

How Have Informal Firms Evolved?

Size, Structure and Productivity Growth in Manufacturing

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Informal manufacturing enterprises form the majority of the country's industrial firms. Although the formal manufacturing sector began to show signs of decline in the latter half of 1990s after a successful turn in the first half of the decade, the larger impact was possibly mitigated by the growth of the informal manufacturing sector. How sustainable is this growth? Is the growth of small units in this sector a sign of distress or is it a manifestation of the adoption of more flexible production systems that help firms to reduce costs and undertake customised production? Overall there is plenty of empirical evidence to challenge the notion that the informal sector cannot achieve productivity nor create jobs. A comprehensive policy that addresses the problems of specific industry groups and resolves the many structural issues is required. All the tables are available at the end.

The informal sector occupies an important place in developing economies. In India too, the informal sector constitutes an important segment of the economy both in terms of output and employment.¹ This sector contributes to about 60 per cent of total net domestic product (NDP) and provides livelihood to nearly 93 per cent of the work force (Kulshreshta and Singh, 2001) and over a period of time its presence and extent have been growing (Sakthivel and Joddar, 2006). The greatest contribution of the sector is in agriculture, where it forms almost entire employment and about 97 per cent of gross domestic product (GDP) (Papola, 2004). Its presence adds considerably to the total income and employment in non-agricultural sectors as well. In 2005, the informal sector contributed about 45 per cent to GDP and 72 per cent to employment in the services

¹ Many terminologies have been used to refer this sector in India such as unorganized sector, unregistered sector besides informal sector. In the present paper, we have used the term 'informal sector' to represent the sector.

sector (NCEUS, 2009). As regards the manufacturing sector, about 40 per cent of NDP and 84 per cent of the workforce came from the informal sector (Papola, 2004).² India's industrial sector has in the past, enjoyed significant protection through tariffs, quantitative restrictions, industrial licensing and other controls, which had considerably affected the growth and performance of firms in the manufacturing sector. It was also argued that the dualism evident in the manufacturing sector was a legacy of a set of economic policies followed in the past (Little, 1987; Gang, 1992; Tybout, 2000). An important facet of this economic policy shift in the 1990s was the gradual dismantling of industrial licensing for nearly all manufactured goods and the gradual dereservation of products meant for small-scale enterprises. These reforms were mainly in product markets and varied substantially over time and across industries. Given the crucial presence of informal sector firms in the manufacturing sector, it provides us a unique empirical context to evaluate the changes in the size and structure of informal sector with the advent of these significant reforms in the industrial sector. To be more specific, we analyse here the size, structure of employment and investment and changes in partial productivity at the disaggregate level (two-digit industry level) for the period 1984-85 to 2000-01.

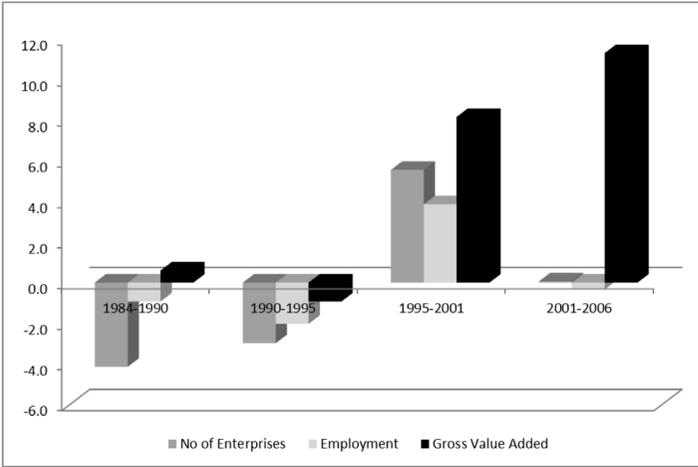
A note on sources of data and the definition of variables is provided in Annexure 1

How large is the Informal Sector?

The informal manufacturing sector provided employment to about 36.5 million people in India in 2005-06 (Table 1). The level of employment contracted during 1984-85 to 1994-95 and then surged up in the second half of the 1990s (1994-95 to 2000-01) with a marginal decline in next five years (2000-01 to 2005-06). There was a loss of about 4.8 million jobs in the first period (1985-1995) and a gain of 7.5 million jobs in the second period (1995-2001) and a marginal loss of 0.65 million jobs during 2000-01 to 2005-06. The spurt in employment observed during 1994-95 to 2000-01 had a beneficial impact on output as well. However, the value added rose from 2000-01 to 2005-06 despite the decline in employment. This reflects an increase in labour productivity over the period. As is evident in Table 1, the total output increased from Rs. 244.84 billion in 1994-95 to Rs. 511 billion in 2005-06, at an annual average rate of growth of 6.92 per cent. Of late, the sector has been able to shed the image of poor performer it had acquired in the reforms period and started registering gains especially during the second half of the 1990s and early part of following decade.

² Under the Factory Act, the formal sector in the manufacturing sector comprises of units that employ more than 10 workers with the aid of power or more than 20 workers without the aid of power. All other units are classified under informal manufacturing sector.

Figure 1: Growth in Number of Enterprises, Employment and Gross Value Added



Note: Real Annual Average Growth has been estimated using $\left(\frac{y}{x}\right)^{\frac{1}{n}} - 1$

Source: Authors' computations based on data from NSSO (1989, 1995, 1998, 2002, 2002a, 2007, 2007b); CSO (1985, 1995).

Improved performance in terms of valued added and labour productivity throws up several pointers. Did all types of firms exhibited a similar growth pattern observed at the aggregate level? What are the structural changes in this sector on account of this growth performance? Is it possible to sustain this growth in the long run?

Dynamics of the Informal Manufacturing Sector

The informal enterprises are constantly churning. Many of these changes cannot be captured by merely analysing the sector at the aggregate level. It is only when the individual components of these changes are dissected, the nature and magnitude of this churning becomes evident. Not only are new firms being created but existing ones are also undergoing changes in terms of size. The surviving firms are either expanding or contracting and some tiny firms are graduating to medium firms and medium firms to bigger ones. Similarly, there can be a change in the rural-urban composition of firms in the sector. To capture these dynamics, we need to examine the movement of various constituents of the sector over time.

We captured the dynamics of the sector by using four indicators: (a) size of the enterprise, measured using (i) employment per enterprise and (ii) fixed capital stock per enterprise; (b) 'location' of the enterprise by examining the rural-urban composition in number of enterprises, employment, GVA, and fixed capital stock; (c) examining the changes in the composition of different types of enterprises (namely, OAMEs, NDMEs and DMEs) in selected variables; and (d) organic or traditional enterprises versus inorganic or modern enterprises.

Size Structure: Typically, enterprises in the informal manufacturing sector invest relatively less in fixed assets unlike their counterparts in the formal sector. This implies that the production process in the sector will be more labour intensive. Even then focusing on employment per enterprise alone may not adequately capture the changes in the size of the sector as some firms would have expanded their capital base especially during the 1990s, when the reforms opened up significant opportunities for manufacturing firms. Recognising this, we used both employment per enterprise and capital stock per enterprise to investigate the changes in the size of the sector over time.

On an average, OAMEs employ about two workers, NDMEs employ not less than three workers and the DMEs employ at least ten (Table 2). We find that an average OAME witnessed a steady expansion in size till 1994-95 and a decline thereafter. The size of the enterprise in the NDME sector remained more or less same during the 90s while an average DME observe a significant contraction in size in 1994-95 and thereafter their size increased but is still below pre-reform period. It could be possible that some of the larger firms in the DME sector would have graduated to the bottom end size classes of the formal manufacturing sector. The growth of smaller firms in the formal manufacturing sector perhaps lends some credence to this observation (Bhalla 2003). Interestingly, this phenomenon is more prevalent for units located in urban areas than in rural areas.

Using fixed capital stock per enterprise as a measure of size, we observed a decline in the size of the OAME sector while the other two enterprise types have considerably enhanced their size between 1984-85 and 2005-06 (Table 3). A special mention may be made of the DME sector that has increased its size by more than four times during the period. The decline in the case of OAME sector was confined to the period, 1984-85 to 1989-90 and thereafter there has not been a clear pattern.

Overall our analysis points to significant changes in the sector over the period 1984-85 to 2005-06. A move away from labour intensive production process is evident in the DME sector. To a certain extent, a similar tendency is noticed in the NDME sector too, where the capital investment had nearly doubled during the first 15-year period of the study but after that has remained same. Only the OAME sector remained labour intensive throughout the study period. Surely, this would have implication for productivity of the segment.

Rural Urban Shift: Leaving the Rural Tag Behind: Most enterprises in the informal manufacturing sector are located in rural areas. In 2005-06, about 71 per cent of the enterprises are in rural areas, providing employment to not less than 65 per cent of the informal manufacturing workforce (Table 4). But these enterprises together contributed only 43 per cent of the total value added implying the low productivity of enterprises in rural areas.

Our analysis points to gradual decline in the dominance of rural enterprises over time. A 5 per cent drop in the rural share in number of enterprises, over 8 per cent drop in employment and 26 per cent drop in fixed investment has been noticed between 1984-85 and 2005-06. The rural share in value added declined only marginally during the same period but it is primarily on account of the increase in the contribution from the DME sector; its share in gross value added improved from 19.5 per cent in 1984/5 to 30.0 per cent in 2005-06 (Table 4). It is clearly evident from the analysis that erosion in the share of rural sector is an outcome of declining contribution from rural OAME and NDME sectors.

Small Vs Big: Dominance of Smaller Enterprises: Our shift-share analysis indicates a shift towards bigger enterprise during the study period. OAME, although contributing to major share of employment and number, its contribution to GVA is low. Due to higher productivity from DMEs, their share has increased. (Table 5) .

Organic versus Inorganic Industries: The pace of a transition characteristic of modern economic growth can be judged from the composition of traditional and modern industries in the sector. The traditional industries are those that primarily rely on organic/natural raw materials. This group comprises of industries producing food, beverages, cotton, textiles, wood and leather products. On the other hand, the other group depends heavily on inorganic, chemicals and metal based inputs. They are relatively small in number but are fast growing and include rubber, chemicals, basic metal and alloys industries in addition to those producing all kinds of industrial and other kinds of machinery, transport equipment and parts and so on.

Modern economic growth traditionally represents a shift away from organic raw materials based industries towards industries relying on inorganic, chemicals and metals based, inputs. We examined whether a shift towards modern industries can be discerned in the informal manufacturing sector. We find that traditional industries still occupy a larger share in enterprises, employment and GVA in rural and urban sectors and the sector as a whole (Table 6). However, a shift towards industries that primarily depend on inorganic inputs was discerned till 1994-95. But the late 1990s and early 2000 witnessed a reversal in this trend with the traditional industries gaining in importance. The growing importance of traditional industries during the second phase of reforms indicates two possibilities: an outcome of greater focus on food processing and leather sector or alternatively, it could be a distress driven phenomenon if the increase is not from these two sectors. It is well acknowledged that starting an enterprise in the organic or traditional industry sector is less costly and less risky. An entrepreneur may not require large amount of working capital and service of skilled workers for starting a firm in the sector. These firms tend to enter in great numbers when the overall economy is

weak. Hence the growth of traditional industries in the sector may perhaps be a result of post-reform slump in the growth of formal manufacturing sector. This conjecture is further strengthened by the fact that the share of OAME and NDME sectors reported an increase only in number of enterprises and employment and not in GVA, which has declined drastically especially for OAME.

Disaggregate Industry Level View

While the aggregate level picture is useful in analysing the structural changes over time it could mask the differences across industries and their contribution to these changes.

Major Employment Providers and Value Generators: In general a huge portion of the informal manufacturing sector is retained by the traditional industries. Five major industries (food products, beverages, cotton goods, textiles and wood products) account for 81 per cent of the total enterprises and 73 per cent of the total workers employed in the sector in 2005-06 (Table 7). But less than 60 per cent of the contribution in total value added in the sector emanated from these traditional industries. Importantly, we observed a decline in their contribution till 1994-95 and thereafter increased contribution in terms of employment, number and GVA.

We also found that these industries contribute a significantly higher share in the rural sector than in the urban sector. (Table 7). It may be noted, however, that their contribution in terms of employment and GVA has declined in both rural and urban areas between 1984-95 and 2005-06, though number of enterprises has gone up for rural areas over the period.

Among the traditional industries, textiles (especially apparel) improved its share in rural and urban areas between 1984-85 and 2005-01 while the beverages industry, despite its increased contribution to enterprises and employment, witnessed a drop in its value added share (Table 7). The relative significance of other traditional industries in the sector has also declined except paper industry, which gained in its share in rural and urban areas.

Industries manufacturing non-metallic minerals, metal products and other products are the major industry groups in the category of 'modern' industries (Table 7). The 'others manufacturing industry' group considerably increased its contribution to number of enterprises, employment and gross value added in rural and urban areas. In fact, its contribution to gross value added has more than doubled during 1984-85-2005-06. The share of non-metallic minerals in employment and gross value added increased during the same period while metal products witnessed a surge only in its share in urban enterprises and employment. Among the other 'modern' industries, machinery industry improved its share in the sector where as the significance of transport industry eroded over the period 1984-85-2005-06.

Pre-dominantly Rural Vs Pre-dominantly Urban Industries: A major portion of activities in the informal sector is taking place in the rural areas. This does not mean that rural enterprises dominate all types of industrial activities in the sector. There are a number of industries where urban enterprises occupy a major share. This section identifies industries that have a dominant presence in rural areas and those located in urban areas. By doing so, we also examine the changes in their orientations over time. Following Bhalla (2003), we classify industries into four categories based on their rural or urban orientation in employment in 2005-06 (Panel 1).

Panel 1: A Cross Classification of Industries based on Employment Criterion

Category	Criteria
Vastly Rural (VR)	≥80 per cent employment in rural areas
Mainly Rural (MR)	50-80 per cent employment in rural areas
Mainly Urban (MU)	30-50 per cent employment in rural areas
Vastly Urban (VU)	<30 per cent employment in rural areas

In 2005-06, three industries namely, beverages, wood products and non-metallic minerals fall under the **vastly rural (VR)** industrial category. While wood products and non-metallic minerals remained in this category since 1984-85, beverages industry entered 2000-01 onwards (Table 8).

A deeper analysis reveals that beverages industry has constantly expanded its presence in rural areas. With the given trend, the share of beverages in employment and GVA in rural areas may further increase in the future. As regards the manufacture of wood products, the share of enterprises and employment in rural areas has been fairly stable over time though its rural share in GVA witnessed a decline. Manufacture of non-metallic minerals products had a consistent rural share in enterprises, employment and GVA till 1994-95 but saw its share declining afterwards.

Food products, textiles and chemicals are the three industry groups in the **mainly rural (MR)** category in 2005-06. Of these, the first two are traditional industries, which remained in the MR category throughout the period of study, and the latter belonging to the “modern” category. Food products maintained a consistently stable rural share in enterprises, employment and GVA in the informal manufacturing sector while in the case of textiles, there are indications that their dominance in rural areas may taper off. As is evident from table 7, the rural share in enterprises, employment and gross value added by these industries is on the decline. The rural share has not shown a definite trend with regard to the manufacture of chemicals. On the whole the VR and MR categories consists of six industries – 4 traditional and 2 modern industries – that account for about 86 per cent of the total enterprises, 83 per cent of total workforce and 69 per cent of gross value added by the informal manufacturing sector, regardless of location.

The remaining eight industries are in the MU and VU categories; five industries are in the former category and the other three in the VU category. There are clear signs of erosion of the urban dominance of rubber products and basic metal and alloy industries as they are relegated to MU category from VU category in 2000-01. The manufacture of paper products has maintained a consistently stable urban share in enterprises, employment and gross value added and remained in the VU category throughout the study period. Manufacture of transport equipment and parts, on the other hand, entered the VU category in 1989-90. Manufacture of machinery and parts is the other industry group whose workforce and output have been overwhelmingly concentrated in cities and towns over the period 1984-85-2000-01. In leather products, rubber products and others industry group also, activities are concentrated more in urban areas than in rural areas. Manufacture of cotton and leather products are two examples of industries fast changing to an urban category from a rural dominant one.

Sunrise and Sunset Industries: We define sunrise industry (SR) as the one that is growing fast and is expected to play a key role in the future where as a sunset industry (ST) is an industry that is in decline, one that has passed its peak or boom periods. Many suggest output growth as an ideal indicator for classifying the industries into sunrise and sunset industries. Given that informal sector employs major chunk of the manufacturing work force in India, it would be also important to look at the growth in employment as a performance criterion. As employment alone at lower levels of income is not sufficient to ensure the overall well-being of the workers in the sector, the focus should be on growth with increasing labour productivity, that is, industrial growth generating quality employment. Taking cognisance of it, we classify sunrise and sunset industries based on growth in value added, employment and labour productivity. With the help of these three indicators, we identified six categories under the broad groups of sunrise and sunset industries.

In ‘sunrise industries’, we included two categories of industry groups and the remaining four categories are classified into ‘sunset industries’. In common parlance, growth in GVA is regarded as the most important indicator of the economic prospects of an industry. However, we depart from this convention since we feel that it is important to ascribe greater importance to the growth of employment especially productive employment, as it would be beneficial to the economy in the long run. Using this criterion, the ‘sunrise industries’ include two industry categories both with growing value added and labour productivity but the one with growing employment and the other with declining employment. The emphasis here is on the generation of productive employment. In contrast, all other industries with poor quality of employment are categorised under the ‘sunset industries’ group.

We find that the number of industries belonging to the “sunrise industries” group has

almost doubled between 1984-90 and 1995-2001 (Table 9) implying that a large number of manufacturing industries in the informal sector had grown with quality employment in the late 90s. But a major part of the graduation (from SS to SR) occurred during the 90s. What is more striking is the fact that 12 out of 15 industries in the sector were in the SR group over the period 1995-2001 and among these 12 industries, nine were in category A as they recorded growth in all the three indicators. Manufacture of rubber products is the only industry that had relegated from category A in the early 90s to category C in the late 90s.

It is found that the number of 'sunrise industries' belonging to the 'modern' industry group has been consistently rising over time, from 3 in 1984-90 to 5 in 1990-95 and then to 7 in 1995-2001 (Table 10). The only 'modern' industry, which was left behind in the growth process, is the manufacture of rubber products. Beverages and wood products are the only traditional industries remained in the 'sunset industries' group.

In short, the industries in category A have demonstrated that they can survive and prosper even in an environment where informal manufacturing units in some other industries are doing badly. They are expected to do well in the future too unless the policy environment faced by them is made unfavourable. As regards the industries in category B, they have succeeded in raising labour productivity, at least in part, by reducing the workforce engaged in them. They have also recorded positive GVA growth rates. As long as they continue to raise labour productivity, they will be able to maintain the current growth performance though the prospects of raising employment in these industries remain remote. The likely scenario appears to be a lesser number of enterprises and workers, but higher per worker and per enterprise productivity. Industries in category C may be treated as the ones that deserve special support on income generation grounds.

Trends in Labour Productivity Across Industries

One of the major concerns raised with respect to the sector is its ability to generate productive employment given its abysmally low level of productivity aided by the employment of low skilled, less educated workforce and the adoption of obsolete technology. Evidence on this across space (rural and urban) and over time at the industry level is rather scanty. In this section, we fill this visible gap in the literature by providing fresh evidence on the productivity of informal manufacturing sector across industries by examining the trends in labour productivity for the period 1984-85 - 2005-06.

Table 11 presents the growth of labour productivity for the four periods, 1984-85 to 1989-90, 1989-90 to 1994-95, 1994-95 to 2000-01 and 2000-01 to 2005-06. As is evident from table 11, labour productivity reported a consistent growth in the informal manufacturing sector. It grew in all the three sub-periods, though the growth slowed down in the early 90s. The late 90s witnessed the fastest growth of labour productivity at 4.6 per cent per annum. Most industries reported a growth in labour productivity in the

late 1990s; a trend started from the first half of the 1990s in many industries. The rates of growth, however, showed marked variation across the two-digit industries and, for the same industry, between the two-time periods. It may be noted that the positive labour productivity growth registered by the sector during 1984-90 was an outcome of the better performance by a handful of industries. However, this wide variation in growth rates has declined considerably in the recent period. Despite significant growth in labour productivity, wages paid to the worker did not witness a commensurate increase over time. Data shows that the growth of emoluments per employee reported a marked decline in the late 1990s. In other words, workers in most industries did not receive improvement in wages commensurate with their improved contribution in value added.

Conclusion

In India, the informal manufacturing enterprises form majority of the country's industrial firms. Our focus is on the manufacturing sector, which has experienced a remarkable structural change in the industrial environment with the advent of economic reforms of the 1990s. It is well known that the formal manufacturing sector after a successful first half of the 90s started showing signs of decline. We argue that the shock-absorbing role played by the informal manufacturing sector perhaps helped in lessening the impact of this growth decline in the formal sector.

Evidence shows that the sector has been slowly able to shed the image of poor performance during the 1990s and has started registering positive gains.. Notably the major part of the increase was absorbed by own account and non-directory enterprises as is observed from their growing share in the sector. This trend coupled with the growth decline in the formal manufacturing sector, however, casts doubts on the long run sustainability of growth of informal manufacturing. This is especially because the growth of small units in the sector is possibly a manifestation of distress aided by the growth decline in the formal manufacturing sector. But the shift towards small sized units could also indicate an effort at introducing flexible production systems, which would help the firms to reduce costs as well as to undertake customised production at a smaller scale.

It is also evident that jobs were increasingly created in the urban areas as indicated by a shift in the structure of employment from rural to urban areas. The traditional industries still occupy a larger share in enterprises, employment and GVA in rural, urban and overall sector. The analysis clearly shows that, overall, in the whole period under examination there has been a swing towards industries that primarily depend on inorganic inputs, However, after a continuous decline up to 1994-95, the organic industries witnessed an increase in their share thereafter. Further, most of these traditional industry groups occupy a greater share in the rural areas as compared to their share in urban areas. However, their overall contribution to both rural as well as urban areas has declined over time.

On the productivity front, certain industries have employed their resources productively in the rural areas while some did it creditably well in the urban areas. Overall, empirical evidence reveal that not only urban units but also units located in rural areas are capable of improving productivity. Thus there is a need to take a cautious approach where industries, which are lagging behind in terms of productivity, need to be identified and a comprehensive policy agenda that can well address the problems faced by the specific industry groups needs to be formulated.

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Annexure 1: Sources of Data and Definition of Variables

Data are drawn from the large national level surveys conducted by the National Sample Survey Organization (NSSO) during its 40th (1984-85), 45th (1989-90), 51st (1994-95), 56th (2000-01) and 62nd (2005-06) rounds. The NSSO had followed different National Industrial Classification (NIC) in its various rounds.³ To enable comparison across rounds, we reclassified the nineteen two digit industries into 14 industry groups following the NIC 1987.⁴ The analysis is conducted at the aggregate 'all industries' level as well as at the disaggregate two-digit industry level.

Variables

Gross value added (GVA) is used as a proxy for output. The implicit deflators of gross domestic product of the unregistered manufacturing sector available at the two-digit industry group level are used to deflate GVA at the industry level. Total number of persons engaged is used as a measure of labour input. We have used the total fixed assets as given in the NSSO reports to represent capital input in the sector. The absence of data on fixed capital formation at the industry level led us to use gross fixed capital stock formation by unregistered manufacturing sector at the all India level to deflate gross

³ The 33rd and 40th rounds provide data as per NIC 1970, 45th and 51st rounds follow NIC 1987 and the 56th round and 61st round as per NIC 1998. While concordance of NIC 1987 with NIC 1970 required only the interchanging of divisions 30 and 31, matching of NIC 1987 with NIC 1998 requires a greater degree of approximation by relevant grouping. The exact concordance between 2-digit industry groups of NIC 1987 with that of NIC 1998 requires data on 3- and 4-digit industrial divisions.

⁴ Details of 15 industry groupings clubbed for the purpose of this study are given in Raj (2006).

fixed assets and compute value of capital at 1993-94 prices.

The informal manufacturing sector comprises three types of enterprises, namely, Own Account Manufacturing Enterprises (OAMEs), Non-Directory Manufacturing Enterprises (NDMEs), and Directory Manufacturing Enterprises (DMEs). OAMEs employ only family labour while NDMEs and DMEs employ hired labour. The number of workers is less than six in the case of NDMEs and more than or equal to six in the case of DMEs. We arrived at the total number of enterprises by adding the number of enterprises in each of these three enterprise types.

Table 1: Trend in Enterprises, Employment and Gross Value Added

Year	Number of Enterprises (in million)	Employment (in million)	Gross value Added (in Rs. Billion)
1984-85	17.70	34.28	238.45
1989-90	14.32	32.72	237.11
1994-95	12.30	29.53	244.84
2000-01	17.02	37.09	424.79
2005-06	17.07	36.44	511.00

Source: Source: NSSO (1989, 1995, 1998, 2002, 2002a, 2007); CSO (1985, 1995).

Table 2: Employment per Enterprise by Enterprise Type

		Employment per enterprise				
Sector	Type	Year				
		1984-85	1989-90	1994-95	2000-01	2005-06
Rural	OAME	1.69	1.78	1.95	1.73	1.62
	NDME	2.33	3.00	2.76	3.07	3.20
	DME	11.18	12.37	8.34	11.76	11.13
	ALL	1.86	2.06	2.20	2.01	1.93
Urban	OAME	1.53	1.88	1.92	1.64	1.62
	NDME	2.25	3.46	3.45	3.35	3.31
	DME	9.29	10.73	8.94	8.88	9.49
	ALL	2.19	3.08	3.04	2.57	2.63
Total	OAME	1.66	1.80	1.94	1.71	1.62
	NDME	2.29	3.23	3.12	3.25	3.26
	DME	10.03	11.41	8.66	9.98	10.14
	ALL	1.94	2.29	2.40	2.18	2.13

Source: Same as Figure 1.

Table 3: Fixed Capital Stock per Enterprise by Enterprise Type

Fixed Capital Stock per enterprise ('00s)						
Sector	Type	Year				
		1984-85	1989-90	1994-95	2000-01	2005-06
Rural	OAME	265	75	84	116	105
	NDME	498	441	476	578	678
	DME	627	817	1107	2102	2168
	ALL	286	111	141	181	187
Urban	OAME	573	249	308	322	326
	NDME	754	1454	1310	1557	1576
	DME	892	1111	3827	4355	4524
	ALL	633	583	922	902	937
Total	OAME	326	105	127	167	158
	NDME	623	946	915	1197	1198
	DME	788	989	2550	3494	3585
	ALL	369	215	329	396	404

Source: Same as Figure 1.

Table 4: Rural Share in Enterprises, Employment, Fixed Capital Stock and Gross Value Added

Year	Rural share in total enterprises				Rural share in total employment				Rural share in fixed capital stock				Rural share in gross value added			
	OAME	NDME	DME	ALL	OAME	NDME	DME	ALL	OAME	NDME	DME	ALL	OAME	NDME	DME	ALL
1984-85	80.1	51.1	39.1	76.0	81.6	52.0	43.5	72.8	65.1	40.9	31.1	58.9	70.5	28.9	19.5	45.2
1989-90	82.4	50.1	41.4	78.0	81.7	46.5	44.9	70.3	58.5	23.3	34.1	40.3	72.3	30.0	28.3	47.2
1994-95	81.1	47.3	46.9	75.9	81.3	41.8	45.2	69.5	54.0	24.6	20.4	32.5	65.5	27.9	27.8	43.0
2000-01	75.4	36.8	38.2	70.1	76.4	34.8	45.0	64.7	52.4	17.8	23.0	32.0	66.1	24.5	31.3	44.3
2005-06	76.0	42.1	39.9	71.0	76.1	41.3	43.7	64.4	50.4	23.8	24.1	32.8	66.8	30.6	30.0	42.8

Table 5: Share in Number of Enterprises, Employment and Gross Value Added in the Indian Informal Manufacturing Sector by Enterprise Type

Number of Enterprises						
Sector	Type	Year				
		1984-85	1989-90	1994-95	2000-01	2005-06
Rural	OAME	91.5	92.2	90.6	92.7	91.6
	NDME	7.2	5.8	6.3	5.3	6.1
	DME	1.3	2.0	3.1	2.1	2.3
	ALL	100.0	100.0	100.0	100.0	100.0
Urban	OAME	71.8	69.5	66.7	70.9	70.9
	NDME	21.7	20.6	22.1	21.3	20.7
	DME	6.5	9.9	11.2	7.9	8.4
	ALL	100.0	100.0	100.0	100.0	100.0
Total	OAME	86.8	87.2	84.8	86.1	85.6
	NDME	10.7	9.1	10.1	10.1	10.4
	DME	2.6	3.7	5.1	3.8	4.0
	ALL	100.0	100.0	100.0	100.0	100.0
Number of Workers						
Sector	Type	Year				
		1984-85	1989-90	1994-95	2000-01	2005-06
Rural	OAME	83.1	79.6	80.2	79.8	76.8
	NDME	9.0	8.5	7.9	8.1	10.2
	DME	7.9	11.9	11.9	12.1	13.0
	ALL	100.0	100.0	100.0	100.0	100.0
Urban	OAME	50.2	42.3	42.0	45.2	43.6
	NDME	22.3	23.1	25.1	27.7	26.1
	DME	27.5	34.5	32.9	27.1	30.2
	ALL	100.0	100.0	100.0	100.0	100.0
Total	OAME	74.1	68.6	68.5	67.6	65.0
	NDME	12.6	12.8	13.2	15.0	15.9
	DME	13.2	18.6	18.3	17.4	19.1
	ALL	100.0	100.0	100.0	100.0	100.0
Gross Value Added						
Sector	Type	Year				
		1984-85	1989-90	1994-95	2000-01	2005-06
Rural	OAME	71.3	64.5	61.4	63.0	53.7
	NDME	16.2	15.1	14.8	13.8	18.6
	DME	12.5	20.4	23.9	23.1	27.7
	ALL	100.0	100.0	100.0	100.0	100.0

Urban	OAME	24.6	22.1	24.4	25.8	20.0
	NDME	32.8	31.5	28.8	33.9	31.5
	DME	42.6	46.3	46.8	40.3	48.5
	ALL	100.0	100.0	100.0	100.0	100.0
Total	OAME	45.7	42.1	40.3	42.3	34.4
	NDME	25.3	23.8	22.8	25.0	26.0
	DME	29.0	34.1	37.0	32.7	39.6
	ALL	100.0	100.0	100.0	100.0	100.0

Source: Same as Figure 1.

Table 6: Share of Organic Industries in number of Enterprises, Employment and GVA

Year	Number of Enterprises			Employment			Gross Value Added		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
1984-85	85.6	78.8	84.0	84.1	75.7	81.8	84.0	62.3	72.3
1989-90	84.2	71.6	81.4	80.0	62.5	74.8	78.2	61.6	69.8
1994-95	80.2	65.3	76.6	77.1	63.0	72.8	75.1	54.5	63.3
2000-01	85.6	73.3	81.9	80.1	67.9	75.8	69.6	58.4	63.3
2005-06	86.4	75.3	83.2	81.5	68.6	76.9	74.9	57.1	64.7

Source: Same as Figure 1.

Table 7: Share in Number of Enterprises, Employment and GVA by Sector and Industry (per cent)

Industry	Year	Number of Enterprises			Employment			Gross value added		
		Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Manufacture of food products	1984-85	19.4	15.5	18.5	20.9	14.6	19.2	20.3	16.7	18.3
	1989-90	18.8	14.5	17.8	19.8	12.1	17.5	23.3	14.3	18.7
	1994-95	20.9	15.0	19.5	21.8	13.1	19.1	25.6	12.4	18.0
	2000-01	18.3	12.0	16.4	20.1	12.1	17.3	22.0	11.4	16.0
	2005-06	15.1	10.0	13.6	19.0	10.1	15.8	21.9	10.4	15.3
	1984-85	7.8	7.4	7.7	7.5	6.3	7.2	6.9	2.7	4.6
Manufacture of beverages and related products	1989-90	14.6	13.4	14.3	12.2	7.8	10.9	7.9	2.6	5.2
	1994-95	12.3	9.5	11.6	10.4	6.1	9.1	7.8	2.4	4.7
	2000-01	15.2	9.7	13.5	12.8	5.8	10.3	6.9	1.6	3.9
	2005-06	21.4	10.3	18.2	16.8	6.6	13.1	7.5	1.6	4.1
	1984-85	16.4	13.7	15.7	22.5	18.3	21.3	13.6	11.4	12.4
	1989-90	11.9	16.3	12.9	12.7	17.6	14.1	9.3	14.8	12.1
Manufacture of cotton textiles, wool, silk and jute products	1994-95	9.9	11.0	10.2	11.8	13.6	12.4	12.0	10.1	10.9
	2000-01	7.1	8.1	7.4	8.7	11.1	9.5	7.4	9.8	8.8
	2005-06	5.4	8.8	6.4	6.6	13.0	8.9	7.6	10.8	9.4
	1984-85	19.2	25.7	20.8	14.8	20.3	16.3	13.8	12.9	13.3
	1989-90	8.4	8.6	8.4	8.9	8.2	8.7	6.4	7.2	6.8
	1994-95	9.1	8.1	8.9	10.2	10.6	10.3	8.6	9.9	9.4
Manufacture of textile products (including wearing apparel)	2000-01	21.1	28.6	23.3	17.1	24.1	19.5	17.6	21.3	19.7
	2005-06	25.2	33.1	27.4	20.6	24.7	22.0	18.3	18.5	18.4

Manufacture of wood and related products	1984-85	19.6	10.9	17.5	16.2	9.7	14.4	25.3	10.8	17.5
	1989-90	27.9	12.2	24.5	24.5	9.4	20.0	29.3	13.0	21.0
	1994-95	26.1	14.6	23.3	21.2	11.5	18.3	19.4	11.6	14.9
	2000-01	22.7	9.5	18.7	20.3	8.3	16.1	14.3	6.6	10.0
	2005-06	18.0	7.6	15.0	17.2	7.2	13.6	17.8	7.9	12.1
Manufacture of non-metallic mineral products	1984-85	6.8	3.2	5.9	9.1	3.7	7.6	7.1	2.1	4.4
	1989-90	7.5	3.7	6.6	10.4	4.5	8.7	8.7	3.2	5.9
	1994-95	8.0	3.7	6.9	10.9	3.9	8.8	12.5	2.2	6.6
	2000-01	5.8	2.6	4.8	10.7	3.7	8.2	16.3	3.4	9.0
	2005-06	4.4	2.1	3.8	8.4	2.9	6.4	10.3	2.3	5.7
Manufacture of metal products and parts	1984-85	3.3	3.5	3.4	2.9	3.5	3.0	4.5	11.3	8.2
	1989-90	2.2	5.8	3.0	2.2	6.6	3.5	3.1	8.9	6.0
	1994-95	2.7	6.8	3.7	2.5	8.7	4.4	3.7	11.2	8.0
	2000-01	3.1	5.3	3.8	2.8	6.9	4.3	4.5	9.8	7.5
	2005-06	4.1	8.5	5.3	4.0	12.4	7.0	6.2	20.1	14.2
Other manufacturing industries	1984-85	3.0	8.4	4.3	2.7	7.6	4.0	1.9	4.3	3.2
	1989-90	4.4	10.7	5.7	5.1	9.9	6.5	4.4	10.4	7.5
	1994-95	7.4	15.9	9.4	7.7	13.4	9.5	4.9	15.1	10.7
	2000-01	3.2	11.6	5.7	3.5	11.0	6.1	4.3	11.9	8.6
	2005-06	2.2	9.6	4.3	2.7	10.8	5.6	4.5	14.1	10.0
Miscellaneous Industry Group*	1984-85	4.3	9	5.5	3.2	12.4	5.8	6.1	23.4	15.5
	1989-90	4.1	10.4	5.4	3.8	18.4	8	6.9	17.6	12.4
	1994-95	3.1	11.4	5.1	2.8	14.6	6.3	4.8	20	13.4
	2000-01	3.2	9	4.9	3.5	12.3	6.5	5.8	19	13.4
	2005-06	4.2	10.0	5.9	4.8	12.4	7.5	5.9	14.4	10.7

*Miscellaneous industry group includes industries producing paper products, leather products, chemical products, rubber, plastic and coal products, metal and alloy products, machinery and parts and transport equipment and parts. Full table is available from the authors upon request.
Source: Same as Figure 1.

Table 8: Classification of Industries based on Extent of Concentration in Rural Areas

Category	Description	1984-85	1989-90	1994-95	2000-01	2005-06
Vastly Rural (VR)	≥80 per cent employment in rural areas	Wood, non-metallic minerals	Wood, non-metallic minerals	Wood, non-metallic minerals	Beverages, wood, non-metallic minerals	Beverages, wood, non-metallic minerals
Mainly Rural (MR)	50-80 per cent employment in rural areas	Food products, beverages, cotton, textiles, leather products, metal products	Food products, beverages, cotton, textiles, leather products, chemicals, other products, metal products	Food products, beverages, cotton, textiles, others	Food products, cotton, textiles, chemicals	Food products, textiles, chemicals
Mainly Urban (MU)	30-50 per cent employment in rural areas	Transport, other products	Metal products	Leather products, chemicals, metal products	Leather products, rubber products, basic metal and alloy, metal products, other products	Cotton, Paper products, rubber products, metal products, transport and other products
Vastly Urban (VU)	<30 per cent employment in rural areas	Paper products, chemicals, rubber products, basic metal and alloys, machinery	Paper products, rubber products, basic metal and alloys, machinery, transport	Paper products, rubber products, basic metal and alloys, machinery, transport	Paper products, machinery, transport	Leather products, basic metal and alloys

Table 9: Sunrise and Sunset Industries in the Indian Informal Manufacturing Sector

Category	Description	1984-90	1990-95	1995-2001	2001-2006
Sunrise Industries	Category A	Paper products, non-metallic minerals, other products	Textiles, rubber products, metal products, other products	Food products, textiles, paper, chemicals, non-metallic minerals, basic metal & alloy, metal products, machinery, transport	Beverages, textiles, paper, leather products, chemicals, metal products, transport
	Category B	Food products, cotton, rubber products	Leather products, non-metallic minerals, other products	Cotton, leather products, other products	Food products, cotton, wood products, non-metallic minerals, basic metal, Other products
Sunset Industries	Category C	Beverages, wood products, chemicals, basic metal		Beverages, wood products, rubber products	
	Category D	Leather products	Food products, wood products, paper products, chemicals		
	Category E	Metal products, machinery, transport			
	Category F	Textiles	Beverages, cotton, basic metal and alloys, transport		Rubber products

Table 10: Number of Sunrise and Sunset Industries in Organic and Inorganic Industry Groups

Category	1984-90		1990-95		1995-2001		2001-2006	
	Organic	Inorganic	Organic	Inorganic	Organic	Inorganic	Organic	Inorganic
Category A	Paper	Non-metallic minerals, other products	Textiles	Rubber products, metal products, other products	Food products, textiles, paper	Chemicals, non-metallic minerals, basic metal & alloy, metal products, machinery, transport	Beverages, textiles, paper, leather products	Chemicals, metal products, transport
Category B	Food products, cotton	Rubber products	Leather products	Non-metallic minerals, other products	Cotton, leather products	Other products	Food products, cotton, wood products	Non-metallic minerals, basic metal, other products
Number of sunrise industries	3	3	2	5	5	7	7	6
Category C	Beverages, wood products	Chemicals, basic metals			Beverages, wood products	Rubber products		
Category D	Leather products		Food products, wood products, paper products	Chemicals				
Category E		Metal products, machinery, transport						
Category F	Textiles		Beverages, cotton	Basic metal and alloys, transport				Rubber products
Number of sunset industries	4	5	5	3	2	1	0	1

Table 11: Trends in Labour Growth in the Indian Informal Manufacturing Sector

Industries	Labour productivity growth (LPG)			
	1984-90	1990-95	1995-2001	2001-2006
Manufacture of food products	3.8	-1.5	3.5	13.2
Manufacture of beverages and related products	-4.5	2.5	-0.3	6.7
Manufacture of cotton textiles, wool, silk and jute products	9.6	2.7	5.0	13.7
Manufacture of textile products (including wearing apparel)	0.7	1.1	8.5	7.6
Manufacture of wood and related products	-1.4	-3.8	-0.8	20.5
Manufacture of paper and paper products	2.8	-2.7	1.5	11.6
Manufacture of leather and leather products	-9.1	11.2	4.6	9.9
Manufacture of basic chemicals and chemical products	-8.6	-3.1	2.1	6.3
Manufacture of rubber, plastic, petroleum and coal products	19.0	1.0	-1.1	2.9
Manufacture of non-metallic mineral products	4.6	3.7	10.0	7.7
Basic metal and alloy industries	-23.7	32.5	3.9	15.1
Manufacture of metal products and machinery	-5.7	3.6	4.0	11.2
Manufacture of transport equipment and parts	-25.8	0.5	3.1	9.7
Other manufacturing industries	9.0	1.6	7.5	16.8
Average LPG	-2.1	3.5	3.7	10.9

Source: Same as Figure 1.

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