economy over the last five decades since political independence.

Table 1: Sectoral Composition of GDP and Labour Force

	Agriculture		Industry		Services	
	share of GDP	share of labour force	share of GDP	share of labour force	share of GDP	share of labour force
2007	16.60	60.00	28.40	12.00	55.00	28.00
2000	24.60	59.30	26.60	18.20	48.80	22.40
1980	38.90	68.10	24.50	13.90	36.60	18.60

Source: Various Economic Surveys of India.

With the majority of the working population in India engaged in agricultural activities, and with land being one of the most important "inputs" in agricultural production, one is naturally led to enquire into the evolution of average size of landholdings and other aspects related to ownership of land in rural India. One of the key facts about the evolution of the agrarian structure in India over the last five decades is the steadily declining size of agricultural holdings as depicted in Chart 1 (see Table A1 for details). [3]



The average size of ownership holdings has declined monotonically over the last few decades, with a value that is currently even less than half the corresponding value in the early 1960s. Not surprisingly, the same pattern of monotonic decline is observed in terms of both ownership and operational holdings, where operational holdings can have more or less land than ownership holdings because of leasing in

[3] Tables with numbers starting with "A" have been collected together in the Appendix.

and leasing out of land. The declining size of agricultural holdings point towards processes leading to fragmentation of land, important among them being continued demographic pressures on a fixed quantity of land and lack of employment opportunities in the industrial sector. The average size of holdings obtaining in India today also has important implications for the agenda of redistributive land reforms, as traditionally envisaged within the left political tradition; we will comment on this in a later section.

B. PATTERNS OF LAND OWNERSHIP

Understanding the class forces currently working in agriculture requires us to look not only at the evolution of the average size of holdings but also at the aggregate ownership patterns of land in the rural economy. The steady decline in average size of holdings has been accompanied by some striking changes in the pattern of ownership of land in rural India. To better appreciate the changing structure of ownership patterns of land in rural India, let us define the following commonly used ownership size-classes: all families owning less than 1 hectare of land will be called "marginal" farmers; all families owning between 1 and 2 hectares will be called "small" farmers; all families owning between 2 and 4 hectares will be called "semi-medium" farmers; all families owning between 4 and 10 hectares will be called "medium" farmers; and all families owning more than 10 hectares will be called "large" farmers. This information is summarized for easy reference in Table 2.

Table 2: Size-class Definition

Size-Class	Area Owned
marginal	< 1 hectares
small	1 – 2 hectares
semi-medium	2 – 4 hectares
medium	4 – 10 hectares
large	> 10 hectares

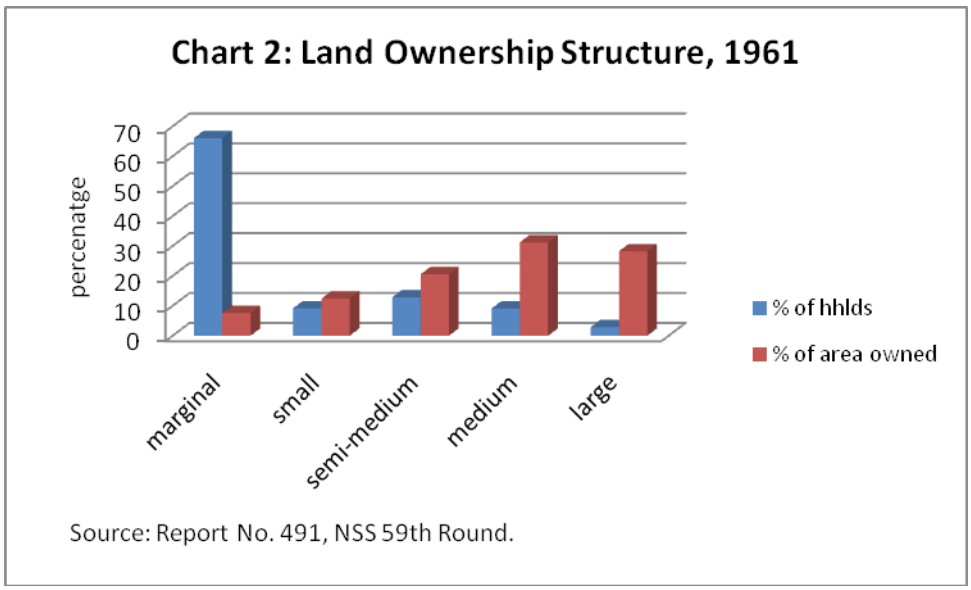
With this definition of the various size-classes, we can see that the proportion of marginal farmer households has increased steadily over the last four decades, increasing from about 66 percent in 1961 to about 80 percent of all rural households in 2003. This rather large increase in the share of marginal farmer households has been matched by a steady decline of large, medium and semi-medium farmer households: large and medium farmer households together comprise a minuscule 3.6 percent of rural households in rural India today; in 1961, this category represented about 12 percent of all rural households. Between the decline in the share of large landholding families and the increase in the share of marginal farmer families, the "small" farmer family has managed to more or less

maintain its share constant over the past five decades, increasing marginally from 9 percent to 11 percent of all rural households between 1961 and 2003.

The pattern of ownership in terms of the share of total area owned more or less matches the pattern observed with respect to the share of households in the rural areas, though the pace of change is more rapid in this case. The share of total area owned by marginal and small farmer families has steadily increased from 8 percent of total area in 1961 to about 23 percent of total area owned in 2003. Paralleling this is the steady decline in the share of total area owned by large and medium farmer households: the share of area owned by "large" households declined from 28 percent in 1961 to about 12 percent in 2003; the corresponding share owned by "medium" households declined from 31 percent in 1961 to about 23 percent in 2003. Caught between these two trends is the semi-medium farmer family which has kept its share in the total area owned more or less constant since 1971 at around 20 percent. The changing pattern of ownership of land is depicted graphically in Chart 2 and Chart 3 (see Table A2 for details).

Has this changing pattern of land ownership made the distribution of this most important asset more equitable? The answer is a resounding no. Though the share of area owned by large landholding families has declined substantially over the past few decades, driven most probably by demographic pressures and by some half-hearted attempts at land reforms, the resulting distribution of land at the beginning of the twenty first century in India cannot be seen as more equitable than it was five decades ago. In fact, the skewed nature of the distribution of land remains more or less intact, as can be seen from the following three measures: the Gini's coefficient of ownership distribution, the Lorenz curve for the ownership distribution and the average area owned by size-classes. The Gini coefficient of ownership concentration was 0.73 in 1961-62, 0.71 thereafter till 1992 and then changed to 0.74 in 2003 (Government of India, 2006; pp. 12); the Lorenz curve for the ownership distribution has also more or less remained unchanged between 1961-62 and 2003 (Government of India, 2006; pp. 13).

Inequality of land ownership can also be understood by studying the evolution of the average size of holding by ownership size-classes. Studying this measure answers the following two questions: (a) how has the average landholding of different size-classes evolved over time, and (b) what is the average size of landholding of the marginal peasant household as compared to, for instance, the medium or large peasant household? As can be seen from Table 3, the average size of holding for the marginal farmers has remained remarkably stable over the last five decades at a value of around 0.2 hectares; the average size for all the other size-classes has declined, with the largest proportional fall recorded by small farmers and the smallest by the category of semi-medium farmers.



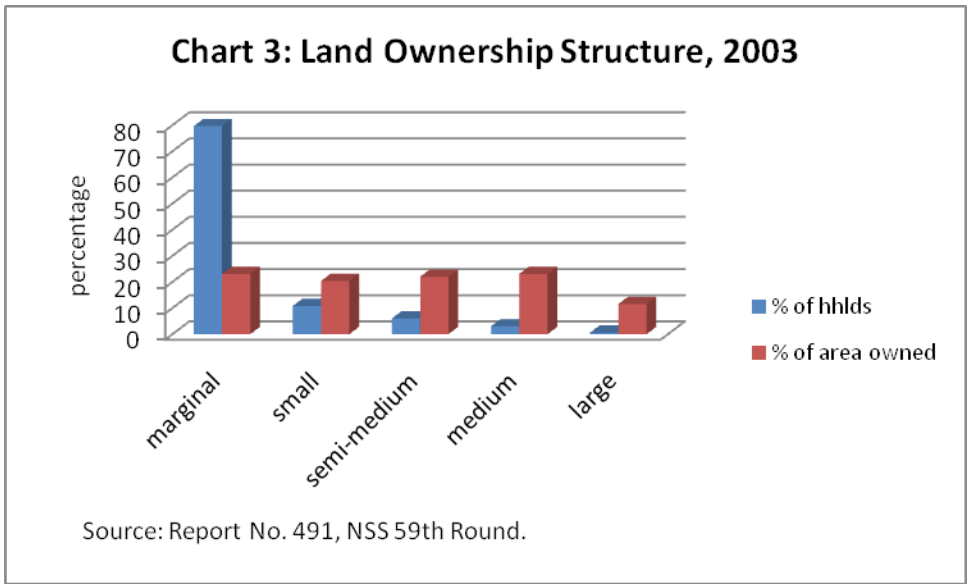


Table 3: Area Owned per Household by Ownership Size-Class

Year	Marginal	small	semi-medium	medium	large
1961	0.20	2.41	2.84	6.13	17.64
1971	0.24	1.45	2.81	6.00	16.53
1982	0.23	1.44	2.80	5.92	16.29
1992	0.24	1.40	2.68	5.80	15.87
2003	0.21	1.38	2.67	5.62	14.05

Source: calculated from Report No. 491, NSS 59th Round, January-December, 2003.

When we approach the inequality of land ownership by looking at the sizes of average holdings across size-classes *relative to* the average size of the marginal farmer household's ownership area, we find confirmation of the story of continued inequality. The relative size of average holdings across the ownership size classes, in comparison to marginal holdings, has declined but remains substantially large even today. For instance, as summarized in Table 4, the average large holding was about 67 times the size of the average marginal holding in 2003; the average medium holding was about 27 times the size of the average marginal holding. While the former has declined from about 86 in 1961, the latter has declined much less, from about 30 in 1961 to 27 in 2003. Thus, the degree of aggregate inequality in ownership has remained largely intact through these five decades.

Table 4: Multiple of Average Marginal Holding by Ownership Size-Class

Year	Marginal	small	semi-medium	medium	Large
1961	1	11.77	13.90	29.97	86.27
1971	1	6.08	11.78	25.18	69.33
1982	1	6.12	11.93	25.22	69.40
1992	1	5.88	11.25	24.38	66.73
2003	1	6.52	12.65	26.57	66.48

Source: calculated from Report No. 491, NSS 59th Round, January-December, 2003.

The skewed distribution of land ownership of course in itself does not provide very useful information about the dominant relations of production prevailing in the agrarian economy and modes of surplus extraction most in use; a predominantly feudal mode of production can have a skewed ownership distribution as much as a predominantly capitalist mode of production. Many participants in the "mode of production" debate in India in the 1970s, and especially Patnaik (1972a, 1972b, 1976, 1980, 1986), drew attention to the fact that the acreage or size of agricultural holdings *per se* cannot be used to infer the class status, in the Marxist sense, of the owner of the holding or the relations she/he enters into with other classes in rural society. The same size of holdings can go with very different ways of organizing production, i.e., capitalist or semi-feudal, depending on the availability of water, power, fertilizers, draught animals, other tools and implements, etc. Hence, the same size-class of ownership or operational holding might have members from very different classes.

While this argument is theoretically valid, we might nonetheless use the average size-class of ownership holdings as a proxy, decidedly approximate, for the class position of the owner of the holding. This is a purely empirical argument and follows from the following two observed facts: (a) there is a very strong positive correlation between the size of land possessed and the ownership of animals, minor tools and implements (like sickles, chaff-cutters, axes, spades and choppers) and tractors (Statement 2, Government of India, 2005); and (b) if we define, following Patnaik (1976), the rural classes as full-time labourer, poor peasant, middle peasant, rich peasant, capitalist and landlord, then the proportion of the "upper classes" tend to

increase as we move from smaller to larger sizes of ownership holdings. The second assertion, which seems fairly intuitive, is partly reflected in Patnaik (1980). In her sample of 236 households, of those owning between 2.5 and 10 acres, the majority were small peasants; of those owning between 10 and 15 acres, the majority were middle peasants. Even though Patnaik (1980) did not use a random sample and the sample size was small, we can probably still make the claim that size of holding provides a good approximation of the class position of the owner.

But we do not want to attach more importance to acreage than to use it as a rough indicator of class status. Hence, we supplement the above data on aggregate ownership patterns with the following variables: (1) geographical variation of land ownership across Indian states, (2) the extent of tenancy, both over time and across space, (3) evolution of the pattern of tenancy relations, (4) the extent and growth of landlessness, (5) the major sources of income of rural households, (6) the pattern of capital accumulation in the agricultural sector, and (7) sources of credit in the rural economy. Taken together with the evolution of the pattern of land ownership, these might help us construct a broad picture about the relations of production and the predominant modes of surplus extraction in the agrarian economy.

Before we look at evidence on these important features of the rural economy, we would like to address two possible criticisms: (1) neglect of any discussion of the post-independence Zamindari Abolition Acts, and (2) not recognizing the importance of irrigation and differential productivities of land.

The discerning reader might find it surprising that we do not discuss the Zamindari Abolition Acts while discussing the transformation of the agricultural sector in India; can this be considered a serious lapse of our analysis? We think not. Zamindari Abolition Acts and their impacts have been discussed threadbare by several scholars like Daniel Thorner, Wolf Ladejinsky, F Tomason-Januzzi, Francine Frankel, and others. Most serious scholars have pointed out that the Zamindari Abolition Acts, passed in several provincial legislatures between 1949 and 1954, fell far short of transforming the agrarian structure. These acts did not manage to seriously appropriate the land of the zamindars and therefore did not manage to curb the power of the landed elite *as a class* in rural society. Despite the passage of several variants of these “abolition acts”, zamindari interests managed to cleverly use legal loopholes to their advantage, challenging key components of the Acts and thereby managed to severely limit the effectiveness of the already timid legal provisions. The case of Bihar is only too well known to bear repetition. Frankel (2005) summed up the consensus view quite well: the State managed to abolish the zamindari system without expropriating the zamindars. Zamindari Abolition Acts did not transform the rural class structure in any significant manner; hence, we did not feel necessary to devote space to a discussion of these legal provisions and changes.

The second possible objection that we would like to address consists of two related points: (a) that we ignore the issue of productivity differentials, especially the

differential productivity of land that exists between irrigated and non-irrigated areas; and (b) that this productivity differential makes state-level or national-level analysis largely useless.

It is true that the size (of the agricultural unit) and surplus produced (leaving aside for the moment the production relations under which surplus is being produced) have a complex relationship co-determined by technological and geographical variables. A small plot in a dry area will produce much less surplus than a small plot in a well-irrigated area; a small fruit orchard will produce more by way of income than a small subsistence plot. But to the best of our knowledge data on access to water is not available at the national level to the same extent that data on land ownership distribution is; hence, even though we understand the importance of the issue of access to water, we do not present detailed data on this in the paper. We hope that this issue will be explored in future research.

We do not think that productivity differentials between irrigated and non-irrigated areas make state-level analysis useless. The appropriate level of analysis depends on the questions that the analysis is meant to address. Our aim in this study is to understand the broad patterns of evolution of the relations of production that the majority of the working population in India labours in; that is why we have undertaken the analysis at the aggregate, national and state level. We are aware of the fact that this necessarily forces us to ignore several important variations, like the extent of irrigation, observable at lower levels of aggregation; every aggregate level study would face this limitation. A more disaggregated analysis is something we might take up in the future to complement our present study; but we believe that this does not detract from the usefulness of aggregate-level studies which can inform national-level political strategy and action.

C. INTER-STATE VARIATION IN LANDHOLDING PATTERNS

To make sense of the geographical variation in the patterns of land ownership across Indian states, we have divided all the states into two groups. The first group comprises of states which have a relatively large share of the total area owned by large landholding families; we call these the “large landholding states” and summarize information about these states in Table A3. The second group consists of states where large landholding families own a relatively small proportion of the total area; we call these the “small landholding states” and provide data about these states in Table A4. As expected, the following states belong to the first group: Andhra Pradesh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Punjab, and Rajasthan. The second group, i.e., the small landholding group has the following members: Assam, Bihar, Himachal Pradesh, Jammu and Kashmir, Kerala, Orissa, Tamil Nadu, Uttar Pradesh, and West Bengal.

Why is this division into what we call large landholding and small landholding states useful? Anecdotal and other evidence that we present later on in the paper suggests that the first group of states, i.e., the large landholding states, is precisely the group that has witnessed relatively robust growth of capitalist relations of production in agriculture;[4] the second group largely consists of the states which are still encumbered by remnants of pre-capitalist modes of organizing production. The fact that the latter group of states has also seen a decline in the share of land owned by large landholding families seems to suggest that the economic position of the "semi-feudal" landlords, to the extent they derive their power solely from land ownership, has declined relative to the middle and rich farmers and capitalist landlords at the national, state and regional level. The semi-feudal landlords seem to have been replaced by rich and middle peasants as the ruling bloc in the agrarian structure of contemporary India. This, as we point out later, was not so much the result of political conflict between a rising capitalist farming class and the feudal oligarchy; rather, the latter have, aided by a pliant State, gradually transformed themselves into capitalist farmers, among other things. We return to this important point later in the concluding section.

D. LANDLESSNESS

Since land is one of the most important "means of production" in the agrarian economy, any analysis of the pattern of land ownership in the rural economy must pay close attention to the group of landless households. Since this group of households is totally divorced from ownership of land, they might be expected to give us an accurate measure of what we might call a rural proletariat class, the class of rural population who are effectively propertyless.

According to National Sample Survey Organization (NSSO) data summarized in Table A5, the extent of landlessness has stayed more or less constant over the last five decades: in 1960-61, 11.7% of rural households were landless; the corresponding figure in the 2002-03 survey came out to 10%. The inter-state variation in landlessness shows that Himachal Pradesh, Maharashtra and Karnataka have the largest share of landless households in rural areas. On the lower side, Jammu & Kashmir, Kerala, Punjab, Rajasthan, Uttar Pradesh and West Bengal have small shares of landless households in the rural economy.

[4] The fact that states like Punjab and Haryana have undergone robust capitalist growth has been widely noted and commented on. Evidence that points in this direction are: relative consolidation of agricultural holdings, increased mechanization of the production process, predominance of peasant-proprietors as opposed to parasitic landlords, radical change in the pattern of tenancy (on which more below), accumulation of capital in the agricultural sector, etc. For evidence on the growth of capitalist relations in Punjab agriculture see, Sidhu, (2005) and the references therein.

The NSSO definition of landless households is, we feel, misleading and gives a tremendous underestimate of landlessness in rural India. This is because the NSSO defines landless households as only those households which own less than 0.02 hectares. Though the NSSO has consistently used this definition to define landless households, this gives an incorrect picture of "effective landlessness". This becomes clear once we juxtapose land ownership data with data on patterns of land use.

Data put out by the NSSO for 2002-03 show that households owning less than 0.4 hectares use more than 90% of their land as homestead (Government of India, 2006a, pp. 25). Thus, if landlessness is understood as pertaining to land that can be used for cultivation and that can generate some income for the family, then all households owning less than 0.4 hectares should be considered landless. Hence, a more realistic definition of landlessness must consider all households owning less than 0.4 hectares as "effectively landless".

Using this definition of landlessness, we see that the extent of effective landlessness is both more pronounced and that it has significantly increased over the decades, as shown in Table A5 and depicted in Chart 6. The proportion of effectively landless households, according to this definition, increased from 44.21% in 1960-61 to 60.15% in 2002-03 for the country as a whole, an appreciable increase by all accounts. Since land is the primary input to agricultural production, this also underscores the highly skewed distribution of landholding patterns in India even today: 60 percent of the poorest rural households own only 6 percent of the land *used for cultivation*! The fact that the majority of rural households are effectively landless is also corroborated by looking at the estimate of households that own no land apart from homestead (Table 4R, Government of India, 2006a) as summarized in Table 5.

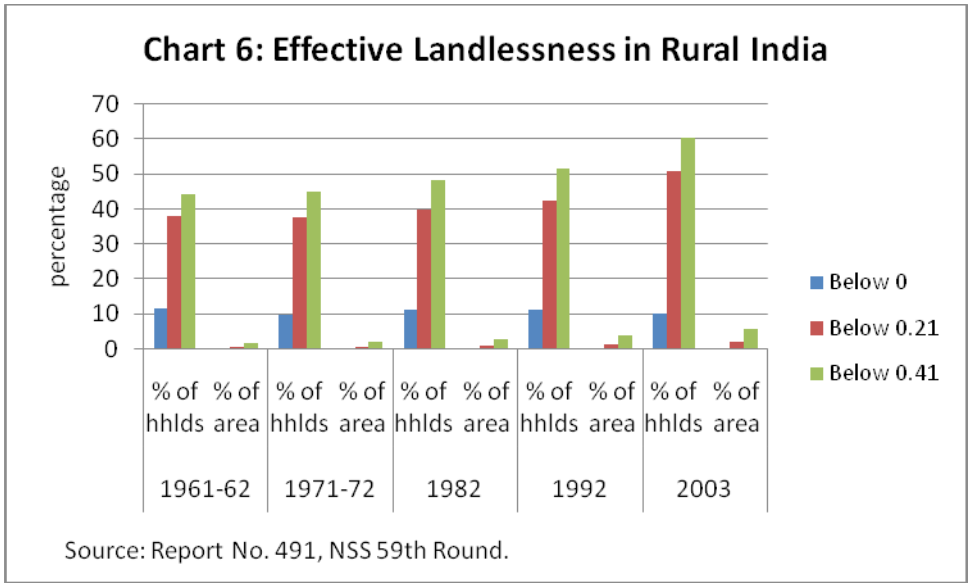


Table 5: Proportion of Rural Households with no land other than Homestead

Andhra Pradesh	53.1	Jharkhand	24.7	Orissa	38.5
Arunachal Pradesh	23.5	Karnataka	40.4	Punjab	56.8
Assam	40.3	Kerala	68.3	Rajasthan	19.6
Bihar	43.7	Madhya Pradesh	34.0	Sikkim	44.4
Chhattisgarh	26.2	Maharashtra	44.8	Tamil Nadu	64.5
Gujarat	44.0	Manipur	30.3	Tripura	59.5
Haryana	49.5	Meghalaya	29.0	Uttar Pradesh	26.3
Himachal	22.7	Mizoram	14.1	Uttaranchal	27.7
Jammu and Kashmir	11.0	Nagaland	15.5	West Ben-gal	46.5

Source: Report No. 491, NSS 59th Round, January-December, 2003.

Along expected lines, increasing landlessness is reflected in the increasing proportion of agricultural workers vis-à-vis cultivators in rural India. Apart from a few outlier states like Arunachal Pradesh, Assam, Himachal Pradesh, J&K, and Rajasthan, most other Indian states in 2001 had substantial numbers of agricultural workers compared to cultivators (details in Table A6). Some major states like Andhra Pradesh, Bihar, Kerala, Orissa, Tamil Nadu and West Bengal had more agricultural workers than cultivators. The evolution of the relative strength of cultivators and agricultural workers in recent decades is also interesting. For the country as a whole, while the number of cultivators remained more or less constant at 125 million between 1991 and 2001, the number of agricultural workers increased from about 86 million to 106 million during this same time period (Mishra, 2007); increasing landlessness created the grounds for the swelling of the ranks of the rural proletariat.

E. TENANCY

Growing landlessness might not lead to the consolidation of capitalist relations of production and growth of the rural proletariat and semi-proletariat if there is widespread prevalence of tenant cultivation. There are after all, two different ways in which the surplus labour of direct producers can be appropriated by the ruling classes in a rural context, directly as wage-labour and indirectly as land rent, with the latter referring to the rent paid as part of a tenancy contract. The first method of appropriating surplus is associated with capitalist relations of production, while the second is associated with semi-feudal methods of surplus extraction.

Tenant cultivation, with sharecropping as the form of the tenancy contract, especially allows extraction of the surplus product in the form of land rent.

Therefore, sharecropping tenant cultivation has been historically identified as one of the most important semi-feudal forms of surplus extraction in rural India. It is for this reason that the extent of its prevalence today can be used as an important indicator of the continued strength of feudal and semi-feudal modes of surplus extraction, and indirectly at the relative strength of the landed gentry in rural society. Hence, it is important to complement the study of land ownership and landlessness patterns with a close study of the evolution of tenancy, both the extent of its prevalence and the evolution of its form, over time. What does the evidence on tenancy show?

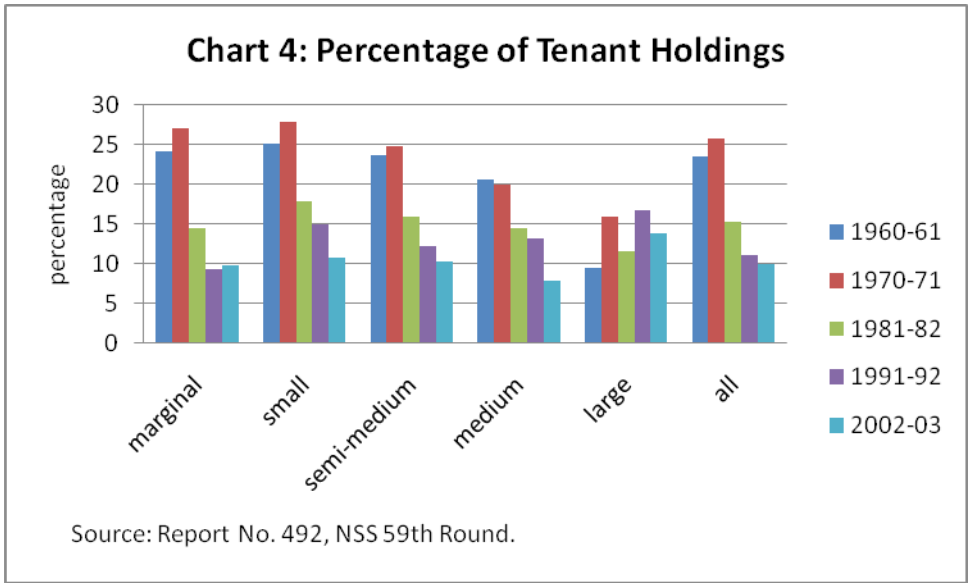
Aggregate level data suggests that tenant cultivation as a form of organizing agricultural production has witnessed a steady and steep decline in rural India over the last four decades. According to NSSO data, the percentage of households leasing in land has declined from 25% in 1971-72 to 12% in 2003; the percentage of area leased in to total area owned has declined from 12% in 1971-72 to 7% in 2003; and the percentage of area leased out to total area owned has also decreased from 6% in 1971-72 to 3% in 2003 (Government of India, 2006a). The same declining pattern is observed even with data on tenancy from the various Agricultural Censuses in India.

The sharp decline in the extent of tenancy is also observed for operational holdings. Whereas the percentage of operational holdings with partly or wholly owned land has practically remained unchanged at around 95%, the percentage of operational holdings with partly or wholly leased-in land has fallen drastically from around 24% in 1960-61 to 10% in 2002-03. In terms of the total area operated, the percentage share of area leased in has declined from 10.7% in 1960-61 to 6.5% in 2002-03. At the aggregate level, the gradual shift from tenant cultivation to self-cultivation seems to be a persistent and unmistakable trend in the Indian agrarian economy.

It is true that aggregate figures about the decline of the extent of tenancy might not be very helpful in drawing conclusions about the “tenancy problem”. For it is conceivable that the decline in tenancy is largely restricted to larger holdings, i.e., those belonging to middle and rich peasants, while there is a simultaneous increase in the incidence of tenancy for smaller holdings, i.e., those belonging to poor peasants and landless labourers (Patnaik, 1976). Since, in any meaningful sense, the “tenancy problem” refers to the indirect extraction of surplus labour of the landless and near-landless households, we need to supplement the aggregate picture about the evolution of tenancy with a more disaggregated story, where the disaggregation runs along size-classes.

What is the evidence on the evolution of tenancy by size-classes? As shown in Chart 4 (details in Table A7) , other than for large operational holdings, i.e., operational holdings of 10 hectares or more, the share of tenant holdings have declined sharply in all the other categories. In fact, the share of tenant cultivation

has marginally increased for large operational holdings over the last five decades (though there is a decline over the last decade even for this category).



As shown in Table 6, the share of area leased in by size-class of operational holdings display the same pattern across the size-class categories; the share of area leased in has declined across the board, with the decline sharpest for the medium holdings. For large operational holdings, the share of leased in land declined by the least proportional amount. If, as mentioned earlier, the tenancy problem largely refers to semi-feudal modes of exploitation of the landless and near-landless through tenant cultivation, then this problem seems to have become less severe over the last five decades. What about the geographical variation in the extent of tenancy?

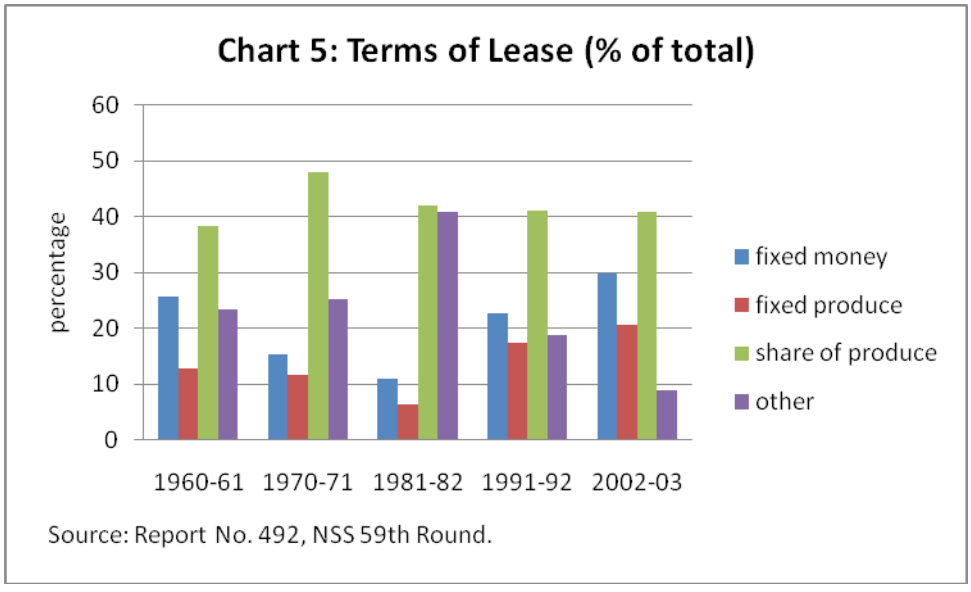
Table 6: Share of Area Leased In by Operational Size-Class

	Percentage of area leased in				
	1960-61	**1970-71**	**1981-82**	**1991-92**	**2002-03**
Marginal	16.6	18.9	9.7	8.7	8.6
Small	14	14.6	8.5	8.5	6.8
Semi-medium	11.7	11.7	7.3	7.4	6.3
Medium	9.6	8.7	6.6	6.9	4.2
Large	8.3	5.9	5.3	11.4	6.1
All sizes	10.7	10.6	7.2	8.3	6.5

Source: Report No. 492, NSS 59th Round, January-December, 2003.

The inter-State variation in the extent of tenancy in 2003 shows an interesting pattern too, as summarized in Table A8. The states which report the highest share of leased-in area are Punjab and Haryana, the two states which have the most "developed" agricultural production. Apart from Orissa, Punjab and Haryana, all the other major states had leased-in area which was less than 10% of the total operated area. Thus, states which are usually considered to be the bastions of semi-feudal and pre-capitalist production relations are not the ones which have the highest prevalence of tenancy, with the exception of Orissa; it seems, therefore, that the development of capitalism in Indian agriculture has peculiarly used tenancy and other forms of pre-capitalist relations of production as means of reducing the costs of production and controlling labour.

To get a complete picture of the extent and effect of tenancy, we need to include data on the terms of tenancy too, i.e., how the tenancy contract was specified. The NSSO landholding surveys classify contracts relating to leased-in land into the following categories: (a) fixed money lease, (b) fixed produce lease, (c) share of produce lease, (d) service contract lease, (e) share of produce along with other terms, (f) leased from relatives. The NSSO data shows that the predominant form of tenancy has been sharecropping, i.e., the share of produce lease. This has not changed much over time: the share of leased-in area going for sharecropping has stayed relatively stable around 40%, as can be seen from Chart 5 (see Table A9 for details).



The inter-state variation in the terms of lease, (see in Table A10), also provides useful information. Haryana and Punjab, the states with the largest share of leased-in land, had fixed money lease contracts as the predominant form of tenancy. Assam, Bihar, Orissa and Uttar Pradesh were the four major states which had sharecropping as the predominant form of tenancy contract. This difference is

important because the form of tenancy is radically different in the two groups of states.

In states like Punjab and Haryana, tenant cultivators are no longer the landless and poor peasants; it is rather the middle and rich peasants who lease-in land to increase the size of their agricultural operations and reap some economies of scale on their capital investments (Sidhu, 2005). Thus, the fixed money rent form of tenancy is not an indicator of pre-capitalist relations of production, but are rather very much part of the capitalist development in Indian agriculture; the land rent that is earned by the lessor, in this case, can be considered capitalist rent. In states like Bihar and Orissa, on the other hand, tenancy is still predominantly of the old form, where the largest group of lesse is landless and near-landless peasants. In such a scenario, sharecropping operates as a semi-feudal mode of surplus extraction, where land rent can be considered pre-capitalist rent. [5]

The aggregate evidence on tenancy, thus, seems to suggest a sharply declining role of tenancy at the national level. What is interesting is that its continued prevalence is observed mainly in contexts of capitalist agricultural production, where sharecropping is less important than money rents, and not in the states with semi-feudal modes of surplus extraction; among the three states with the largest reported share of tenant cultivation, the top two are Punjab and Haryana, precisely the states where capitalist farming has developed the most. In the more pre-capitalist settings, tenancy is relatively less prevalent today and has steadily declined over the decades but, along expected lines, sharecropping continues to be the predominant form of the tenancy contract.

A caveat is in order. It is well known that reliable data on the real extent and terms of tenancy is difficult to come by. Due to the possibility of legal action securing the rights of tenants, there is always an incentive for landlords to understate the extent of tenancy they actually participate in. Often times, this is done by replacing recorded tenants with unrecorded tenants; if the extent of unrecorded tenant relationships are large, then official data on the extent of tenancy would underestimate their true prevalence. It is difficult to rule out the possibility that the NSSO data on tenancy suffers from such problems. What might mitigate the problem is the fact that we have looked at data on tenancy over several decades and not only at a point in time; hence, if the prevalence of unrecorded tenancies have remained more or less stable over time, we might get a relatively correct picture of the trend.

[5] For a distinction between capitalist and pre-capitalist rent see Patnaik (1976).

F. RETURNS FROM CULTIVATION AND SOURCES OF INCOME

While information on patterns of land ownership, landlessness and tenancy provide very useful clues about the agrarian structure of India, this needs to be complemented with data on the sources of rural income to get a more complete picture of class relations. How does the vast majority earn their incomes? Do they work mainly for wages or do they derive the lion's share of their income from self or tenant cultivation? Do they derive a substantial portion of their income from petty production? These are important questions to consider because they provide clues about the necessary relations into which the majority of the rural population enter during the process of production and income generation. A predominance of wage income would suggest the gradual spread of the institution of wage-labour and therefore of capitalist relations; continued dependence on income from cultivation (self or tenant) would suggest an opposite story.

Several caveats are in order before we proceed. First, a straightforward link between wage-labor and capitalism on the one hand, and non-wage income and non-capitalism on the other hand has its pitfalls. As we see in the section on industry, various types of self-employment income can result from merchant and finance capitalist relations (mainly variations on the putting-out system); hence non-wage income can often mask the underlying capitalist relations. Similarly, wage income can often mask the fact of bondage, extra-economic coercion and other forms of "unfree" labour restricting the domain of operation of capitalist relations; but, as has been pointed out, for instance by Patnaik (1976), many of these "unfree" relations are created by capitalism and are not relics of a pre-capitalist past and so cannot be taken as a marker of semi-feudalism. Second, often the same individual participates in several types of economic activities, as we mention below, and thus the aggregate level distinctions that we make between wage and non-wage income might need serious modifications when looking at more micro-level phenomena. Thus, with these caveats in mind, we will proceed to study the sources of rural income because we feel the aggregate level distinction between wage and non-wage income still has important clues to offer about the dominant relations of production in India.

To start an analysis of the sources of rural income we need to revisit the issue, pointed out earlier, of the continued fragmentation of land. Continuing fragmentation leads to a declining average size of ownership and operational holdings, and this increasingly brings the question of viability of small-holding cultivation to the fore. Of course the small size of the average holding is not the only factor that needs to be reckoned with when looking at the issue of viability of small-scale cultivation. Existence of the ground-rent barrier (Patnaik, 1986), lack of formal credit, movement in the terms of trade vis-à-vis industry and services, dwindling rural public investment and rapidly eroding irrigation facilities kick in too, and makes technological change almost impossible to initiate and sustain at the farm level; the exploitation faced by farmers in the input and output markets,

combined with these other factors, force incomes from small holdings to be extremely low. For instance, in 2002-03, the average return from cultivation per hectare, i.e., value of output less value of paid out expenses (excluding value of family labour or rent of owned land), was Rs. 6756 for Kharif and Rs. 9290 for the Rabi season (Mishra, 2007). The low return from cultivation, as summarized in Table 7, implies that most rural families need to augment their incomes through wage labour (in both the rural farm and non-farm sectors) and petty commodity production (of both agricultural and non-agricultural commodities). The dependence on wage income and income from petty production would seem to be especially pronounced for the small farmers, marginal farmers and near landless households, which together comprise about 85% of the rural population. Along expected lines, this is exactly what we find when we look at the sources of income of rural households from NSSO data.

Tables 8 and 9 summarize information about the sources of rural income by the size-class of ownership holdings. Several interesting facts emerge from this data. First, most of the rural households have abysmally low incomes; the incomes do not cover even the basic expenditures necessary for survival. *It is only the rural families with more than 4 hectares of land whose total income exceeds their expenditures* (Government of India, 2005; Mishra, 2007). To put this in perspective, let us recall that in 2003, 96% of rural households owned less than 4 hectares; thus, in 2003, 96% of rural households had lower total incomes – which includes income from cultivation, wage labour, and petty production – than even what their extremely low expenditures required. It is, therefore, not surprising that rural India should have seen an explosion of debt over the last decade, leading in many cases to severe distress and even suicides. Second, for a large majority of rural households, the primary source of income is wage income, as can be seen from Chart 7. For all families with less than 0.4 hectares, i.e., the *effectively landless* households as defined above, wage income provided more than half of their total monthly income; in 2003, let us recall that 60% of rural households belonged to this category. For completely landless households, of course, this proportion would be much higher. Third, income from petty commodity production accounts for a substantial portion – close to 20 percent – of the total income of rural households; this is especially true for near landless and marginal farmer households, who together comprised about 80% of rural households in 2003.

Thus aggregate level data seems to suggest that wage income has become a very important source of income for the majority of the rural population. This implies that surplus extraction through the institution of wage-labour has become one of the most important forms of extracting the surplus product of direct producers. Since income from petty commodity production is an important source of income for the landless labourers and marginal farmers, this suggests that exploitation by merchant capital through *unequal exchange* is also an important form of surplus extraction.

Table 7: Returns from Cultivation, 2003

	% of house-holds	returns from kharif (Rs per year)	returns from rabi (Rs per year)	returns from farm ani-mals (Rs per month)	returns from non-farm business (Rs per month)	Aver-age Family Size
Near land-less	9.9	367	462	125	339	5
Marginal	55.6	3243	2667	88	223	5.2
Small	18.1	8098	5922	100	181	5.7
Semi-Medium	10.6	13880	10596	69	188	6.2
Medium	4.8	22841	20940	75	422	6.9
Large	0.9	33494	34600	122	507	7.5
All		6200	5059	85	236	5.5

Source: Mishra, 2007.

To preempt any misunderstanding, the notion of unequal exchange and its relationship to surplus extraction needs some elaboration. As long as commodities exchange in proportion to their values, i.e., as long as prices reflect the underlying labour values congealed in commodities, artisanal producers cannot be exploited, in the Marxist sense of the term, because they are not separated from the means of production. But the formation of market prices is mediated through monopoly and other forms of bargaining power; hence, market prices for individual and groups of commodities can, in the presence of monopoly, deviate from the *their* labour values. If one party to the exchange can systematically ensure this deviation, this is tantamount to systematic unequal exchange, i.e., exchange which systematically deviates from the labour values congealed in commodities. In such a situation, one party to the exchange appropriates part of the value that is produced by the other party, and thereby appropriates a part of the surplus labour time of the other party without giving anything in return. The markets where the commodities arising from petty production by landless and marginal farmers are sold are typically controlled by merchants; these merchants manage to systematically ensure deviation of prices (they pay to the artisan-producers) from underlying labour values due to their monopoly position in these markets. This is the sense in which merchant capital manages to appropriate a part of the value produced by petty producers through unequal exchange.

G. CREDIT

Informal credit, often linked with product and labour markets, has historically played a very important role in the perpetuation of semi-servile conditions of life and economic stagnation in rural India. Since usurious capital, which operates

through the mechanism of informal credit, is never directly involved in the process of production in the sense in which industrial capital is, the profits of the moneylender can only be understood as a claim on the surplus product produced elsewhere. Usurious capital, therefore, gets a share of the total surplus production through the process of redistribution of the surplus without having participated in its generation. That is the sense in which usurious capital is understood to be necessarily parasitic.

Table 8: Sources of Average Monthly Income (Rs)

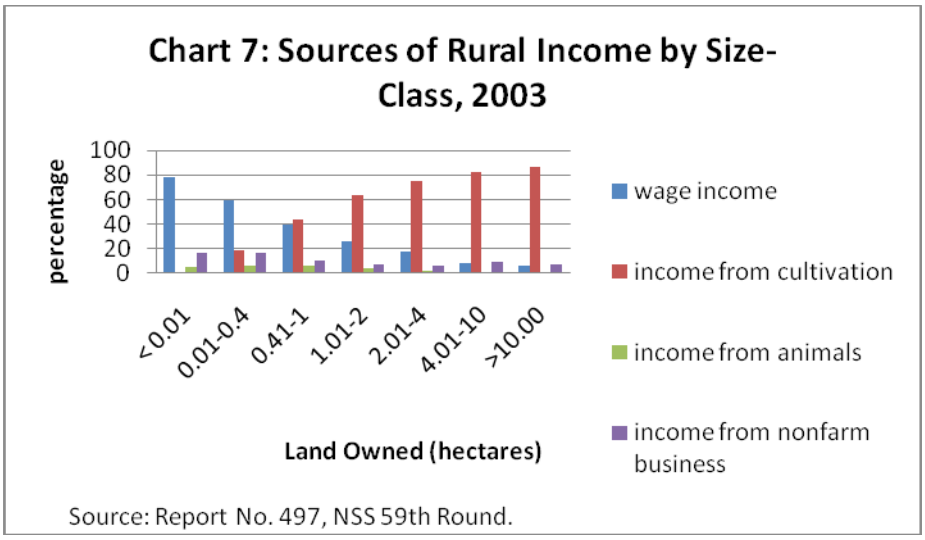
	wage income	income from cultivation	income from animals	income from nonfarm business	total income	total expenses
< 0.01	1075	11	64	230	1380	2297
0.01-0.4	973	296	94	270	1633	2390
0.41-1	720	784	112	193	1809	2672
1.01-2	635	1578	102	178	2493	3148
2.01-4	637	2685	57	210	3589	3685
4.01-10	486	4676	12	507	5681	4626
>10.00	557	8321	113	676	9667	6418

Source: Table 6, Report No. 497, NSS 59th Round.

Table 9: Percentage of Average Monthly Income (%)

	wage income	income from cultivation	income from animals	income from non-farm business
< 0.01	77.90	0.80	4.64	16.67
0.01-0.4	59.58	18.13	5.76	16.53
0.41-1	39.80	43.34	6.19	10.67
1.01-2	25.47	63.30	4.09	7.14
2.01-4	17.75	74.81	1.59	5.85
4.01-10	8.55	82.31	0.21	8.92
>10.00	5.76	86.08	1.17	6.99

Source: Table 6, Report No. 497, NSS 59th Round.

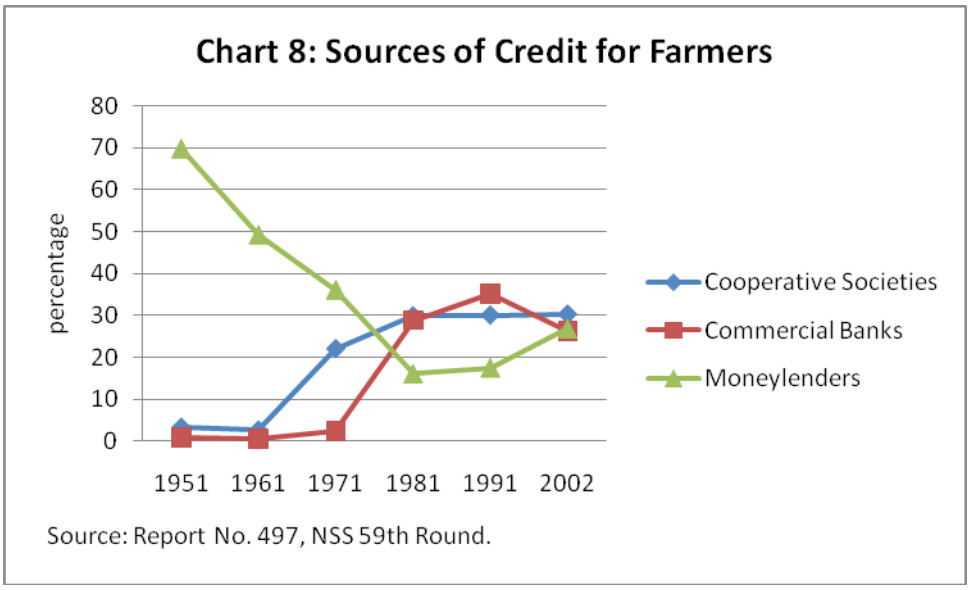


During the “mode of production” debate, usurious capital and debt bondage played a key role in defining “semi-feudalism”, which was understood as a semi-servile state of existence for the working population in the agrarian economy. Low production by tenant cultivators necessitated consumption loans; often these loans were made by the same landlord who had hired out land to the tenant. The terms of these loans were so onerous that they could never be possibly paid back by the tenant; as interest kept piling up on top of the original loan amount, the tenants were eventually forced to “pay back” in labour services rendered to the landlord. Thus, this mechanism of perpetual debt bondage drastically reduced the freedom of labour to participate in the institution of wage-labour and created the semi-servile conditions identified as “semi-feudalism” (Prasad, 1974). Note that in such a situation, a large part of the surplus product of the direct producers was appropriated as feudal “labour services”.

Equally important, informal credit was often the mechanism through which different markets, like the labour market and the product markets, were linked together. This interlinked system of markets then facilitates extraction of surplus through unequal exchange, in the sense we have used this term above. Interest rates in these “informal” credit markets are often as high as 30% per month and the main borrowers are the landless labourers, the marginal and small peasant households whose total income is perennially below their consumption expenditures. Existence of usurious capital also acts as a depressant on the rural economy: very high rates of return promised by money-lending activities create enormous disincentives for productive investment, thereby perpetuating conditions of economic stagnation and social backwardness. Furthermore, production relations are themselves important in shaping these unequal exchange relations. It is precisely the size of land holdings and absence of sufficient collateral due to maldistribution of assets, that forces peasants to go to informal credit sources and as a result to self-exploit themselves.

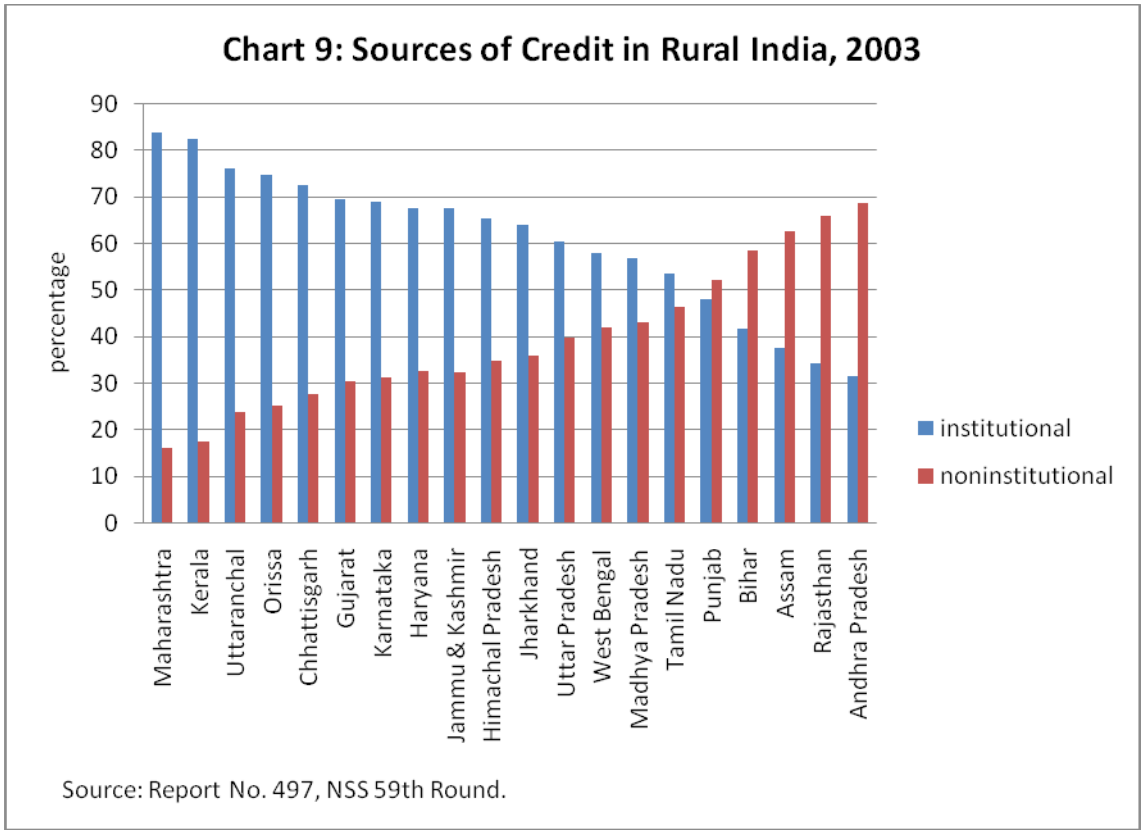
Hence, for all these reasons, it is important to study the evolution of informal credit in the rural economy of India. What does the evidence say?

While the share of total rural credit provided by moneylenders declined substantially between 1961 and 1981, the trend of rapid decline was halted in the early 1980s. Since then the moneylender has made a spectacular comeback in rural India, as can be seen in Chart 8 (details in Table A11). The new moneylenders, though, are quite different, in terms of social composition, from the older moneylenders. While the earlier brand of moneylenders had close links with landed property, the new crop does not seem to have that connection. Over the last two decades, various groups of the rural population, like traders, school teachers, government servants, lawyers, rich farmers, and other members of the petty bourgeois class, have entered this lucrative business, facilitated by the gradual but steady retreat of formal credit institutions.



The inter-state variation of the prevalence of informal credit, as depicted in Chart 9, has interesting features. First, most of the larger states have a larger share of the total rural credit coming from formal than from informal sources; other than Punjab, Rajasthan, Assam, Bihar and Andhra Pradesh, all the other states had a higher proportion of total credit attributable to formal than to informal sources in 2003. Since the largest component of informal credit comes from moneylenders, most states seem to have had relatively lower prevalence of moneylenders. Second, some of the states with relatively well developed capitalist agriculture like Punjab, Andhra Pradesh and Tamil Nadu also have a very high prevalence of informal credit. In Punjab, for instance, one of the main players in the informal credit market is the trader-middleman known as the *arhatiya*, who often provides credit, sells inputs and also procures the output from the farmer. This typical pattern of interlinked markets allows the surplus product to be easily extracted from the direct producer through unequal exchange whereby input prices are inflated and output prices depressed.

Interestingly, West Bengal, which has had some limited degree of land reforms in the past, also shows a high percentage of non-institutional forms of rural credit.

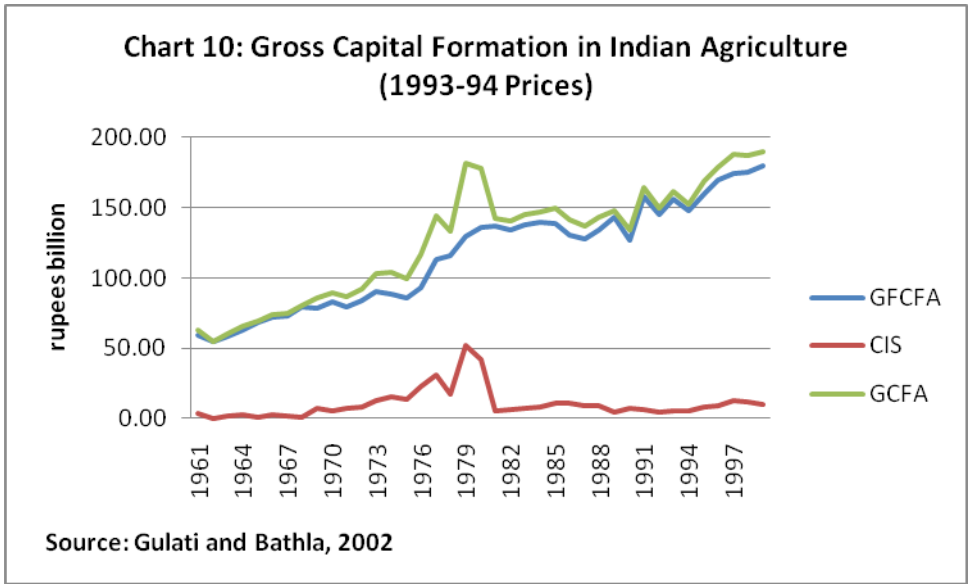


H. CAPITAL FORMATION IN AGRICULTURE

An important question relating to the development of capitalist relations of production in Indian agriculture is whether there has been any significant trend towards reinvestment of surplus and capital accumulation in the agrarian economy. This is an important question because the development of capitalist relations cannot conceivably preclude capital formation on a more or less extensive scale. Lack of capital formation in agriculture would indicate the continued presence of production relations which act towards hindering the development of productive forces. Hence, it is important to take a look at the evidence on the trends of capital accumulation in the agrarian economy. What does the aggregate level data suggest in this regard?

Aggregate level data on gross capital formation in Indian agriculture shows interesting temporal patterns, as displayed in Chart 10 (details in Table A12). To begin with, note that gross fixed capital formation in agriculture, forestry and fisheries (GCFA) is composed of two parts: gross fixed capital formation in agriculture (GFCFA) and changes in stocks (CIS). As can be seen from Chart 10, the

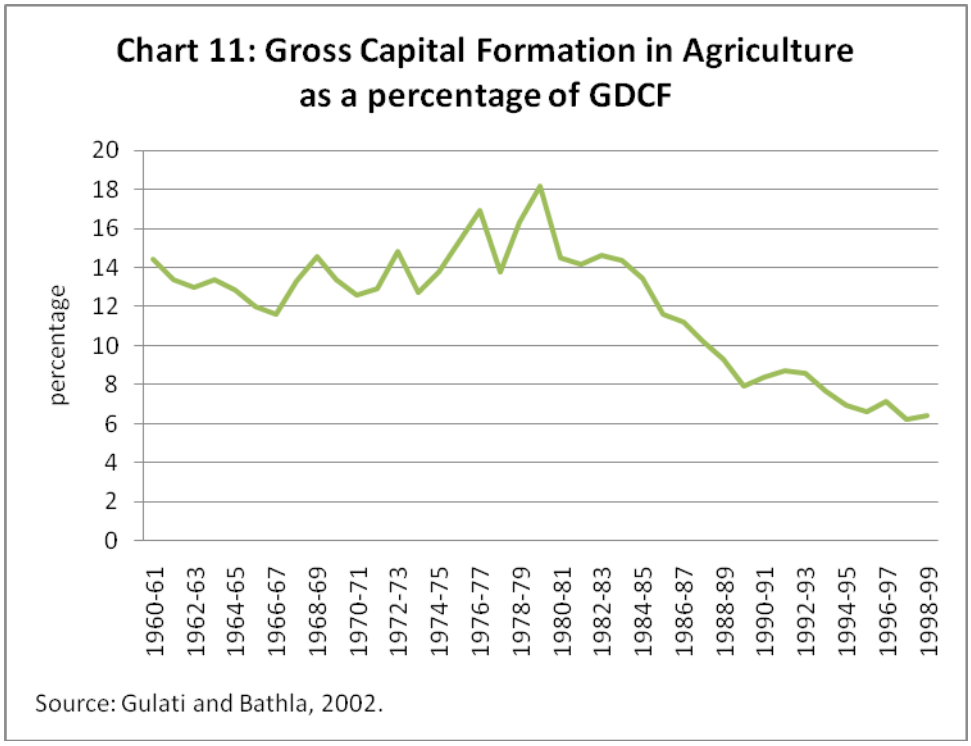
gross value of capital stocks has more than tripled in real terms (1993-94 prices) over the last four decades, moving from 63 billion rupees in 1961 to 190 billion rupees in 1999; this growth, moreover, has been largely driven by the growth in fixed capital formation.



For the period as a whole, i.e., from 1961 to 1999, gross capital formation in agriculture grew at about 3% per annum, a significant rate of growth by developing country standards. Decomposed by decades, the growth in gross capital formation displays significant differences. While the growth rate of GCFA was 5.05% per annum in the decade of the 1960s, it accelerated significantly to 8.7% per annum during the 1970s; thereafter, the growth rate slowed down significantly. During the 1980s, capital formation registered a negative growth rate of -0.33% per annum and picked up again in the 1990s to a growth rate of 2.89% per annum during the 1990s. What is interesting is that the slowdown in capital formation is largely accounted for by the deceleration of public sector capital expenditures in agriculture; private sector investments, though growing at a slower rate than in the 1960s and 1970s, never became negative even as public sector investment growth dipped below zero; moreover, it has picked up steam during the 1990s despite poor performance of the public sector (Table 1.2, Gulati and Bathla, 2002).

How does this growth in capital accumulation in the agricultural sector compare with the rest of the Indian economy? To answer this question, we look at the gross capital formation in agriculture relative to the aggregate gross domestic capital formation (GDCF) in the Indian economy; this information is depicted in Chart 11 (details in Table A13). As can be seen from Chart 11, agriculture's share in the gross domestic capital formation was stable at around 15% till the early 1980s; in fact it even displayed a slight positive trend from the mid-1960s to the early 1980s. Thereafter, capital formation in agriculture has declined drastically as a share of the

total capital formation in the economy, from about 18 % in 1980 to a little more than 6% in 1999.



Aggregate level data on capital formation in Indian agriculture, therefore, seem to suggest that there was significant capital accumulation during the 1970s and 1980s. During this period, capital formation in agriculture kept pace with capital formation in the rest of the Indian economy. From the decade of the 1980s, driven largely by changes in central government policy, agriculture has faced a state of relative neglect: capital formation in agriculture has not only significantly slowed down but has also fallen relative to the rest of the economy. This can be accounted for by the drastic fall in public investment in agriculture.

I. AGGREGATE TRENDS AND SUMMARY

Our analysis of aggregate level data has revealed the following significant trends in the agrarian economy of India:

1. The share of GDP contributed by agriculture has steadily declined over the last five decades; this decline has not been matched by a decline in the share of the workforce engaged in agriculture. The result of these two trends has been a declining share of per capita value added from the agricultural sector.

This has essentially consigned a large section of the Indian working population to very low productivity (and low income) work.

2. The average size of agricultural holdings, both ownership and operational, has seen a steady decline over the last five decades, with the average ownership holding in 2002-03 being 0.73 hectares.

3. The ownership of land remains as skewed as it was five decades ago; several measures capture this skewed pattern of ownership in the agrarian economy. For instance, the Gini coefficient of landholding ownership concentration has remained practically unchanged between 1960-61 and 2002-03; in fact it has marginally increased between 1991-92 and 2002-03.

4. While the aggregate distribution of land ownership remains as skewed as before, interesting and important patterns are visible within this unchanging aggregate picture. The share of land owned by large (10 ha or more) and medium (4 ha to 10 ha) landholding families has steadily declined over the last few decades from around 60% to 34%; the share owned by small (1 ha to 2 ha) and marginal (less than 1 ha) landholding families has increased from around 21% to 43%, while the share of semi-medium (2 ha to 4 ha) families has remained unchanged at around 20%.

5. Parallel to this decline in the share of land held by large landholding families is their decline as a share of rural households; on the other hand, there is a large increase in the share of small and marginal landholding families among rural households. In 2002-03, 80% of rural households were marginal landholding families; the corresponding figure was 66% in 1960-61. Both these trends seem to indicate the declining economic, social and political power derived from the ownership of land in India.

6. The geographical (inter-state) variation of landholding ownership pattern allows us to divide the Indian states into two groups: large landholding states, and small landholding states. In the “large” landholding states, a substantial share of total area is still owned by relatively large landholding families; in the “small” landholding states, the share of land held by large or medium landholding families is very small. The former group consists of: Andhra Pradesh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan; the second group consists of: Assam, Bihar, Himachal Pradesh, J&K, Kerala, Orissa, Tamil Nadu, Uttar Pradesh, West Bengal.

7. Going hand-in-hand with the decline in the share of land owned by large landowning families, is the steady decline of tenant cultivation and its gradual replacement by self cultivation in Indian agriculture. The share of operational holdings using tenant cultivation declined from about 24% in 1960-61 to about 10% in 2002-03. There are large geographical variations in the extent of tenancy, with the largest share of leased-in land as a share of

total operated area occurring in Punjab and Haryana, two prominent examples of what we have called large landholding states; Orissa has high prevalence of tenancy and is an example of what we have called small landholding states. The proportion of area owned and the proportion of area operated by the different size-classes are almost equal; hence, there is no evidence of reverse tenancy on any substantial scale at the aggregate level, though this might hide reverse tenancy at state or regional levels.

8. In most places where tenancy exists, the largest form of the tenancy contract is still sharecropping. In 2002-03, share cropping accounted for about 40% of the land under tenancy in India; this has more or less stayed constant over the decades. An important exception is Punjab and Haryana, the two states which have the largest share of leased-in land, where the predominant form of the tenancy contract is for fixed monetary payment.

9. Effective landlessness is large and has steadily increased over the past few decades. The share of effectively landless households in total rural households has increased from about 44% in 1960-61 to 60% in 2002-03.

10. Small holding agricultural production has increasingly become economically unviable over the years. In 2003, the average income from cultivation was insufficient to cover even the very low level of consumption expenditures of the majority of rural households. This is one of the primary causes behind the recent increase in rural indebtedness. This increasing difficulty of sustaining incomes through cultivation was probably what led close to 40% of farmers in 2005 to suggest, during the course of a NSSO Survey, that given a chance, they would opt out of agriculture. Changes in the agrarian structure of India seem to have already brought the question of collectivization on the historical agenda. We return to this point in the conclusion.

11. Disaggregating total incomes of rural households engaged in agriculture according to types of income show that wage income has become the main source of income for a large majority of the population. For about 60% of the rural households in 2003, the major share of income came from wage work, supplemented by income coming from petty commodity production, both in the agricultural and non-agricultural sector. Another 20% of rural households drew equal shares of their total income from wage work and cultivation, both at about 40%.

12. Prevalence of informal sources of credit through moneylenders had seen a sharp decline over the 1960s and 1970s, but the decline seems to have been halted since the early 1980s. The moneylender has made a comeback in rural India, facilitated by a steady retreat of the institutions of formal credit.

13. There was significant capital accumulation in the agricultural sector during the 1970s and 1980s; this has drastically fallen during the 1980s and has

picked up a little during the 1990s. The fall in the growth rate of capital formation has been largely driven by the fall in public sector investments in the agrarian economy.

Putting all these trends together, one is led to the following tentative conclusions (more in the nature of a working hypothesis): over the past few decades, the relations of production in the Indian agrarian economy have become increasingly "capitalist"; this conclusion emerges from the fact that the predominant mode of surplus extraction seems to be working through the institution of wage-labour, *the* defining feature of capitalism. Articulated to the global capitalist-imperialist system, the development of capitalism in the periphery has of course not led to the growth of income and living standards of the vast majority of the population. On the contrary, the agrarian economy has continued to stagnate and the majority of the rural population has been consigned to a life of poverty and misery.

Aggregate level data suggests that the two main forms through which the surplus product of direct producers is extracted are (a) surplus value through the institution of wage-labour (which rests on equal exchange), and (b) surplus value through unequal exchange (which mainly affects petty producers) where input prices are inflated and output prices deflated for the direct producers due to the presence of monopoly, monopsony and interlinking of markets; semi-feudal forms of surplus product extraction, through the institution of tenant cultivation and share cropping, has declined over time. Merchant and usurious capital continues to maintain a substantial presence in the life of the rural populace, both of which manage to appropriate a part of the surplus value created through wage-labour, apart from directly extracting surplus value from petty producers through unequal exchange.

The process of class differentiation has been considerably slowed down and complicated due to the steady incorporation of the Indian economy into the global capitalist system, which has supported and even encouraged the growth of a large "informal" production sector. This informal production sector can be best understood as being involved in petty commodity production, both of agricultural and nonagricultural commodities. Petty commodity production refers to the organization of production where the producer owns the means of production and primarily uses family and other forms of non-wage labour in the production process. Petty commodity production is exploited mainly by merchant and usurious capital where the main form of surplus extraction is through the mechanism of unequal exchange and not through the institution of wage-labour; unequal exchange is often facilitated and maintained through interlinked product, labour and credit markets. The coexistence of both wage-labour and petty commodity production, whereby landless labourers, marginal farmers and small farmers participate in both, in one as free labour and in the other as owner-producer, has impeded the development of proletarian class consciousness and complicated the task of revolutionary politics. This is a point we return to in the concluding section but before that we turn to a detailed study of petty commodity production in the non-agricultural sector.

PART II: INDUSTRY[6]

A. INTRODUCTION

After three decades of planned industrialization and another three decades of increasingly market-based development, what types of production relations are found in Indian manufacturing? What are the main modes of surplus extraction? Is Indian industry capitalist? If so what is the nature of this capitalism? Is it dominated by industrial, finance or merchant capital? To address these questions, we present macroeconomic data from five rounds of the National Sample Surveys (NSS) of the unorganized manufacturing sector from 1984 to the present, supplemented with micro case studies.

Traditional accounts of Indian industry tended to focus on large-scale or "modern" industry, since it was assumed that this sector would grow rapidly to accommodate all industrial employment. The working class was also imagined similarly as consisting of urban workers in large industry. The workers and small producers in the "traditional" or small-scale industry, though numerically strong, occupied an ambiguous position in Marxist theory for two reasons: one, the revolutionary subject was the modern large-scale industrial working class, and two, the revolutionary experiences of Russia and China showed that peasants and other small producers could, depending on the specific historical conditions, be reactionary forces, allies of the modern industrial working class, or a revolutionary force in their own right.

The present study is motivated by a desire to understand the material conditions confronting the vast majority of the industrial working class, which labors in the "informal sector." Large-scale industry has not expanded as expected in India. The share of large industry (factories of >100 workers) in manufacturing employment grew from around 5% in 1900 to 30% in 1980 and thereafter has declined to around 25 % (Roy 2000). While low employment elasticity in large-scale industry has been blamed on imported capital-intensive technologies, the other less emphasized part of the story is extensive use of informal (casual and sub-contracted) employment by formal firms particularly for labor-intensive work, particularly in the post-1991 period. This once again points to the necessity of acquiring a good grasp of the empirical realities of India's informal manufacturing workforce.

To a first approximation, relations of production in large formal sector firms may be termed "industrial capitalist." We do not discuss these further. This study limits itself to the informal sector. According to the latest National Sample Survey Organization (NSSO) survey covering the period 2005-2006, 36.44 million of India's 45 million industrial workers (i.e. about 75%) were employed in the informal manufacturing sector (Government of India, 2008a). The informal economy accounts for 40% of industrial GDP. Here relations of production and modes of

[6] In this study we use the term "Industry" to refer only to the manufacturing sector and exclude mining and construction from our analysis.

surplus extraction are more complex than those prevailing in formal industry. However it is imperative to develop a theoretical understanding of these relations so that the concept of the "working class" does not continue to ignore the vast majority of the working population in India.

Across all three sectors, as with most developing countries, in India a large portion of the employment (by some estimates up to 90%) is classified as "unorganized" (Govt. of India terminology) or "informal" (academic and general policy usage). An informal firm is not registered with the government and typically does not pay any taxes, nor is required to abide by labor and other laws. Informal employment means that work is not regular, secure, or governed by formal/written contracts, and usually no benefits (health, retirement, other social security) are paid. Although the exact size of the informal economy in developing countries is hard to estimate, there is little disagreement that the vast majority of employment is still outside the formal sector. Even leaving aside agriculture, the informal sector accounts for 48 percent of non-agricultural employment in North Africa, 51 per cent in Latin America, 65 per cent in Asia, and 72 per cent in Sub-Saharan Africa.[7]

This purely statistical or administrative aspect of informality should be distinguished from more substantive issues of firm size and production and exchange relations, although naturally the two interact in a complex way (for e.g. costs of conforming to government regulations are often cited as a reason for remaining small or undertaking "horizontal" as opposed to "vertical" expansion). Discussions of the informal sector often conflate multiple closely related yet distinct "axes of differentiation." These are shown in Figure 1. In this schematic, the formal-informal distinction itself is restricted only to the question of State regulation of economic activity ("registered" versus "unregistered"). For example, for statistical purposes the Indian manufacturing sector is divided into two parts: those firms that are registered under the Factories Act of 1948 ("organized manufacturing sector", hereafter formal sector) and those that are unregistered because the number of employees is less than 20 (in official GOI parlance, the "unorganized manufacturing sector" and hereafter the informal sector). The Annual Survey of Industries (ASI) collects data on formal firms. The National Sample Survey Organization (NSSO) includes in its surveys of informal manufacturing all firms which are not covered under the Annual Survey of Industries (ASI) and which are not public sector firms. This is the universe of informal manufacturing as far as official data is concerned. Several surveys have been carried out in India since the 1950s at periodic intervals by the NSSO to estimate the size and contributions to GDP, of the small-scale and the informal manufacturing sector (both urban and rural).

Other than the formal-informal axis much attention has been focused on the large-scale/small-scale (firm size) axis, and informal manufacturing is often equated with small-scale production. This can be taken to be true as a first approximation with

[7] See Jhabvala, Sudarshan and Unni (2003) for a discussion of statistical problems.

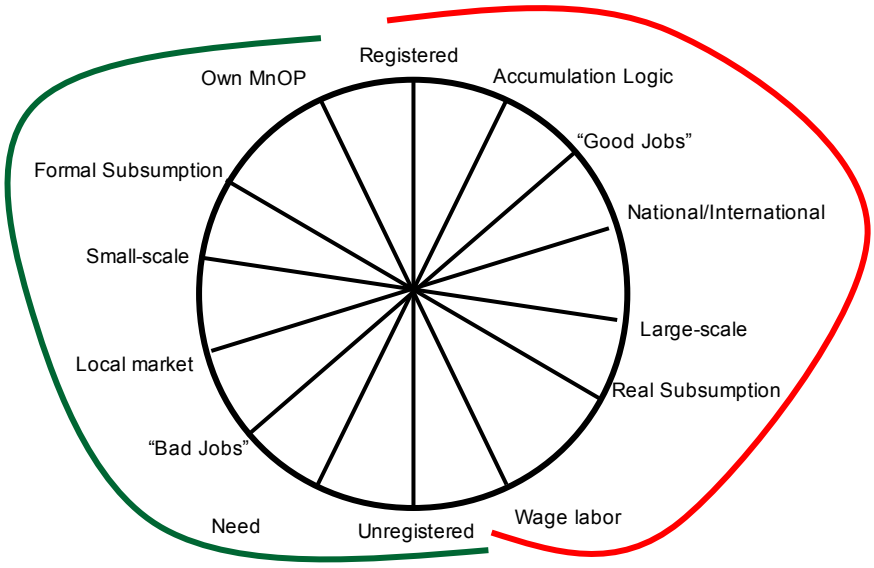
the strong caveat that not all workers employed in the formal sector are “formal workers” since casual labor employed via contractors and sub-contractors forms a substantial part of formal sector firms. The ASI collects some data on the casual and contingent workforce in the formal sector. We do not present this data here. The point of the schematic is to draw attention to the more substantive aspects of the formal-informal divide that relate to forms of exploitation (real versus formal subsumption of labor to capital), relations of production (ownership of means of production versus wage labor) and the type of circuit of capital (need versus accumulation).

The share of small-scale and informal industry in employment has been high since colonial times and NSS data since 1984 shows that informal manufacturing has held on to its employment share, perhaps even expanded it, in recent times. According to the most recent NSS round (2005-2006), 85% of firms in informal manufacturing were own-account enterprises (employing no wage-workers), while 10% were firms employing less than 6 workers, and 5 % employed more than 6 but less than 20 workers (Government of India, 2008a). The overwhelming number of own-account firms in informal manufacturing is sometimes celebrated as a type of “entrepreneurial capitalism.” However this is misleading and elides the fact that surplus extraction via unequal exchange plays a significant role in this sector.[8] Given that informal firms display not only “independent commodity production” and capitalist relations, but also a large variety of “putting-out” modes as well, we present a typology to characterize production and exchange relations in the informal sector. The axes of the typology are “control over capital” (fixed and working, self or other), “control over labor” (process and product, self or other) and “control over market” (product and factor, self or other).

For a long time the relations of production and the manner in which surplus is extracted from the majority of the working class has been neglected or underemphasized, at times simply being labeled “pre-capitalist,” or “non-capitalist,” a term which does not tell us much about the actually existing relations. The informal working class is also not easily recognized as working class from a Marxian perspective, as it may not be doubly free (either not free of the means of production, or not freely mobile, or both). NSS data over the past three decades as well as individual case-studies show that the particular type of capitalism found in Indian informal manufacturing is characterized by a large number of very small firms locked in unequal exchange relationships with merchant and finance capital. Broadly speaking formal rather than real subsumption of labor to capital, and extraction of absolute rather than relative surplus value characterizes many firms. Surplus extraction via the “conventional” wage-labor route is compounded by unequal exchange, unpaid domestic labor, labor bondage, contingent or casual labor, and gender and caste hierarchies.

[8] For details refer to the previous section on agriculture.

Figure 1: The axes of differentiation (MnOP = means of production, Red line indicates the characteristics usually associated with the formal sector, the green line, the informal sector)



B. MARX ON "INFORMAL INDUSTRY"

For the past fifty or sixty years the question of the transition to capitalism has dogged the development literature, although not always recognized as such. The problem of replacement of "traditional" pre-capitalist (feudal and petty commodity) production relations by "modern" capitalist relations was of course the explicit problem of classical development economics. The same problem later resurfaced in the context of the "formal-informal" divide and in this form it continues to this day. Something akin to a sustained and sophisticated debate over the nature of production relations or the mode of production in agriculture did not occur for Indian industry, although many of the same issues prevail there as well. Further, many of the issues that motivated early Marxist controversies over the role of the peasantry in the socialist revolution are relevant to the analysis of small-scale industrial production as well.

The question "is Indian agriculture capitalist?" immediately raised the question "what is capitalism?" The following principle criteria emerged from that debate: class differentiation and proletarianization of labor, generalized or expanding commodity production, and surplus accumulation and reinvestment. Then the question becomes to what extent does doubly-free labor, commodity production (production for exchange rather than use) and accumulation characterize a certain sector of the economy, for our purposes Industry. One can safely say that large-

scale, formal industry displays all these characteristics. However, in the informal manufacturing sector the story is more complex and these criteria apply in varying degrees. Generalized commodity production, rather than production for use dominates, however self-employment exists alongside wage-labor to a significant degree and data on firm sizes shows that reinvestment of surplus into expanded reproduction may not occur. Rather the amount of surplus available for reinvestment may be greatly reduced partly due to low productivity and partly due to siphoning off of the surplus by merchant and finance capitalists.

Marx had much more to say about the transition from small-scale and cottage industry to capitalist factory production as compared to the transition from peasant to capitalist farming. In Chapters 14 and 15 of Capital Vol. 1, he discusses at length the development of modern industry in England and parts of Germany. The sheer diversity of production relations, including independent commodity production, putting-out and wage-labor, described by Marx, calls to mind contemporary conditions in Indian informal industry. In these pages Marx appears to be concerned about two things. One, under what conditions do modern large-scale factories emerge from existing decentralized workshops and domestic production. And two, how is small-scale and domestic industry transformed when it becomes articulated within a dominant industrial capitalist mode of production. Both these questions are pertinent for us today.

Marx notes regarding the emergence of large industry:

> To carry on trade as a manufacture, with concentration of workers, is profitable only under exceptional conditions, because competition is at its greatest between those workers who desire to work at home…and because the capitalist, by scattering the work around, saves any outlay on workshops etc. Nevertheless, the position of this specialized worker, who, although he works at home, does so for a capitalist, is very different from that of the independent craftsmen, who works for his own customers. (Marx 1992, pp. 462-463)

Here two issues of contemporary relevance are raised. Firstly, outsourcing to smaller workshops can, under some circumstance, be more convenient, from the capitalist’s point of view, than centralizing production in a factory, something we observe repeatedly in the Indian experience, particularly in the neoliberal period. One contemporary account of artisanal industry in India puts it thus:

> The procurement of means of labour and the task of training for quality production are no longer concerns of the capitalist. Just as these are a bother of the labourer, so also is the maintenance of the machinery and steady supply of electricity and water. In this manner, almost the entire cost of managing sustained production has been transferred to producer. (Sahasrabudhey 2001, p. 3)

Secondly, the home-based artisan who works for merchant capital, though he appears superficially similar to the independent craftsman of yore, is also very different from him. In fact, Marx asserts:

> This modern "domestic industry" has nothing except the name in common with old-fashioned industry, the existence of which presupposes independent urban handicrafts, independent peasant farming and above all, a dwelling-house for the worker and his family. *That kind of Industry has now been converted into an external department of the factory*…Besides the factory worker, the workers engaged in manufacture, and the handicraftsmen, whom it concentrates in large masses at one spot, and directly commands, capital also sets another army in motion, by means of invisible threads: the outworkers in the domestic industries, who live in the large towns as well as being scattered over the countryside. An example: the shirt factory of Messrs Tillie at Londonderry, which employs 1000 workers in the factory itself, and 9000 outworkers spread over the country districts. (Marx 1992, pp. 590-591, emphasis added)

Capital thus organizes production in a familiar dual mode: large factories are articulated with smaller workshops dependent upon the factory. Exploitation takes different forms under these two circumstances.

> In the so-called domestic industries…exploitation is still more shameless than in modern manufacture, because the workers' power of resistance declines with their dispersal; *because a whole series of plundering parasites insinuate themselves between the actual employer and the worker he employs*. (ibid, p. 591, emphasis added)

Both the factors alluded to in the quote above remain relevant in Indian informal industry today. The dispersal of the working class or, in some instances, the failure of the working class to aggregate in the first place, results in the breaking of labor's resistance to exploitation by capital. And the rising importance of middlemen creates channels for surplus extraction via unequal exchange.

Thus, in reading Marx on the evolution of modern industry one is often struck by the resonance with Indian manufacturing today. The widespread prevalence of putting-out relations, the preponderance of merchant capital and of formal subsumption of labor seems to suggest a type of capitalism that precedes in historical time, the "full-fledged" industrial capitalism of Western Europe and North America. Does this mean that the Indian economy is on the same transition path as the advanced industrial economies? An awareness of the historical context cautions against any such straightforward interpretation. The issue of the transition to industrial capitalism and the disappearance of the informal sector is a very controversial one in the literature and we do not enter into this debate here. Though it is worth pointing out that in some ways this debate over contemporary economic reality

mirrors the debate in Indian economic history over the fate of “traditional industry” under colonialism.

In that debate, the “deindustrialization/nationalist” school maintained that traditional industry was decimated due to competition from cheap manufactured goods and deliberate colonial trade and industrial policy.[9] A more recent “revisionist” school countered that continuity rather than rupture marks the artisanal landscape in colonial and post-colonial India (Roy, 1994). Simmons (1984) offers a good overview of this debate along with key sources. The challenge lies in reconstructing a picture that shows elements of continuity as well as change, while maintaining a focus on the material conditions that keeps the working class exploited and trapped in low productivity/low-wage work. This is precisely what Marx hints at when he calls our attention to the differences and the similarities of domestic and cottage industry subordinated to capital compared to pre-capitalist artisanal production.

At the very least it can be said that rather than being annihilated, several types of traditional industries survived with changes into the 20th century, and even grew in size in some cases.

> “In some cases, the growth of major craft towns of colonial India has been truly staggering in the last 50 years. Surat at the turn of the century probably employed about 5-6,000 weavers in silk and lace. Today, the direct descendant of weaving, the powerloom, provides employment to about half a million. Moradabad brassware engaged 7-8,000 full-time workers in 1924. In the 1990s, an estimate places the town's metal workers at 150,000. Not more than a few thousands were found in the carpets in Mirzapur-Bhadohi area in the interwar period. 300,000 is the approximate figure in the 1990s. These cases capture a steadily increasing share of the informal sector in industrial wage-labour.” (Roy 1999)

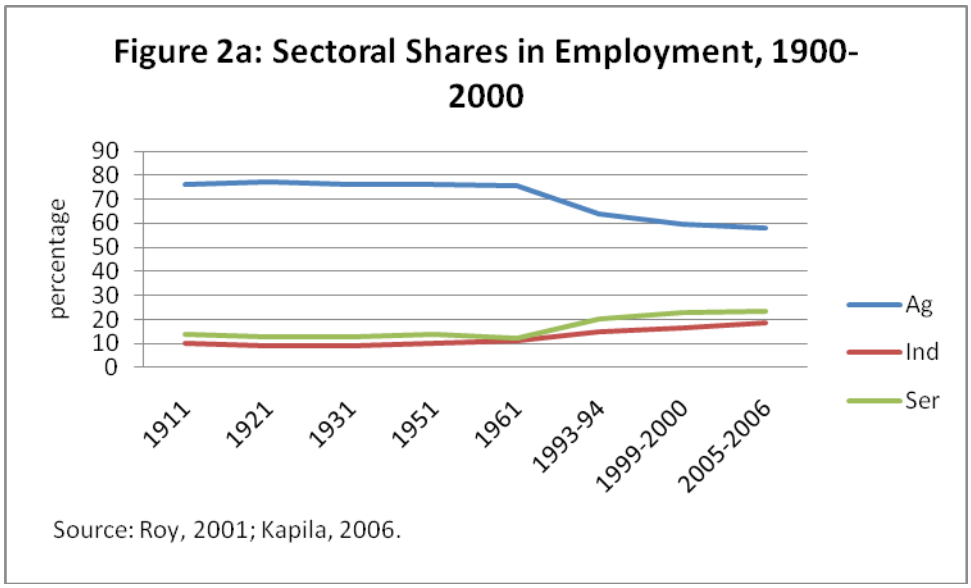
Marx has sometimes been read in teleological fashion as asserting that the particular transition from petty commodity production to small workshops and domestic industry articulated with capitalism (putting-out) to large-scale factories will be repeated wherever capitalism develops. However, it is also worth noting that the period over which this transition occurs is around 300 years (from the 17th century to the 19th centuries). One important factor that Marx did not incorporate in his analysis is imperialism; later Marxists drew attention to imperialism and the uneven development that characterizes the world capitalist system. It has been argued that the incorporation of the Indian economy into the global capitalist system creates conditions for the perpetuation of the informal sector and other low-

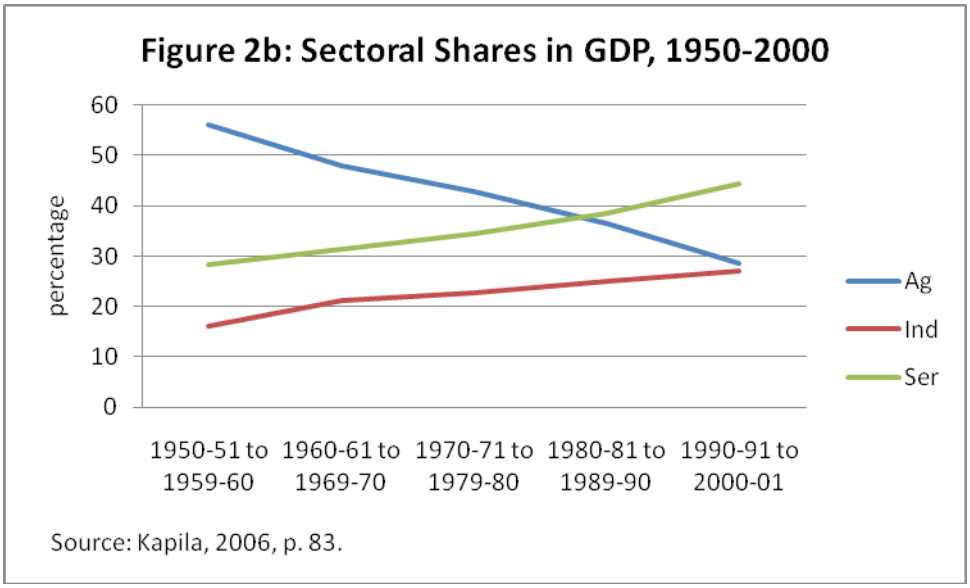
[9] The early nationalist writers included R.C.Dutt and Rajani Palme Dutt. A more recent writer holding this view is Bagchi (1976). An oft-cited macro statistic in this regard is Paul Bairoch’s estimates of the “levels of industrialization” according to which India accounted for 25% of world manufacturing output in 1750, 8.6% in 1860 and 1.7% in 1900. (quoted in Simmons 1984, Table 1)

productivity activities. To this must be added another caveat. Modern large-sale industry has in general displayed great capital intensity and a corresponding failure to provide employment to a large fraction of society (even in China, the new manufacturing powerhouse, the secondary sector currently employs only 23% of the labor force). The persistence of small-scale production as "employer of last report" raises important questions for the type of industrialization that should drive the development process. We defer further comments on this issue until the concluding section.

C. THE FORMAL AND THE INFORMAL IN INDIAN INDUSTRY

With the background laid out above, let us proceed to some statistics on the Indian experience of the past few decades. Sectoral shares in employment and output for India over the past century are shown in Figure 2a and Figure 2b. These data, combined from various sources, are to be interpreted cautiously (not least because "India" refers to a different geographical region pre and post-Independence). However the salient feature is relatively uncontroversial: a decline in agricultural employment and an increase in services followed by industry. The decline in agriculture's share of employment has been much slower than decline in share of output, with consequences as noted in the previous section. Depending upon the exact definition, the manufacturing sector's current share in GDP is somewhere between 20-25%. Total employment in this sector is about 45 million (about 18 % of the labor force). The share of industrial sector in employment has increased, albeit slowly, since the 1980s (14 to 18%)





Tables 1 and 2 show the relative proportions of the formal and informal economies in employment (as of 2000) and output (as of 2003) for the three sectors. Formal firms accounted for around 60% of output and informal firms for 40%. According the latest NSSO survey (covering the period 2005-2006) 36.44 million workers were employed in the informal manufacturing sector. Thus around 75 % of the manufacturing workforce is employed in the informal sector.

Table 1: Percentage share of formal versus informal contribution to GDP in the three sectors, 2002-2003

Sector	Formal (% of GDP)	Informal (% of GDP)	Total
Agriculture, forestry and fishing	4.1	95.9	100.0
Mining, manufacturing, electricity and construction	60.5	39.5	100.0
Services	53.1	46.9	100.0
Total	43.3	56.7	100.0

Source: Sharma and Chitkara (2006) Measuring Contribution of Informal Sector/Informal Employment to GDP, Expert Group on Informal Sector Statistics (Delhi Group)

Table 2: Percentage share of formal versus informal employment in the three sectors, 1999-2000

Sector	Formal (% of employment)	Informal (% of employment)	Total
Agriculture, forestry and fishing	0.86	99.14	100.0
Mining, manufacturing, electricity and construction	24.47	75.53	100.0
Services	24.60	75.40	100.0

Source: Saha, Kar and Bhaskaran (2004) Measuring Informal Economy through Income and Expenditure Surveys, Expert Group on Informal Sector Statistics (Delhi Group)

As might be expected from its large size, the scope of informal activity is similarly extensive. In India small-scale, informal industry produces food products, beverages, cotton, wool, and silk textiles, wood and paper products, leather and chemical products, metal products, electrical and transport equipment and repair services of various kinds including repair of capital equipment. NSSO data indicate that the food, textile and garment industries are the largest employers in the informal manufacturing sector. Figure 3 shows the industries that account for about 90% of informal employment.

One main cause of anxiety regarding the development of industry in India has been that the formal sector has displayed low employment elasticities. Figure 4 shows that formal sector employment (industry and services) has been stagnant since the 1980s. In particular the post-reform period has seen growing *informalization*. The share of large industry (usually defined as composed of firms employing more than 100 workers) in manufacturing employment grew from around 5% in 1900 to 30% in 1980 and thereafter has declined to around 25 % (Figure 5).

Contrariwise, as mentioned earlier, the share of small-scale and informal industry in employment has been high since colonial times and NSSO data since 1984 (discussed in more detail in the next section) shows that informal manufacturing has held on to its employment share, perhaps even expanded it, in recent times.[10]

[10] At the statistical level a vital caveat to NSS data is the *underestimation* of the informal sector's contribution to employment and income. According to one study of the Gujarat ceramic manufactures industry (Das 2003) only about 3% of the total number of units surveyed were reflected in the official statistics and similarly the official data on employment was less than 2% of the study's estimate. We take this issue up in a later section.

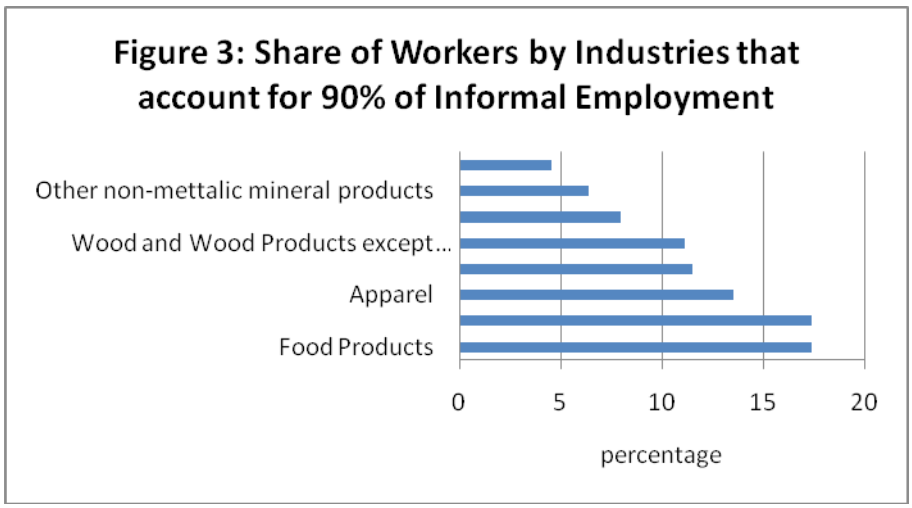
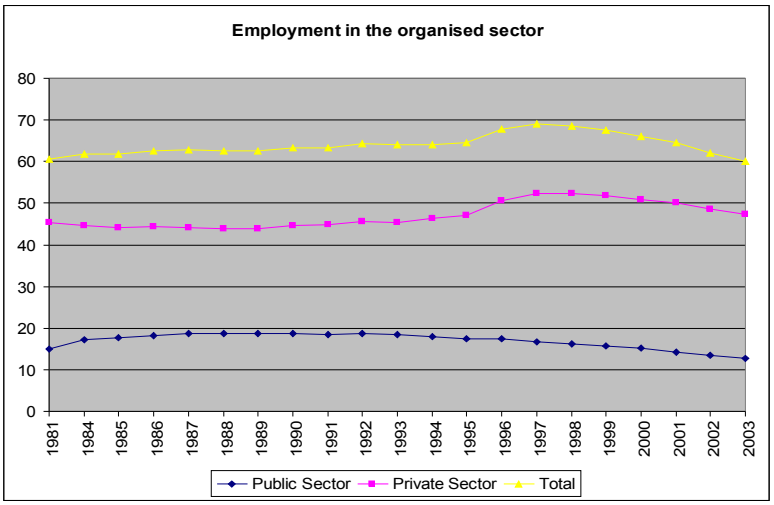


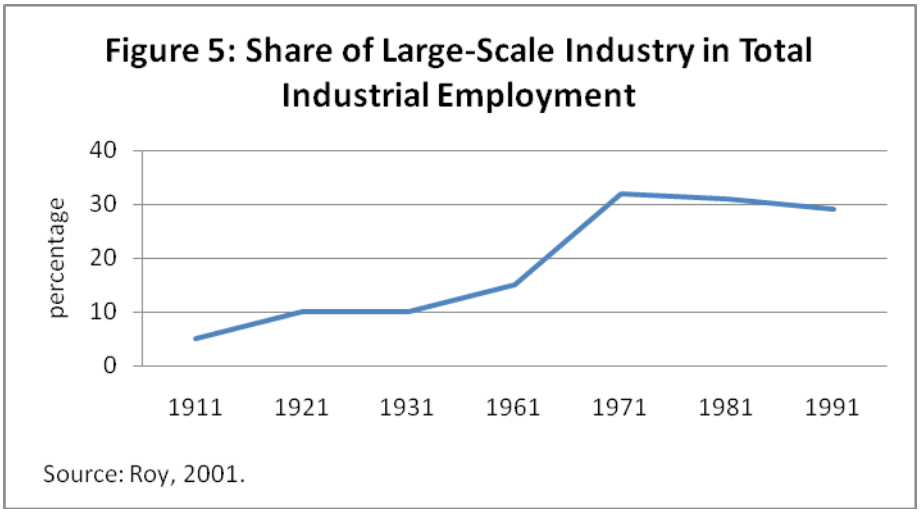
Figure 4: Employment in the formal sector (1980-2003) in millions (Source: C.P. Chandrasekhar and Jayati Ghosh[11])



The persistence of small-scale and cottage industry, both due to its acting as a reserve for surplus labor and in part due to active government policy of support, on the one hand, and support for large-scale modern industry on the other hand have resulted in a firm size distribution displaying what Mazumdar and Sarkar (2008) refer to as the "missing middle." This refers to the low proportion of firms employing more than 50 but less than 1000 or more workers (Figure 6). In part the explanation may be found in incentives to reduce small firm size to less than 50 official workers in order to avoid compliance with labor and other laws. Beyond a

[11] http://www.authorstream.com/presentation/Mudki-19349-Jayati-Ghosh-Recent-employment-trends-India-China-unfortunate-convergence-Asian-century-similar-eco-as-Entertainment-ppt-powerpoint/

certain size, where non-registration is not an option, economies of scale may result in large firm sizes.



In passing we note that the reasons why small firms are unable or unwilling to grow are complex and are the subject of several official and academic studies. Figure 7 displays some of the key results from a survey of 1212 small firms (Morris et al 2001). These are responses to the question "Encircle the three most important factors that have restricted your growth and development and rank them in order of importance". The scores have been adjusted for the rank, and fewer than three responses.

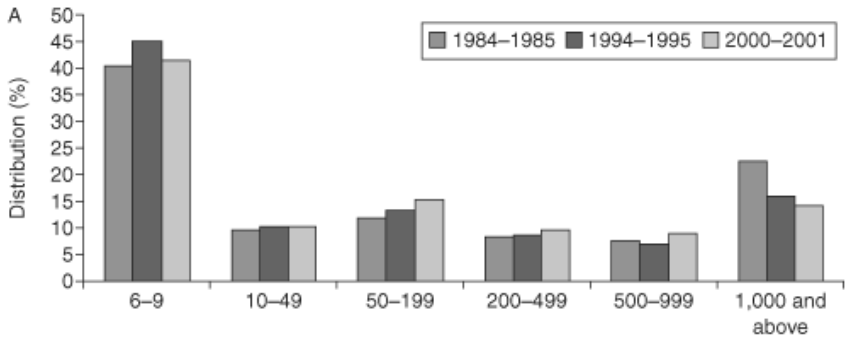
D. PRODUCTION RELATIONS: A FIRST LOOK

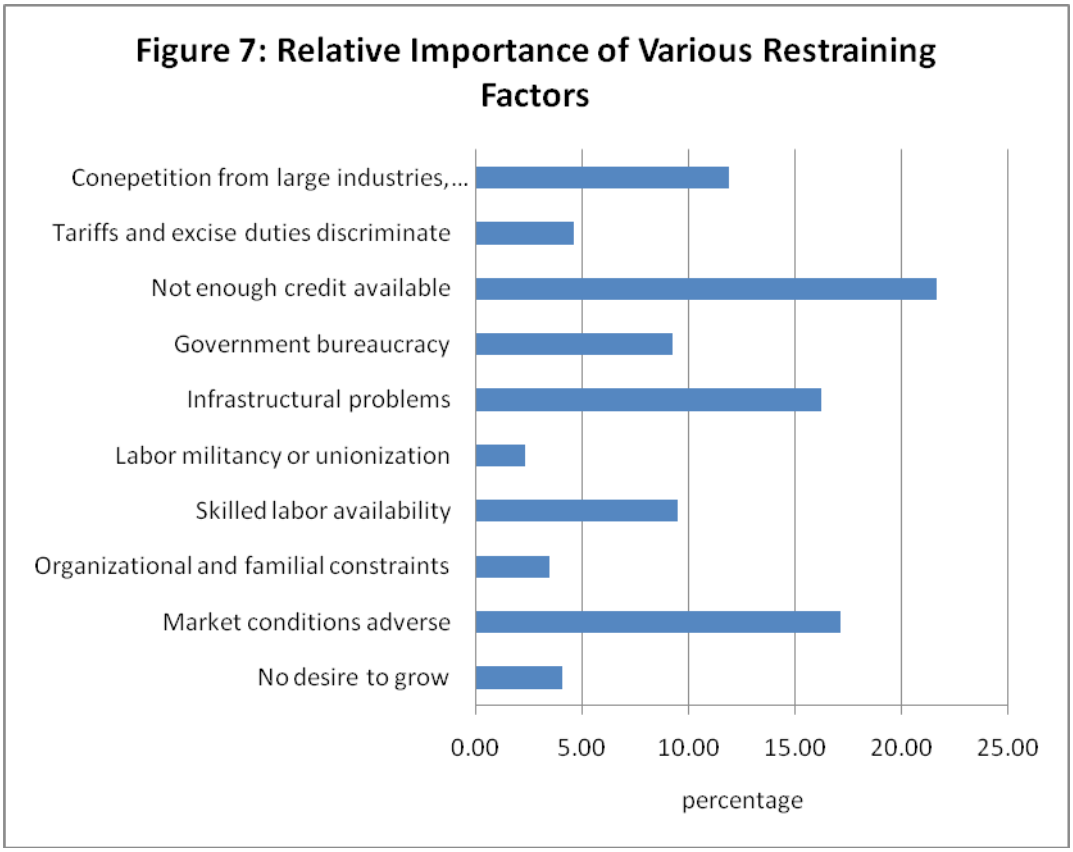
Rather than focusing on firm size (large versus small), legal criteria (registered versus unregistered) or employment regimes (regular, semi-regular, casual), in this study our aim is to investigate the production relations and modes of surplus extraction found in informal manufacturing firms. Harris (1982) comments referring to categories based on firm size or scale (such as number of employees, size of assets etc.).

> "For analytical purposes these categories are quite clearly of very limited value because they mostly rest upon numerically defined classes and may subsume quite different forms of the production process and of relations of production." (p. 945)

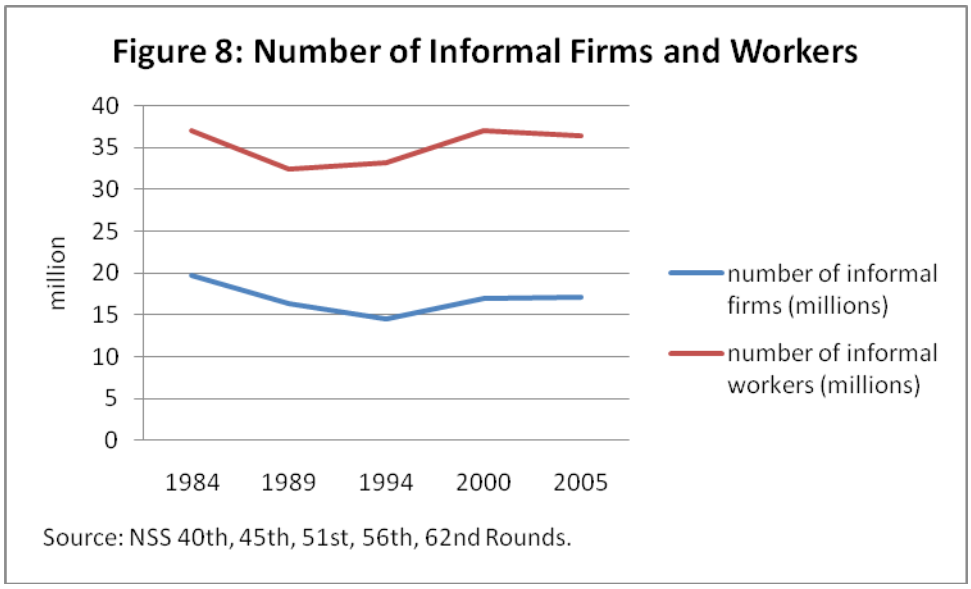
The 62nd round of the National Sample Survey carried out in 2005-06 contains the most recent national-level data on the informal manufacturing sector in India. Data is also available from previous rounds conducted in 2000-2001, 1994-1995, 1989-1990 and 1984-1985 giving a broad overview of the evolution of informal industry over the past 25 years.

Figure 6: Distribution of employment (in %) in manufacturing firms by employment size groups. (ASI data) (Source: Mazumdar and Sarkar 2008)





The first thing to note is that the number of informal manufacturing firms as well as the number of workers has remained more or less constant over the past 25 years (Figure 8).



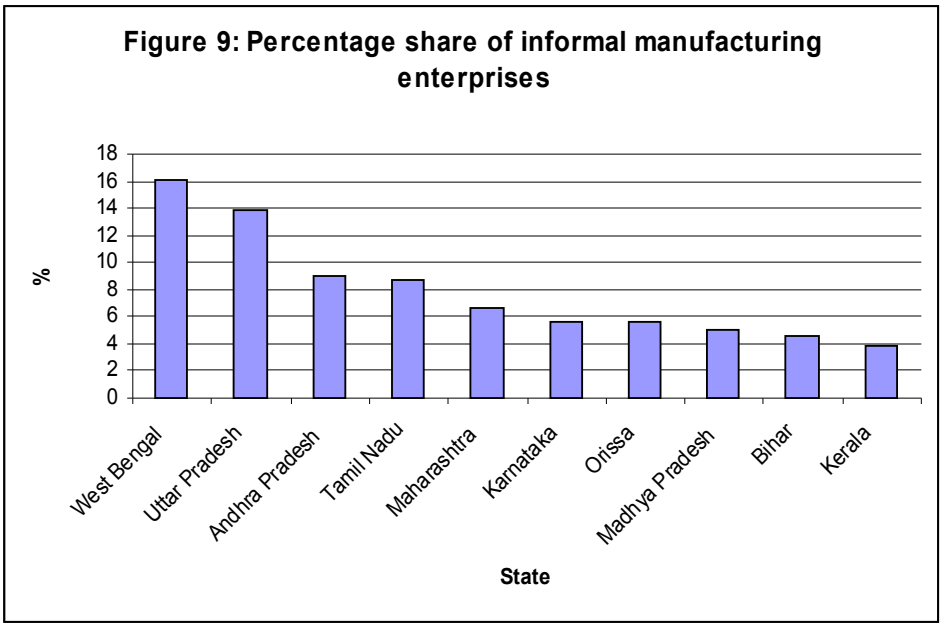
How do informal manufacturing entreprises and workers vary across the states? Figures 9 and 10 show the state-wise distribution of informal enterprise as well as informal workers. Two states, West Bengal and Uttar Pradesh account for 30 percent of all informal manufacturing enterprises as well as informal workers in the country. Only the top ten states are shown in the figure (see NSS 62nd round Report 524, Statement 3b and Report 525, Statement 5A for entire list).

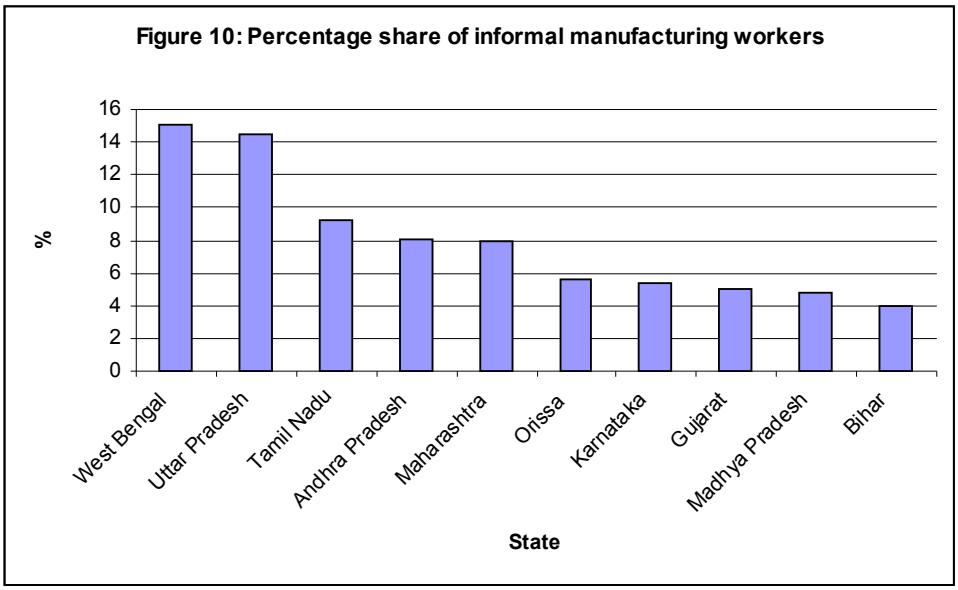
Depending on whether and how many wage-workers are employed in the firm, we can categorize informal firms based on NSSO data as follows (the labels are ours):

1. Petty-proprietorships: These are called “Own Account Manufacturing Enterprises” (OAMEs) in the NSSO data. The key defining feature is that no wage-workers are employed. Use of family labor is common and many firms are situated on household premises.

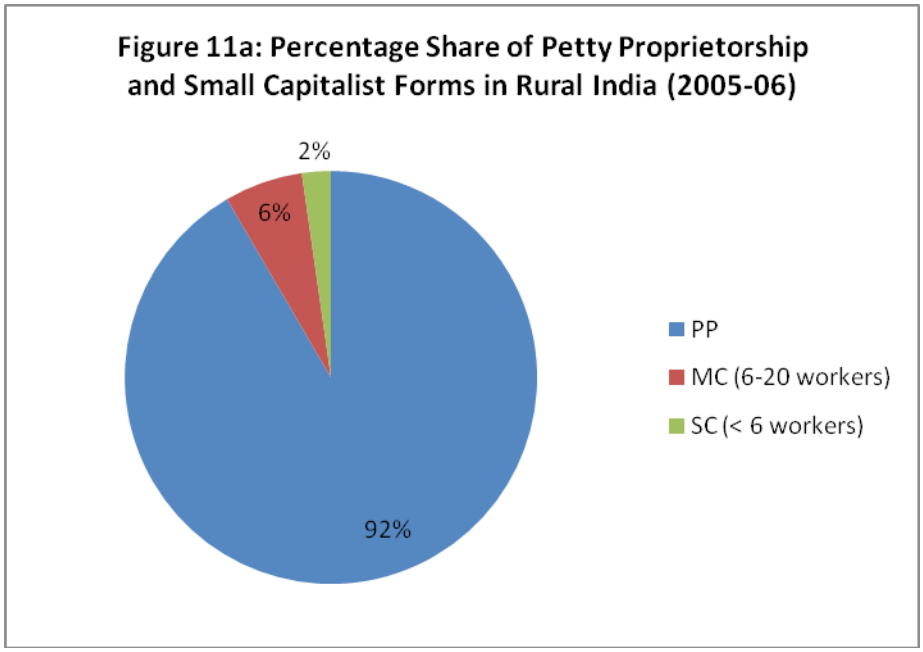
2. Marginal capitalist: These are called “Non Directory Manufacturing Establishments” (NDMEs) in the NSSO data. They have at least one wage-worker but no more than 5 wage and family workers taken together.

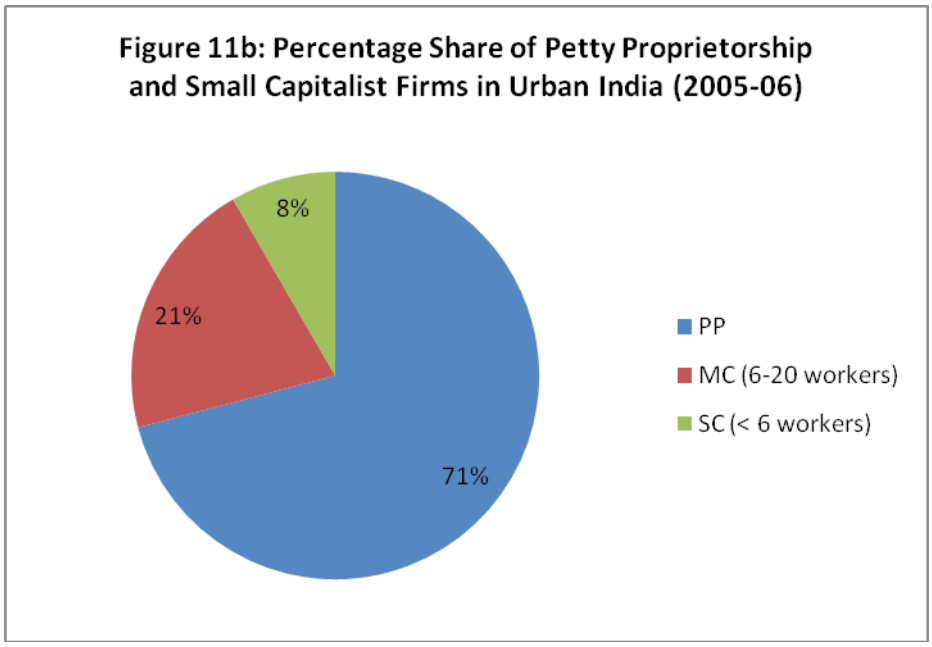
3. Small Capitalist: These are called “Directory Manufacturing Establishments” (DMEs) in the NSSO data. These employ more than 5 but less than 20 workers (at which point they should be included in the Annual Survey of Industries).



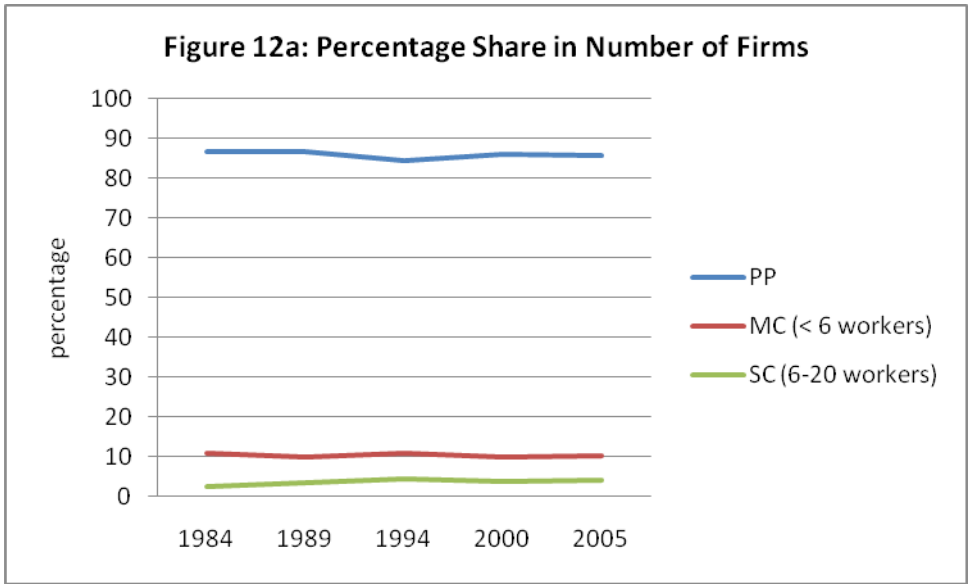


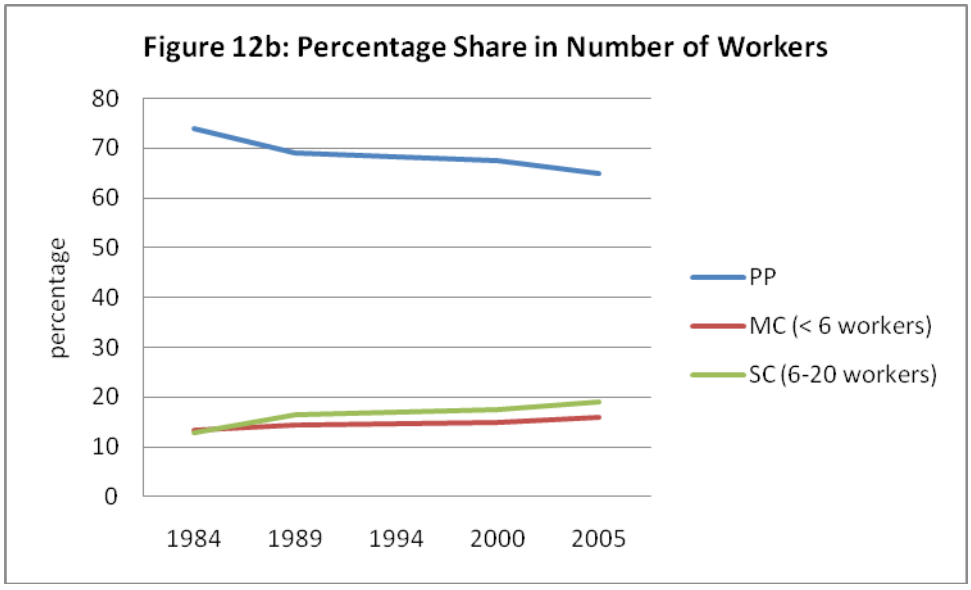
Petty-proprietorships are by far the most common type of production relation in both rural and urban areas, in terms of both number of firms and number of workers. However, relatively more marginal and small capitalist firms are found in urban areas as compared to rural areas. The rural and urban percentage shares for 2005-2006 are shown in Figure 11a and Figure 11b and the all-India shares of firms and workers are shown for the past 25 years in Figure 12a and Figure 12b.





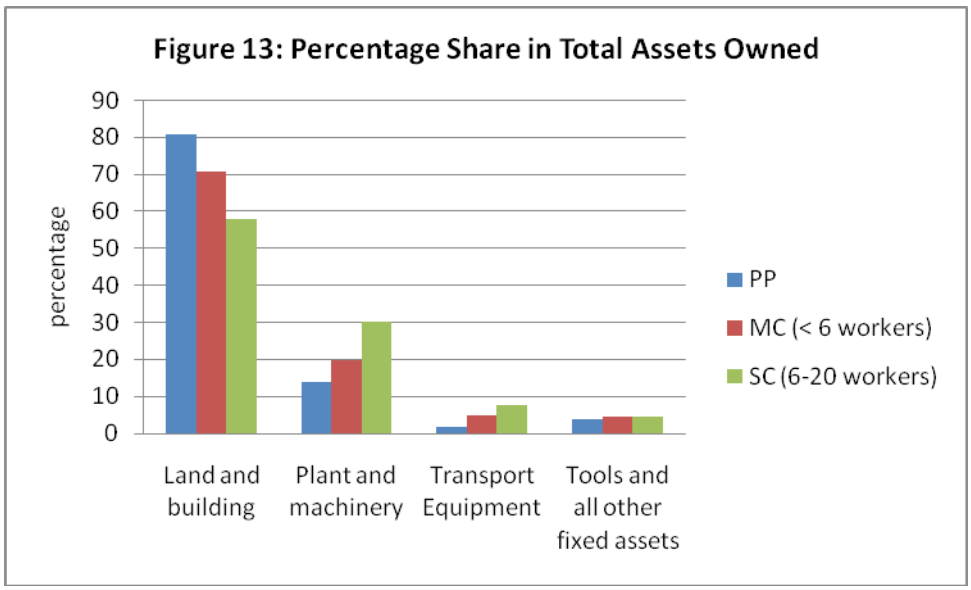
NSSO data also reveal that unpaid family members and other non-hired helpers make up a very large part of the informal industrial working class. While 52% of informal workers are “working owners,” and 24% are “hired workers,” the remaining, fully 24% are categorized as “other workers,” i.e. unpaid domestic workers. The majority of hired workers (85%) are male while the majority of “other workers” (59%) are female (Government of India, 2008).





E. ASSETS

In order to get a more detailed picture of these firms we next present some data on types of assets owned and value added in manufacturing activity. In addition we present some data on wage and profits shares in the aggregate in this sector. Figure 13 shows that the workshop premise or home forms the single largest asset for informal firms, accounting for 60-80% of assets.



The percentage growth in market value of fixed assets owned by the three types of informal enterprises over the period from 1994-95 to 2005-06 (adjusted for inflation using the wholesale price index), is shown in the table below.

Table 3: Growth rate of fixed assets (1994-95 to 2005-06)

PP % growth	23.32
MC % growth	34.82
SC % growth	51.03

NSSO data also suggest that rented assets form an important part of the operation of the informal manufacturing economy. In 2005-2006, across all three types of informal firms, 30% of total assets were hired. While hired assets formed a greater part of total assets for marginal and small capitalist firms, even for petty-proprietorships, nearly 25% of total assets were hired. Taken together with the data presented later in the paper on use of credit, we note that so-called “petty commodity producers” are in fact separated to a significant degree from the means of production and that the circuit of capital for informal firms starts with money or credit. In certain types of putting-out arrangements what appears to be petty commodity production is in fact disguised wage-labor. We defer a more detailed discussion of this to Section I and the concluding section.

F. GROSS VALUE ADDED

To calculate the gross value added in manufacturing two quantities are first defined:

1. Operating Expenses: “The total values of raw materials, electricity, fuel, lubricants and auxiliary materials consumed; cost of maintenance, services purchased and other expenses incurred during the reference period.” (Government of India 2008c, p. 14)

2. Receipts: “The sale value of products and by-products manufactured by the enterprise together with the value of services rendered to other concerns…” (ibid)

Then, Gross Value Added (GVA) = Total Receipts – Total Operating Expenses

While, as expected, value added has increased far more rapidly in formal manufacturing as compared to the informal sector (Figure 14), it is interesting to note that GVA has been increasing rapidly in the past decade across the informal sector. Figure 15 shows this by removing the trendline for the formal sector. Coupled with the fact that total informal industrial employment has not grown similarly over the same period, we can infer than labor productivity has been increasing in this sector.

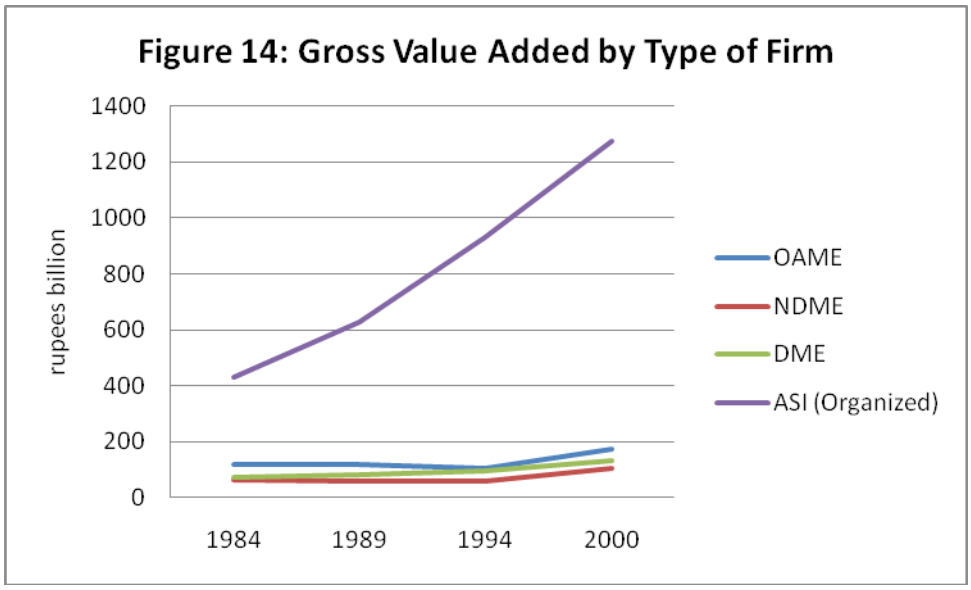


Table 4 gives summary aggregate statistics for wage and profit shares as well as average wages and profits per worker. An important caveat of theoretical as well as practical importance must be mentioned here when considering the value-added figures. Micro case studies reveal that in situations where long supply chains exist linking the producer with the final consumer, the sale price of the producer (the informal firm) is only a small part of the retail price paid by the final consumer.

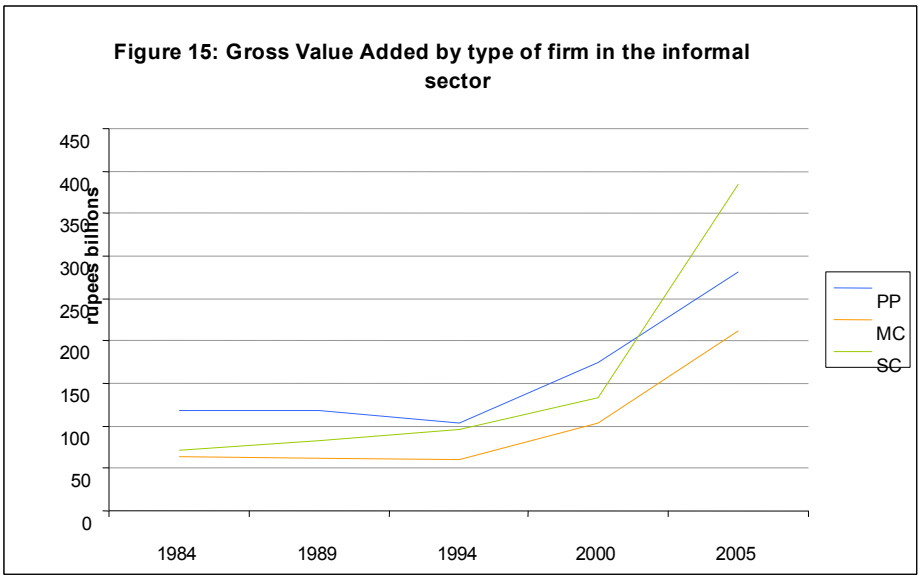


TABLE 4: Gross Value Added and Wages Share for Informal Firms

	PP	MC	SC
Aggregate GVA (Billions Rs)	280.61	211.20	384.05
Wage Share (Billions Rs.)	-	124.71	206.85
Profit Share (Billions Rs.)	-	86.51	177.41
No. of workers (millions)	23.69	5.78	6.98
GVA per firm (Rs)	19203.00	119302.00	558513.00
GVA per worker (Rs)	11846.00	36543.00	55052.00
number of workers/firm	1.62	3.26	10.15
Annual emolument/worker (Rs)	-	21576.00	29635.00
Profit/per worker (Rs)	-	14967.00	25417.00

Source: Report 526, and Report 525, Statements 10 and 12

This problem is particularly accentuated when the value chain is global. As Chakrabarti and Varman (2009) note in their study of the Kanpur leather cluster,

> "almost 80 per cent of the final price of the shoe goes to the long chain of middlemen who operate only in the post-production stage. Or in other words,

> four-fifths of the ‘value addition’ of shoes in the global value chain actually *adds no value to the product.”*

Heintz (2003, 2006) has developed a model in the “unequal exchange tradition” of Emmanuel, Prebisch and Singer, that attempts to capture the unequal distributional consequences of a global production system where “large retailers or brand-name corporations set up a decentralized system of production and distribution.” Here

> Actual production is subcontracted out to small producers who face extremely competitive conditions (Carr, Chen, and Tate 2000, Bonacich and Appelbaum 2000, Gereffi 1994). Retailers and brand-name multinationals enjoy some degree of market power which they can use to keep prices low for the goods they purchase or to earn rents through the development of monopolistic brand identities. (Heintz 2003)

He further argues that

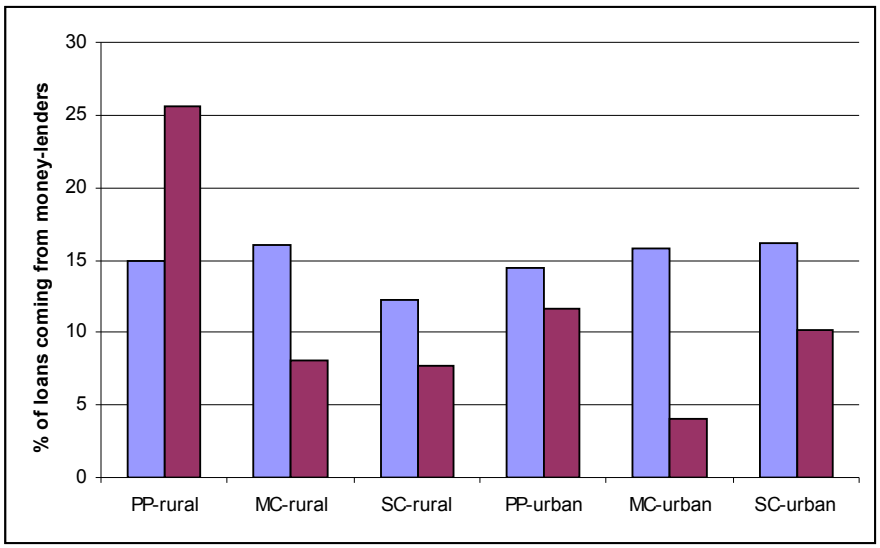
> by combining the specific insights of global commodity chain analysis with the theoretical innovations of the unequal exchange traditions, a model of these relationships can be developed that explores the distributive consequences of the expansion of globalized manufacturing tied to affluent consumer markets through the institutional linkages of global commodity chains.

We note in passing that this issue is still relevant even when commodity chains are only regional or national in scope.

G. CREDIT

According to NSSO data in 2005-06 outstanding loans were 21.6% of total fixed assets owned, at the all India level. While nearly 50% of the credit in rural *and* urban areas came from government agencies, public sector and cooperative banks, or other institutional sources (such as the Khadi and Village Industries Commission), private money-lenders along with other informal sources such as friends and relatives accounted for 15% of outstanding loans at the all-India level. Expectedly, formal sources of credit were more important for small capitalists as compared to marginal capitalists and petty-proprietors. Petty-proprietors are the worst hit by money-lenders. The percentage of loans from money-lenders to rural petty-proprietors has actually increased substantially in the period from 1994-95 to 2005-06, while it has decreased for every other category as seen in the figure. The figure of 25% can be compared to the proportion of loans going to farmers from money-lenders reported in the section on agriculture.

Figure 16: Percentage of loans to informal manufacturing enterprises coming from money-lenders (blue: 1994-95, magenta: 2005-06)



The usurious nature of money-lender credit is apparent when we note that the "annual interest payable as a percentage of loan amount outstanding" is on average ten percentage points higher (at 26%) than formal sources of credit (around 15%).

H. SHORTCOMINGS OF NSS DATA

Das (2003) has carried out a micro-level case study of the ceramic ware manufacturing sub-sector in Gujarat specifically to uncover the shortcomings of national level NSS data, which result in part from problems with including/excluding specific sub-sectors below the two-digit level National Industry Classification (NIC). The key points that emerge from this study are:

1. At a greater level of disaggregation of industrial classification it is seen that NSS data has improved vastly over time to include more and more previously missed types of industries. For example early NSS data (1978-79) estimated no informal enterprises in manufacturing or processing of cotton textiles, and in drugs, cosmetics and washing and cleaning preparations, both of which consist of several informal units in Gujarat (and most likely elsewhere as well).

2. The National Sample Surveys are likely to underestimate, in some cases severely, the number of informal enterprises and as a result the size of informal employment. For example, the ceramic ware sub-sector had one surveyed unit and an estimated eight units in the informal sector according to 1994-95 NSS data. Das (2003) found

at least 164 and possibly as many as 229 informal units. The corresponding employment estimates were 24 workers for ceramic ware industry in Gujarat according to NSS (1994-95) data and anywhere between 1,292-1,802 workers as per the Das (2003) study. Thus only about 3% of the total number of units surveyed were reflected in the official statistics and similarly the official data on employment was less than 2% of the study's estimate.

3. Annual emoluments for all non OAME's according to NSS 2005-2006 is Rs. 26,682. Das (2003) reveals wages around Rs. 18,000 (assuming regular year-long employment). The piece rate system was widely prevalent though it does not feature prominently in the official statistics.

4. Only around 28% of informal enterprises had no hired workers (the macro NSS data reports a much larger percentage). Around 88% of informal units were single proprietor units and nearly 50% of employees in informal units were family members (unpaid labor).

I. A FRAMEWORK FOR DISCUSSING PRODUCTION RELATION IN THE INFORMAL SECTOR

While the NSSO data serves well as a first pass on the types of production relations in the informal sector, the true complexity is revealed only via micro case studies. Using examples from different informal industries including Agra footwear, Lucknow Chikan, Gujarat Ceramics, and UP and TN Handlooms, and a 1991 survey of 1500 artisan households involved in 15 different export-oriented handicraft industries, we offer a schematic look at these production relations and the principal ways in which surplus extraction is facilitated.

The variety of production relations observed empirically can be captured in a simple matrix (see Table 5) where the two axes are control over labor process and product, and control over capital. A simple dichotomy can be made between self-direction/ownership and other-direction/ownership.

The informal manufacturing sector displays a great variety of production relations in which the producer retains or losses control over the means of production and the labor process to varying degrees. The "classical artisan" mode consists of say a weaver, a metal-worker, a leather-worker who owns his own means of production, works in his own house or workshop and produces for the market. She or he also retains control over a self-directed labor process. However, as capitalism undermines the conditions of existence of independent commodity production, self-ownership of capital does not necessarily mean self-direction in the labor process. Recall Marx's comment above, with respect to the domestic worker that the

> …the position of this specialized worker, who, although he works at home, does so for a capitalist, is very different from that of the independent craftsmen, who works for his own customers. (Marx, 1992, p. 462-463)

Capitalist relations may thus show up first *not in the separation of the producer from the means of production but rather in a slow loss of control over the process and product of labor.* Or conversely, ownership of the means of production does not automatically entail ownership of the product of labor *or* control over the process of labor.

The "putting-out" mode of production is historically a result of the subordination of artisanal production to merchant capital. Typically a merchant or his representative supplies orders (and in some instances raw materials or working capital) to the producer and collects the finished product at an agreed upon price or piece-wage. One account of the contemporary small-scale industry describes the situation thus:

> Under the new system capitalists exercise tight control in the market of raw material and finished products. Production is organized through a supply of raw material to sites of production spread out in houses and huts. A battery of middlemen and contractors operates at several levels. In many cases these levels are so numerous that the producer knows nothing about the master. Wage and quality controls are exercised by middlemen. This arrangement has spread quickly in textile, hosiery, readymade clothes, electrical devices, small machines and leather works. Of late, ironwork, clay-work, carpentry and stone work has also been brought within the ambit of this system. We are witnessing a transformation of villages, mohallas and towns into large factories, a transformation, which has no precedent. (Sahasrabudhey, 2001)

Today putting-out goes by the name of sub-contracting and is a widely discussed phenomenon in mainstream international economics as global commodity chains become increasingly elaborated. The putting-out variations found in Indian informal industry are described in Table 5.[12]

PO-I or Putting-out variation I- The producer works on his/her own premises with own equipment and own working capital, in a self-directed labor-process but hands over product to one or few middlemen. He/she may also be dependent upon the same merchant for access to working capital or credit. This type of arrangements is found among other places in the Agra footwear industry.

PO-II or Putting-out variation II- The producer works on own premises with own equipment but with borrowed working capital, in a self-directed labor-process and hands over product to merchant capitalist or his representative. This is also a commonly found type of relation in the handloom and powerloom sectors.

[12] We thank Mohan Rao for the framework behind the typology depicted in Tables 5 and 6.

Table 5: A typology of production relations in the Indian informal manufacturing sector

Labor Capital	Self product and process	Self process, other product	Other product and process
Self fixed and working	Classical artisan/ independent producer	PO-I	Rare
Self fixed, other working	Rare	PO-II	PO-IV
Other fixed and working	Rare	PO-III	Classical industrial capitalist

PO-III or Putting-out variation III- The producer works on other's premises or with rented equipment and working capital but in a self-directed labor-process and hands product over to merchant capitalist. Weavers in rural areas (sometimes called "dependent weavers") often labor under such relations.

PO- IV or Putting-out variation IV- Producer works in own premises with own equipment but borrowed working capital but produces only a small part of a marketable product according to a capital-imposed division of labor. For example in the Lucknow chikan industry, the women who perform embroidery do so in their own homes with their own equipment with raw material being provided by a merchant capitalist's agent. The producers (embroiders) do not have a product of their own to sell.

However the matrix above is missing a crucial aspect of the informal manufacturing sector which is important for understanding exploitation in the sector. This element is control over the product and factor markets, i.e. access to credit and raw materials and access to markets for finished goods, which is a function of market power and the structure of markets in general. This axis is particularly useful in revealing exploitation via unequal exchange which is potentially hidden in the typology above. A self-employed artisan with control over the process and product of labor may nevertheless lose independence via the loss of control over a market. This situation is depicted in Table 6.

Table 6: Petty-proprietorships and market access

Labor Market	Self product and process
Self access	Independent producer
Other access	Dependent producer

Dependent producer - Producer works on own premises with own equipment and own working capital, not on order from any merchant, yet must eventually sell to one or a few merchant capitalist usually in an unequal exchange relationship. This highlights the fact that apparently self-employed workers can be at the mercy of various merchants and middlemen who make themselves vital to the survival of the producers either by extending trade credit or by retaining control over the market. In the next section we offer an example of this phenomenon from the Agra footwear industry.

Relating our typology to Roy's (1993) typology, we can say that the "classical artisan" corresponds to Roy's "independent weavers" (sale of product not tied to one buyer, no monopsony) and the putting-out variations correspond to the two types of "dependent weavers," those employed on piece contracts ("seller of cloth", PO- I and II) versus those on wage-employment ("seller of labor", PO- III), the capitalist in the first instances being a merchant or money-lender and the second case being a larger producer-cum-merchant. An example of PO- III has been reported in Mau, UP, where large producers lease out looms to weavers. "Workers work in their own house but on someone else's looms." (Roy, 1993, p. 207)

These categories are also fluid and changing. For example in the Bhavani handloom industry in Tamil Nadu described by de Neve (2005) many capitalist owners of workshops who previously employed weavers on piece-wages began to sell or lease their looms to master-weavers to whom they provided yarn. The problems of managing the looms and disciplining labor were thus transferred from the merchant capitalist to the master-artisan. Further, the master-weavers are not owners of the product since they have been sub-contracted by merchants to whom they must return the finished product.

Lastly, it should be noted that the fluidity of production relations is also manifested at the level of the individual worker who may work on piece-wages today, be a small contractor of laborers tomorrow and work on a factory shop-floor on the third day.

J. MODES OF SURPLUS EXTRACTION

As elaborated in the introduction, a "mode of surplus extraction" refers to the specific way in which unpaid labor is extracted from the producers and appropriated by the dominant classes. In advanced capitalist economies such as the United States, the employer-employee relationship (the wage-labor/capital relation) forms the single most important mode of surplus extraction although in the neoliberal period unequal exchange between larger and smaller capitalists via sub-contracting has assumed renewed importance. In contrast, developing economies such as India are characterized by a much greater variety of modes. Broadly speaking we may distinguish between three principal modes: *wage-labor, unpaid work, and unequal exchange*. In the first case surplus is pumped out of direct producers by ensuring that workers produce greater value than is returned to them in the form of wages. In the second case, one vital to both peasant production and artisanal production, the labor of women and children is extracted in return for direct subsistence. In the third case, the surplus produced in small-scale production, even if it be first appropriated by the direct producer, is eventually transferred from the producer to the merchant capitalist or from a small producer to a large producer (in the case of sub-contracting).

Below we consider some specific institutional ways in which surplus extraction is achieved in the informal economy.

I. Piece wages

The NSSO does not gather data on whether wages paid in the informal sector are piece-wages or time-wages but we know from several case-studies that piece-wages are still widely prevalent in small-scale manufacturing. In the Gujarat ceramic study cited earlier (Das 2003) 88% of informal units and 47.5% of formal units followed the piece-rate system. In a 1991 survey of 365 handicraft artisan units, 96% paid piece-wages (Vijayagopalan 1993). Marx (1992) notes the salient features of piece-wages:

> The quality of the labor is here controlled by the work itself, which must be of average perfection if the piece-price is to be paid in full. Piece-wages become, from this point of view, the most fruitful source of reductions of wages and capitalistic cheating…They furnish to the capitalist an exact measure for the intensity of labor (p. 694).

Further,

> Given piece-wage, it is naturally the personal interest of the laborer to strain his labor-power as intensely as possible; this enables the capitalist to raise more easily the normal degree of intensity of labor. It is moreover now the personal interest of the laborer to lengthen the working-day, since with it his daily or weekly wages rise (p. 695).

Thus piece wages achieve an increased rate of exploitation via increasing intensity of labor and a lengthened working day while at the same time they obviate the need for control by the capitalist over the labor process.

> Since the quality and intensity of the work are here controlled by the form of wage itself, superintendence of labor becomes in great part superfluous. (p. 695)

Hence Marx's conclusion "that piece-wage is the form of wages most in harmony with the capitalist mode of production." (pp. 697-98)

The two types of putting-out relations described by Marx, which give rise to a "hierarchically organized system of exploitation and oppression," are still applicable to informal manufacturing in India:

> On the one hand, piece-wages facilitate the interposition of parasites between the capitalist and the wage-laborer, the "sub-letting of labor." The gain of these middlemen comes entirely from the difference between the labor-price which the capitalist pays, and the part of that price which they actually allow to reach the laborer. (p. 695)

We will shortly see examples of such exploitation via unequal exchange. And,

> On the other hand, piece-wage allows the capitalist to make a contract for so much per piece with the head laborer-in manufactures with the chief of some group, in mines with the extractor of the coal, in the factory with the actual machine-worker — at a price for which the head laborer himself undertakes the enlisting and payment of his assistant work people. *The exploitation of the laborer by capital is here effected through the exploitation of the laborer by the laborer* (p. 695, emphasis added)

Both the systems noted above are found in the Agra footwear industry. For example, master artisans take responsibility for an order, execute part of the work themselves and recruit additional artisans as needed to fulfill the order, and merchants directly put-out orders to artisans who work on their own-account, with unpaid family labor to the deliver the product (Knorringa 1999). In general "exploitation of the laborer by the laborer" exactly characterizes production relations in the informal economy.

II. Unequal exchange

The issue of unequal exchange and the "exploitation" of petty-producers and small capitalists by merchant capital is ubiquitous in the literature on artisans (see Portes and Walton 1981, Roy 1993, Knorringa 1999, Wilkinson-Weber 1999,). Yet few quantitative studies exist on the aggregate amount of surplus that is siphoned off in this fashion. Asymmetric market power needed for unequal exchange exists because typically many artisans must compete for the business of one or a few traders. An early 1990s survey of around 1500 self-employed handicraft producers found that around 50% of the artisans obtained their raw materials from traders (who placed the order) and around 90% handed over the finished product to middlemen/traders (Vijayagopalan 1993). Knorringa (1999) provides institutional detail in his study of the Agra shoe industry:

> Because plenty of anonymous artisans must bargain with a limited number of identifiable traders and because the small quantities allow for easy, quick, and accurate inspection, the margins for artisans are pushed down… Moreover with all their working capital tied up in one production cycle, artisans in a direct sales channel cannot postpone selling. (p. 314)

Traders, on the other hand, can wait for artisan profit margins to decline. Further, traders also double as financiers extending credit in the form of leather raw material. Since these artisans are owners of their home-based production units and working capital this is a typical example of hidden dependency of self-employed artisans.

As mentioned earlier, depending on how prevalent such situations are, they cast doubt on aggregate value-added numbers. Since value-added is calculated simply by subtracting raw material costs from total receipts unequal exchange, by increasing input prices and decreasing output prices and thereby squeezing margins, will result in low value-added estimates.

Apart from monopsonistic or monopolistic situations, extensive middlemen networks also serve to reduce the price paid to the artisan per piece. In Mexico’s garment industry, domestic women workers work on piece wages using their own sewing machines.

> A blouse which retails for 120 pesos costs the merchant 60 pesos, plus the cost of the material which he has given ready-cut to the broker. The broker pays the seamstress 15-20 pesos and keeps the rest for himself. (Lomnitz, quoted in Portes and Walton, 1981, p. 99)

To accomplish the production target the seamstress may require the help of her children, mother, neighbors etc. This work is unpaid. Here we witness a common way of increasing absolute surplus value, by engaging not only the artisan but

his/her entire family for one person’s wage. Further, workers assume the costs of errors in production.

In the Lucknow Chikan industry middlemen (beechwaale), also called agents, perform the work of bringing cloth and other raw materials to the embroider at her home and then carrying off the finished product. Social norms around gender make producers accessible only to men who are the women’s relatives and neighbors.

> Agents locate, recruit, and control labor that is otherwise inaccessible to the holder of capital. The agent is often a relative, or at least a neighbor of the women he employs, family members usually having preference in the allocation of work. For the rest, while agents do not control embroiderers by directly overseeing their work, they do impose a rudimentary discipline upon them by adjusting the flow of work according to the relative productivity of each woman, and adjusting wages as a means of penalizing deficient workers and rewarding good ones. In this way, agents effectively release the mahajans from the need to intervene directly in the labor process (Wilkinson-Weber 1997, p. 59).

Agents are paid by the traders/merchants per piece and in turn pay the producer.

> In Lucknow in 1990, prices started at around ten rupees for a small child's kurta (shirt), rising to 60 rupees for a man's kurta, simply embroidered.' Women's salwar-kamiz (tunic-pants ensembles) ranged in price from 40 to more than 100 rupees. Finely embroidered items, as well as large pieces like saris and tablecloths, cost several hundred rupees. Piece wages for embroidery on these items were as low as a single rupee for kurta embroidery in the village, five to fifteen rupees for salwar-kamiz embroidery in town, and up to 100 rupees for top-ticket items. In very rare circumstances, a highly skilled embroiderer might collect more than 100 rupees for a specially commissioned piece obtained directly from the trader. At the other extreme, most women get their work through agents, who take a substantial cut from the piece wage, so that the women get no more than a fraction of a rupee for embroidering the most commonly sold item, a kurta. As might be expected, few embroiderers can afford to buy the products they make. (ibid, p. 52)

While male agents admit to taking at least 50 percent and sometimes more of the piece wage for themselves, female agents take less. (p. 60)

While one could make the case that given the technical conditions of production, the middlemen perform an essential function bringing together the components of the final commodity, it should be noted that their compensation can be far in excess of the labor they expend. Middlemen wages may thus be seen as cut of the surplus rather than wages per se, being proportional not to the labor expended but the scale of operation. This is analogous to Adam Smith’s observation that profit of

enterprise should not be viewed as wages for supervision since profits are proportional not to labor expended by the capitalist but rather to the stock of capital employed.

A last point to note is that exchange relations manifested in these terms of trade act in concert with production relations. Production relations (including but not limited to asset ownership patterns) determine market power. Market power and resulting terms of trade determine current income. Income determines future assets and production relations. It is important to emphasize this dual nature because arguments that limit themselves to deteriorating terms of trade or non-competitive market structures often do not question why the conditions of exchange are what they are. Why are rates of return on capital reaching 30 or 40% demanded from small producers? Perhaps because production is fragmented and volumes of loans are small, or purchase volumes are small, and transactions costs are large. Relations of production thus underlie relations of exchange. It is not only because intermediaries manipulate and monopolize that we get unequal exchange, but rather production relations can create the conditions for unequal exchange, which are exploited by intermediaries. This is not news. In fact such an argument forms the classical rationale for the formation of producer and peasant cooperatives.

III. Labor Bondage

Das (2003) in Gujarat Ceramics and De Neve (2005) in Tamil Nadu handlooms and powerlooms describe the practice of “consumption advances” which are used to hold workers in bondage. These advances (called “baki” in TN) can amount to as much as one year’s worth of wages for the worker and binds him to the employer until the loan is paid off, which may never happen.

Consumption advances were viewed in the modes of production debate as a type of feudal or semi-feudal arrangement which makes labor unfree. However the situation here is more complex. It is true that these advances often function as a device to retain skilled labor that reduces costs of replacement and training. However the resulting “rigidity” in the size of the labor force is also cited by employers as a problem during lean times or in dealing with “problem” workers. Further, workers retain mobility by transferring loans to new employers.

IV. Gender and Caste

Exploitation of unpaid domestic labor especially of women and children is ubiquitous in household enterprises. In addition to unpaid market work (to be distinguished from non-market work performed by women), women’s *paid work* is often devalued

as well. The Lucknow Chikan industry provides an archetypal example of surplus extraction achieved via devaluing of women's paid work.

> Women's embroidery, made in the home, is looked upon with far less respect than the products of men, made in their workshops. Chikan embroidery is thus not regarded seriously as an occupation in spite of the fact that many families depend upon the income they derive from it. In fact, it is customarily referred to by mahajans as "free-time" work to fill in the hours between cooking, cleaning, and caring for children. As an extension of women's unpaid household tasks, chikan is barely real work at all. Indeed, some mahajans regard themselves as doing women a favor by paying them to do leisure activities. As one put it, "They just sit around and they get work, and they get money. All in their spare time! I'm the one with all the headaches." (Wilkinson-Weber, 1997, p. 62)

Another avenue for the devaluing of productive work is via caste. Agra's footwear industry offers a typical example of a caste-based division between artisans who produce a commodity and traders/merchants who sell it. Producers are *chamars* (an untouchable caste) while merchants are upper-caste Hindus from Punjab. In general the "producer castes" (artisans and peasants) are often shudras (OBCs) or dalits (SCs) while the traders and other non-productive workers belong to the forward castes. However, even in instances where employers and workers belong to the same caste, this may strengthen rather than undermine the regime of exploitation. For example Engelshoven (1999) alludes to the Surat diamond cutting industry where both employers and employees are Saurashtra Patels. While the caste monopoly helps workers retain some job security, it also make it difficult for them to challenge exploitation since community bonds are supposed to trump class contradictions. As a result there has been no strike in this industry.

Thus Gender and Caste hierarchies can serve to enhance surplus extraction occurring via wage-labor or unequal exchange. This highlights the importance of understanding how exploitation is produced at the intersection of several hierarchies. The intention is not to reduce Gender or Caste oppression to class exploitation, but rather to elucidate how each of these may reinforce (and at times undermine) the other.

K. SUMMARY AND AGGREGATE TRENDS

In the second part of this study we have attempted to take a broad look at the organization of informal industry in India. In particular we have focused on the evolution of firm size, the types of production relations and the modes of surplus extraction prevailing in informal industry. The following points should be emphasized:

1. The industrial sector as a whole (formal and informal) has not expanded greatly in terms of employment in the past three decades and today stands at around 18% (compared to China's 24%) of total employment in the Indian economy.

2. The informal sector still accounts for around 75% of industrial employment in India. The employment share of the formal sector in general and large-scale industry in particular has been stagnant for the past three decades.

3. The number of informal firms and workers has been more of less stationary since the 1980s and the relative shares of petty-proprietorships, marginal and small capitalist firms is also largely unaltered.

4. Uttar Pradesh and West Bengal account for 30% of informal manufacturing enterprises as well as informal workers.

5. Food products, textiles and garments are the top three informal employers accounting for nearly 50% of employment.

6. Most informal firms do not own substantial amounts of capital equipment. The land or building on which the firm is situated accounts for 60-80% of asset value for informal firms. In 2005-2006, across all three types of informal firms, 30% of total assets were hired. While hired assets formed a greater part of total assets for marginal and small capitalist firms, even for petty-proprietorships, nearly 25% of total assets were hired.

7. Even though GVA for the formal sector far outstrips GVA in the informal sector, value added in informal industry has increased significantly in the last decade. Since the number of workers has remained more or less the same, this suggests that labor productivity has been rising in this sector.

8. GVA calculations do not usually take into account the effect of unequal exchange and global value chains. High input prices and low output prices (unfavorable terms of trade) faced by small producers accentuate the problem of low value added in manufacturing.

9. Credit is important for all informal producers but petty-proprietors are the worst hit by money-lenders. The percentage of loans from money-lenders to rural petty-proprietors has actually increased substantially in the period from 1994-95 to 2005-06, while it has decreased for every other category during the same period.

10. The relations of production in informal industry are neither purely independent producer (characterized by producer's control over the labor process and ownership of capital) nor only industrial capitalist (characterized by a proletarian workforce and a real subsumption of labor to capital). Rather a spectrum of putting-out relations based on formal subsumption of labor and a reliance on extraction of absolute rather than relative surplus value is observed.

11. In addition to putting-out arrangements, nominally self-employed or independent producers are often locked into a relation of dependency vis-à-vis merchant and finance capital. This situation is closely analogous to the position of the peasant in the countryside with respect to intermediaries.

12. Piece-wages, unequal exchange, bonded labor, contingent and casual labor, and gender and caste oppression all conspire to increase the producer's exploitation largely via extraction of absolute surplus value.

13. It is widely recognized that in the face of the failure of modern industry to expand satisfactorily, informal industry has acted as the "employer of last resort" for surplus labor in the agricultural sector. However NSS data also shows that employment in informal manufacturing has been more of less constant since the 1980s. Thus it can be inferred that informal retail as well as informal labor in construction have largely absorbed the increase in the labor force.

14. Relations of dependency and lack of resources as well as incentives for technical change keep informal workers trapped in low productivity, low wage work. Surplus labor, low wages and intense (self) exploitation in turn create disincentives for technical change.

15. From the point of view of the large or formal-sector capitalist (whether merchant or industrial) sub-contracting arrangements retain advantages of economies of scale in purchase of means of production while circumventing the costs associated with a formal labor force. Number of workers protected by legislation is kept to a necessary minimum while much labor-intensive (skilled and unskilled) work is contracted out to informal units. Through employment of unpaid family labor and labor paid below official minimum wage, informal firms are able to survive and formal firms are able to extract larger amounts of surplus value. The disintegration of the textile mills and their conversion into powerloom sweat-shops is an example of this process.

16. Labor bondage, gender and caste hierarchies, unpaid domestic work and contingent and casual labour can all be understood as attempts to increase absolute surplus value. This reinforces the fact that in all these cases, there is formal rather than real subsumption of labor by capital. The incentive to alter the methods of production or adopt new techniques of production comes, in these circumstances, from the direct producer, who however, lacks the resources to undertake this task. Capitalists in the formal sector do not have the incentive to undertake technical change because under formal subsumption of labor there is no drive to increase relative surplus value. Efforts to increase productivity and reduce work burdens are thus doubly undermined as producers, who have the incentive do not control their own surplus while capitalists, given a large labor force ready to work for extremely low wages, have resources but do not face incentives for technical change. Naturally, we do not mean to imply that the above-stated reason

is the only factor in continued low labor productivities observed in informal manufacturing, but it is nevertheless an important part of the story.

PART III: CONCLUSION

By way of conclusion, we would like to raise some political and philosophical issues and questions for further discussion without in any way claiming to have arrived at any conclusive answers. Though both the authors largely agree as to the aggregate trends presented above, we derive different political and social implications from these trends. This derives partly from different political and philosophical perspectives that both of us see ourselves closest to. Rather than paper over our differences, we therefore, present our alternative viewpoints, which might even be contradictory, for further debate and discussion.

The first issue that we wish to put forward for discussion relates to the dynamics of class differentiation. As we have seen, both in agriculture and in industry, the persistence of petty production is a characteristic feature of Indian capitalism; what does this imply? It implies that almost all members of the working class occupy, at different points in time, multiple positions in the structure of production, i.e., within a short time span, each member of the working population participates in multiple production relations and her consciousness is shaped by these multiple, and often drastically, different objective positions in the production process . Even a casual glance at rural India demonstrates this multiplicity. At one time a worker is an agricultural labourer, exploited through the institution of wage-labour; at another time, often within weeks or months, she is a tenant cultivator, hiring in land from the local landlord and facing exploitation through semi-feudal methods; at another point she is a petty producer, operating as a owner-operator of a small business and using family labour for production purposes.

This multiplicity of objective positions in the production process has very important implications for the process of class differentiation and development of revolutionary class consciousness: class differentiation that was observed in Europe (and in particular in England), during its capitalist transformation, differentiation of society between a relatively homogeneous proletariat (who only sell their labour-power) and a capitalist class (who only appropriate surplus value through the institution of wage-labour), is not what we observe today in India (and other similarly placed ex-colonies). Thus, the capitalism that is developing in India is drastically different from the one that developed in Europe between the latter half of 16^{th} and 18^{th} centuries. In the Indian case, the persistence of petty production in agriculture, industry as well as services has been interpreted as arrested class differentiation. However a closer look at the evolving relations of production reveals that class differentiation is proceeding, albeit in a way different from the European case. For example the differentiation that is taking place in rural India is more

between a heterogeneous rural gentry and a heterogeneous rural poor, than between capitalist and worker. In industry too, the apparent preponderance of petty production hides the extent of wage-labor, for example by making a piece-rate wage worker appear as an own-account producer. Both in agriculture and in industry the actual extent of alienated labor is hidden by a semblance of private property.

If the class differentiation at the lower end of the social and economic hierarchy is masked by participation of members of the working population in multiple relations of production, the rural gentry at the other end of the spectrum is also a complex entity. How did this rural gentry come into being? Land reforms, of a decidedly timid variety, “sliced off a bit of the old land-owning classes, those that owned enormous estates, and incorporated a small upper section of the tenants in the land-owning group, thus creating a broader strata of landowners…” (Desai, 1986: quoted in Balagopal, 1986). Members of the rural gentry have, over the years, lost some of the monopoly over land, as we have seen, but facing this decline, have nicely “diversified” their portfolios into other areas of rural economic life, thereby maintaining their hold over rural society (Metcalf, 1967). Facilitated by a pliable state, members of this class gradually got involved in trade and usury, in government contracts for infrastructure works, in building and maintaining hotels, cinema theatres, petrol pumps, etc. They continue to rely heavily on their relationship to the State to facilitate the reproduction of their capital; and without exception, they are the local notables of mainstream political parties, often maintaining their own militias to politically intimidate the local population.

It is difficult to differentiate, within the rural gentry, between feudal interests and capitalist interests, as much as it is difficult to differentiate between different varieties of capital: industrial, merchant, usurious. Analogously, from the point of view of the working class, it is difficult to identify where surplus extraction via unequal exchange stops and that via wage-labor begins. As feudal methods of surplus extraction, like tenancy, declined and as their hold on the monopoly of land dwindled, members of the rural gentry painlessly morphed into capitalist farmers and local merchants. Some started industrial activities with the support of the State, while others ploughed their capital into money-lending. It is worth noting that never in independent India have the class of capitalist farmers taken up arms against the so-called feudal interests in land; the contradiction, to the extent it ever existed between these fractions of the rural ruling classes, have been resolved in the most amicable manner.

The second issue worth considering is the continued centrality of the agrarian question to any project for revolutionizing Indian society. This follows simply from the fact that the majority of the working people in India are related, directly or indirectly, with the agricultural sector; this is a direct result of the failure of the structural transformation of the Indian economy. Any attempt, therefore, at radical reconstruction of Indian society will have to deal with the agrarian question

effectively. Dealing with the agrarian question will mean, among other things, rapidly increasing the productivity of agricultural activity, the surest way to increase the income of the vast masses of the working people involved in agriculture and thereby create a home market for domestic industry.

The Marxist tradition has seen redistributive land reforms as essential to the project of dealing with the agrarian question. The reasons have primarily been political, though some economic arguments have also been developed.[13] Politically, land reforms have been seen as a way to decisively break the power of the parasitic class of feudal and semi-feudal landlords; economically, it has been understood as creating conditions for the development of the productive forces in rural society, increasing the productivity of labour, creating a surplus for supporting industrialization and providing a market for domestic industry.

Using Lenin's distinction between the Prussian and the American paths for bourgeois development in the rural economy lends credence to the call for redistributive land reforms. Discussing the "two forms" of bourgeois development out of the feudal and semi-feudal order characterized by serfdom in late 19th century Russia, he says:

> The survivals of serfdom may fall away either as a result of the transformation of landlord economy or as a result of the abolition of the landlord latifundia, i. e., either by reform or by revolution. Bourgeois development may proceed by having big landlord economies at the head, which will gradually become more and more bourgeois and gradually substitute bourgeois for feudal methods of exploitation. It may also proceed by having small peasant economies at the head, which in a revolutionary way, will remove the "excrescence" of the feudal latifundia from the social organism and then freely develop without them along the path of capitalist economy.
>
> Those two paths of objectively possible bourgeois development we would call the Prussian path and the American path, respectively. In the first case feudal landlord economy slowly evolves into bourgeois, Junker landlord economy, which condemns the peasants to decades of most harrowing expropriation and bondage, while at the same time a small minority of *Grossbauern* ("big peasants") arises. In the second case there is no landlord economy, or else it is broken up by revolution, which confiscates and splits up the feudal estates. In that case the peasant predominates, becomes the sole agent of agriculture, and evolves into a capitalist farmer. In the first case the main content of the evolution is transformation of feudal bondage into servitude

[13] Patnaik (1972) summarily rejects any economic rationale for land reforms and instead stresses the political logic; but Patnaik (1976) and Patnaik (1986) develop an explicitly economic logic for land reforms in terms of overcoming the ground rent barrier to capitalist development.

> and capitalist exploitation on the land of the feudal landlords—Junkers. In the second case the main background is transformation of the patriarchal peasant into a bourgeois farmer. (Lenin, 1907).

The three main communist streams in India, the Communist Party of India (Marxist), the Communist Party of India (Marxist-Leninist) Liberation and the Communist Party of India (Maoist) more or less accept this distinction, the first two explicitly and the last one implicitly.[14] Hence, for all the three streams the main task (or axis) of the current stage of the Peoples (or New) Democratic Revolution is the agrarian revolution, with redistributive land reforms being one of its main tasks.

While it is true that India, because it did not witness any serious efforts at land reforms on a national scale, developed along the landlord path out of semi-feudalism, there are some important differences that need to be considered. One pole of landlord capitalism, viz., landlessness has been growing over the years; the other pole of landlord capitalism, viz., the continued dominance of a few “big peasants” seems to be at variance with the evidence. Aggregate level data about India that we have seen in the course of this study seems to throw up an unmistakable trend of the declining power of landlords (feudal or otherwise), not by any revolutionary means but just by the sheer pressure of demographic developments and economic stagnation. The total land owned by the large landholding families, the “big peasants” that Lenin refers to, have halved over the last five decades and today they own only about 12 percent of the total land. On the other hand, the land owned by medium-to-small landholding families has increased to over 65 percent. Does this, along with other evidence on the decline of tenancy and the increase of wage-labour, not indicate that the rural economy in India is inexorably being pushed in the direction of peasant capitalism? How would this important trend of the increasing dominance of peasant capitalism, and a gradual whittling down of landlord capitalism, change the course of the agrarian revolution? If landlords, as a class, are dwindling in economic and social power, is a programme aimed at breaking their political power still relevant? Is the contradiction between feudalism and the broad masses of the people still the principal contradiction in India today?

Another issue that will need to be addressed in the context of the slogan for redistributive land reforms is to see whether the resulting farms will be viable in any meaningful economic sense. Let us recall that the average size of ownership holding in India in 2003 was 0.81 hectares; so, the most equitable redistribution will result

[14] CPI(M) and CPI(ML) Liberation explicitly recognize the current rural scenario in India as being characterized by landlord capitalism; this was most clearly formulated by Patnaik (1976, 1986) and finds its place in the CPI(M) programme accordingly; it also appears explicitly in the agrarian programme of CPI(ML) Liberation, though there is no mention of Patnaik (1976, 1986). The CPI (Maoist), on the other hand, largely discounts the development of capitalist relations in rural Indian. Characterization of Indian society can be found in the programmes of the CPI(M), CPI(ML) Liberation and CPI(Maoist); links for the programmes are provided in the references.

in the average holding of this size. If instead land is only taken from those owning more than 10 acres and all of it distributed among those currently owning less than 1 acre, then the average size of holding for those receiving redistributed land will roughly become 1.25 acres.

If we juxtapose this with the cost of cultivation data, we can easily see that agricultural units of approximately such sizes will not be economically viable in the sense of being able to generate any substantial surplus product after sustaining a decent level of consumption of the producers. It is extremely doubtful whether these small farms can generate any economic surplus even after the onerous relations of unequal exchange have been removed from the picture. Can they, therefore, help in the industrialization effort by generating surplus or will they instead require a net resource flow in their direction with subsidized credit, power, inputs, technology, etc. to continuously keep them viable? This question is extremely important as can be seen from the concrete experiences of the Russian and Chinese revolutions.

The growth of capitalist relations in the Indian countryside, the continued fragmentation of the land, the decline in tenancy, the unviability of small-scale production and other related factors seem to suggest that collective forms of agricultural production are gradually being pushed on to the historical agenda of the revolutionary movements in India. Collective, cooperative and socialist forms of large-scale agriculture probably need to be seriously considered as an option emerging out of the very evolution of the material conditions of the vast masses of the working people. The agenda of redistributive land reforms creating bourgeois property in rural areas and facilitating capitalist development needs to be seriously rethought, not because of some ideological reasons but because the development of the agrarian structure seems to demand such a re-evaluation.

It is not that redistributive land reform is, either economically or politically, not useful; it is extremely useful at this stage of Indian development and thus finds pride of place in the programme of all the communist streams. Land reforms will certainly help in increasing the consumption levels of the vast masses of the peasantry from their current abysmally low levels; it will democratize the ownership structure in rural society; it will help create an internal market for the accumulation of capital; it will help break the stranglehold of the rural gentry over rural social and political life. All these reasons undoubtedly make redistributive land reforms an indispensable part of any strategy for the radical restructuring of Indian society.

Without in any way undermining the logic of land reforms in the present Indian context we would also like to strike a cautionary note, following Paul Baran (1957), against treating land reforms as a panacea for all economic problems of an underdeveloped society such as India. The agrarian structure of rural India, with its extremely low land-man ratio, suggests that the limits of the positive aspects of redistributive land reforms will be reached pretty quickly; it will need to be

positively transcended within a very short time. Hence, the transition from a focus on redistributive land reforms and support for peasant capitalism to an emphasis on collective ownership and production will need to be reckoned with from the very beginning; both the agrarian structure and historical lessons suggest such an emphasis.

The third large issue raised by our study concerns the mode of industrialization of the Indian economy. It is relatively uncontroversial that a shift of the agricultural population into the secondary and tertiary sectors will be required in order to raise real incomes of the vast majority. How this transformation is to be achieved is the question. The structural transformation required to relieve above-mentioned pressures on agriculture cannot be left to the anarchy of the global capitalist market. The “market-friendly” post-1991 period has been witness to a type of growth that has resulted in rising inequality and increasing number of low-wage, contingent and informal jobs. However the contradictions and problems of the pre-Reform, “planning period” also need to be taken seriously. There is an urgent need to break out of certain simple binaries and equations which have been imposed upon us. The first binary is that between State-managed capitalism and market-oriented capitalism. India’s experience shows that the vast majority of the working population has suffered greatly in both regimes. In our struggle against a particularly predatory type of neoliberal capitalism (whose days may in any case be numbered given the global crisis), we must not find ourselves unwittingly arguing for a return to the bureaucratic and corrupt State. Rather the spectacular failure of the neoliberal model can be an opportunity to demand greater decentralization and more autonomous development. The various people’s movements have been articulating precisely such a model of development.

The second simple equation is between rural areas and agriculture on the one hand, and cities and industry on the other hand. The social and ecological contradictions of the large-scale, capital intensive model of industrialization must be taken seriously. Nowhere has this model produced high levels of employment in an ecologically sustainable fashion while giving producers a say in the running of the workplace. It is becoming increasingly clear that the economic viability of such industrialization is obtained only by cost externalization. The Indian experience points to the necessity for developing dispersed, low capital-intensity, sustainable models of industry that nevertheless raise real incomes of the majority (see Datye 1997 for one such model). This is not a utopian pipe-dream but rather a historical necessity if “development” is not to remain an unfulfilled promise for the majority of Indians.

None of the above can be taken only as a demand for better or more enlightened development policy. Rather it articulates what has already been emerging from social and political movements and in turn seeks to ground the political demands in an empirical and theoretical context. There is a need to extend revolutionary people’s movements rooted in peasant agriculture and national resource struggles

into the rural, semi-urban and urban industrial milieu. The urgent question here is how can the dispersed industrial working class be effectively politically organized at a national level? This working class does not always resemble the “classical” doubly-free, urban industrial proletariat. Yet, our attempt here has shown that it remains exploited nonetheless and can and should form an important component of left revolutionary politics. Is an artisan-peasant alliance a possibility for the near future?

There is a difference of opinion between the two of us on the question of the model of industrialization that might fruitfully accompany efforts at a radical restructuring of Indian society. One of us (AB) believes, as has been stated in the above paragraphs, that a dispersed, low capital-intensity, sustainable model of industrialization is the way forward. While we agree that the scale and geographic dispersal of industrialization *per se* does not lead to its being more democratic or ecologically sustainable, DB places more importance on the institutional setting within which the industrialization effort is embedded. A small-scale industrialization effort in the context of local level inequalities of class, caste and gender can reinforce those inequalities and nullify all attempts at democratic control of the production process; on the other hand, a large-scale, high capital intensity and centralized industrialization effort within a socialist context might be amenable to democratic control if the institutions of workers’ control are in place. DB believes that the experience of the Russian and Chinese revolutions shows that petty production of the artisanal variety cannot solve either the economic problems of the vast masses of an underdeveloped country like India or the political problems of a society embarking on the socialist path. Sustainability, for DB seems to have more to do with proper cost-benefit analysis rather than the scale of production as such. In a socialist context, where the surplus product of society is democratically controlled, the pace and direction of technical change will be determined in a rational and scientific manner and not left to the anarchy of capitalist production and the imperatives of profit maximization. In such a setting, internalizing the environmental costs of production would flow naturally from the imperatives of all round social development.

It has been our effort in the present study to arrive a macro understanding of Indian agriculture and Industry from the Marxist perspective. As our differing positions advanced above indicate, we do not intend to argue for any *one* right solution to the problems identified in the study. Rather we hope that the data and the accompanying reflections and speculations will serve to fuel further discussions and debate out of which visions for a future Indian society may emerge.

(We would like to thanks Debarshi Das, Gail Omvedt, Mohan Rao, Sukla Sen, Abhay Shukla and Rahul Varman for helpful comments on an earlier version of the paper.)

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APPENDIX

Table A1: Average Size of Ownership Holding in India

	1961-62	1971-72	1982	1992	2003
Estimated Area Owned (million ha)	128.73	119.64	119.74	117.35	107.23
Average area owned (ha)					
Including landless	1.78	1.53	1.28	1.01	0.73
Excluding landless	2.01	1.69	1.44	1.14	0.81
Area Operated (millon ha)	133.48	125.68	118.57	125.1	107.65
Average area operated (ha)	2.63	2.2	1.67	1.34	1.06

Source: Report No. 491, NSS 59th Round, January-December, 2003.

Table A2: Land Ownership Structure in Rural India by Ownership Size-Class

		marginal	small	semi-medium	medium	large
1961	% of households	66.06	9.16	12.86	9.07	2.85
	% of area owned	7.59	12.39	20.54	31.23	28.25
1971	% of households	62.62	15.49	11.94	7.83	2.12
	% of area owned	9.76	14.68	21.92	30.73	22.91
1982	% of households	66.64	14.70	10.78	6.45	1.42
	% of area owned	12.22	16.49	23.58	29.83	18.07
1992	% of households	71.88	13.42	9.28	4.54	0.88
	% of area owned	16.93	18.59	24.58	26.07	13.83
2003	% of households	79.60	10.80	6.00	3.00	0.60
	% of area owned	23.05	20.38	21.98	23.08	11.55

Source: Report No. 491, NSS 59th Round, January-December, 2003.

Table A3: Large Landholding States: Share of Area Owned by Ownership Size-Class

		mar-ginal	small	semi-medium	mediu m	Larg e
ANDHRA PRADESH	**2003**	21.87	19.95	21.16	22.91	14.05
	1992	21.30	22.44	24.15	24.06	8.06
	1982	11.26	15.29	20.70	29.83	22.92
	1971-72	9.92	13.16	21.19	30.15	25.58
GUJRAT	**2003**	13.60	16.05	18.96	39.12	12.28
	1992	9.55	15.44	24.78	31.99	18.24
	1982	6.66	10.78	22.63	39.45	20.49
	1971-72	4.53	9.94	16.73	36.15	32.65
HARYANA	**2003**	13.15	15.83	24.62	34.14	12.26
	1992	7.96	13.43	33.54	37.17	7.91
	1982	5.04	13.44	21.58	44.90	15.05
	1971-72	4.63	7.43	18.95	46.93	22.06
KARNATAKA	**2003**	16.65	19.45	23.18	29.52	11.20
	1992	11.05	18.35	27.82	26.62	16.16
	1982	6.21	13.56	25.40	31.45	23.38
	1971-72	5.74	11.81	24.84	35.19	22.42
MADHYA PRADESH	**2003**	11.61	19.07	25.80	31.25	12.29
	1992	7.61	15.49	24.97	35.38	16.57
	1982	4.99	11.08	24.30	37.93	21.72
	1971-72	3.34	9.16	21.36	37.80	28.34
MAHARASHTRA	**2003**	12.38	17.57	30.88	27.35	11.78
	1992	7.02	12.61	25.54	33.43	21.41
	1982	4.65	10.90	20.82	36.23	27.40
	1971-72	3.48	8.59	18.34	35.45	34.14
PUNJAB	**2003**	9.16	15.63	25.30	34.50	15.31
	1992	7.18	12.35	30.21	38.04	12.22
	1982	5.59	10.76	22.87	42.23	18.56
	1971-72	4.47	8.87	25.06	37.96	23.64
RAJASTHAN	**2003**	9.26	11.19	18.61	28.40	32.52
	1992	5.42	10.04	18.90	31.55	34.10
	1982	3.63	7.29	17.29	35.19	36.59
	1971-72	2.03	6.78	13.15	32.89	45.15

Source: Report No. 491, NSS 59th Round, January-December, 2003.

Table A4: Small Landholding States: Share of Area Owned by Ownership Size-Class

		mar-ginal	small	semi-medium	medium	large
ASSAM	**2003**	44.42	34.87	16.36	4.32	0.00
	1992	38.05	29.07	23.06	8.53	1.29
	1982	24.53	34.81	27.67	11.50	1.48
	1971-72	22.15	30.22	30.79	15.20	1.64
BIHAR	**2003**	42.07	25.29	18.53	9.56	4.63
	1992	28.58	23.84	24.45	18.68	4.44
	1982	23.96	22.91	27.02	20.22	5.90
	1971-72	18.20	23.43	28.07	23.63	6.67
HIMACHAL PRADESH	**2003**	43.80	28.02	19.77	6.45	2.03
	1992	34.99	20.35	21.57	18.50	4.60
	1982	20.94	23.09	26.04	27.82	2.11
	1971-72	21.22	23.43	25.92	23.12	6.31
J&K	**2003**	36.26	25.49	19.54	11.12	7.58
	1992	25.52	33.40	25.84	15.23	0.00
	1982	28.13	30.29	28.70	12.56	0.32
	1971-72	27.41	39.33	25.20	8.06	0.00
KERALA	**2003**	60.72	21.13	10.78	7.16	0.00
	1992	54.51	24.19	14.32	6.33	0.66
	1982	45.74	23.51	19.11	10.06	1.59
	1971-72	40.88	24.32	19.95	11.89	2.96
ORISSA	**2003**	41.52	27.06	19.72	9.98	1.78
	1992	26.37	27.16	25.99	18.08	2.40
	1982	19.88	29.73	25.04	19.50	5.84
	1971-72	20.45	26.95	25.88	20.72	6.00
TAMIL NADU	**2003**	33.21	23.10	22.09	20.57	1.23
	1992	33.28	26.24	24.15	12.15	4.18
	1982	23.57	27.24	23.53	20.94	4.71
	1971-72	20.23	21.84	25.21	22.97	9.75
UTTAR PRADESH	**2003**	34.89	27.38	20.74	14.65	2.34
	1992	27.42	24.88	25.82	18.14	3.73
	1982	20.36	24.08	28.11	22.25	5.18
	1971-72	17.49	24.65	27.94	23.85	6.07
WEST BENGAL	**2003**	58.23	25.71	11.88	4.02	0.00
	1992	41.29	28.11	22.98	7.62	0.00
	1982	30.33	28.77	27.23	12.12	1.54
	1971-72	27.28	25.69	27.72	18.61	0.70

Source: Report No. 491, NSS 59th Round, January-December, 2003.

Table A5: Effective Landlessness in Rural India: Cumulative Distribution of Land Ownership Patterns over Time

	1961-62		1971-72		1982		1992		2003	
Area Owned	**% of hhlds**	**% of area**	**% of hhlds**	**% of area**	**% of hhlds**	**% of area**	**% of hhlds**	**% of area**	**% of hhlds**	**% of area**
0 ha	11.68	0	9.64	0	11.33	0	11.25	0	10.04	0.01
< 0.21 ha	37.9	0.54	37.42	0.69	39.93	0.9	42.4	1.31	50.6	2.08
< 0.41 ha	44.21	1.59	44.87	2.07	48.21	2.75	51.36	3.8	60.15	5.83

Source: Report No. 491, NSS 59th Round, January-December, 2003.

Table A6: Cultivators and Agricultural Workers in Rural India, 2001

	Cultivators	**Ag Workers**	**Agwrkr/Cultiv**
Andhra Pradesh	7757337	13384671	1.73
Arunachal Pradesh	275403	17634	0.06
Assam	3712769	1253451	0.34
Bihar	8075104	13145639	1.63
Goa	45885	31076	0.68
Gujarat	5697434	4983209	0.87
Haryana	2958215	1224403	0.41
Himachal Pradesh	1946890	92598	0.05
Jammu & Kashmir	1559633	227325	0.15
Jharkhand	3858788	2810671	0.73
Karnataka	6684521	5901934	0.88
Kerala	693986	1507081	2.17
Madhya Pradesh	10733516	7136391	0.66
Maharashtra	11569293	10314720	0.89
Orissa	4197912	4921925	1.17
Punjab	1998640	1394035	0.70
Rajasthan	12921374	2436566	0.19
Sikkim	131201	16952	0.13
Tamil Nadu	4773028	7533766	1.58
Tripura	310871	272712	0.88
Uttar Pradesh	21754799	12931317	0.59
Uttaranchal	1556202	244520	0.16
West Bengal	5585848	7240517	1.30
Total	**118798649**	**99023113**	**0.83**

Source: Census of India, 2001.

Table A7: Share of Tenant Holdings by Operational Size-Class

	Percentage of tenant holdings				
	1960-61	**1970-71**	**1981-82**	**1991-92**	**2002-03**
Marginal	24.1	27	14.4	9.3	9.8
Small	25.1	27.8	17.9	14.9	10.7
Semi-medium	23.6	24.8	15.9	12.2	10.3
Medium	20.5	20	14.5	13.1	7.8
Large	9.5	15.9	11.5	16.7	13.8
All sizes	23.5	25.7	15.2	11	9.9

Source: Report No. 492, NSS 59th Round, January-December, 2003.

Table A8: Tenancy in the Major Indian States

	share of tenant holdings			share of area leased in		
	1981-82	**1991-92**	**2002-03**	**1981-82**	**1991-92**	**2002-03**
ANDHRA PRADESH	13.8	14.1	12.9	6.2	9.6	9.0
ASSAM	12.9	10.1	8.9	6.4	8.9	5.3
BIHAR	19.7	5.6	12.7	10.3	3.9	8.9
GUJARAT	4.8	3.7	5.3	2.0	3.3	5.1
HARYANA	25.9	17.1	10.7	18.2	33.7	14.4
KARNATAKA	10.7	8.0	4.6	6.0	7.4	3.6
KERALA	6.7	5.2	5.1	2.6	2.9	4.0
MADHYA PRADESH	8.0	9.0	7.3	3.6	6.3	3.6
MAHARASHTRA	10.6	6.9	6.6	5.2	5.5	4.7
ORISSA	18.2	16.9	19.4	9.9	9.5	13.0
PUNJAB	21.3	15.9	13.1	16.1	18.8	16.8
RAJASTHAN	7.1	6.5	2.9	4.3	5.2	2.8
TAMIL NADU	24.7	15.3	9.4	10.9	10.9	6.0
UTTAR PRADESH	20.5	15.5	11.7	10.2	10.5	9.5
WEST BENGAL	23.1	14.4	14.1	12.3	10.4	9.3

Source: Report No. 492, NSS 59th Round, January-December, 2003.

Table A9: Share of Leased-in Area by Terms of Lease

terms of lease	1960-61	1970-71	1981-82	1991-92		2002-03	
				incl n.r.	excl n.r.	incl n.r.	excl n.r.
fixed money	25.6	15.4	10.9	19	22.7	29.5	29.8
fixed produce	12.9	11.6	6.3	14.5	17.4	20.3	20.6
share of produce	38.2	47.9	41.9	34.4	41.1	40.3	40.8
Other	23.3	25.1	40.9	32.1	18.8	9.9	8.8

Source: Report No. 492, NSS 59th Round, January-December, 2003; n.r.=not reported.

Table A10: Share of Area by Terms of Lease, Major Indian States: 2002-03

	fixed money	fixed pro-duce	share of pro-duce	from rela-tives	other
ANDHRA PRADESH	31.6	37.9	24.0	2.1	4.4
ASSAM	15.8	3.6	55.0	0.0	25.6
BIHAR	12.0	17.5	67.0	0.5	3.0
GUJARAT	10.7	46.3	37.9	3.5	1.6
HARYANA	71.2	9.8	15.8	0.1	3.1
KARNATAKA	32.4	41.1	24.8	0.0	1.7
KERALA	39.9	7.5	12.0	33.0	7.8
MADHYA PRADESH	18.3	32.5	39.0	1.6	8.6
MAHARASHTRA	26.2	9.0	37.5	15.7	11.6
ORISSA	11.1	7.8	73.0	3.5	4.6
PUNJAB	79.2	1.5	15.3	3.1	0.9
RAJASTHAN	35.0	17.7	39.3	1.1	6.9
TAMIL NADU	32.0	30.0	22.9	7.3	7.8
UTTAR PRADESH	23.8	12.9	52.9	5.0	5.4
WEST BENGAL	23.7	28.5	34.9	4.1	8.8
INDIA	29.5	20.3	40.3	4.0	5.9

Source: Report No. 492, NSS 59th Round, January-December, 2003.

Table A11: Share of Debt from Various Sources for Cultivator Households (%)

	1951	1961	1971	1981	1991	2002
Sources of Credit						
Institutional	7.3	18.7	31.7	63.2	66.3	61.1
Cooperative Societies	3.3	2.6	22	29.8	30	30.2
Commercial Banks	0.9	0.6	2.4	28.8	35.2	26.3
Non-Institutional	92.7	81.3	66.3	36.8	30.6	38.9
Moneylenders	69.7	49.2	36.1	16.1	17.5	26.8
Unspecified	-	-	-	-	3.1	-

Source: Government of India, 2007.

Table A12: Gross Capital Formation in Agriculture at 1993-94 Prices

	GFCFA	CIS	GCFA		GFCFA	CIS	GCFA
1961	59.02	3.77	62.79	**1981**	137.21	5.12	142.33
1962	54.68	0.23	54.91	**1982**	134.07	6.72	140.79
1963	58.33	2.00	60.33	**1983**	137.66	7.63	145.29
1964	62.72	2.77	65.49	**1984**	139.26	7.99	147.25
1965	68.14	1.14	69.28	**1985**	138.46	11.02	149.48
1966	71.77	2.27	74.04	**1986**	130.61	10.71	141.32
1967	72.79	1.64	74.43	**1987**	127.89	9.19	137.08
1968	79.55	0.49	80.04	**1988**	133.75	9.19	142.94
1969	78.83	6.83	85.66	**1989**	143.35	4.27	147.62
1970	83.18	5.83	89.01	**1990**	127.28	6.96	134.24
1971	79.80	6.85	86.65	**1991**	158.05	6.11	164.16
1972	83.72	7.98	91.70	**1992**	145.46	4.19	149.65
1973	90.63	12.46	103.09	**1993**	156.10	5.31	161.41
1974	88.15	15.54	103.69	**1994**	147.49	5.00	152.49
1975	86.09	13.55	99.64	**1995**	160.12	8.31	168.43
1976	93.48	22.97	116.45	**1996**	170.14	8.70	178.84
1977	113.56	30.99	144.55	**1997**	174.72	12.91	187.63
1978	115.85	17.21	133.06	**1998**	174.99	11.81	186.80
1979	129.97	51.99	181.96	**1999**	179.79	10.33	190.12
1980	136.09	42.14	178.23				

Source: Gulati and Bathla, 2002.

Table A13: GDCF, GDP and Shares in 1993-94 prices

Years	GDCF (Rs billion)	GDP (Rs billion)	GFCA/GDCF	GDPA/GDP	GDCF/GDP
1960-61	435.49	2221.61	14.42	40.53	19.6
1961-62	409.96	2305.72	13.39	39.61	17.78
1962-63	465.05	2375.2	12.97	37.61	19.58
1963-64	489.12	2519.79	13.39	38.52	19.41
1964-65	540.61	2707.27	12.82	40.36	19.97
1965-66	616.79	2638.64	12	38.14	23.38
1966-67	641.01	2634.41	11.61	39.21	24.33
1967-68	600.68	2839.76	13.32	41.92	21.15
1968-69	588.05	2938.17	14.58	40.79	20.01
1969-70	666.26	3130.39	13.36	40.51	21.28
1970-71	689.71	3292.27	12.56	39.09	20.95
1971-72	709.78	3348.42	12.92	37.28	21.2
1972-73	697.14	3329.12	14.79	37.19	20.94
1973-74	816.64	3434.73	12.7	40.3	23.78
1974-75	724.58	3475.53	13.75	37.39	20.85
1975-76	759.45	3794.04	15.33	34.48	20.02
1976-77	853.06	3858.69	16.94	32.69	22.11
1977-78	966	4137.81	13.77	34.18	23.35
1978-79	1112.5	4375.04	16.36	32.41	25.43
1979-80	981.59	4145.71	18.16	30.56	23.68
1980-81	981.91	4423.19	14.5	36.02	22.2
1981-82	991.98	4717.09	14.19	35.56	21.03
1982-83	991.99	4880.89	14.65	34.13	20.32
1983-84	1025.14	5216.87	14.36	34.98	19.65
1984-85	1112.26	5453.49	13.44	33.96	20.4
1985-86	1217.57	5766.54	11.61	32.35	21.11
1986-87	1219.78	6031.39	11.24	30.73	20.22
1987-88	1398.91	6265.59	10.22	29.19	22.33
1988-89	1584.54	6895.41	9.32	30.63	22.98
1989-90	1699.65	7325.78	7.9	29.25	23.2
1990-91	1956.5	7733.49	8.39	28.85	25.3
1991-92	1715.53	7815.75	8.72	28.1	21.95
1992-93	1874.77	8185.44	8.61	28.39	22.9
1993-94	1984.12	8592.2	7.69	28.16	23.09
1994-95	2421.13	9222.89	6.96	27.55	26.25
1995-96	2692.19	9928.77	6.64	25.37	27.12
1996-97	2638.83	10619.02	7.11	26	24.85

1997-98	2985.68	11103.84	6.25	24.39	26.89
1998-99	2975.18	11853.99	6.39	24.48	25.1

Source: Gulati and Bathla, 2002.