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**EXPANDING PRODUCTIVE  
EMPLOYMENT OPPORTUNITIES  
Role and Potential of the  
Micro and Small Enterprises Sector**

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Enterprises Sector**

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# EXPANDING PRODUCTIVE EMPLOYMENT OPPORTUNITIES

## Role and Potential of the Micro and Small Enterprises Sector

*Partha Pratim Sahu\**

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*[Abstract: This paper analyses the growth and performance of the unorganized manufacturing (micro and small enterprises) sector in rural and urban India. The central concern would be to address the issues of employment potential of this sector. Based on NSS data on the unorganized manufacturing sector (40<sup>th</sup> Round, 1984–85; 51<sup>st</sup> Round, 1994–95; and the latest 56<sup>th</sup> Round, 2000–01) the paper looks at the growth performance of this sector during the pre- and post- reform period, and attempts to identify challenges posed and opportunities thrown by in globalising India. To find out the special locational constraints of rural enterprises, analysis has been made separately for rural and urban units. Further, to derive a firm picture about the specific sectors and sub-sectors that were rising or declining, especially in the wake of economic reforms, the analysis is extended to cover two-digit level of industrial classification for three variables, namely, number of workers, capital:labour ratio and per worker productivity.*

*While the overall employment situation in the post-reform period is fairly depressing, the MSE sector has shown some sign of relief. It has witnessed a significant growth of employment in both rural and urban areas. But within the MSE sector, there has been a clear shift of manufacturing enterprises and employment from rural to urban areas and from tiny to bigger sized units. The levels of productivity are abysmally low for each of the three types of enterprises, but there are substantial differences among them and it is even more glaring between rural and urban located units. Thus, both locational and scale attributes are clearly at work. Moreover, there was a substantial change in the composition of workers in the post-reform period, i.e., part-time workers increased at a higher rate both in rural and urban areas. The paper unfolds the statistical delusion of post-reform high employment growth in the MSE sector and calls for a special policy attention towards technological improvement, promotion of sub-contracting and clusters.]*

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## 1. Introduction

Creation of jobs in massive numbers and ensuring higher productivity have been subjects of intense public debates, especially in view of the fact that the situation on employment since mid 1990s or so has not been encouraging. Although an examination of the latest available NSS employment–unemployment data reveal that employment has grown practically in all sectors of the economy, viewed over the long–term, employment growth slowed down slightly in 1993–94/2004–05, compared to 1983/1993–94 and the slowdown is quite marked in rural area. Employment has grown in urban India, but the nature of this growth and quality of employment need detailed investigations.<sup>1</sup> Further, there has been a substantial increase in self–employment.<sup>2</sup> Nonetheless, the manufacturing sector witnessed a relatively higher growth than that in the earlier quinquennial survey; the manufacturing sector has witnessed a growth rate of 3.27 per cent in 1993–94/2004–05 compared to 2.00 per cent in the previous period, i.e. 1983/1993–94. But it is observed that the organized segment of the manufacturing sector has failed to generate employment opportunities even though the value added had surged during the initial years of reform, leading to the so-called ‘jobless’ as well as ‘job loss’ growth. On the contrary, the micro and small enterprises sector (MSE), popularly referred as unorganized manufacturing sector<sup>3</sup> during the post-reform period witnessed notable rise in both the number of units and workers. It has come to be recognized in the policy sphere<sup>4</sup> that the unorganized manufacturing sector, which is dominated by small and tiny enterprises, holds the promise of vast employment potential. Notwithstanding, the apparently encouraging performance of the MSE sector, an issue of concern has been the perpetuation of an abysmally low level of productivity, caused by various factors such as low level of technology-in-use, limited access to inputs and credits and unfavourable market environment. Some of these problems seem to be getting exacerbated, rather than moderated, by the process of economic reform and globalization.

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<sup>1</sup> For a detailed discussion on these issues, see Unni and Raveendran (2007).

<sup>2</sup> With the rise of self–employed workers, how to ensure decent working condition in the absence of direct employer is questionable. Further, how to assess and ensure “living wages” when wages are not received at all by such workers, who instead depend upon uncertain returns from various activities that are typically petty in nature. The dominance of self-employment also reiterate the need to consider the basic social security that covers not just general workers in the unorganized sector, but also those who typically work for themselves (Chandrasekhar and Ghosh, 2006a and 2006b).

<sup>3</sup> The micro and small enterprises sector and unorganized manufacturing sector has been used synonymously in the present paper.

<sup>4</sup> For example, Government of India, Report of the Special Group on Targeting Ten Million Employment Opportunities per year over the Tenth Plan Period (Chairman: S. P. Gupta), Planning Commission, May 2002.

This sector has not received due attention in research and policy, partly due to the problem of inadequacy or non-availability of relevant data. Recognizing the growing significance of this sector, the present paper will attempt to examine the structure and growth of employment in the unorganized manufacturing sector, by type of enterprises and broad group of industry. The employment potential of this sector has also been discussed in the light of different technology parameters such as per worker productivity and capital-labour ratios. A special emphasis of the present paper shall be to look into these issues at the rural and urban levels, separately, as it is believed that the enterprises in the two segments face different problems. In all, 16 industrial groups, at two-digit level of dis-aggregation, have been used for the purpose of analysis (Annexure-I). The available data also permit us to study the above aspects, both in rural and urban areas for three layers of enterprises<sup>5</sup>.

With the opening up of the economy, globalization has not only thrown up opportunities, but also posed challenges for this sector. The key issue is how to enhance competitiveness of this vast sector plagued often by the 'low-road syndrome'. Infusing technological dynamism and effecting changes in production organization are essential for the progress of these sectors. Additionally, there remains the difficult aspect of poor infrastructure, both physical and financial. Given the diversity of product range and locational differences in factor endowment, the MSE sector needs to be assessed carefully for its strengths and weaknesses. That would form a strong and valid basis for meaningful policy intervention. This paper is an attempt in that direction. The paper is organized as follows. Following this introduction in section 1, we discuss the data and framework of analysis in section 2. Section 3 analyses the dominating position of the MSE sector in total manufacturing sector. Changes in the structure of the MSE sector and its growth performance are discussed in section 4. Section 5 analyses the issues related to productivity and technology. Finally, section 6 gives a summary of the main findings.

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<sup>5</sup> Own account manufacturing enterprises (OAMEs) are enterprises run without an outside worker, hired on a fairly regular basis. Non-directory manufacturing establishments (NDMEs) are establishments employing up to six workers, at least one of them being a hired worker employed on a fairly regular basis. Directory manufacturing establishments (DMEs) are establishments employing six or more (but less than ten) workers, at least one of them being a hired worker. Directory manufacturing establishment which employs 10 or more workers and use power and those which employed 20 or more workers without using power are required by law to register themselves under section 2 m (i) and (ii) respectively of the Factory Act 1948. Such industrial establishments hence come under the purview of Annual Survey of Industry (ASI).



## 2. The Database

The MSE sector is huge and very heterogeneous, including a wide range of manufacturing units, dispersed all over the country both in rural and urban areas.<sup>6</sup> The present paper is based on National Sample Survey Organisation (NSSO) data on unorganized manufacturing sector, for three points of time, i.e. 40<sup>th</sup> round (July 1984-June 1985), 51<sup>st</sup> round (July 1994-June 1995) and the latest 56<sup>th</sup> round (July 2000-June 2001). These surveys cover all the units of unregistered manufacturing sector (i.e. units not covered by Annual Survey of India) and provide a large variety of estimates for the entire unregistered manufacturing sector, for the years for which these surveys are undertaken.

To figure out the pre- and the post-reform contrasts in employment growth and structure, we have divided the whole period into two sub-periods; the period 1984–85/1994–95 surrogates the pre-reform years while the period 1994–95/2000–01 is expected to capture the changes in the post-reform years. In terms of coverage and industrial classification, a few conceptual and methodological inconsistencies do exist in different rounds of data. For instance, variations in coverage, for example, inclusion of ‘repair services’ and/or ‘repair of capital services’ in the 40<sup>th</sup> and 51<sup>st</sup> rounds and their exclusion in the 56<sup>th</sup> round, pose some problems of comparison. Second, since the 40<sup>th</sup> round, 51<sup>st</sup> round and 56<sup>th</sup> round data are based on the National Industrial Classification (NIC) of 1970, 1987 and 1998 respectively; some clubbing of industrial groups under the 1998 classification had to be resorted to, to make individual industry groups comparable with their counterparts under the 1987 NIC classification.<sup>7</sup>

## 3. Why Focus on the MSE Sector

The size of MSE sector is huge both in terms of number of enterprises and workers. For instance, during 2000–01, more than 99.0 per cent of manufacturing enterprises were in the unorganized segment alone. Table-1 clearly shows that the dominance has remained since 1984–85. The preponderance of the unorganized segment is true in respect of employment as well. In 1984–85, this segment accommodated nearly 84.3 per cent of the workers engaged in manufacturing; in 2000–01, this proportion stood at 82.5 per cent. In other words, the organized segment accounted for 15.7 per cent of manufacturing employment in 1984–85; in 2000–01 it was 17.5 per cent. It is thus abundantly clear that the unorganized

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<sup>6</sup> Further, there are multiple data sources with varying scope, coverage, sampling framework and limitations. In the present paper we approximate the MSE sector by the unorganized segment of the manufacturing sector.

<sup>7</sup> We have used a concordance table published by CSO to reclassify the whole data set according to NIC 1987 codes. (Government of India, 1998: 73–82)

manufacturing nearly completely sums up the total industrial scenario in India, most especially from the point of view of the number of enterprises. Thus, all issues related to small-scale industrial growth and efficiency, technology-in-use and production-linkages including ancillarization and vertical-hookups, market outfits, employment, workers' incomes and well-being, etc., are more meaningfully addressed if unorganized manufacturing sector is the focus. The importance of this segment needs no further emphasis.

**Table-1**  
**Structure of Manufacturing Sector in India: 1984-85/2000-01**

1	1984-85		1994-95		2000-01	
	2	% Share 3	4	% Share 5	6	% Share 7
<b>Organized Segment</b>						
No. of Units	0.9	0.5	1.2	0.8	1.3	0.7
No. of Workers*	68.7	15.7	81.1	19.6	78.8	17.5
Fixed Capital	2619376.3	48.5	7105741.9	83.5	11435423.8	79.3
Gross Value Added	1809342.2	62.6	4155054.8	77.6	5105757.9	74.5
<b>Unorganized Segment (MSE sector)</b>						
No. of Units	197.2	99.5	145.0	99.2	170.2	99.3
No. of Workers	369.5	84.3	332.0	80.4	370.8	82.5
Fixed Capital	2781298.5	51.5	1402376.8	16.5	2985440.0	20.7
Gross Value Added	1079170.9	37.4	1200703.8	22.4	1745849.1	25.5
<b>All Manufacturing</b>						
No. of Units	198.1	100	146.2	100	171.5	100
No. of Workers	438.2	100	413.1	100	449.6	100
Fixed Capital	5400674.8	100	8508118.7	100	14420863.8	100
Gross Value Added	2888513.1	100	5355758.6	100	6851607.0	100

\* For organized segment workers imply total number of persons engaged.

Note: Figures are in Lakhs. Fixed capital and Gross Value Added are in Rupees Lakhs at constant 1981-82 prices.

Source: 1. Government of India, NSS Report No. 363/1, June 1989; Report No. 433, September 1997; and Household Level Data (for 2000-01) on CD-ROM, supplied by NSSO New Delhi.

2. Government of India, Annual Survey of Industries, CSO, various years.

Traditionally, the linkages between the organized and the unorganized segments have generally been weak and diffused. Until recently, a very substantial part of the manufacturing activity in the unorganized sector has been operating independent of the organized sector; it has been producing final products for the consumer market rather than intermediate products and parts for the organized sector (Papola, 1991: 5). But in recent

years, a fairly sizeable and growing proportion of the unorganized manufacturing is expanding through inducement lent by the growth of the organized sector; the inducement often takes the form of sub-contracting involving technology-linkage, forward market contracts, financial support, and so on.

#### **4. Performance of MSE Sector**

Let us examine the productive employment generating potential of the MSE sector. The performance of the MSE sector can be discussed in terms of more than one parameter such as output elasticity with respect to inputs, total factor productivity, value added per worker, and so on. Given the availability and nature of data, we focus on capital:labour ratio and per worker productivity (gross value added per worker). These two are important structural parameters which characterize the type and nature of technology at work, as also the changes in labour absorbing potential of rural against urban units.

##### **4.1. Structure of the MSE Sector**

Before we present an account of performance of MSE sector, it is worthwhile to analyse the structure of this sector. Table-2 shows the composition and structural changes in the MSE sector during the last two decades in terms of four important indicators, namely, number of units, number of workers, fixed capital and gross value added, separately for rural and urban areas, in respect of each of the three layers of the enterprises: OAMEs, NDMEs and DMEs. Following are some of the important points that have come up from the table.

*First, a very large proportion of the unorganized manufacturing units have continued to be concentrated in the rural areas; more than 74.0 per cent in 1984–85, more than 72.0 per cent in 1994–95, and nearly 70.0 per cent in 2000–01. The same is also true of the number of workers: the proportion of workers employed in the rural unorganized manufacturing was 71.0 per cent in 1984–85, 67.0 per cent in 1994–95, and 65.0 per cent in 2000–01. In contrast, the share of rural areas in fixed capital and gross value added has been rather low. The rural unorganized manufacturing units had only 58.0 per cent of fixed capital in 1984–85, 37.0 per cent in 1994–95 and 32.0 per cent in 2000–01; likewise, their share in gross value added was 44.0 per cent in 1984–85, 41.0 per cent in 1994–95 and 44.0 per cent in 2000–01. In brief, the rural areas continue to dominate the unorganized manufacturing sector in terms of the number of units and the number of workers employed, while the urban areas contribute a larger proportion of fixed capital and gross value added. Most importantly, the rural units have witnessed a steady decline in their relative position in terms of all aspects of their existence, first between 1984–85 and 1994–95, and then between 1994–95 and 2000–01. To the extent that a fairly sizeable proportion of the unorganized manufacturing sector is a part of the informal economy, the Indian experience clearly points towards a relatively*

faster expansion of the urban informal sector, during the eighties and the nineties. Even estimates of recent population census, also highlight rampant migration of rural job seekers during the same period.

**Table-2**  
**Structure of MSE Sector in India: 1984-85/2000-01**

1	Rural				Urban				All Unorganized
	OAMEs	NDMEs	DMEs	Total	OAMEs	NDMEs	DMEs	Total	
2	3	4	5	6	7	8	9	10	
<b>Number of Units (in Lakhs)</b>									
1984-85	134.4	10.3	1.8	146.4	36.5	11.3	3.0	50.8	197.2
%	91.8	7.0	1.2	100.0	71.8	22.3	5.8	100.0	
1994-95	95.3	6.7	2.9	105.0	27.1	9.3	3.6	40.1	145.0
%	90.8	6.4	2.8	100.0	67.8	23.3	9.0	100.0	
2000-01	110.6	6.3	2.5	119.3	36.1	10.8	4.0	50.9	170.2
%	92.7	5.3	2.1	100.0	70.9	21.3	7.9	100.0	
<b>% Share of Rural/Urban Area</b>									
1984-85	78.6	47.5	37.7	74.3	21.4	52.5	62.3	25.7	
1994-95	77.8	41.7	45.0	72.4	22.2	58.3	55.0	27.6	
2000-01	75.4	36.8	38.2	70.1	24.6	63.2	61.8	29.9	
<b>Number of Workers (in Lakhs)</b>									
1984-85	219.1	23.6	19.9	262.7	53.2	26.6	27.0	106.8	369.5
%	83.4	9.0	7.6	100.0	49.8	24.9	25.3	100.0	
1994-95	178.4	18.3	24.5	221.3	48.2	30.6	32.0	110.8	332.0
%	80.7	8.3	11.1	100.0	43.5	27.6	28.9	100.0	
2000-01	191.5	19.3	29.1	239.9	59.1	36.3	35.5	131.0	370.8
%	79.8	8.1	12.1	100.0	45.2	27.7	27.1	100.0	
<b>% Share of Rural/Urban Area</b>									
1984-85	80.5	47.0	42.4	71.1	19.5	53.0	57.6	28.9	
1994-95	78.7	37.4	43.4	66.6	21.3	62.6	56.6	33.4	
2000-01	76.4	34.8	45.0	64.7	23.6	65.2	55.0	35.3	
1	Rural				Urban				All Unorganized
	OAMEs	NDMEs	DMEs	Total	OAMEs	NDMEs	DMEs	Total	
2	3	4	5	6	7	8	9	10	
<b>Fixed Capital</b>									
1984-85	13614.7	2011.9	443.9	16070.4	7521.7	3213.9	1007.0	11742.5	27813.0
%	84.7	12.5	2.8	100.0	64.1	27.4	8.6	100.0	
1994-95	3069.8	1066.8	1098.5	5235.1	2176.5	2803.6	3808.6	8788.7	14023.8

contd...

	Rural				Urban				All Unorganized	
	OAMEs	NDMEs	DMEs	Total	OAMEs	NDMEs	DMEs	Total		
1	2	3	4	5	6	7	8	9	10	
	%	58.6	20.4	21.0	100.0	24.8	31.9	43.3	100.0	
2000-01		5657.7	1608.9	2296.7	9563.2	5147.4	7445.9	7697.8	20291.2	29854.4
	%	59.2	16.8	24.0	100.0	25.4	36.7	37.9	100.0	
<b>% Share of Rural/Urban Area</b>										
1984-85		64.4	38.5	30.6	57.8	35.6	61.5	69.4	42.2	
1994-95		58.5	27.6	22.4	37.3	41.5	72.4	77.6	62.7	
2000-01		52.4	17.8	23.0	32.0	47.6	82.2	77.0	68.0	
<b>Gross Value Added</b>										
1984-85		3404.8	762.2	566.0	4733.0	1668.5	2016.1	2374.1	6058.7	10791.7
	%	71.9	16.1	12.0	100.0	27.5	33.3	39.2	100.0	
1994-95		3142.8	726.8	1057.1	4926.8	1984.4	2122.4	2973.4	7080.3	12007.0
	%	63.8	14.8	21.5	100.0	28.0	30.0	42.0	100.0	
2000-01		4879.0	1070.7	1788.1	7737.7	2503.8	3297.4	3919.6	9720.7	17458.5
	%	63.1	13.8	23.1	100.0	25.8	33.9	40.3	100.0	
<b>% Share of Rural/Urban Area</b>										
1984-85		67.1	27.4	19.3	43.9	32.9	72.6	80.7	56.1	
1994-95		61.3	25.5	26.2	41.0	38.7	74.5	73.8	59.0	
2000-01		66.1	24.5	31.3	44.3	33.9	75.5	68.7	55.7	

Note: Fixed capital and Gross value added are in Rs. Crores at constant 1981-82 prices.

Source: Government of India, NSS Report No. 363/1, June 1989; Report No. 433, September 1997; and Household Level Data (for 2000-01) on CD-ROM, supplied by NSSO New Delhi.

Second, there are marked rural-urban differences. Within rural areas, the unorganized segment consisting of the tiniest self-employed enterprises (OAMEs) dominate in respect of each of the four indicators. For example, in 2000-01, 93.0 per cent of the units, more than 80.0 per cent of workers, 59.0 per cent of fixed capital and 63.0 per cent of gross value added, in the rural unorganized manufacturing sector, were to be found amongst the tiniest of the enterprises; these percentages are only of 5.0, 8.0, 17.0 and 14.0 for NDMEs and 2.0, 12.0, 24.0 and 23.0 for DMEs. The dominance of OAMEs is discernible in urban areas as well, but it is on a much lower scale. For example, within urban areas, 71.0 per cent of the units, 45.0 per cent of workers, 25.0 per cent of fixed capital and 26.0 per cent of gross value added, belonged to OAMEs. In sharp contrast to the rural situation, the urban-NDMEs commanded 21.0 per cent of the units, 28.0 per cent of workers, 37.0 per cent of fixed capital, and 34.0 per cent of gross value added. For the top layer of the urban unorganized manufacturing sector (DMEs), these percentages were 8.0, 27.0, 38.0 and 40.0 respectively.

It is thus clear that in rural India, the tiniest command a clean sweep in terms of the number of units and workers, with a highly subdued, and marginal presence of NDMEs and DMEs; on the other hand, in the urban areas, NDMEs and DMEs do have a sizeable presence even in the midst of the dominance of OAMEs. Thus, the urban unorganized manufacturing sector is structurally more balanced than its rural counterpart. In other words, the scale advantages are at work more effectively, in urban located units than in its rural counterpart.

Third, *over time, the share of rural enterprises has been declining, most ostensibly among the tiniest of the enterprises (OAMEs)*. For example, the share of rural-OAMEs among the number of units has been declining from 79.0 per cent in 1984–85 to 78.0 per cent in 1994–95 and further down to 75.0 per cent in 2000–01; their share in respect of the number of workers employed has also been declining from 81.0 per cent to 79.0 per cent, and to 76.0 per cent, during the same period; and their share in fixed capital has been declining from 64.0 per cent to 59.0 per cent, and finally to 52.0 per cent, and so on. Varying degrees of declines have also been witnessed in the case of rural-NDMEs. Most interestingly, the situation is strikingly different in respect of the top layer of the unorganized manufacturing enterprises, namely, DMEs. Here, the share of rural areas has not been declining, across the board, especially during the post-reform years. For example, the share of rural-DMEs in the number of workers employed has increased from 42.0 per cent in 1984–85 to 43.0 per cent in 1994–95, and further on to 45.0 per cent in 2000–01, and in gross value added, from 19.0 per cent to 26.0 per cent, and finally to 31.0 per cent, during the same period. This reinforces our earlier observation about the greater vulnerability of the tiny (OAMEs) rural enterprises, in relation to their urban counterparts, and not many special disadvantages in respect of the higher categories of rural enterprises such as the rural-DMEs. It is evident that the locational disadvantages of rural-location clearly seem to overtake the tiniest of the enterprises far more severely than the bigger sized units; the DMEs are summarily a mingle of small-scale non-household enterprises, many operating with improved production technologies and commanding a non-local market outreach, and their commercial sustainability is much less under doubt, contrasted to the big lump of tiny, usually household run, enterprises nearly perpetually handicapped by technological backwardness, and limited market access.

Going by absolute numbers, however, there is an overall improvement in terms of employment and other parameters, during the post-1994 years. But, there are two strong countervailing facts which need to be interpreted with caution. If we take a longer term view, say 2000–01 compared to 1984–85, then the so-called cheers unleashed by the post-1994 improvements get substantially dampened. Clearly, the absolute figures for 2000–01 are lower than those for 1984–85, practically for each segment of the unorganized

manufacturing sector, both for rural and urban areas. In other words, the post-1994 improvements could not recover the ground that was earlier lost during 1984–85/1994–95. Admittedly, it is a matter of great concern. Moreover, as we have discussed later in this paper, there was a substantial change in the composition of workforce in terms of nature of employment, during 1994–95/2000–01, contrasted with 1984–85/1994–95.<sup>8</sup> Clearly, the post-reform years have unleashed, inter alia, distress of some kind that fuels stronger propensities to launch self-employing manufacturing enterprises just because the workless or the under-worked have somehow to create some avenues of earnings. An across the board rise in the proportion of part-time workers, during 1994–95/2000–01, puts a formidable question that the pro-reform proponents would find hard to explain.

#### **4.2. Growth of Employment in MSE Sector**

A close examination of the available NSS data suggests that the employment situation in manufacturing sector has improved quite considerably in recent years. But to what extent, the MSE has contributed towards this improvement must be analyzed in greater detail; in particular, the rural-urban differences need to be brought out in bold relief. Table-3 provides growth rates of employment, among 16 major unorganized manufacturing groups, separately for rural and urban areas in respect of each of the three categories, i.e. OAMEs, NDMEs and DMEs. Following are some of the important observations emanating from Table-3.

First, during 1984–85/1994–95, employment in rural unorganized manufacturing as a whole witnessed an annual decline of 1.7 per cent. The decline was not uniform among the three layers of the unorganized manufacturing sector. For the total of the tiniest enterprises (OAMEs), it was 2.0 per cent followed by 2.5 per cent for the middle-level units (NDMEs); only for the ‘bigger’ sized units (DMEs which roughly correspond to ‘modern’ small-scale industries under the VSI sector), employment witnessed a positive growth of 2.1 per cent per annum. Thus, the process of mushrooming of self-employing tiny manufacturing enterprises seems to have come under arrest; to a slightly lower extent, this seems to be happening in urban areas as well.

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<sup>8</sup> During the post-1994 years, it is the part-time workers that overwhelmingly dominated the additions accruing to each constituent, most markedly the OAMEs, both in the rural and urban areas. It is also worth mentioning that recent round (61<sup>st</sup>) of NSS data on employment-unemployment also show an increase in self-employed workers.

**Table-3**  
**Growth of Employment in MSE Sector by Rural-Urban Location and Production Sectors: 1984–85/2000–01**

NIC Code	RURAL								URBAN							
	OAMEs		NDMEs		DMEs		All Manufacturing		OAMEs		NDMEs		DMEs		All Manufacturing	
	84–85 / 94–95	94–95 / 00–01	84–85 / 94–95	94–95 / 00–01	84–85 / 94–95	94–95 / 00–01	84–85 / 94–95	94–95 / 00–01	84–85 / 94–95	94–95 / 00–01	84–85 / 94–95	94–95 / 00–01	84–85 / 94–95	94–95 / 00–01	84–85 / 94–95	94–95 / 00–01
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
20–21	-1.68	1.67	-3.90	0.87	2.06	-1.03	-1.56	1.23	-1.61	5.12	-1.06	3.28	-1.55	6.63	-1.43	4.82
22	2.27	6.39	-4.81	-6.30	-3.79	12.39	1.38	6.39	-0.04	6.33	-3.70	-0.63	-7.15	2.76	-0.70	5.86
23+24+25	-10.33	-0.67	0.73	-4.70	3.19	-9.79	-7.97	-2.65	-5.93	4.08	-0.16	0.38	-1.00	2.05	-3.22	2.59
26	-5.77	12.96	-7.60	14.20	-1.00	-0.95	-5.54	11.87	-10.86	30.71	-12.54	32.07	5.04	7.29	-6.61	21.95
27	0.87	1.88	-1.33	2.46	1.39	-1.40	0.76	1.85	0.12	-0.32	5.46	2.12	-0.68	1.17	1.32	0.74
28	7.31	0.20	13.96	-10.95	-10.42	25.32	7.75	-1.98	4.72	4.27	4.46	8.26	-0.66	6.10	2.41	6.39
29	-8.92	-6.07	-10.83	-1.95	-0.34	11.77	-8.93	-5.08	-2.08	-1.93	2.81	-1.66	5.28	-2.45	1.34	-2.04
30	11.73	5.58	-2.11	3.96	15.35	19.88	10.99	11.58	15.94	7.08	-2.99	-1.51	-0.93	5.47	3.61	5.27
31	-8.37	10.32	3.32	15.07	-3.71	11.71	-4.98	11.98	-13.43	7.14	14.76	1.20	2.41	-5.29	-0.04	-1.56
32	-0.80	-2.13	-4.03	2.96	3.38	11.34	-0.13	2.27	0.12	3.30	2.61	2.17	-0.50	10.39	0.39	5.41
33	-4.70	15.53	-6.25	13.93	-1.87	22.40	-4.25	17.48	6.50	-6.73	-1.37	9.43	-4.34	2.53	-0.76	2.08
34	-4.08	5.28	-2.09	7.45	1.26	-3.17	-3.42	5.03	2.90	8.09	8.56	4.97	4.99	-3.39	5.77	2.52
35+36	1.88	10.14	4.16	8.78	-13.57	8.33	-2.95	9.67	-7.43	15.29	2.63	9.80	-2.25	10.82	-1.48	10.92
37	-7.84	-4.72	-9.96	7.24	2.03	3.22	-6.62	1.08	10.85	-3.53	8.35	8.49	2.21	6.47	4.57	5.95
38	9.35	-12.09	2.70	5.20	10.11	-3.20	9.13	-10.15	4.60	2.72	5.00	12.57	7.33	-2.90	5.48	3.21
39+97+99	1.71	-65.16	6.03	-62.28	-4.55	-27.03	2.09	-62.07	4.99	-58.59	5.65	-63.40	5.29	-58.10	5.27	-60.04
All	-2.03	1.18	-2.53	0.92	2.09	2.86	-1.70	1.35	-0.98	3.47	1.40	2.89	1.70	1.73	0.37	2.82

Note: Repair Services (NIC 39, 97, 99) are not covered in 56th Round. However, for 2000–01, few industry groups which are not elsewhere classified, are clubbed in industry group 39.

Source: The same as in Table-2.



The post-1994 developments seemed to give a kind of new lease of life to rural-OAMEs although the onward march earlier registered by rural-DMEs during the pre-1994 years, continued as well. For example, among rural-OAMEs, the growth rate of capital:labour ratio improved dramatically from -12.1 per cent during 1984–85/1994–95 to as high as 9.4 per cent during 1994–95/2000–01, the growth rate of real labour productivity improved from 1.3 per cent to 6.4 per cent, and the rate of growth of employment too improved sizably from -2.0 to 1.2 per cent. But then, varying degree of improvement, in each of these development indicators, had occurred among the two upper layers (NDMEs and DMEs) of the rural unorganized manufacturing as well. For example, for rural-DMEs, improvement in the rate of growth of capital:labour ratio from 7.2 per cent during 1984–85/1994–95 to 9.9 per cent during 1994–95/2000–01, of labour productivity from 4.3 per cent to 6.1 per cent, and of employment from 2.1 per cent to 2.9 per cent, clearly point towards further strengthening of their position in the rural industrial sector.

Second, during 1984–85/1994–95, both rural and urban units commonly suffered employment setbacks in food products, cotton textiles-woolen synthetic, textile products, rubber-plastic-petroleum-coal products, basic metal and alloys, and transport equipment and parts. The common setback is very clearly discernible for all these sectors, in respect of OAMEs also. And it is visible for four sectors of NDMEs and five of DMEs as well. In plain words, there are a number of unorganized manufacturing branches where employment had been shrinking, by varying degree, during 1984–85/1994–95, both in rural and urban units, irrespective of the scale of their operation or the nature and degree of technological up-gradation effected by them. In other words, a fairly big proportion of the unorganized manufacturing sector, irrespective of its rural or urban locale, was shedding off many of their workers out of job; the axe seemed to have fallen far too heavily on self-employing workers. In brief, during 1984–85/1994–95, *a big part of the unorganized sector thus witnessed an employment setback.*

But, the situation seemed to have improved during 1994–95/2000–01, compared with 1984–85/1994–95.<sup>9</sup> For rural unorganized manufacturing as a whole (Col. nos. 8–9, Table-3), the growth rate of employment improved dramatically in a majority of production sectors. The most striking improvement was from -5.54 per cent to 11.87 per cent in textile products, from -4.98 per cent to 11.98 per cent in chemicals and chemical products, from -4.25 per cent to 17.48 per cent in basic metal and alloys, from -3.42 per cent to 5.03 per cent in metal products, from -2.95 per cent to 9.67 per cent in machine tools and parts, and from -6.62 per

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<sup>9</sup> Let us keep aside, for a moment, the reality of the rising proportion of part-time workers during the post-1994 years.

cent to 1.08 per cent in transport equipment and parts; on the other hand, the two most disappointing sectors were other manufacturing and repair of capital goods, both of which suffered huge setbacks in growth rate of their employment. In any case, on the whole, the post-1994 gains in the growth rate of employment were far more substantial than the losses so that at the aggregate level, employment growth rate for the total of rural unorganized manufacturing improved from -1.70 per cent during 1984–85/1994–95 to 1.35 per cent during 1994–95/2000–01. The pace and pattern of the post-1994 recovery in urban employment growth rates was relatively much better, although reverses too were discernible in some sectors. This development, by itself, lends some weight to the rising pace of informalization of the urban economy, partly contributed by disquiet on rural employment front, and partly under the rising incidence of subcontracting in the urban industrial sector; incidentally, in 2000–01, no fewer than 38.0 per cent of the urban unorganized manufacturing were working under subcontracting arrangements against 28.0 per cent among their rural counterparts (Sahu, 2007).<sup>10</sup>

Third, the employment setbacks during 1984–85/1994–95, were far too widely spread among rural compared with urban units. For example, among the sixteen production branches, employment declined, in varying degree, in as many as nine of rural-OAME branches against only seven in their urban counterparts, in ten groups of rural against only six of urban-NDME branches, and in nine in rural against seven in urban unorganized manufacturing as a whole. As pointed out earlier, only for DMEs, the rural and urban enterprises were doing equally unwell; in either locale, nearly one-half of production branches showed a decline in employment. But going by the absolute number of workers, things improved substantially, during the post-1994 phase, from the bottom to the top of the unorganized sector, both in the rural as well as urban areas. Consequently, the relatively higher sufferance of the rural areas, carried over from the pre-94 phase, appeared to have got mitigated, in varying degree, in a number of production lines. For example, during 1994–95/2000–01, among rural-OAMEs, a negative employment growth rate was registered by six branches against five among urban-OAMEs; during 1984–85/1994–95, it was nine branches among rural-OAMEs against seven among urban-OAMEs. Similar improvements are clearly discernible for rural-NDMEs, rural-DMEs, and the total of rural unorganized manufacturing enterprises as also among their urban counterparts. Going by the sheer number of workers, we may be tempted to declare that employment scenario improved, during the post-reform period, in many branches of the rural unorganized

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<sup>10</sup> Further, as we discuss later, during 1994–95/2000–01, in the urban industrial sector, as many as 0.69 million of the incremental workers were employed on part-time against 0.41 million on full-time basis, indirectly testifies to the expansion of the urban informal economy, in recent years.

manufacturing sector, in tandem with its urban counterpart. Nonetheless, it is pretty much clear that in terms of the rate of growth of employment, the rural unorganized manufacturing sector is still suffering a relative disadvantage, both in terms of the number of sectors involved, and the relative gaps in the growth rates of employment. And most importantly, the vastly changing composition of workers between full- and part-time workers, during 1994–95/2000–01, brings in new dimensions on the employment front.

Finally, it is also advisable to look at composition of employment in terms of absolute numbers and in terms of part- and full-time workers (Table-3A); as we will see, absolute numbers do convey the decline of rural-OAMEs in a more telling manner. Looking first at absolute figures, it is at once clear that, in terms of the sheer magnitude of job losses, during 1984–85/1994–95, the bleeding was more profuse in rural against urban enterprises. For example, at the aggregate level, between 1984–85 and 1994–95, as many as 4.15 million of the rural unorganized manufacturing units were closed and 4.14 million rural workers lost their jobs while 0.40 million additional jobs became available to their urban brethren in spite of the closure of 1.07 million units. It is especially disconcerting that 90.6 per cent of the rural workers losing their jobs were full-time workers while in the urban areas, the job loss was confined exclusively to part-time workers. Admittedly, because of their numerical preponderance, rural-OAMEs bore an overwhelmingly big share of the job losses; as high as 92.0 per cent of the unorganized manufacturing units facing closure in the rural areas came from the OAME segment alone and 88.4 per cent of rural workers facing dis-employment belonged to this segment alone; the remaining job losses went to the share of rural-NDMEs since no job loss was reported by rural-DMEs. Inasmuch as the job losses in the rural areas were largely because of closure of units, nearly 91.0 per cent of the job losers in the rural-OAME segment were full-time workers while their percentage in the urban areas was around 50.0 per cent only. Yet again, the proportion of part-time workers engaged in rural-OAMEs increasing from 14.8 per cent in 1984–85 to 16.2 per cent in 1994–95 (contrasted to its decline from 10.3 per cent to 6.2 per cent in urban areas) against a 20.0 per cent decline in the number of full-time workers, unambiguously testifies to the distress of the self-employing rural tiny sector against a 'market-savvy' wage-employment restructuring that had been the mainstay of the urban labour market.

As observed earlier, things appeared to be improving during the post-1994 years. During 1994–95/2000–01, the number of rural-OAMEs increased by 1.52 million units (a net increase of 16.0 per cent) while the number of rural-NDMEs and rural-DMEs declined by 0.04 million (a net decline of 5.82 per cent) and 0.05 million units (a net decline of 16.12 per cent), respectively. Employment in rural-OAMEs increased as well, by 1.3 million workers (5.62 per cent); it increased by 0.10 million and 0.45 million in rural-NDMEs and rural-DMEs also. But then, the real caveat comes in. The whole lot of 1.3 million incremental

**Table-3A**  
**Number of Units and Workers in MSE Sector: 1984–85/2000–01 (in Lakhs)**

Period	Rural			Urban			All Unorganized			
	OAMEs	NDMEs	DMEs	OAMEs	NDMEs	DMEs	Rural	Urban	Total	
1	2	3	4	5	6	7	8	9	10	
<b>Number of Units</b>										
1984–85	134.4	10.3	1.8	36.5	11.3	3.0	146.4	50.8	197.2	
1994–95	95.3	6.7	2.9	27.1	9.3	3.6	105.0	40.1	145.0	
2000–01	110.6	6.3	2.5	36.1	10.8	4.0	119.3	50.9	170.2	
<b>Increment/Decrement</b>										
94–95/84–85	-39.0	-3.6	1.2	-9.3	-2.0	0.6	-41.5	-10.7	-52.2	
00–01/94–95	15.2	-0.4	-0.5	8.9	1.5	0.4	14.4	10.8	25.2	
00–01/84–85	-23.8	-4.0	0.7	-0.4	-0.5	1.0	-27.1	0.1	-27.0	
<b>Composition of Workers</b>										
1984–85	Full Time	186.6	21.9	19.2	47.7	25.2	26.1	227.8	98.9	326.7
	Part Time	32.5	1.7	0.7	5.5	1.4	1.0	34.9	7.9	42.8
	Total	219.1	23.6	19.9	53.2	26.6	27.0	262.7	106.8	369.5
1994–95	Full Time	149.6	17.1	23.7	45.2	29.3	31.1	190.3	105.6	295.9
	Part Time	28.9	1.2	0.9	3.0	1.2	0.9	31.0	5.1	36.1
	Total	178.4	18.3	24.5	48.2	30.6	32.0	221.3	110.8	332.0
2000–01	Full Time	148.7	17.8	27.7	49.3	34.7	34.5	194.1	118.4	312.5
	Part Time	42.8	1.6	1.4	9.9	1.6	1.1	45.8	12.5	58.3
	Total	191.5	19.3	29.1	59.1	36.3	35.5	239.9	131.0	370.8
<b>Increment/Decrement</b>										
94–95/ 84–85	Full Time	-37.1	-4.9	4.4	-2.5	4.2	5.0	-37.5	6.7	-30.8
	Part Time	-3.6	-0.5	0.1	-2.5	-0.2	0.0	-3.9	-2.7	-6.7
	Total	-40.7	-5.3	4.6	-5.0	4.0	5.0	-41.4	4.0	-37.5
00–01/ 94–95	Full Time	-0.9	0.7	4.0	4.1	5.4	3.4	3.8	12.8	16.6
	Part Time	13.9	0.4	0.5	6.9	0.4	0.1	14.8	7.4	22.2
	Total	13.0	1.0	4.5	11.0	5.7	3.5	18.6	20.2	38.8
00–01/ 84–85	Full Time	-38.0	-4.2	8.5	1.6	9.5	8.4	-33.7	19.5	-14.2
	Part Time	10.3	-0.1	0.7	4.4	0.2	0.1	10.9	4.7	15.5
	Total	-27.7	-4.3	9.1	6.0	9.7	8.5	-22.8	24.2	1.3

Source: The same as in Table-2.

workers, generated in the rural-OAME segment, during 1994–95/2000–01, were part-time workers; more than one-third of the incremental workers coming up in rural-NDME segment but none in the rural-DME segment were on part-time basis. In other words, what was lost by the most dominant segment of the rural unorganized manufacturing sector (rural-OAMEs) during 1984–85/1994–95 was 3.7 million of full-time jobs, and what was

later recouped during 1994–95/2000–01 was 1.39 million of part-time jobs; in fact, rural-OAMEs lost another 0.09 million full-time jobs even during 1994–95/2000–01.

Thus, it is clear that the most dominant segment of the rural unorganized manufacturing sector (rural-OAMEs), consisting of self-employed household enterprises, did not come off so well during the post-reform years, as did another segment (rural-DMEs), especially from the point of the composition and level of employment. We are thus persuaded to say that, in the case of rural-OAMEs, it is largely a case of expansion under duress. After losing a total of 3.9 million rural-OAME units during 1984–85/1994–95, only 1.5 million rural-OAME units were recouped during 1994–95/2000–01. In other words, in 2000–01, compared with 1984–85, as many as 2.38 million rural-OAME units had evaporated, showing a net decline of nearly 18.0 per cent, instead of a net expansion expected under the normal process of rural industrialization. Again, after losing as many as 4.07 million (3.71 million full-time and 0.36 million part-time) jobs during 1984–85, the rural-OAMEs could recoup 1.3 million (-0.09 million full-time and 1.39 million part-time) jobs during 1994–95/2000–01. In plain terms, in 2000–01, compared with 1984–85, the number of self-employed workers in rural-OAMEs was lower by 2.77 millions, showing a net decline of 12.63 per cent. Further, the number of full-time workers, engaged in rural-OAMEs, declined from 18.66 millions in 1984–85 to 14.96 millions in 1994–95 and further down to 14.87 millions in 2000–01 while the number of those engaged on part-time basis declined from 3.25 millions in 1984–85 to 2.89 millions in 1994–95 but recouped to 4.28 millions in 2000–01. In other words, in 2000–01, compared with 1984–85, the number of full-time workers employed in rural-OAMEs was more than 20.0 per cent lower, while the number of their part-time counterparts was 31.7 per cent higher. Still more pointedly, the whole lot of additional rural-OAMEs coming up during 1994–95/2000–01 was manned by part-time workers only. The trend is really disturbing and distressing.

What led to the massive closure of rural-OAMEs and the associated steep decline in employment, during 1984–85/1994–95, and the subsequent revival of some of them, and a sizeable tilt in favour of part-time work, during 1994–95/2000–01? It seems, when agricultural growth picked up well during the 1980s, especially in the lagging eastern states, non-farm activities including a host of rural industries too grew fast. The initial spurt was in the nature of *ad hoc* response to rising demands from agriculture, partly for production and partly for consumption purposes. The popular yardsticks of price efficiency, product quality, rural-urban competitiveness, etc. did not immediately intervene. But then, after a while, market considerations seemed to start overtaking the *ad hoc* adjustments. This tendency gained strength when the early phase of limited economic reforms and marketization ensued in the late eighties, and got more intensified after full-fledged economic reforms came in July 1991. What came up as an *ad hoc* source of

additional household income, could not be interpreted as a market creature. When the economy started maturing, and markets started expanding, non-market creatures naturally faced a varying degree of squeeze, if not outright extinction. A part of the rural-OAME story is indeed of the kind caricaturized above.

But, the recent story of nearly the whole lot of the additional rural-OAMEs coming up during 1994–95/2000–01, being run by part-time family workers only, must essentially be seen, *inter alia*, in terms of employment setbacks suffered by other sectors of the rural economy, most pointedly, by agriculture and its allied sectors. It needs hardly to be emphasized that if employment in other sectors was not growing, or was growing at a much slacker pace during the post-1994 years, compared with the pre-1994 years, rural job aspirants would have started self-employing themselves, in a variety of ways. For those additional job seekers not getting self-employed in agriculture, or not wishing to be absorbed in agriculture, the next best choice to get self-absorbed is to go to the other commodity sectors. Rural industry is the most obvious choice. Admittedly, for a majority of rural job aspirants, self-employment is not as much negotiable in the services/tertiary sector as it is in the commodity sectors of agriculture or industry. On the contrary, if services/tertiary sector employment too is suffering serious setbacks, and wage-paid employment is not easy to come by, people would flock back either to agriculture or the other commodity sector, i.e. industry. It is the sum total of many-sided employment setbacks that seems to have ushered rural work seekers into the self-employing segment of the rural industrial sector (OAMEs) without, at the same time, severing their connection with agriculture. Therefore, nearly the whole lot of incremental workforce joining rural-OAMEs during 1994–95/2000–01 consists of part-time workers. That, during 1994–95/2000–01, nearly 63.0 per cent of the incremental workers, employed in urban-OAMEs, were also on part-time basis, is a pointer towards expanding informalization of the urban industrial economy some of which is possibly contributed by employment stress on the rural areas.

In this context, it is important to examine the employment situation in other sectors. For instance, the rate of growth of employment in agriculture fell from 1.38 per cent during 1983/1993–94 to 0.18 per cent only during 1993–94/1999–2000; it fell more depressingly among non-crop segments, e.g. from 1.89 per cent to -1.12 per cent in forestry-logging, from 4.09 per cent to -6.37 per cent in fishing, and from 3.84 per cent to -2.28 per cent in mining-quarrying. It fell in many other, non-agricultural, sectors as well, e.g. from 3.72 per cent to 1.81 per cent in trade, from 5.99 per cent to 2.51 per cent in finance-insurance-real estate, from 3.13 per cent to 0.32 per cent in community-social-personal services, and so on. In fact, the employment squeeze in community-social-personal services encompassed nearly each one of its constituents; for example, the rate of growth of employment fell from 4.92 per cent during 1983/1993–94 to -15.60 per cent during 1993–94/1999–2000 in sanitary services,

from 2.27 per cent to 0.73 per cent among medical and health functionaries, from 3.74 per cent to -4.62 per cent in community services, from 7.72 per cent to -10.07 per cent in recreational and cultural services, and from 3.75 per cent to -0.63 per cent in respect of personal services (Chadha and Sahu, 2000: 2014). Most certainly, the extraordinary squeeze in employment in a wide range of community-social-personal services owes itself to curtailed public expenditure after the onset of economic reforms, and for a number of workers relieved from these services, as also from other sectors in the rural economy. Venturing into some self-employing rural industrial activity, *albeit* on a part-time basis, was a more acceptable choice, both because agriculture could not absorb them as full-time workers and because the other option of remaining unemployed could never be acceptable. But then, the most convincing part of our argument about their absorption into the rural industrial sector, as part-time entrepreneurs, in addition to being part-time helpers in family-based agriculture, comes from noting that the rate of growth of employment in the agro-based segment indeed improved from 1.45 per cent during 1983/1993–94 to 2.16 per cent during 1993–94/1999–2000 while in the more difficult, technology-savvy, education- and skill-intensive non-agro based segment, it declined from 3.58 per cent to as low as 1.03 per cent. We are thus led to a depressing scenario. Rural-OAMEs are acting as a sponge; they are holding on a sizeable proportion of their workers on part-time basis perhaps as an adjunct to agriculture, independent of what the market for industrial goods may brook in the days to come. This poses a policy dilemma.

The above analysis reveals that the operational disadvantages among the tiniest of the rural manufacturing units (OAMEs) could not be overcome, all these years, through the package of protective state support; such rural units have to stand on their own, in competition with their urban counterparts, and for that, improvement in productivity is the most inescapable pre-requisite. In recent years, as we have discussed later, productivity improvement did occur among rural-OAMEs, just as it did among rural-NDMEs and rural-DMEs. Nonetheless, a high growth rate of productivity among rural-OAMEs could not hide the extremely low levels at which their productivity was operating even in 2000–01, most ostensibly, in comparison with rural-DMEs. It can thus be concluded that *relatively bigger-sized rural manufacturing units, unorganized though they may be, are likely to fare well in competition with their urban counterparts, in sharp contrast to the tiniest of the rural units which continue to suffer numerous technology, marketing and quality infirmities*. Perhaps, in the same product line, the tiniest units (OAMEs) are more deeply embedded into local rural life and economy, and face a dwindling demand prospect while their bigger-sized counterparts (say, DMEs), many amongst them being located in the 'rural areas' out of a different set of considerations, are more easily linked with the nearby and/ or distant urban economy, and sometimes with external market. The two groups of rural manufacturing are thus totally

different entities. In brief, *the rural OAME segment is in trouble, most visibly on the employment front, and the policy makers can no longer take for granted its so-called ' vast employment potential'.* Such complacencies must go.

## **5. Technology Indicators**

There is a general belief that MSE sector uses inferior technology which results in low productivity, low profit levels and stagnation. The basis for such a belief stems largely from the nature of the impact of the protective and promotional government policies on this sector. In other words, these protective measures have largely contributed to the ineffectiveness of this sector. In the present scenario of the deregulation, MSE sector will have to meet competition from large-scale industries and survive without much institutional support. One necessary condition for the existence and growth of these industrial units under such condition of deregulation will be efficiency. This becomes all the more relevant when a strategic role is assigned to MSE sector in the development agenda. The real challenge before this sector is to generate employment at a rising level of productivity.

In the ultimate analysis, the combined effect of technological, institutional and marketing handicaps on the production performance of an industrial enterprise may best be captured through some structural parameters such as capital:labour ratio and level of per worker productivity<sup>11</sup>. Since MSE sector suffer special productivity handicaps, largely because of their locale and scale of operation, we have compared the productivity levels of rural enterprises with those of their urban counterparts for three types of enterprises.

### **5.1. Level and Growth of Capital Intensity**

Capital intensity measured as capital:labour ratio, gives the investment per employee. Table-4 and 4A show the level and growth of capital intensity across industry group, by rural urban location and enterprise type.

First, among the unorganized manufacturing as a whole (Cols. 12-14), the urban units had, during 1994–95, higher capital:labour ratio in as many as 15 out of the 16 branches of production; basic metal was the only exception. But, in 1984–85, in as many as 7 branches of manufacturing, the rural units worked with higher capital:labour ratio. It is, thus,

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<sup>11</sup> Capital:labour ratio and value added per worker are computed in real terms (at 19981–82 prices) using separate Index of Wholesale Prices in India for each manufacturing sub-sector (Govt. of India, 2001).



noteworthy that during 1984–85/1994–95, rural units have moved relatively much more towards labour intensive processes of manufacturing. This has been happening through an absolute decline in capital:labour ratio in as many as 13 out of the 16 branches of production in rural, against only 7 in the urban areas. In some branches, e.g. textile products, wood and wood products, leather and leather products, non-metal products, (non-electrical) machine tools, repair of capital goods, etc., capital:labour ratio declined fairly sizeably among rural unorganized manufacturing units, between 1984–85/1994–95; the decline among the urban units was relatively milder, in most such branches. Consequently, the urban–rural gaps in capital:labour ratio have tended to widen during 1994–95, compared with 1984–85, in a wide range of unorganized manufacturing activities. In normal course, this should lead to a relatively greater expansion of employment among the rural compared with the urban units. This indeed did happen in 10 product lines in rural, compared with only seven in the urban areas, where a negative growth rate of capital:labour ratio is accompanied by a positive growth rate of employment, or a positive growth rate of the former has led to a negative growth rate of the latter. A one-to-one correspondence between changes in capital:labour ratio and in employment cannot, however, be insisted, since other structural parameters (e.g. growth rate of capital and capital:output ratio) also do matter.

**Table-4**  
**Capital Labour Ratio (Rs.) at Constant 1981–82 Prices in MSE Sector**  
**in Rural and Urban India: 1984–85/2000–01**

NIC Code		OAMEs			NDMEs			DMEs			All Unorganized		
		84–85	94–95	00–01	84–85	94–95	00–01	84–85	94–95	00–01	84–85	94–95	00–01
1	2	3	4	5	6	7	8	9	10	11	12	13	14
20–21	R	5760	2695	4899	13522	10215	9933	3982	4671	6205	6753	3847	5634
	U	16077	5184	10416	19023	11030	18512	4948	8222	20653	14954	7661	14921
22	R	1652	504	880	4609	9123	5155	776	6008	2130	1797	1172	1061
	U	1618	1553	1777	7224	1989	16618	3209	2246	8226	2173	1606	2566
23+24+25	R	3826	2035	3599	9216	5113	7160	2506	6568	9177	3964	3297	4658
	U	5743	5614	7646	4798	16670	17720	2900	13300	20600	4719	10856	14337
26	R	8171	1163	4504	4327	1431	6548	1027	2504	6116	7189	1344	4818
	U	37501	3714	10825	9443	17519	19058	1669	5019	19314	22748	6710	15065
27	R	7213	798	793	5377	3315	3809	3624	2890	6881	7029	967	1055
	U	5564	2140	3194	10102	4348	8671	3105	5087	12518	5982	3356	6758
28	R	1003	1427	6598	5372	6579	12011	11018	7315	16823	3718	3625	9017
	U	2672	5066	8275	19507	9401	19744	7216	17116	20217	9754	10785	16897
29	R	11985	2734	3748	2254	1580	6445	1309	1046	9782	11075	2616	4363
	U	12269	3728	10735	20807	2756	14007	1658	3985	13037	11627	3560	12450
30	R	2494	1245	967	54044	7755	54089	10159	10123	4648	15086	4731	5009

*contd...*

NIC Code		OAMEs			NDMEs			DMEs			All Unorganized		
		84-85	94-95	00-01	84-85	94-95	00-01	84-85	94-95	00-01	84-85	94-95	00-01
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	U	3530	5248	3608	9508	21775	22345	9240	11811	30613	8390	10247	14436
31	R	1009	3296	11755	8461	20206	6946	5589	23948	46967	3259	14944	23774
	U	2510	4425	15402	73336	18280	43745	3335	41002	46710	8101	30406	40062
32	R	5057	1179	1912	5459	4686	6373	1322	2595	8982	4435	1684	5007
	U	1927	3995	4128	6062	5937	18174	1834	6188	19136	2592	5037	12313
33	R	1605	1536	5587	20466	12123	6015	11709	27406	13607	7188	10383	8544
	U	5394	5993	11810	5375	7903	18286	5480	13846	39280	5435	9417	24913
34	R	15584	1559	2971	2037	4223	9911	3843	5308	17786	13075	2308	5025
	U	53764	4999	12448	5378	7582	22188	3907	13689	22841	16243	9709	19961
35+36	R	31074	2558	5768	7672	4060	20180	1511	8595	19107	14545	3733	9794
	U	2686	10335	28546	20405	21402	34929	7129	20836	36187	9651	20043	34819
37	R	3076	4383	7870	13106	5328	7387	6752	25795	23841	6964	10824	12960
	U	10560	10641	26475	32696	15838	57059	6838	17373	39400	12278	15987	44144
38	R	8669	973	3965	4533	3637	6662	1036	3738	2949	7723	1337	4019
	U	8293	9670	14308	9741	11788	20738	1967	15008	15357	6805	11773	16362
39+97	R	11371	2598	9035	12116	3070	8854	4892	6415	22347	11346	2685	13769
+99	U	11779	4533	12812	12016	5899	80269	3220	16157	143198	10869	6414	48332
All	R	6213	1720	2955	8517	5833	8329	2226	4479	7907	6118	2366	3988
	U	14151	4518	8707	12081	9171	20527	3723	11893	21687	10995	7934	15503

Note: 1. R= Rural and U= Urban

2. Repair Services (NIC 39, 97, 99) are not covered in 56<sup>th</sup> Round. However, for 2000-01, few industry groups which are not elsewhere classified, are clubbed in industry group 39.

3. Since 1984-85, 1994-95 and 2000-01 data are based on National Industrial Classification of 1970, 1987 and 1998 respectively; we have used a concordance table published by CSO to reclassify the whole data set according to NIC 1987 codes.

Source: The same as in Table-2.

During the post-1994 years, the situation improved further in favour of the urban unorganized manufacturing units. In 2000-01, capital:labour ratio was higher among urban units, compared with their rural counterparts, in all the sixteen branches of production. Except for basic metal industries, and, very marginally for beverages, rural units too witnessed a varying degree of increase in their capital:labour ratio in no fewer than 14 of the 16 branches of manufacturing. But then, the increase among urban units, occurring as it did among all the 16 branches of manufacturing, was of a much higher magnitude, so that the rural:urban gaps in capital:labour ratio became wider still in 2000-01, as compared to those in 1994-95. The gaps became quite glaring in certain branches, e.g. wood, leather and chemicals and their respective products, machine tools, transport equipment, and repair of capital goods. In plain terms, the rural:urban dichotomy in terms of capital needed to create

**Table-4A**  
**Growth of Capital Labour Ratio (%)**

NIC Code		OAMEs		NDMEs		DMEs		All Manufacturing	
		84-85/94-95	94-95/00-01	84-85/94-95	94-95/00-01	84-85/94-95	94-95/00-01	84-85/94-95	94-95/00-01
1	2	3	4	5	6	7	8	9	10
20-21	R	-7.32	10.48	-2.77	-0.46	1.61	4.85	-5.47	6.56
	U	-10.70	12.33	-5.30	9.01	5.21	16.59	-6.47	11.75
22	R	-11.20	9.75	7.07	-9.08	22.71	-15.87	-4.19	-1.64
	U	-0.41	2.27	-12.10	42.45	-3.51	24.16	-2.98	8.12
23+24 +25	R	-6.12	9.97	-5.72	5.77	10.11	5.73	-1.83	5.93
	U	-0.23	5.28	13.26	1.02	16.45	7.56	8.69	4.74
26	R	-17.71	25.32	-10.47	28.84	9.32	16.05	-15.44	23.71
	U	-20.64	19.52	6.38	1.41	11.64	25.18	-11.49	14.43
27	R	-19.76	-0.09	-4.72	2.34	-2.24	15.55	-18.00	1.46
	U	-9.11	6.91	-8.09	12.19	5.06	16.19	-5.62	12.38
28	R	3.59	29.08	2.05	10.55	-4.01	14.89	-0.25	16.40
	U	6.61	8.52	-7.04	13.16	9.02	2.81	1.01	7.77
29	R	-13.74	5.40	-3.49	26.40	-2.22	45.14	-13.44	8.90
	U	-11.23	19.28	-18.30	31.12	9.17	21.84	-11.16	23.20
30	R	-6.71	-4.12	-17.65	38.22	-0.04	-12.17	-10.95	0.95
	U	4.05	-6.05	8.64	0.43	2.48	17.20	2.02	5.88
31	R	12.56	23.60	9.09	-16.30	15.66	11.88	16.45	8.04
	U	5.84	23.10	-12.97	15.65	28.52	2.20	14.14	4.70
32	R	-13.55	8.38	-1.52	5.26	6.98	22.99	-9.23	19.92
	U	7.56	0.55	-0.21	20.50	12.93	20.70	6.87	16.06
33	R	-0.43	24.01	-5.10	-11.03	8.88	-11.01	3.75	-3.20
	U	1.06	11.97	3.93	15.01	9.71	18.98	5.65	17.60
34	R	-20.56	11.35	7.56	15.28	3.28	22.33	-15.92	13.84
	U	-21.14	16.42	3.50	19.60	13.36	8.91	-5.02	12.76
35+36	R	-22.10	14.51	-6.17	30.64	18.99	14.24	-12.72	17.44
	U	14.42	18.45	0.48	8.51	11.32	9.64	7.58	9.64
37	R	3.60	10.25	-8.61	5.60	14.34	-1.30	4.51	3.05
	U	0.08	16.41	-6.99	23.81	9.77	14.62	2.67	18.44
38	R	-19.65	26.39	-2.18	10.62	13.69	-3.88	-16.09	20.13
	U	1.55	6.75	1.93	9.87	22.53	0.38	5.63	5.64
39+97 +99	R	-13.72	23.09	-12.83	19.31	2.75	23.12	-13.42	31.32
	U	-9.11	18.91	-6.87	54.51	17.50	43.86	-5.14	40.02
All	R	-12.05	9.44	-3.71	6.11	7.24	9.93	-9.06	9.09
	U	-10.79	11.55	-2.72	14.37	12.31	10.53	-3.21	11.81

Note: The same as in Table-4; Source: The same as in Table-2.

an additional employment has widened in recent years so that the urban unorganized manufacturing units have become still more capital intensive, in comparison with their rural counterparts. To interpret it in a somewhat different manner, the rural manufacturing units, in spite of an unambiguous increase in their own capital:labour ratios, are still demanding much lower level of capital for every additional employment created; in terms of conventional wisdom, the rural units, in relation to their urban counterparts, are thus continuing to discharge their responsibility of providing additional employment, in conformity with domestic resource endowment.

Second, the picture revealed by the whole group of the unorganized manufacturing holds true, in varying form and content, when we look at the three sub-groups, namely OAMEs, NDMEs and DMEs. The rural-urban gap in the direction and magnitude of change in capital:labour ratio are milder in respect of the tiniest units (OAMEs) and it becomes most manifest among the biggest of the three categories (DMEs). For example, during 1984–85/1994–95, among the OAMEs, the rural units witnessed a decline in capital:labour ratio in as many as 13 out of 16 (against 8 only in urban areas) product lines, while among the DMEs, the decline was witnessed by 3 among rural and none among the urban units. But then, as witnessed above in the case of the total of the unorganized manufacturing units, during 1994–95/2000–01, among the OAMEs, the rural units witnessed a decline in capital:labour ratio only in two product lines (wood and wood products, and, chemicals and chemical products), while it happened only in one branch (chemicals and chemical products) among urban units. Further, while among the urban DMEs, capital:labour ratio declined in none of the manufacturing segments, among the rural DMEs, the decline occurred in no fewer than five branches. In other words, the tiniest units (OAMEs) have one important characteristic common between rural and urban areas. It is the inescapable need for economizing on the use of fixed capital, in relation to labour, that makes many of them, relatively more commonly in the rural areas, to expand labour-use against their limited stock of capital. All OAMEs in rural (as also in urban) areas are not alike, most critically in terms of their access to commercial capital on the one hand, and in maintaining the labour cost advantage, on the other. Moreover, the intra-group variations in respect of other aspects of production organization, most ostensibly the availability and pricing of inputs, and product marketing, are likely to be far more sharper among OAMEs than among DMEs.

Third, Table-4A confirms the contrast between 1994–95/2000–01 and 1984–85/1994–95, in terms of growth rates of capital:labour ratios, for the pre-and post-1994 periods. It is evident that, for the tiniest of the rural manufacturing units, the period 1984–85/1994–95 was one of declining capital intensity of employment. Not only that capital:labour ratio grew negatively in as many as 13 of the 16 manufacturing lines but the magnitude of

decline was as high as 11.2 per cent in beverages, 17.7 per cent in textile products, 19.8 per cent in wood and wood products, 13.7 per cent in leather and leather products, 13.5 per cent in non-metallic mineral products, 20.6 per cent in metal products, 22.1 per cent in machine tools, 19.6 per cent in other manufacturing, and 13.7 per cent in repair of capital goods. The post-1994 years showed a diametrically opposite scenario; for these very production sectors, the growth rate of capital:labour ratio flipped over from negative values during 1984–85/1994–95 to 9.8 per cent, 25.3 per cent, -0.1 per cent, 5.4 per cent, 8.4 per cent, 11.3 per cent, 14.5 per cent, 26.4 per cent and 23.1 per cent, respectively, during 1994–95/2000–01. Thus, the period 1984–85/1994–95 clearly showed an attempt to provide greater employment for every unit of capital invested, practically among the whole lot of the tiny rural enterprises (rural-OAMEs). During 1994–95/2000–01, this tendency got considerably diluted, practically among all varieties of rural OAMEs. The same type of contrast occurred, during 1984–85/1994–95 and 1994–95/2000–01, in respect of rural NDMEs and rural-DMEs. Perhaps, after the onset of economic reforms in 1991–92, and strong competitive propensities relegating every other market parameter to a subservient station, the increase in capital intensity of production was natural to follow. That it did happen, perhaps thunderously even among the tiniest of the rural manufacturing enterprises, clearly signals the supremacy of capital as an agent of production in the coming years of increasing liberalization, globalization and privatization.

Finally, as we move from OAMEs to NDMEs and finally to DMEs, capital:labour ratio goes on rising, practically in each product line. For a given amount of capital, the most crucial social resource, especially in the rural economy, OAMEs offer employment many times more than DMEs. But then, productivity levels do not seem to move in favour of OAMEs. In the present case, a fairly big majority of DMEs correspond with the (modern) small scale industries while a preponderant proportion of OAMEs would fall under the category of traditional village/rural industries. Substantial productivity differentials, therefore, exit as we move up on the size ladder of the unorganized manufacturing units. As we see in a while, the differentials are more pronounced in the rural areas.

## **5.2. Level and Growth of Labour Productivity**

Labour productivity, defined as gross value added per worker, is often used as a proxy for technology. Table-5 gives us the level and growth of labour productivity in the unorganized manufacturing units, in rural and urban India. However, before we start our discussion, it is essential to point out that productivity figures, especially those for OAMEs

both among the rural and urban units, are only indicative of the relative position of say, OAMEs against NDMEs, or, of NDMEs against DMEs<sup>12</sup>.

**Table-5**  
**Level of Per Worker Productivity (Rs.) at Constant 1981–82 Prices in MSE Sector**  
**in Rural and Urban India: 1984–85/2000–01**

NIC Code		OAMEs			NDMEs			DMEs			All Unorganized		
		84–85	94–95	00–01	84–85	94–95	00–01	84–85	94–95	00–01	84–85	94–95	00–01
1	2	3	4	5	6	7	8	9	10	11	12	13	14
20–21	R	1478	1994	3133	3773	4229	4951	2686	2880	4175	1936	2378	3466
	U	4338	4149	5280	8947	7432	8083	10598	8697	10404	6956	6059	7159
22	R	1462	1096	1211	2186	4334	3066	1631	2741	2167	1535	1323	1322
	U	1528	1969	1385	4423	3544	5135	7664	3543	6824	2231	2121	1712
23+24 +25	R	1082	1730	2336	2349	3811	5207	2873	5290	6673	1253	2686	3169
	U	1974	2897	3580	7291	8621	11029	6247	9225	11580	4093	6528	7931
26	R	1573	1163	3343	2893	2520	5521	2361	3903	6770	1790	1611	3773
	U	2659	2412	4833	4714	5231	9601	5874	7639	11554	3832	5535	7712
27	R	1806	1107	1185	3893	2964	3363	3588	2745	4931	1969	1233	1362
	U	2470	2179	2532	6587	6185	4466	7318	6377	5234	4386	4181	3683
28	R	1012	1039	2547	2845	3877	4219	9639	2208	6256	2915	2193	3360
	U	1937	3138	2419	7706	6132	6210	7424	7669	7951	6207	5777	5808
29	R	3586	2947	3955	3701	5684	6935	4099	6267	6611	3601	3212	4371
	U	5325	5308	5310	6055	5599	8158	11736	7673	11667	7084	6244	8343
30	R	916	1408	1729	3863	5715	6595	7120	5351	4072	3005	3041	3175
	U	3450	2215	1668	7202	7140	9486	14866	11722	14264	10357	6081	6609
31	R	1053	1498	3755	5666	7959	14616	6261	13948	15672	3241	7692	11084
	U	1273	6263	7272	17514	12851	16469	6521	14037	23321	4937	12850	18074
32	R	1178	1481	2097	1570	3193	7035	2526	4772	6980	1438	2365	4322
	U	2916	2478	2967	5161	4707	10568	3020	4760	7810	3326	3606	6140
33	R	1741	1629	3703	4960	4546	4062	11704	19824	29211	4520	7202	12987
	U	3935	6575	6358	6366	7401	8348	11664	12673	12361	8768	9056	9458
34	R	1970	2028	2898	3183	4367	7136	6188	4445	8214	2367	2609	3952
	U	5067	4206	5496	9384	6511	8720	15009	8154	10272	10929	6792	8380
35+36	R	4029	2431	3977	4218	5108	7115	1254	8807	12868	2656	3837	5727
	U	2411	5886	8935	7947	9021	13597	11856	15406	17708	9193	12094	15194
37	R	4785	3918	4980	3859	4907	6659	5507	7640	23487	4553	5235	11642

*contd...*

<sup>12</sup> Per worker productivity are calculated for the total worker combining full-time and part-time workers. Since part-time worker also constitutes a significant proportion of total worker, most noticeably in OAMEs, the productivity estimates give approximate and crude indicators of performance reality.

NIC Code	OAMEs			NDMEs			DMEs			All Unorganized			
	84-85	94-95	00-01	84-85	94-95	00-01	84-85	94-95	00-01	84-85	94-95	00-01	
U	8536	4994	7757	193362	13422	13739	38064	12221	15572	66654	11542	14343	
38	R	1835	1304	3228	3427	6013	6351	3377	8789	6814	2069	2212	4049
	U	3925	9311	6260	6268	10718	10106	7027	16721	10999	5191	11974	8422
39+97	R	2407	3269	2427	4515	3870	4452	6762	6460	6950	2650	3367	4291
+99	U	6348	5574	5150	6368	5701	32557	7072	10276	53124	6440	6172	18806
All	R	1554	1761	2548	3227	3974	5542	2839	4310	6156	1802	2227	3227
	U	3139	4119	4235	7578	6943	9090	8778	9285	11043	5673	6392	7427

Note: The same as in Table 4; Source: The same as in Table 2.

First, between 1984–85 and 1994–95, real *labour productivity* increased, in varying magnitude, in a majority of sectors, both in rural and urban areas; but it declined in five branches in rural and nine in urban areas. It is particularly heartening to see that labour productivity in rural areas improved in all the nine non-agro based manufacturing (Codes 30-39) sub-sectors; in some of them, e.g. rubber, plastic and petroleum products, basic metal and alloys, non-metallic mineral products, machine and equipment, repair of capital goods, it improved quite sizably. At the same time, it is no less disturbing to see a decline in 5 out of 7 agro-based (Codes 20+21 to 29) sub-sectors; again, in some segments, e.g. paper and paper products, and, wood and wood products, it was a sizeable decline. A similar story of productivity increases mixed with decreases is discernible for the urban units as well, although in their case, the increases are relatively more weighty and the decreases relatively milder, compared with their rural counterparts.

It is interesting to see that a varying degree of productivity increases occurred commonly in rural and urban areas, in the same sub-sectors (e.g. cotton textiles-wool-silk-man-made fibre textiles, jute and other vegetable fibre textiles among the agro-based manufacturing, and rubber-plastic-petroleum products, non-metallic mineral products, basic metal and alloys, machine tools and equipment, and other manufacturing, among the non-agro based manufacturing). Common declines in productivity levels are also witnessed in food products, beverages-tobacco, wood and wood products, paper and paper products and leather and leather products, all confined to agro-based manufacturing. In other sub-sectors, it was either a situation of productivity increase for rural and its decline in urban areas, or vice versa. In total terms, the rural areas offer a mix of productivity gains and losses, much as is the case with their urban counterparts. For unorganized manufacturing as a whole, rural areas showed a productivity gain of 2.1 per cent per annum against only 1.2 per cent among the urban units. But, it is extremely vital to keep in mind that the productivity levels have been much lower among the rural compared with urban units, both in 1984–85 and 1994–95, in most of the manufacturing sectors.

The post-1994 years demonstrate a completely different productivity scenario from the one that prevailed during 1984–85/1994–95. For example, during 1994–95/2000–01, productivity levels in rural areas witnessed a varying degree of increase in all the seven segments of agro-based manufacturing and all the nine segments of non-agro based manufacturing, compared with five and eight segments, respectively, in the urban areas.<sup>13</sup> Thus possibly, the pressure of outside competition, during the first 5–6 years of the post-reform regime, fell more directly on the urban unorganized manufacturing enterprises, especially those exposed to import onslaughts; rural enterprises might have enjoyed an interim reprieve.

Second, largely consistent with the rural-urban differences in capital:labour ratio, the rural-urban productivity gaps for the total of the unorganized manufacturing units as also for each of the three segments (i.e. OAMEs, NDMEs and DMEs) are discernible practically in each branch of manufacturing, in 1984–85, 1994–95 and 2000–01. Let us first look at the total of all unorganized manufacturing enterprises. In 1984–85, productivity was higher among the urban, compared with the rural, units in each of the sixteen branches of manufacturing. In some branches (e.g. food products, cotton textiles, chemicals and chemical products, metal products, and machine tools and equipment), productivity in urban units was three or four times as much high as among their rural counterparts; in many other branches (e.g., textile products, wood and wood products, paper and paper products, leather and leather products, non-metallic mineral products, basic metal goods, transport equipment, other manufacturing and repair of capital goods), the productivity differential was no less than 2:1. For the aggregate of the unorganized sector, the productivity of urban units was three times higher than that of the rural units. Such productivity differentials persisted in 1994–95 although, in a number of branches, the rural:urban gaps declined while in others, they increased. At the aggregate level, it was a decline. The scenario really changed substantially during 1994–95/2000–01 when productivity levels witnessed sizeable improvements, both among the rural and urban enterprises. Here again, as we notice below some element of over-estimation may be present ostensibly because the number of part-time workers increased far more sizably, especially among OAMEs, during 1994–95/2000–01. Be that as it may, in relative terms, productivity gains among the rural enterprises were more authentic so that, between 1994–95 and 2000–01, the rural:urban productivity gaps tended to decline, by varying degree, in as many as thirteen of the sixteen branches of manufacturing. The relatively better performance of the rural unorganized manufacturing units, in recent years, cannot obliterate the fact that productivity levels among the rural units are still way behind

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<sup>13</sup> To some extent, the productivity estimates may be over-or under-estimates because of the presence of the part-time workers, yet in overall terms, the rural unorganized manufacturing enterprises seem to have put up a better performance in the post-1994 years, compared with their urban counterparts.



those among the urban units; in some branches, the differentials continue to be 3:1 or 2:1. This is indeed a cause of concern. It seems, in spite of the numerous policy initiatives undertaken to promote industrialization in rural India, the basic pre-requisites such as the needed degree of skill formation, technological exposures, organizational improvements, market linkages, and above all, infrastructural backup, all intended to boost productivity levels, have been favouring urban units far more than the rural units.

Third, the types of rural:urban productivity differentials observed earlier for the total of unorganized manufacturing, are also discernible, in varying form and content, for each of the three layers, namely OAMEs, NDMEs and DMEs; with some exceptions, productivity is higher among the urban, compared with the rural units, in each of the three segments. It is nonetheless true that over time, especially during the post-1994 years, the rural:urban gaps have tended to decline, in a wide range of manufacturing areas, among OAMEs, NDMEs and DMEs. For example, for the total of OAMEs, the ratio of urban to rural productivity fell from 2.33 in 1994-95 to 1.66 in 2000-01; among individual production lines, it declined in as many as fourteen of the sixteen lines. In spite of the narrowing of the productivity gaps, the relative disadvantage of the rural-OAMEs continued to be quite revealing, even in 2000-01, in certain branches of manufacturing; the conspicuous examples are food products, wood and wood products and leather and leather products, among the agro-based manufacturing, and rubber-plastic products, basic metal and alloy products, metal products and parts, machine tools and equipment, transport equipment and parts, other manufacturing, and repair of capital goods, among the non-agro based manufacturing. But, such rural:urban productivity differentials among DMEs, declined as they did, between 1994-95 and 2000-01, in as many as ten of the sixteen production lines, continue to be fairly high in 2000-01, in a number of manufacturing branches; the most noticeable examples are food products, beverages, cotton textiles-wool synthetic-textile products, textile products, and leather and leather products, under the agro-based segment of manufacturing, and chemicals and chemical products, other manufacturing and repair of capital goods, in the non-agro based manufacturing. An overview of the OAMEs, in contrast to the DMEs, clearly shows that the locational disadvantage of rural units is relatively milder in respect of agro-based OAMEs, compared with their non-agro based counterparts. In a broad sense, this is a reflection of higher levels of technology-and skill-intensive production pre-requisites in the case of non-agro based manufacturing which the urban OAMEs are able to organize somewhat better than their rural counterparts; on the other hand, the technology and skill gaps between rural-DMEs and urban-DMEs are not as sharp, as in the case of OAMEs, so that the productivity gaps between urban-DMEs and rural-DMEs in a number of non-agro based manufacturing lines are milder, most noticeably in 2000-01.

Finally, due to the low base of their productivity in 1984–85, the rural units registered a higher productivity growth during the next decade (1984–85/1994–95) in a large number of product lines under each of the three categories (Table-5A). Nevertheless, the reverse too holds in many branches. In any case, it looks a little pleasing that, for example, productivity growth for the total of all unorganized manufacturing units grew annually, during 1984–85/1994–95, by 2.1 per cent in rural compared with 1.2 per cent in urban areas; for rural-DMEs, it was as high as 4.6 per cent against just 0.6 per cent for urban-DMEs, and for NDMEs, it was 2.1 per cent in rural against –0.9 per cent in urban areas. But then, an equally non-pleasing fact is that the growth of productivity among the tiniest rural manufacturing enterprises (OAMEs), that constitute the bulwark of the rural non-farm economy, could not go beyond 1.3 per cent per annum against a fairly impressive high of 2.8 per cent per annum for their urban counterparts. Happily, the situation improved dramatically during 1994–95/2000–01. For the total of all unorganized manufacturing, the rural areas put up a more creditable performance; for example, among the total of all manufacturing branches, growth rate of labour manufacturing units, productivity grew in the rural areas at as high a rate as 6.4 per cent against 2.5 per cent in the urban areas. Among rural-DMEs, it grew by 6.1 per cent against 2.9 per cent among urban-DMEs; among rural-NDMEs, it grew by 5.7 per cent against 4.6 per cent among urban-NDMEs; and most happily, it grew by 6.4 per cent among rural-OAMEs against a meager 0.5 per cent among urban-OAMEs. Going into individual production sectors, at each of the three layers of the productivity increased, by varying degree, in fourteen of the sixteen production lines among the rural enterprises against eleven among their urban counterparts. In spite of this pleasing scenario, it must again be underlined that rural-urban productivity gaps, although narrowing down in many product lines under each of the three categories of enterprises, still remain a big challenge to rural unorganized industry. Given the extreme preponderance of OAMEs in the rural industrial sector, the productivity gaps in this segment continue to be a cause for worry, in particular. To sum up over the years, the productivity is persistently lower in MSE sector. It clearly reflects the one point focus on employment expansion without bothering much about the levels of productivity.

**Table-5A**  
**Growth of Per Worker Productivity (%)**

NIC Code		OAMEs		NDMEs		DMEs		All Manufacturing	
		84-85/94-95	94-95/00-01	84-85/94-95	94-95/00-01	84-85/94-95	94-95/00-01	84-85/94-95	94-95/00-01
1	2	3	4	5	6	7	8	9	10
20-21	R	3.04	7.82	1.15	2.66	0.70	6.38	2.08	6.48
	U	-0.44	4.10	-1.84	1.41	-1.96	3.03	-1.37	2.82
22	R	-2.84	1.67	7.08	-5.60	5.33	-3.84	-1.47	-0.02
	U	2.57	-5.69	-2.19	6.37	-7.43	11.54	-0.50	-3.51
23+24+25	R	4.81	5.14	4.96	5.34	6.29	3.95	7.92	2.80
	U	3.91	3.59	1.69	4.19	3.97	3.86	4.78	3.30
26	R	-2.98	19.25	-1.37	13.96	5.15	9.61	-1.05	15.23
	U	-0.97	12.28	1.05	10.65	2.66	7.14	3.75	5.68
27	R	-4.78	1.14	-2.69	2.13	-2.64	10.26	-4.57	1.67
	U	-1.25	2.53	-0.63	-5.28	-1.37	-3.24	-0.48	-2.09
28	R	0.26	16.13	3.14	1.42	-13.70	18.95	-2.80	7.37
	U	4.94	-4.24	-2.26	0.21	0.33	0.60	-0.71	0.09
29	R	-1.94	5.03	4.38	3.37	4.34	0.89	-1.14	5.27
	U	-0.03	0.01	-0.78	6.47	-4.16	7.23	-1.25	4.95
30	R	4.40	3.48	3.99	2.41	-2.81	-4.45	0.12	0.73
	U	-4.34	-4.62	-0.09	4.85	-2.35	3.33	-5.19	1.40
31	R	3.59	16.55	3.46	10.66	8.34	1.96	9.03	6.28
	U	17.27	2.52	-3.05	4.22	7.97	8.83	10.04	5.85
32	R	2.31	5.97	7.35	14.07	6.57	6.54	5.10	10.57
	U	-1.61	3.05	-0.92	14.43	4.65	8.60	0.81	9.28
33	R	-0.66	14.66	-0.87	-1.86	5.41	6.67	4.77	10.33
	U	5.27	-0.56	1.52	2.03	0.83	-0.41	0.32	0.73
34	R	0.29	6.13	3.21	8.53	-3.25	10.78	0.98	7.16
	U	-1.84	4.56	-3.59	4.99	-5.92	3.92	-4.65	3.57
35+36	R	-4.93	8.55	1.93	5.68	21.52	6.52	3.75	6.90
	U	9.34	7.20	1.28	7.08	2.65	2.35	2.78	3.88
37	R	-1.98	4.08	2.43	5.22	3.33	20.58	1.41	14.25
	U	-5.22	7.62	-23.41	0.39	-10.74	4.12	-16.08	3.69
38	R	-3.36	16.31	5.78	0.92	10.04	-4.15	0.67	10.60
	U	9.02	-6.40	5.51	-0.97	9.06	-6.74	8.72	-5.70
39+97+99	R	3.11	-4.84	-1.53	2.36	-0.46	1.22	2.43	4.12
	U	-1.29	-1.31	-1.10	33.69	3.81	31.49	-0.42	20.40
All	R	1.26	6.35	2.11	5.70	4.27	6.12	2.14	6.38
	U	2.75	0.46	-0.87	4.59	0.56	2.93	1.20	2.53

Note: The same as in Table 4; Source: The same as in Table 4.

## 6. Concluding Remarks

In terms of employment stake, the MSE sector occupies a place of great significance, both in the rural and urban economies of India. Within MSE sector, the group of tiny and household-run enterprises (OAMEs) in the rural areas, occupy an overwhelmingly dominant position, both in terms of the number of enterprises and the number of workers employed; the dominance of this group is no less evident in the urban industrial economy. It should thus be clear to the policy makers that no meaningful strategy of industrialisation can be visualized without assigning central focus to the unorganized segment. And, within the unorganized manufacturing segment, the crucial significance of the bottom layer, OAMEs, cannot be lost sight of, most markedly because the issue of rural industrialization is another way of looking at the survival and growth of the rural-OAMEs.

It is a little disturbing to see that, over time, the share of rural areas in the number of enterprises, employment and fixed capital, in the unorganized manufacturing sector, is decreasing, in favour of urban areas. This is happening more conspicuously in the domineering OAME segment, and not at all happening in the small, but well-organized, DME segment. Further, rural areas are losing their share in the bottom layer, and keeping their hold in the top layer, is perhaps an indication of the distress-type rural to urban movement of job seekers, who accommodate themselves in the urban economy as self-employed industrial workers. On the other hand, DMEs being surrogates of non-household type industrial enterprises, being bigger in size and enjoying some economies of scale, do not reflect any special locational disadvantage. The market signals are thus clear. Manufacturing enterprises, run with improved production technology, deriving pecuniary and scale benefits, and having an expanding market outreach, as many among the DMEs would have, have no serious handicaps being rurally located. Clearly, a sizeable proportion of OAMEs lack such advantages; for many of them, the sustainability would remain a perpetual question mark.

During the pre-reform decade (1984–85/1994–95), many of the unorganized manufacturing units, most visibly the OAMEs, had closed down, both in the rural and urban economies. Likewise, many workers got dis-employed, again, both in rural and urban areas. Crucially, while an overwhelming proportion of those losing their jobs in the rural areas were full-time workers, the job loss in the urban areas was confined to part-time workers only. It is clear that the impact of the selective economic reforms that occurred towards the closing part of the eighties was highly uneven between the rural and the urban industrial economies. But then, the real distress for the rural areas came after the full-fledged economic reforms came forth in 1991–92. During 1994–95/2000–01, both the rural and the urban areas recouped their lost ground, but, qualitatively, it was a much better

performance in the case of urban unorganized manufacturing. For example, during the post-1994 years, the rural areas could not recoup more than a small proportion of their unorganized manufacturing enterprises, most noticeably among the rural-OAME segment, while almost the whole of the lost ground was recovered in the urban areas. This was true of employment as well. For example, against a loss of 3.75 million full-time jobs during 1984–85/1994–95, the rural unorganized manufacturing could not recoup more than 0.38 million such jobs during 1994–95/2000–01, while with the urban manufacturing, it was a gain of 0.74 million part-time jobs against the earlier loss of 0.27 million such jobs; earlier, urban areas did not suffer any loss of full-time jobs. The story of job losses and gains is unfolded most tellingly in respect of rural-OAMEs against urban-OAMEs.

In plain terms, there is a tendency for the proportion of part-time workers to increase both among the rural and urban unorganized manufacturing, most markedly among the OAME segment, but the rural-urban difference manifests itself in terms of the deployment of the post-1994 incremental workforce. In the rural areas, an exceedingly high proportion of the post-1994 incremental workforce came in on part-time basis while it was not more than about one-third of the total incremental workforce that got employed on part-time basis in the urban areas. In plain terms, during the post-reform years, the structure of employment worsened in the rural areas, especially when looked at from the point of view of self-employing household-type enterprises typified by OAMEs. Many explanations may be framed to understand this phenomenon. The immediate explanation that comes forth is that it is the slowdown in the rate of growth of employment, in many sectors of the rural economy, coupled with an increasing incapability of agriculture to take on many additional hands, that has triggered off the process of part-time self-employment of most of the incremental workers, in the rural unorganized manufacturing. In contrast to 1984–85/1994–95, a higher post-1994 rate of growth of employment among the agro-based manufacturing activities, lends additional credence to our inference. In any case, the hypothesis of distress migration of job seekers, from rural to urban areas, thereby contributing further to the proliferation of the urban informal economy, seems to hold true. Undoubtedly, a more systematic, and detailed, probe is called for.

The MSE sector continues to suffer substantial productivity losses. But the post-reform pace and pattern of its growth throws up a mingle of cheers and setbacks. Within the MSE sector, the group consisting of tiny enterprises (OAMEs) are at the very bottom of the productivity hierarchy, lurching with productivity levels that look abysmally low by any objective reckoning. Perhaps, for some of these tiny household enterprises, some kind of distress, brought over from other agro-industrial or non-agro based activities, may be at work. But then, the distress phenomenon cannot be invoked to cover everything that

causes productivity setbacks. There must be a host of constraints such as institutional, technological and marketing that hold back productivity to its low levels.

It is observed that even if MSE sector has got tremendous employment potential, the level of productivity is abysmally low in most of the manufacturing activities and both in rural and urban areas. This raises a lot of doubt on the MSE sector about its potential of generating productive employment. But if the productivity level can be improved, it will certainly benefit not only the workers and entrepreneurs but also give a big push to the national economy. An improvement in productivity level can also act as an instrument of poverty reduction both in rural and urban areas. It is time to recast our industrialization strategy so as to cope up with the changing economic scenario. In this context, an effective mix of promotional as well as protection measures must be initiated. Further, special policy attention towards technological improvement, promotion of sub-contracting and clusters need to be streamlined.

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## Annexure-I

### Industry Divisions and their Description

<i>NIC Code</i>	<i>Description</i>
1	2
20-21	Food Products
22	Beverages, etc.
23+24+25	Cotton, Wool, Jute etc.
26	Textile Products
27	Wood Products
28	Paper Products
29	Leather Products
30	Rubber Products
31	Chemical Products
32	Non-metallic Mineral Products
33	Basic Metal Ind.
34	Metal Products
35+36	Machine tool and Elect. Machinery
37	Transport Equipment
38	Other Manufacturing
39+97+99	Repair Services

*Note:* Based on concordance table, we have categorized 16 industry groups at two-digit level of industrial classification.

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