

THE EMPLOYMENT PROBLEM IN INDIA AND THE PHENOMENON OF THE 'MISSING MIDDLE'

Dipak Mazumdar and Sandip Sarkar*

An important aspect of the recent growth pattern of the Indian economy has been the apparent sluggishness in the output and employment growth in the manufacturing sector, in spite of a period of relatively high growth rate of GDP. The contrast with the experience of China, not to mention the historical experience of the developed countries, including those of East Asia, has been widely noted. This article attempts to bring into focus an aspect of the manufacturing sector of India, which might indeed be the heart of the problem. This is the development and persistence of the peculiar size structure with its 'missing middle'—even when we concentrate our attention on the non-household sector of manufacturing employing more than five workers.

Economic growth in India, which has accelerated in recent years, has shown some disturbing characteristics, which seem to set the pattern out of line with the international experience of sustained economic development. These include three critical characteristics. Firstly, the growth process seems to have been led by the tertiary sector—both in terms of value added and employment, rather than manufacturing. Secondly, while the expectation in a labour-abundant economy might be that the tertiary sector would have disproportionately absorbed labour displaced from agriculture at low levels of earnings, the data seems to suggest that this has not been so. The earnings level in the tertiary sector has been significantly above that in manufacturing, suggesting that growth in the tertiary sector has been productivity-led rather than employment-led. Thirdly, the manufacturing sector in India has been characterised by a persistent 'dualism'. There has been a strong bi-modal distribution in employment—even when we confine our attention to the non-household sub-sector in manufacturing—with a strong concentration of employment in the small and large size groups of establishments, with a conspicuous 'missing middle'. A related point is that the productivity (and wage) gap between the two extreme size groups is much larger in India than even in other Asian economies.

It is our contention that these three phenomena are inter-related. It is the 'dualism' in the manufacturing sector which has slowed down the expected dynamic role of this sector in the growth of the economy. The bias towards the tertiary sector in the growth pattern and the productivity gap in its favour can also be traced to the persistence of dualism in manufacturing.

* The authors are with Munk Centre for International Studies, University of Toronto, and Institute for Human Development, New Delhi, respectively. The paper is a revised version of first Ashok Mathur Memorial Lecture delivered at Giri Institute of Development Studies, Lucknow on December 12, 2008.

We begin by an outline of the trends in the structure of production and employment in recent years.

I. TRENDS IN INDUSTRIAL STRUCTURE OF EMPLOYMENT

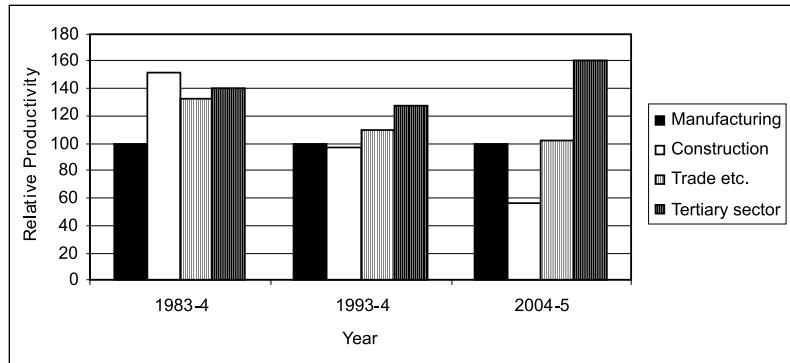
Historically speaking, structural change in employment in India has been very slow. But it seems to have accelerated a bit during the post-reform decade. The share of employment of agriculture during the post-reform decade of 1993-94 to 2004-05 had declined by 6.5 percentage points, signifying nearly double the decline during the previous decade. Barely 1.1 per cent of this decline was absorbed by manufacturing. The tertiary sector, along with construction, accounted for the bulk of the relative change in the industrial structure.

Two points about the increase in tertiary employment need to be stressed. Firstly, in many developing countries, the public sector has taken the lead in creating employment in government and related services. This is, however, not so in post-reform India. It can be seen that after contributing as much as one-third to the increase in the relative share of employment in non-agriculture during the pre-reform decade, the public and community services showed quite a significant decline in the share of employment in the decade following the reform of the 1990s. Secondly, much attention has been paid to the development of the information technology (IT) sector and outsourcing in recent years. The direct contribution to employment in these sub-sectors, however, has been quite small. The sub-sector 'transport, storage and communication', which includes these IT-related activities, accounted for no more than one-sixth of the total employment in the tertiary sector, though its incremental share was quite high. 'Trade, hotel and restaurants' continued to play the dominant role in employment in this sector, and its relative growth during the post-reform decade seems to have been higher than the average for the sector as a whole.

1. Employment Growth in the Tertiary Sector in India in a Comparative Context

The growth of the tertiary sector in India seems to be somewhat out of line with the international experience of recent decades. The newly industrialising countries of Asia, such as Korea and Taiwan, had their share of employment in manufacturing increasing much faster than that of the tertiary sector during their initial period of growth in the 1970s. In fact, Taiwan, during the period of its vigorous development in the 1970s, registered an increase in the share of employment in manufacturing, which was three times the increase in the tertiary sector. Only in the 1990s, after Taiwan and Korea had developed into mature industrialised economies, did their tertiary sector become the dominant provider of employment outside agriculture. In contrast, India's share of employment growth in the tertiary sector in the 1970s was already 60 per cent higher than in manufacturing. Since then, the decades of the 1980s and 1990s have seen a virtual stagnation in the share of employment in manufacturing, with the tertiary sector absorbing virtually the entire loss of the employment share by agriculture. In recent decades, other developing countries of Asia, including Thailand, Malaysia and Indonesia, do have their larger shares of employment created in the tertiary sector, but the contrast with India is that none of them has a stagnant share in manufacturing during any decade.

Figure 1
Relative Productivity of Construction, Trade and Tertiary w.r.t. Manufacturing



On the contrary, something between one-third and one half of the often large decline in the share of employment in agriculture was taken up by manufacturing. The only country in the sample with an experience close to that of India is the Philippines.

2. Relative Labour Productivity and Earnings in the Tertiary Sector

The importance of labour absorption in the tertiary sector in recent Indian development begs the question: At what level of earnings is this labour being absorbed in the sector? Is labour being 'pushed' into it as the 'employer of last resort' or is it being pulled into it at higher relative earnings?

Figure 1 gives the relative productivity of different sectors (relative to agriculture set equal to 100) for the different rounds of the NSS over the two decades before and after the reform date 1993-94. Labour productivity for different sectors equals sectoral labour productivity obtained by dividing sectoral GDP by the number of principal workers in each sector. Relative labour productivity is the ratio of sectoral labour productivities.

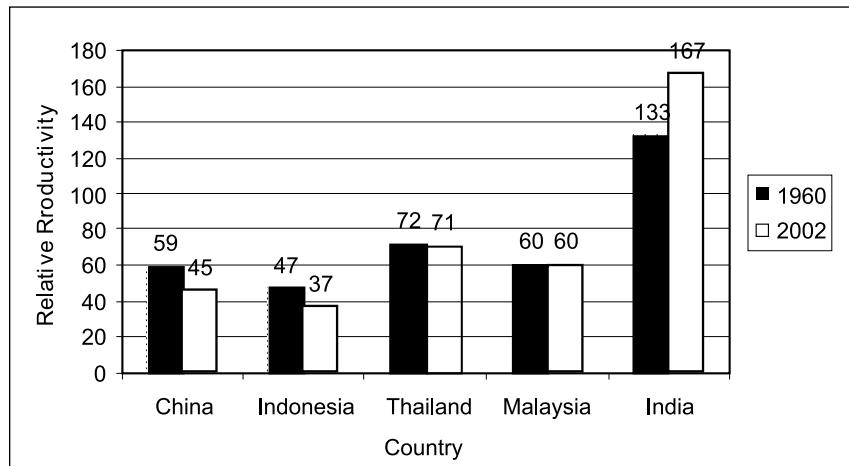
It is seen that the mean productivity of labour has been higher throughout in the tertiary sector relative to manufacturing, and might have increased somewhat over the post-reform decade. Even manufacturing does not perform better than the least productive sub-sector of tertiary activities (including trade, etc.), which are supposed to constitute a relatively free entry sector, allowing labour displaced from agriculture to push down earnings. The tertiary sector contrasts dramatically with the experience of the construction sector.

Construction is another sector that has registered a large increase in employment during the post-reform decade. If we include construction in the secondary sector, along with manufacturing, as is usual in international practice, the relative productivity of the tertiary sector would be even higher and increasing over time.

3. Relative Productivity of the Broad Sectors in International Perspective

Papola (2005) compared the experience of the changing shares of GDP and employment over the period 1960-2002 in five Asian countries—China, Indonesia, Thailand, Malaysia and India (reproduced in Mazumdar and Sarkar, 2008, Chapter 3). The significant point to

Figure 2
Relative Productivity in Services *vis-à-vis* Industry, Various Asian Countries 1960-2000



Source: Papola (2005). The original source of the data is the World Development Report, various years.

emerge was that the share of workforce in *industry* increased along with the share of GDP in all countries including India, but it produced a much larger share of GDP in all Asian developing countries other than India. It implied that the relative sectoral productivity of labour in Indian manufacturing has been strikingly low by international comparison. In 2002, the tertiary sector in India contributed more than half the GDP in India but its contribution to employment was only 22 per cent.

The picture presented in Figure 2 of relative productivity in services *vis-à-vis* industry in the comparator Asian countries brings out the striking point that it is only in India—among all the countries represented—that the relative productivity in services has increased over the 40-year period. A second important point to be noted is that the productivity in services exceeds that in industry only in India in both years and that too by a substantial percentage.

It shows that service sector growth in India has been productivity-led and not employment-led, thereby contradicting the views of some economists that employment has grown in services because this sector has been a repository of low-income labour ‘pushed out’ of agriculture. The heart of the employment problem in India would thus seem to be not an excess absorption of labour in the tertiary sector, but the low productivity of the manufacturing sector, and its persistence over time. It is this low performance of manufacturing which has prevented it from being the dynamic sector and playing a central role in productivity growth as well as the re-allocation of labour as in other countries in the history of successful economic development. It will now be argued that this disappointing role of the manufacturing sector can be traced, at least in a significant part, to the persistence of dualism in the sector. It is this which perpetuates the tremendous difference in relative labour productivity between the small (informal) and large (formal) size groups. The very low level of labour productivity in the manufacturing sector can be traced to this dualism.

II. DUALISM IN INDIAN MANUFACTURING

Indian manufacturing is characterised by the prevalence of a large 'unorganised sector' existing side by side with the formal or organised sector. The Indian statistical authorities distinguish four types of establishments. There are three sub-categories within the unorganised sector including: (i) Own-account manufacturing enterprises (OAME), which are household enterprises making use of only family labour; (ii) Non-directory manufacturing establishments (NDME), which employ at least one wage (hired) worker and have 2-5 workers in total, and (iii) Directory manufacturing establishments (DME), employing 6-9 workers in total, of which at least one would be a hired worker. These three sub-categories co-exist with establishments in the formal or organised sector, which are statistically defined (by the Factory Act) to be employing ten or more workers. Table 1 provides a statistical profile of the manufacturing sector in India, distinguished by the above four categories of establishments. The dominance of the household sector as well as its low productivity is apparent from this table.

While the importance of the household sector in Indian manufacturing is clearly a factor in the observed low productivity of manufacturing as a whole, a second problem of major importance is the peculiarity of the Indian structure in the manufacturing sector, which largely makes use of hired labour as the dominant type of employment in the enterprise. This includes both the DME and the organised sector as defined under the Factory Act (and covered by the Annual Survey of Industries).

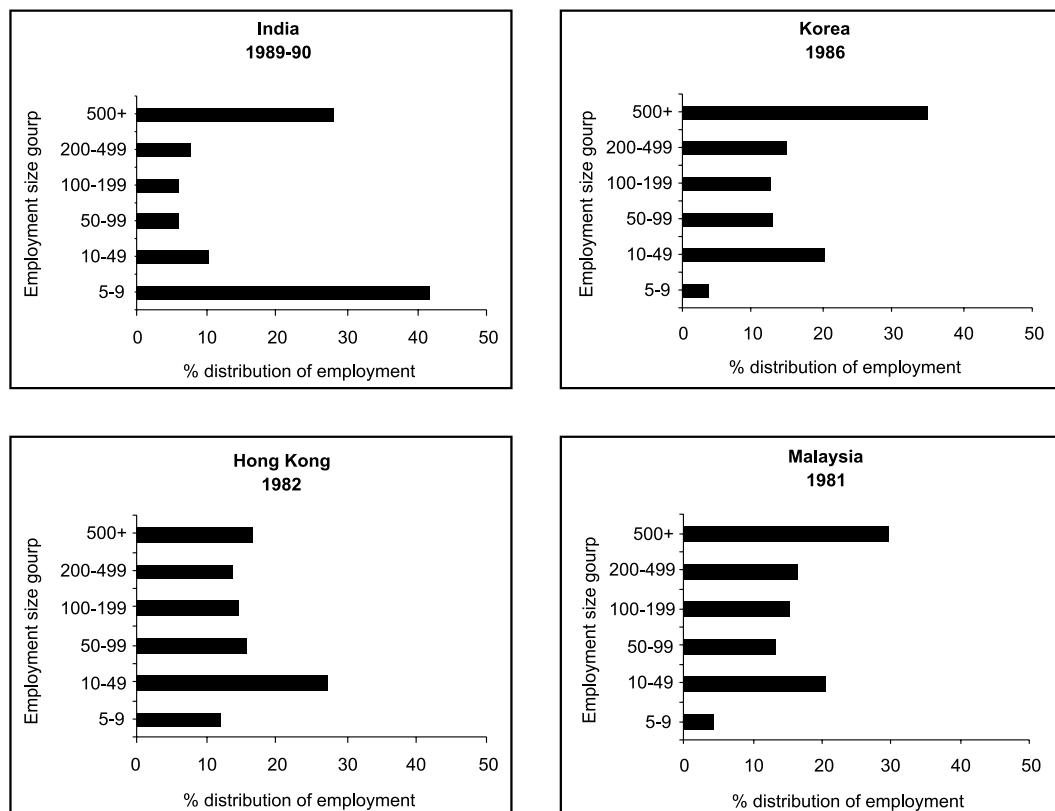
Table 1
Employment and Value Added in Manufacturing by Type of Establishment (2000-01)

	OAME	NDME	DME	Organised
Distribution of employment (% of all manufacturing)	55.9	12.4	14.4	17.3
Mean all workers in category	1.7	3.2	10.0	63.9
Mean hired workers in category	0	1.8	7.8	60.9
Distribution of value added (% of all manufacturing)	10.3	6.8	8.9	84.3
Mean VA/worker in category Rs.	6,929	18,479	20,800	1,63,775
Productivity (Organised = 100)	4.2	11.3	12.7	100

Source: Unit level data of 56th round of NSSO and ASI unit level data of 2000-01.

The DME establishments of 6-9 workers include small enterprises in modern manufacturing. In international statistical practice, they are generally included in surveys or Censuses covering the factory manufacturing sector (with the cut-off point generally being five workers). To put the Indian size distribution in modern manufacturing into perspective, we can include these enterprises along with the ones in the formal sector covered by the Annual Survey of Industries. When we do this, a striking result emerges in the international comparison. Among the Asian countries, India has a 'dualistic' structure with a bi-polar distribution. There are two strong modes in the distribution of employment in modern manufacturing: in the '500 and more' category, and the '5-9' category, with the proportion of employment in the intermediate middle size groups being conspicuously small. This phenomenon—sometimes characterised as that of the 'missing middle' is contrasted with that in other Asian countries, such as Korea, Hong Kong, Taiwan, Malaysia and Thailand. A few of these other Asian

Figure 3
**The Missing Middle: Employment by Size-groups in Manufacturing Firms—
 India as Compared to Other Countries**

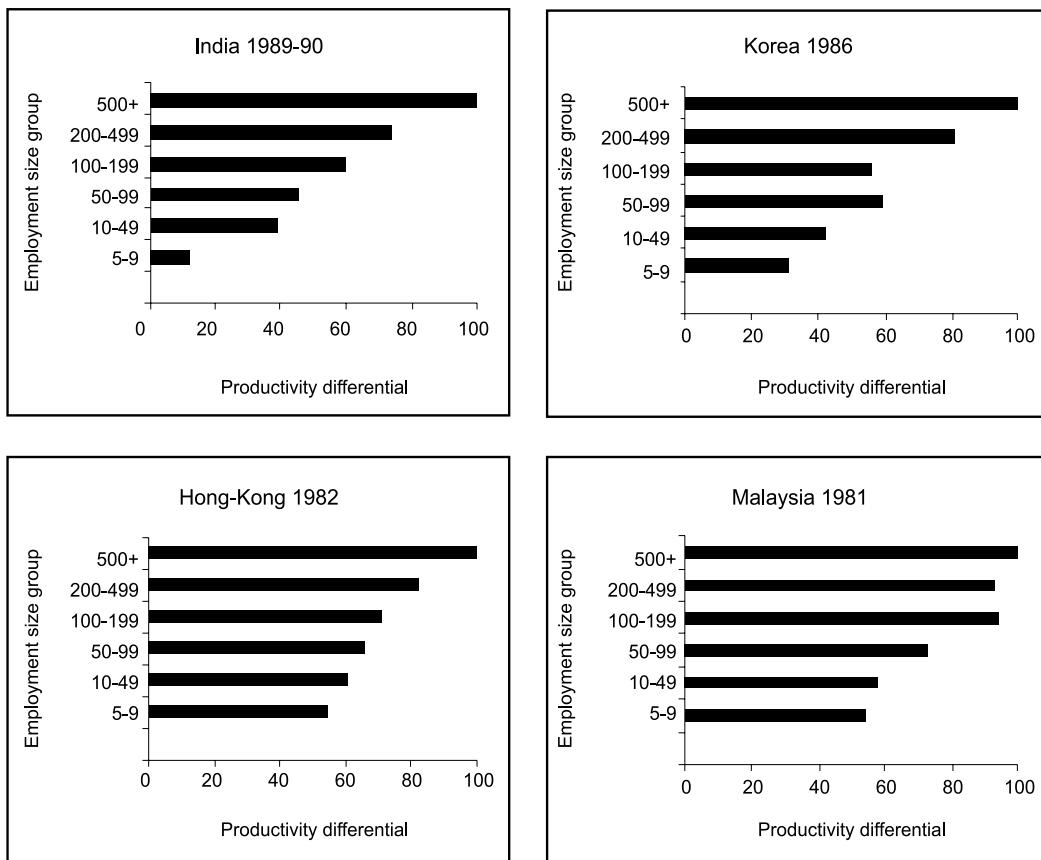


Source: Mazumdar (2003).

countries like Taiwan, Hong Kong, Japan and post-1990 Korea have a strong presence of small enterprises in the 5-9 class but the proportion of employment in this group is never as much as in the large enterprises, and, of course, the intermediate size groups are well-represented. A further striking difference between India and the other Asian countries with a strong small-scale sector in manufacturing is that the productivity gap between the small and the large units in modern manufacturing is much larger in India. The gap in labour productivity between the large and the small size groups in India is of the order of 8:1, as against 3:1 in Japan, Korea and Taiwan (and even smaller in Hong Kong).¹

The two aspects of ‘dualism’—the bi-polar distribution of employment within the formal manufacturing sector, and the productivity gap between the smallest and the largest—are portrayed in Figures 3 and 4 for India and a few comparator Asian countries, respectively. They strongly bring out the peculiarity of the Indian case relative to the other countries in the mid-1980s.

Figure 4
**Productivity Differential by Size Groups—India as Compared to
 Other Countries (Productivity of 500+ equals 100)**



Source: Mazumdar (2003).

1. Dualism in East Asia during Its Early Period of Industrialisation

It has been pointed out by some commentators that the picture portrayed in Figures 3 and 4 could be misleading in that it compares countries at different stages of development. India in the 1980s was considerably less developed than the other Asian countries mentioned. It could be argued that the small or DME sector in India was remarkably less productive because the much lower level of capital accumulation in India meant that manufacturing in the small sector was still being carried out by non-modern techniques. The answer to this possible criticism is that we have evidence from the period of early industrialisation of the East Asian countries that these countries, during their early stage of industrialisation, also had a large proportion of employment in the small-scale sector of manufacturing (employing in particular 5-9 workers). But even during these early dates of development, the picture in Japan and Taiwan, for example, contrasted with that of India in much the same way as portrayed in Figures 3 and 4.

The time-series data on Japan shows that as early as in 1919, just under half of employment in manufacturing was in the small category of 'under 50' workers, the share of the middle category '50-499' was 33 per cent and the largest '500+' group accounted for only 20 per cent. Over time, there was indeed an increase in the share of employment in large establishments—first at the expense of small ones during the period 1909-19, then at the expense of middle-sized ones during the period 1930-40. But all three classes continued to be substantial throughout. In fact, it is interesting to see that during the period of rapid diversification of the industrial structure in the decades after the First World War, both the small and middle-sized establishments grew at the expense of the large (see Mazumdar, 2008; the data are from Minami, 1986).

Evidently in the Japanese case, a wide range of industries, at different stages of the country's industrialisation, were able to offer opportunities for small units to grow into middle-sized ones even as they co-existed with large units controlled by giant corporations. This opportunity for upward mobility was important in the dynamism of the small-scale sector in Japan, and accounts for its high rate of technological progress.

A second feature of the Japanese size structure is that though labour productivity and wages increased with the size of the firm, the scale-related differential was never on the scale observed in the Indian case. In fact, the scale differentials increased in Japan over time. Careful research by Yosuba (1976), in particular, has established that for manufacturing as a whole, the wages (standardised for some factors like age and sex) in the lowest size group of 5-9 workers were just 80 per cent of those in the 500+ establishments. The differential had widened to such a level in the 1930s that workers in the smallest size group earned just 60 per cent of their counterparts in large enterprises. But the differential was never at the Indian level of one-third or less.

2. Post-reform Experience in India

The package of reforms during the last decade could be expected to have made a serious impact on the structure of manufacturing. Firstly, the traditional policy of reservation of a long list of products for the small-scale was dismantled. Secondly, liberalisation of import controls, particularly on a range of consumer goods, should have reduced the strength of the protective umbrella for production in the small establishments. Thirdly, the relaxation of the licensing system for large-scale industrial units could be expected to have had a significant effect on the large-scale sector in moving away to more labour-intensive production and given a boost to middle-sized firms. What is the evidence on the effect of these developments on the size structure of manufacturing? The answer lies in the following findings:

1. There has been an increase in employment in all manufacturing, which has been almost entirely due to the increase in employment in the unorganised sub-sector.
2. If the DME and the ASI sub-sectors are taken together, the problem of 'dualism' identified above has been largely unchanged (see Table 2). As far as the distribution of employment is concerned, the only change over the period covered seems to have been a significant reaction in the number of workers employed in very large firms

(1000 and above). The distribution is, however still bi-polar with strong modes at the employment size groups at the two extremes (6-9 and 500+).

3. The productivity differentials by size groups seem to have changed even less. If anything, the extreme 'dualism' noticed in India as compared to other Asian countries seems to have worsened since 1984-85, though much of the deterioration occurred during the first half of the 1980s.

III. WHY IS DUALISM A PROBLEM FOR MANUFACTURING GROWTH?

Why should we regard the phenomenon of 'dualism' in manufacturing as a drag on the growth and performance of the manufacturing sector? Among the many points relevant here, the following are the more important ones:

- (i) The stagnation in the growth of markets for manufactured goods.
- (ii) The dynamic impact on the growth of skilled labour and entrepreneurship.
- (iii) Impact on allocative efficiency and inequality.

1. Dampening the Growth of Markets

The medium-sized establishments have been lauded in literature for having the desired amount of flexibility and enterprise to seek out new export markets in new industries. But their importance in the expansion of domestic markets also needs to be emphasised.

(i) Extended Labour Market Model in the Non-subsistence Sector

Unlike in the classical model, labour is not available at a uniform supply-price to the whole of the 'non-subsistence' sector. In particular, there is a hierarchy of wages closely related to the size of firms and it should be emphasised that these differentials constitute the net of measurable worker quality like education and experience. They reflect differences in capital per worker and labour productivity across the size groups. The reasons for these productivity and wage differentials have been discussed extensively and should not detain us here. It is sufficient to note that they are fundamentally due to the heterogeneity of labour quality (of a non-measurable kind) and to the heterogeneity of technologies found in the 'capitalist' sector. Both these types of heterogeneity are much more important in the developing countries than in today's developed economies. (A brief discussion of these issues is to be found in Mazumdar and Mazaheri, 2003, Chapter on Labour).

While the underlying economic and technological factors constitute the basis for the persistence of size-related differentials, they are accentuated by institutional pressures like trade union pressures or management perceptions. Partly, the higher wages in larger firms thus reflect higher labour efficiency, but partly, they lead to a higher wage cost per unit of work.

(ii) Pattern of Job Creation and Growth of Demand for Manufactured Goods

Given this heterogeneity of wage and productivity levels in the non-subsistence sector, the future growth of labour demand, and the segment of the labour market in which jobs

are being created is a matter of critical importance. The growth of employment in the non-subsistence sector depends both on supply factors (the cost of labour) and the increase in the demand for the goods it helps to produce. If in the first round, most jobs are created in the low-wage small-scale segment of the market, the cost of labour would be low, but the expansion of demand for industrial goods would also be low since the increase in per capita income is small. With more jobs being created in the middle-sized segment, the income per capita could be expected to increase faster and so also would the markets for non-agricultural goods. The higher wage per worker does not lead to a proportionate increase in the cost of labour because part of the higher wage reflects higher efficiency. Finally, when we come to the large-scale segment of the market, many of the firms in this segment are geared to achieve high-productivity technology. They are tilted towards the use of a high wage-low employment approach to labour deployment—partly because of the threat of union pressure and partly because of the desire of management to deal with a limited body of labour. Thus, as compared to middle-sized firms, even though the wage per worker is higher, employment and the wage bill per unit of output could be significantly lower. In extreme cases, the employment elasticity of output in this large-scale sector could be very low (as has been the case in India). Thus, the contribution of this sector to the growth of domestic markets for industrial goods (particularly for the mass of low-income consumers) would be limited.

Dualism, with its associated phenomenon of the missing middle, strengthens and perpetuates product market segmentation. The market for industrial products is split into low quality products catering to the need of low-income consumers, and supplied by small-scale local producers, on the one hand, and the higher quality segments which the large establishments supply to a limited number of high-income consumers, on the other. The lack of integration of markets could prove to be a bottleneck in the development of mass markets for manufactured consumer goods.

2. Impact on Dynamic Efficiency

In a more dynamic sense, the missing middle implies a weak process of graduation of small firms and the development of entrepreneurship. It is arguable that the dispersion of entrepreneurship as well as industrial technology over a wide spectrum of spatially and economically distributed regions is dependent on the mushrooming of medium-scale enterprises, which the small units are able to graduate into.

Similarly, dualism slows down the growth of the labour force with industrial skills. This is particularly true of the developing economies in which many of the skill requirements of modern industry (including discipline in the workplace) are acquired by on-the-job-training rather than education in schools. The slow growth of the skilled workforce, in its turn, has an impact on the choice of technology. It has been established that capital-intensive techniques have been adopted in economies or sectors more in response to a shortage of skilled rather than unskilled labour. Thus, a potential shortage of skilled labour of the type needed by modern manufacturing could dampen the value of employment elasticity and slow down the rate of growth of employment in the industrial sector. An important result

in our research project on Indian manufacturing earlier in the article was the evidence that though employment elasticity varied with the economic cycles, it did not exceed 0.33 during the best period of the post-reform upswing. As analysed in the research, there are several important reasons for the low-employment elasticity, but a perceived shortage of labour of the requisite skill and efficiency is one of them.

3. Allocative Efficiency and Inequality

The large gap in productivity between the firms in the two extreme size groups, as described in the data on manufacturing presented above, suggests the existence of a large gap in the marginal products of labour and capital between the two classes of firms. We know from independent evidence that large firms have access to capital supplied by the formal financial institutions, while small firms mostly have to depend on local informal sources of finance and the interest rate differential between these sources can be huge (Little, *et al.*, 1987, Chapter 15). It is also well known that wage levels follow differences in labour productivity and large firms have a wage per worker, which, even after we have controlled for measurable human capital attributes, is much higher in the large firms.

This evidence of size-related factor price differentials suggests two conclusions. Firstly, the larger the differential, the larger is the loss in welfare in terms of the static allocative efficiency theory. Secondly, since employment in the 'dualistic' pattern is concentrated in the smallest and the largest size groups, inequality in the distribution of the wage per man is very unequal.

IV. CAUSES OF THE EMERGENCE AND PERSISTENCE OF DUALISM

What are the major factors causing the emergence of dualism in its two aspects—the phenomenon of the 'missing middle' and the unusual productivity gap between the small and the large units? What are the reasons for its persistence over time, even when the reform process reducing some of the strength of the proximate causes of dualism has been eroded? The answer lies in the following developments:

1. *Labour legislation* has been traditionally at the top of the list of the proximate causes of the phenomenon. The 'Factory Act' applies to all workers in the 'registered' sector which covers units employing 10 or more workers using power. Additionally, Job Security legislation (discussed below in Section IV) kicks in for units with an employment size of 100 or more workers. Both types of legislation would impose costs on units increasing beyond the threshold sizes.
2. *Infrastructure* problems appear to be almost as important in the causes of limited vertical mobility of small enterprises. Inadequate supply of power produces not only low productivity of small dispersed units, but also accentuates the need for heavy lump-sum capital investment for firms needing to provide their own generators for electricity, and biases the economies of scale favouring very large units. While the development of wireless systems of communication has helped ease the heavy costs of information flows in marketing, the inadequate supply of electric power

has hampered the transfer of computer-based technology, which has been of critical importance in the enhanced productivity and growth of SMEs in the more developed economies, including parts of East and South-east Asia,

3. *Education policies*, as have been implemented in India over the years, have been biased towards the promotion of tertiary education and have neglected basic primary and low secondary education. It has been maintained in the literature (for example, in the work of Adrian Wood, among others) that modern manufacturing requires a minimum of basic education for a workforce able to perform up to minimum standards in modern manufacturing. Small and medium-sized units—adopting comparatively labour-intensive technology—benefits from an ample supply of such labour. They are contrasted with tiny units, which could use nearly unskilled labour with less than primary education for low-grade production, but would find it difficult to grow beyond a certain scale with such labour. The relatively plentiful supply of skilled labour with higher education biases production to less labour-intensive industry and modes of production. Large units have a comparative advantage in using such labour, which smaller units cannot afford.
4. *The protection of small-scale units* has been an important aspect of Indian industrial policy since Independence. It has taken the form of reservation of a large number of items for production in exclusively small units and the provision of incentives—fiscal, financial and legislative—as long as the units stay below a certain size. The threshold size was first defined in terms of the traditional employment size of five workers. In later years, it was changed to a definition based on capital size and was also increased somewhat over the years. Nevertheless, the policies have always provided an incentive for entrepreneurs to expand horizontally with more small units, rather vertically with larger middle-sized units.
5. *Hysteresis*: The policy of reservation for the small-scale units largely ended with the post-1991 reform process. But we have seen that the impact of the reforms on the size structure of establishments in manufacturing has been minimal. This limited impact might be due to widely-recognised processes in which a socio-economic system established over a long period of time tends to persist even after its original causes have disappeared. This persistence is not just due to inertia. Economic agents and institutions acquire characteristics that sustain the system. For example, entrepreneurs develop ambitions to think in terms of horizontal rather than vertical growth. Marketing channels, financial institutions and infrastructure are geared more towards supporting small units with limited markets rather than dynamic units growing into larger sizes and different markets.

V. CONCLUSION

An important aspect of the recent growth pattern of the Indian economy has been the apparent sluggishness in the output and employment growth in the manufacturing sector, in spite of a period of a relatively high growth rate of GDP. The contrast with the experience of China,

not to mention the historical experience of the developed countries, including those of East Asia, has been widely noted.

This article has attempted to bring into focus an aspect of the manufacturing sector of India, which might indeed be the heart of the problem. This is the development and persistence of the peculiar size structure with its 'missing middle'—even when we concentrate our attention on the non-household sector of manufacturing employing more than five workers. The concentration of the attention of economists on the legally defined formal sector of Indian manufacturing (as covered by the Factory Act and the Annual Surveys of Industry) has led to a neglect of the very large non-household sector (the so-called DME sector), though it clearly does not lie in the informal sector in any meaningful economic sense. The low level of technology and productivity in this sector and the very limited vertical mobility of these enterprises are likely to have constituted a critical factor in the sluggish rate of development and re-allocation of labour to manufacturing.

An important objective of further policy-oriented research is to assess the relative importance of the factors mentioned in Section IV. This can be done only with the help of enterprise level surveys in key industries and districts. Perhaps, much can also be learnt by contrasting the experiences of the different states of India, which have had different trajectories of manufacturing development.³

Notes

1. See Mazumdar (2003) for the detailed statistical evidence and a discussion of the comparative Asian scenario.
2. These avenues of further research are proposed in an IDRC-funded research project, which is being pursued at the Institute for Human Development (IHD) in Delhi.

References

Little, Ian; Mazumdar, Dipak and Page, John (1987), *Small Manufacturing Enterprises*, Oxford, New York.

Mazumdar, Dipak (2003), "Small and Medium Enterprise Development in Equitable Growth and Poverty Alleviation", in Christopher M. Edmonds (ed.), *Reducing Poverty in Asia; Emerging Issues in Growth, Targeting and Measurement*, Asian Development Bank, Edward Elgar, Cheltenham, UK.

— (2008), "The Role of SMEs in Japanese Manufacturing Development", (mimeo), Toronto.

Mazumdar, Dipak and Mazaheri, Ata (2003), *The African Manufacturing Firm*, Routledge, London.

Mazumdar, Dipak and Sarkar, Sandip (2008), *Globalisation, Labour Markets and Inequality in India*, Routledge, London.

Minami, Ryoshin (1986), *The Economic Development of Japan*, MacMillan Press, UK.

Papola, T.S. (2005), "Emerging Structure of Indian Economy—Implications of Growing Inter-Sectoral Imbalances", Presidential address of 88th Annual Conference of Indian Economic Association, Vishakhapatnam, December 27-29.

Yosuba, Yasukichi (1976), "The Evolution of Dualistic Wage Structure", in Perrick, Hugh (ed.), *Japanese Industrialisation and Its Social Consequences*, University of California Press, California, pp. 249-98.

