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# Small-Medium Enterprise Development in Equitable Growth and Poverty Alleviation

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### I. Introduction

The role of small and medium enterprises in aiding an equitable development process has covered three different topics in the literature. First is the role of off-farm employment in agricultural growth in peasant economies. As popularized by Mellor, among others, a decentralized labor-intensive growth in agriculture based on the seed-fertilizer revolution creates new demands and linkages, which tend to stimulate the growth of off-farm activities in village industry, trade, and services. These developments provide new income earning opportunities for members of the rural labor force, providing further sources of savings for investment in the farm sector. Thus a virtuous circle of interdependent growth is established in the economy of small farmers, such as has been witnessed in Java and parts of India in recent decades.

Second is support for nonagricultural household enterprises, which are largely based on family labor, although sometimes supplemented by one or two hired hands. In rural areas such enterprises concentrate on traditional crafts using nonmechanized techniques, and they spill over into the urban areas in a variety of activities, mostly in the trade and service sector, but also extending to low-grade manufacturing and repair activities. Such enterprises generally use small amounts of fixed capital, but could be expensive in the use of working capital. Typically the period of production (defined as the time taken to transform inputs into outputs) in such enterprises is long compared to mechanized processes, but since only family labor is used, the implicit valuation of the period of "waiting" is low, given the supply of plentiful labor. If the labor time used in the period of waiting were valued at market wages, the cost of working capital would be substantial, but under surplus labor conditions, the enterprises tend to value family labor at a very low rate. Support for household enterprises is an important component of poverty alleviation. The subsidies provided to handloom weavers in India is a case in point, and is best viewed as an income-maintenance program in the absence of other schemes like unemployment insurance. The role of household enterprises in the economic growth process is small. They tend to disappear with sufficient development of alternative sources of employment, as surplus labor conditions diminish in intensity. At one time all manufacturing activity took place in such establishments. Their share in manufacturing employment is reduced with economic growth as modern technology makes inroads into the traditional methods of production. Household manufacturing is for technical reasons confined to very few industries. In India in the early 1980s, three quarters of total employment in household manufacturing was accounted for five

two-digit industries: food, cotton textiles, textile products, wood and furniture, and nonmetallic minerals (Mazumdar 1983, table 5). Detailed evidence available from enterprise surveys in Africa and elsewhere suggests that micro-enterprises, even in the urban economy, show little upward mobility (Liedohm and Mead; Biggs, Ramchandaran, and Shah).

Third, we have the varying importance of nonhousehold small enterprises in the modern sector of the economy making use of hired labor, even if some of them are managed by working proprietors. Since such enterprises are expected to exhibit substantial growth potential, they are referred to in the literature as small and medium enterprises (SMEs). The boundary between such enterprises and large ones is statistical, not conceptual. It cannot be drawn exactly, since statistical offices have different criteria in different countries, and sometimes the boundaries change in response to changes in national economic policies. But, as a rule of thumb, the lower limit is five workers, and the upper bound rarely exceeds 300, and is more likely to be 100. In this paper we will concentrate on this third category of enterprises. Also, since policies can affect manufacturing enterprises more directly than service sector units, we confine our attention to manufacturing.

## **II. Development of SMEs and Equitable Growth**

Why is the healthy growth of SMEs expected to be good for a desirable growth path for developing countries?

### **A. The Factor Proportion Argument**

The first is the factor proportion argument. SMEs are expected to be more labor-intensive than large enterprises and hence lead to a choice of technology that more closely resembles the factor markets in such economies—with scarcity of capital and more plentiful supply of labor. Distortions in factor markets, often accentuated by government policies, have often allegedly affected the SME sector adversely, hence the need for policy intervention in favor of this sector. It is well-known that capital market distortions produce a situation in which the price of capital for large enterprises is below its true opportunity cost in the economy. But it is equally well-known that wage levels are higher for larger firms for a variety of reasons including institutional factors like government legislation and trade union activities. Why does not the labor market distortion favoring the SMEs offset the capital market distortion going the other way? I think the answer to this question turns on the different characteristics of the two factors, labor and capital.

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Labor has two dimensions to its supply, quantity and quality, whereas capital as a financial magnitude is a one-dimensional factor. A dollar is a dollar, and an increase in the unit price of capital in dollars fully represents an increase in its cost to the firm. On the other hand, a higher wage per worker facing the large firm could be, and is generally compensated for at least in part, by the higher efficiency of the workforce. Thus the difference in wage cost per unit of standard efficiency of labor between firms of different size groups is much less than the difference in wage per worker.<sup>1</sup> The lower unit price of capital for the large firm is thus offset only to a small extent, if at all, by a higher cost of an efficiency unit of labor.

If this reasoning is correct, and the hypothesis is supported by evidence, two conclusions follow. First, the small-scale sector in the economy would be smaller than it would have been otherwise in the absence of factor market segmentation. Second, the capital intensity, defined as the ratio of capital per *worker* (measured in numbers, not efficiency units) would be larger than otherwise. Both factors would be welfare-reducing in terms of efficiency and equity.

### **B. The Growth Rate Argument**

SMEs are generally thought to be instrumental in developing a wide base of entrepreneurship. While the development of large enterprises do promote modern business practices and might be important in R&D, their growth is often associated with excessive concentration in the major metropolitan areas. Sooner, rather than later, this type of concentration drives up public and private costs, threatening to choke off the growth potential of urban conurbations. By contrast widespread SME growth could create many growth poles in small towns and rural areas, which could serve as the basis for renewed sources of growth.

There is a strand in the literature which suggests that even if SMEs are efficient in reflecting more closely the factor price ratio appropriate to developing countries, it is the large enterprises that show dynamism and growth. Thus even if such enterprises create more employment per unit of

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1. A pertinent example comes from Puerto Rico when the minimum wage covering the mainland of the United States was extended to Puerto Rico in the early 1950s. The response of employers to the increase in wages was to augment labor productivity through a large increase in the capital-labor ratio. But this increase in capital intensity was not due to a change in technology embodying new labor-saving machines. The time period involved was too short for this type of basic adjustment. In any case in many of the plants, which were branches of mainland companies, the equipment was relatively new. Rather the reduction of labor per unit of capital came through changes in the selection, management, and deployment of labor. In other words the labor flow needed was effectively supplied by a smaller stock of labor per machine. (See Reynolds and Gregory; also summary in Mazumdar 1979). Other examples and a fuller discussion are to found in Mazumdar (1979, 45-49) and the Appendices.

capital in a static sense, in a growth context large enterprises have the potential for growing faster and thus creating more jobs over a period of time. Such arguments probably rest on some notion of increasing returns to scale, although a higher savings and investment rate have been stressed in some earlier versions of this argument.<sup>2</sup> There are several arguments against pushing this hypothesis too far.

First, we have empirical evidence that in the Asian economic growth of the post-1960 period, Taipei, China with its greater reliance on SMEs grew as fast as the Republic of Korea, which stressed large-scale enterprises in its early phase of industrialization.

Second, although large-scale enterprises have been an important feature of manufacturing since the industrial revolution, several developments in recent decades may have reversed the trend toward an increasing optimum size of plants. While the optimum plant size continues to be large in heavy industries and for some durables like automobiles, newer industries based on information technology have a much smaller optimum size as far as production technology is concerned. Also, it is increasingly realized that the very large optimum size observed in some periods of manufacturing development in OECD countries has been the result of a consciously chosen production process, rather than inherent in the production of the items concerned. In particular, the development of "Fordist" industries of mass production had a large optimum size because they were based on "batch processes" employed in the organization of the factory. An argument advanced more frequently in the last few years is that small firms are better able to adapt to changing—and sometimes disruptive—economic circumstances. The 1970s and 1980s have produced several shocks demanding a flexible response from industrial firms. According to some authors, traditional mass production units have been less successful in this regard than have small establishments based on a modern version of the craft principle that "flexible tasks and machines augment the craftsmen's skills and ability to produce ever more varied products (Schmitz 1982, 4).<sup>3</sup>

Third, the economies of scale are often more relevant to the marketing economies of *firms*, rather than the production economies of *plants*. Levy (1991) has drawn attention to the possibility that higher transaction costs facing industrial firms in the Republic of Korea (henceforth Korea) compared

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2. The classic statement of this argument is A.K. Sen (1968).

3. See also Piore and Sabel (1984) and the literature on "flexible specialization".

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to Taipei, China might have been responsible for the larger presence of vertically integrated large firms in the former in the first phases of industrial growth in these countries. The recent history of multinational corporations, with their growing use of subsidiaries in developing countries, also suggests that the scope for vertical disintegration increases with the growth of market-oriented institutions. The optimum size of firms is accordingly reduced.

### **C. The Distribution of Income Argument**

It is widely, but often implicitly, assumed that an economy with a larger share of production in SMEs will have a more equal income distribution. It seems fairly clear that the capital share of manufacturing value-added will increase with a shift toward larger establishments (LEs), both because LEs tend to be capital-intensive and because they often operate oligopolistic market conditions, permitting a higher “mark-up” above costs. The expectation of a more equal distribution of entrepreneurial income is also straightforward. And the typically large wage difference between SMEs and LEs implies that a larger share of output produced by the former leads to more of the wage bill going to workers in the lower wage groups. This favorable effect on the distribution of labor earnings may indeed be a more compelling argument for policies to promote the growth of SMEs than the efficiency arguments based on distortions in the labor market since, as noted above, efficiency wage difference between SMEs and LEs may not be very large—and in any case much less than the difference in the wage per worker.

#### *1. Distribution of employment and the productivity difference by size groups*

We have so far, for simplification, distinguished between two groups, SMEs and LEs. But what really matters is the entire distribution by size groups. Distribution by size groups in manufacturing could be considered with respect to either value-added or employment. In fact, the former is the more basic of the two and is the product of two separate variables: first, the distribution of employment by size groups; and second, the differences in productivity or value-added per worker as between size groups. In what follows we will work with these two variables to shed more light on the economic processes involved. A comparative picture for several Asian economies is presented. The Census or Survey of Manufacturing, on which this analysis has to be based, is confined to the “formal” or “registered” sector (with low cut-off point of around five workers).

Wages generally increase proportionately with labor productivity (Berry and Mazumdar). Thus the extent of productivity differentials between small and large units would reflect differences in wage levels between them. In so far as informal sector undertakings would have wage and productivity near to the levels found in the smallest size group in the formal sector, the large–small productivity differential in the formal sector would also be a measure of the economic distance between the informal and the formal sector firms in the economy concerned.

Both variables affect the distribution of labor earnings. Given the size distribution of employment, the larger the productivity (and hence wage) differential between the size classes, the more unequal would be the distribution of wage earnings. For a given productivity differential the worst scenario for unequal distribution of earnings is the concentration of employment in the small and very large size groups, with the middle-size groups conspicuous by their virtual absence.

### *2. The objective of government policy for equitable growth*

The point just made has implications for the role of government policies affecting the size distribution in the industrial sector. The argument for the promotion of SMEs given above has now to be modified to take account of an additional policy goal. It is not enough to simply to aim at increasing the share of employment in SMEs. Policies must also aim at reducing the economic distance between SMEs and LEs in terms of the productivity (and wage) differentials between them. In the discussion below we shall examine the contrasting cases of India and Korea in achieving this goal with their respective policies for encouraging SMEs. But before coming to this topic we present an overview of the comparative picture of Asian economies in terms of both the size distribution in manufacturing and the economic distance between the size-groups.

## **II. Size Distribution and Labor Productivity Differentials**

### **A. Three Types of Size Distribution**

Data could be assembled for only a few Asian countries at a period around 1986. Table 1 presents data on the distribution of employment by size groups, and Table 2 on relative labor productivity for the various size groups.



Basically three “types” can be distinguished within this small sample:

(i) A fairly even size distribution in which small, medium, and large firms play more or less equally important roles and the productivity difference between the size classes are small.

(ii) A pattern in which the distribution of employment by size groups is distinctly skewed to the large firms. Typically in this pattern the productivity difference between large and small firms tends to be substantial.

(iii) A “dualistic” pattern in which there is a strong mode at both ends of the distribution: a relatively large proportion of employment is found both in the small and the large groups. Within this “type” two subtypes can be distinguished depending on the extent of the productivity differential between small and large firms.

#### 1. Type 1

The first group is classically represented by the case of Hong Kong, China. As can be seen in Table 1 employment was fairly evenly distributed among the various size groups, with the small enterprises playing as much a role in the island’s manufacturing structure as medium and large enterprises. At the same time, the difference in labor productivity between largest and the smallest size group is the smallest in the sample (Table 2).

The pattern of distribution in Hong Kong, China could be usefully compared with the Japanese one, another economy that has been characterized by the strong role of small establishments. It will be seen from Table 1 that although the modal size group for both Hong Kong, China and Japan is the small enterprises of 10-49 workers, the proportion of employment in large enterprises of 500-plus workers is significantly larger for Japan. Further, Table 2 shows that productivity differences between small and large firms was much less in Hong Kong, China. The wage differential between small and large units were accordingly much smaller. Average earnings in Hong Kong, China in 1982 were only 55 percent higher in establishments with more than 1,000 workers than in those with 1-9 workers. In Japan it was twice as much.<sup>4</sup>

Hong Kong, China comes closest to a free market model of development in Asia. Beng (1988, 88) observes that “within the proclaimed *laissez faire* environment in Hong Kong, China the government does not seem to have a policy towards manufacturing not to mention any policy towards the

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4. Data on average earnings for the two countries can be found in the same national sources as are cited for Table 1.

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SSIs.” An obvious hypothesis emerging from the Hong Kong, China case is that left to itself, modern industry makes efficient use of small enterprises in a striking way. Also in the absence of the usual set of policy biases that protect both capital and labor in large firms, labor productivity and wage differentials are kept within fairly narrow bounds.

Of the other countries represented in the sample, Taipei, China comes close to the Hong Kong, China pattern. The size distribution is very similar. While the productivity difference in Taipei, China would seem to be larger if we compare the lowest and the highest size groups, closer examination shows that this appearance is largely due to the high relative productivity of the largest (500-plus) size group in Taipei, China. Value-added per worker rises very gently up to the level of the large firms of 500-plus workers, and then seems to take a big jump.

Differences in wage levels, as measured by average earnings of the workers between the smallest and the largest size groups is almost the same in Taipei, China as Hong Kong, China.<sup>5</sup>

## 2. Type 2

The second pattern in our sample is a size distribution of employment that is skewed to the right, with the modal size group occurring in the largest 500-plus size group.

Of the countries in our sample, Korea and Thailand have distributions skewed to the right, although at this date (1986) the Korean situation was less marked than that of Thailand, with a larger presence of smaller firms, particularly in the 20-50 size group. But Korea had been consciously trying to develop its small and medium sectors for about a decade before this date. In 1976, when the proportion of employment in the largest size group peaked at 45 percent, the Korean distribution was much more skewed—almost at par with Thailand's (see the next section, table 3)

Malaysia is another country which, in 1981, shows a pattern of distribution skewed to the large size group. But it can be seen from Table 2 that the productivity differential between small and large firms is much smaller than in the case of Korea. Thus we would expect different economic forces operating on the size distribution in the case of these two countries.

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5. Apparently, the difference in value-added per worker between the largest and the smallest size groups in Taipei, China is larger than the difference in wages per worker due to the fair presence of large conglomerates there, with a large share of capital, along with small- and medium-size firms. Such conglomerates play a smaller role in Hong Kong, China's manufacturing economy.

### 3. *Type 3*

The “dualistic pattern” includes two characteristics: first, along with the strong presence of small establishments, large firms also play a substantial role. Second, the economic distance between small and large firms is substantial.

The classic case of this type is Japan. The “dualistic” pattern of Japanese industrialization has a long history. It has its roots in the initial labor-surplus conditions prevailing in Japan during its initial industrialization (which contributed to labor market segmentation) and the simultaneous development of a complex tying large industry, the state, and financial conglomerates that accentuated capital market dualism.

Developing countries in Asia (Indonesia, India, Philippines) share with Japan the dualistic pattern in their modern (formal) manufacturing sector.<sup>6</sup> There is, however, a big difference in Japan (Table 2). The productivity difference between the small and the large size groups is much larger in the other three Asian countries than in Japan. While the “surplus labor” situation in Asian countries has made the “dualistic pattern” emerge in a wide variety of Asian economies, Japan had by the middle 1980s succeeded in narrowing the productivity gap between small and large firms, which typically characterizes the dualistic development.

In South Asia, the uniqueness of the Indian structure is immediately apparent. India has an exceptionally large proportion of employment in the lowest size group of 6-9 workers and an exceptionally low relative value-added per worker in this group. Furthermore, the size distribution is characterized by a large presence of the 500-plus group of firms with a conspicuous “missing middle”. This pattern resembles that of Japan in terms of a “dualistic” development, but is wildly exaggerated in the Indian case. There can be little doubt that this outcome is basically due to the policy of protection of the small scale adopted by the government since 1950.

### **B. Hypotheses to Explain the Different “Patterns” of Size Structure in Manufacturing**

It can be hypothesized that the dualistic pattern has typically emerged in Asian economies with the advent of new technology in an economy characterized by “surplus labor” in the large peasant sector, and substantial segmentation in the capital market.

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6. It should be emphasized once again that the sets of data considered here exclude the very large household and other parts of the informal sector in establishments employing less than five workers.

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Underemployment in agriculture creates a condition in which labor of low factory skill (often nonpermanent migrants to the urban sector with limited commitment to the modern technologically advanced firms) is available in ample supply, and at a supply price much lower than what is needed to attract labor committed to the type of work needed in large factories.<sup>7</sup> At the same time efficiency wage and profit sharing considerations induce employers in the large firms to offer wages even in excess of the supply price of stable, committed labor.

The impact of labor market conditions is accentuated by capital market segmentation that makes the supply price of capital cheap to large firms, and also by product market and technological differentiation. What India and the other two Asian countries have in common is a large labor force in household manufacturing units, which is slowly shifting to the nonhousehold manufacturing sector. The lack of technical dynamism of the small-scale sector explains its limited upward mobility even when it is not reinforced by government policies, leading to the phenomenon of depressed relative labor productivity in the small enterprises and the phenomenon of the “missing middle”. All three countries had their fair share of import-substituting industrialization, and it is arguable that the rent creation and the generally noncompetitive environment are not particularly conducive to the dynamic growth of small and medium enterprises. As far as factor markets are concerned, trade unions and state intervention in the labor market were considerably weaker in Indonesia and the Philippines until very recent years. But there is evidence to suggest that industrial and financial policies in both contributed to a market degree of capital market segmentation, which favored the use of capital-intensive techniques in the large-scale sector.<sup>8</sup>

More direct government policies impacting on the industrial structure have sometimes increased the distance between small and large enterprises in terms of their capital intensities, and hence labor productivity. India is a prime and rather extreme example of this point. The Indian case is discussed in detail below.

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7. In economic terms the gap arises because the marginal contribution of a worker in a family farm with “surplus labor” is much lower than the wage needed to attract a stable migrant with family to settle in town and be committed to work in large factories. This and the subsequent point have been much discussed in the literature. For a summary see Mazumdar (1983) and Little, Mazumdar and Page, Chapter 10.

8. Hill's detailed study of Indonesia's textile industry showed that prevalent factor price ratio, particularly the relative factor price ratio, led to less than socially optimal choice of techniques in the large textile firms (Hill 1983).

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What explains the case of Hong Kong, China and Taipei, China, where we find an even size distribution of employment with a limited productivity difference between small and large firms; and the other three with a distribution skewed to the right? Hong Kong, China is, of course, a city state that did not have the large surplus labor sector in agriculture. It can be hypothesized that factor markets—both labor and capital—were less segmented than in the less developed Asian economies referred to in the last paragraph. We have already mentioned that government policies were not strong enough to have much impact on the industrial structure. Taipei, China is frequently contrasted with Korea with respect to the size structure. Capital markets quite definitely, and labor markets most probably, are less segmented in Taipei, China. At the same time a lower level of “transaction costs” and a wider distribution of capital among the native entrepreneurs in Taipei, China meant there was differentiation between small and large firms in terms of resource costs.

The case of Thailand has attracted much notice since it experienced spectacular growth in manufacturing in the 1980s and the first half of the 1990s, but was unfortunately the first country to have heralded the recent economic crisis in the region. It is seen that the distribution of employment in Thai manufacturing has been very much tilted toward the large size group. In fact if we look specifically at the provinces surrounding Bangkok—where the recent growth in manufacturing has been concentrated—the tilt to large units is even more pronounced. This size distribution of manufacturing employment, resembling Indonesia, Korea, and Philippines in earlier decades, and away from the Taipei, China–Hong Kong, China model, is probably one reason for the rising cost of labor and the deteriorating labor market in the Thai economy, both of which led to the crisis.<sup>9</sup> The causes for this pattern are to be sought both in problems of labor supply to Thai industry and in the peculiarities of Thai entrepreneurial and financial development in the modern sector. Although Thailand has been a land-abundant economy with much less population pressure than Indonesia (or Java), for example, labor seems to have been “locked up” in the agricultural sector of the North and the North-East. The incidence of low income per worker in the latter has been responsible for Thailand showing one of the worst cases of interregional disparities in Asia. At the same time the tie-up between large industrial enterprises and financial institutions has produced a lopsided development of manufacturing enterprises in terms of size distribution, very much like Indonesia and Korea.

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9. See Mazumdar (1997) for a detailed discussion of this point.

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Of the other countries for which we have data, Malaysia has a low level of labor differential between small and large firms like Hong Kong, China. The role of small-scale enterprises at the date for which data are available (1981) is, however, more limited.

A logical interpretation, both of the small dimensions of SSEs and the low productivity gap, is that Malaysia is *not* a labor-surplus economy. Land has been relatively accessible, and the government has, over the last few decades, invested heavily in adding to the supply of good quality land. One hint that the SSE sector has not become a sponge for masses of people seeking a modest level of income—as might be true of India and Indonesia, and Japan in the early years of industrialization—lies in the high earnings of the self-employed production workers relative to those of employees (Mazumdar 1981, 108).

### III. Evaluation of Government Policies for SMEs

#### A. Should the Government Intervene at All?

The review of the empirical picture in Asian economies might raise some questions about the necessity for government policies toward SMEs aimed at increasing its importance in the industrial structure and reducing the economic distance between SMEs and LEs. The example of Hong Kong, China, and to a lesser extent Taipei, China, might suggest to some that left to itself, industrial development could produce a scenario in which SMEs are an important part of the development process with a limited productivity (and wage) gap with respect to LEs. Others might argue that a dualistic industrial structure as has evolved in Japan and persisted to the present, might not be inimical to equitable growth. Japan's manufacturing growth over many decades did, in fact, successfully absorb surplus labor from its farm sector and led to an economy of full employment and rising wages after the World War II. Furthermore, at the end of this period of sustained growth, the productivity and wage differential between the small and large sectors was no higher than in the early periods.<sup>10</sup>

It is possible to point to special conditions or institutions in all the three examples. Hong Kong, China is a city state, without a large farm sector holding surplus labor, and with easy supply of capital in fairly open financial markets. New skilled immigrants from the mainland, which served to reduce "transaction costs" of interfirm contracts (Levy), heavily influenced Taipei, China's pattern of industrial

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10. The selection of literature on Japan's dualistic sector is huge. For a summary of the experience see Mazumdar (1999).

growth. A basic condition of the relatively successful dualistic system in Japan seems to have been the constantly evolving, and ultimately competitive “subcontracting” system, which other Asian countries have found difficult to reproduce. Against these examples we have the cases of India, Indonesia, and Thailand where the dualistic system in manufacturing has opened up huge economic distances between the small and large sectors. It is plausible to argue that unsuccessful SME support policies have contributed to an industrial development in these countries that is inimical to poverty alleviation and equitable growth.

India, in fact, has adopted an active policy of supporting small enterprises ever since the Second Five-Year Plan of 1956, but we shall argue that basic problems in the conception and application of these policies have produced the inequitable outcomes that we observe. The limited success of these policies can best be appreciated by contrasting them with the approach of Korea, which also initiated a pro-SME package of policies, starting in the latter half of the 1970s. In the early stages of industrialization, Korean policies clearly favored LEs, but after the failure of the drive to heavy industries in the late 1970s, emphasis was placed on changing the size structure of enterprises toward SMEs. We shall contrast the results of the Korean package with the Indian case in what follows, and indicate the key differences in the contents of the two types of pro-SME policies.

### **B. Indian Policies to Promote Small-scale Enterprises**

In India a dual system of protection has been in effect since the beginning of the post-independence industrial policy. On one hand, the policy has been driven to protect small industry from competition from large industry through the policy of “reservation”, under which a long list of items have been designated as the exclusive preserve of the small-scale (defined in terms of the value of capital assets). The capacity of production of these items by large-scale units has been frozen at the time of the legislation. At the same time, import-substituting industrialization has protected all domestic units—small and large—from competition from foreign firms. The result has been that small and large firms have developed their own niches of markets in different lines of production without too much competition between them or from foreign firms.

This method of fostering the growth of SEs was first introduced in 1967 and the list of items “reserved” for the small-scale has been progressively increased, so that today it comprises a total of around 830. The value of the limit in plant and machinery has been increased over time in nominal terms, but the increase in value of this limit after allowing for inflation has been small.

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This line of approach had its value in the initial stages of encouraging the SE sector. Large numbers of new SE units were encouraged to establish themselves and protected from competition from the large-scale sector. But the problem with the continuation of such policies is two-fold: (i) in attempting to select *labor-intensive products or industries*, it misses the point that labor-intensive enterprises are found in many, nearly all industries, not just to a limited set that can be easily identified; and (ii) it is not sufficiently discriminatory in favor of small enterprises that show potential for growth.<sup>11</sup>

Industry-based policies of reservation overlook the fact that small enterprises are not confined to specific product lines, and that their importance in different product groups are constantly changing. Policies need to be emphasized that have a *pervasive* effect in the sense that all small enterprises, no matter in what product groups, could potentially take advantage of the assistance measures available.

Small enterprises are generally more labor-intensive than large ones, specially if size is defined in terms of fixed investment rather than employment. But it does not mean that they are concentrated in industries where the *mean* capital-labor ratio is particularly low. SEs are found in many industries. There is no reason that in any economy the number employed (or the proportion of total output or investment) in SEs would be larger in those industries that have a less than average K/L ratio than in those in which the ratio is above the average. This is because there is a spectrum of techniques within each industry, and enterprises of different sizes and capital intensities will be found in most of them.

Little, Mazumdar, and Page analyzed the Korean Industrial Census of 1971 at the five-digit level, and classified the industries by the percentage of workers in SEs defined as those employing less than 50 workers. The distribution of employment in SEs among the different industry groups are as follows (LMP, Table 6-4, p.79)

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11. For more detailed examination of the origins and consequences of the Indian industrial policy affecting the small-scale sector see Mazumdar (1991) and Little, Mazumdar, and Page (1983)

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Percentage of Workers, in units of <100 workers	Number of Workers in Industries	Percentage of Employment in SEs
75-100	114	17
25-49	86	39
50-74	61	24
1-24	112	20
Total	373	100

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The conclusion is that the correct and generally meaningful way of encouraging SEs (and labor intensity) is to adopt policies that will correct biases against such units in *all* industries, not just in the few that appear at a certain level of desegregation to be labor-intensive.

Turning to the second point, it is important that SE support policies do not discourage the growth of small into medium enterprises. Here the approach of the Indian package of policies has been the opposite of what is desired. Along with the reservation policy, there have been a number of programs of fiscal subsidies and other forms of support that provide benefits to enterprises below a certain size. Thus there is a built-in disincentive for enterprises to go beyond this size limit. Equally, labor laws about wages, benefits, and job security are applied to units *above* the critical size. Enterprises graduating out of the protected small sector are thus faced with extra costs even as they are denied the benefits of fiscal subsidies and other programs.

The effect has been a polarization of the industrial structure. The small and large enterprises have increasingly occupied different niches of the market in the same industry. Even when industries are defined narrowly in terms of specific product lines, there is generally a great deal of difference in the quality of the product. Small enterprises with low wages and less mechanized techniques occupy the lower end of the spectrum, catering to the demand of low-income consumers, while larger mechanized firms serve the high price segment of the market. The classic example is the textile industry. Small units with nonautomatic, often reconditioned, looms ("powerlooms", as they are called in India) produce cheap cloth, while the large factories with automatic looms produce more durable cloth for the upper class domestic and export markets. This type of polarization accentuates dualism and increases the productivity and wage gap between the small and large sectors.

A useful field study by Guhathakurta (1993) of the metal manufacturing industry can be used as an example to elucidate the major points involved. Guhathakurda found large, medium, and small units in the rapidly expanding industry in the course of his survey.

The large sector clearly had a market leader that was generally perceived to have a superior product and enjoyed a special status among consumers. Along with this leading producer there were about half a dozen large-scale manufacturers who are now engaged in production on “carry on business” licenses when the reservation for the small-scale went into effect. In spite of the limitation on their capacities these large-scale units have been able to increase sales by increasing capacity utilization. The demand for their products is so strong because of the perception of higher qualities that they have long waiting lists, and are able to charge high prices bolstered by expensive sales campaigns. *The existing reservation policy favors an oligopolistic market structure for these large producers* since no other competitor is able to join their ranks.

At the other end of the spectrum are small artisans and units started by small entrepreneurs who have switched from previous jobs in industry, and many of whom continue to be involved in industrial jobs while managing their business part-time. There is an intensely competitive market faced by these producers in spite of the expanding market. This is because the conditions of production are often dismal, discouraging quality, and also they are dependent for their profits on middlemen who are often dealers from middle and large units. These small units often survive because of the subsidies they enjoy from government policies relating to finance etc., including the payment of very low wages, use of child labor (dubbed as “apprentices”), and matching use of labor to fluctuations of demand because of the high turnover rate. However, not all the provisions of the small-scale sector policy help them. Important costs are imposed by inspectors who have to be paid off regularly for looking the other way when production and labor conditions are below standard, and by their dependence on the open market for their raw materials that are 20-30 percent higher than the regulated price.

A few of the smaller units started in the 1960s and 1970s have managed to graduate to medium-scale status, often depending on government subsidies and mandatory government purchases from the small-scale sector. They were reported to be growing slowly, targeting the lower end of the consumers or niche markets like hospital furniture. They are slow to commit major investments or

undertake product improvement through more mechanized processes, because the required capital investment would push them over the inviolable investment ceiling.

In sum, the reservation policy has created a small segment of large units with high productivity and a competitive low productivity sector, very few from whose ranks are able to grow sufficiently to challenge the market dominance of the large scale.

A second important aspect of the polarization is that wage levels reflect productivity levels, and a very large difference exists in the wage levels between the large and the small sectors, with the medium units paying widely varying rates.

Guhathakurta also analyzed trends in productivity, capital investment, and value-added from a number of secondary sources. The registered large-scale sector (called the ASI sector, since it reports information to the Annual Survey of Industry) showed a high rate of growth of 3.1 percent per annum of value-added at constant prices in spite of a 1.6 percent rate of *decline* of the number of units. There was a substantial growth rate of fixed capital per factory (5.7 percent); employment actually declined (at a rate of 1.4 percent) while wages per worker increased at a staggering rate of 9.8 percent per annum. Evidently, the economic forces, reacting to the reservation policies, have accentuated the polarization in the industry. A select group of workers have benefited from the high increase in productivity in the large-scale sector. The driving force behind this has been the striking growth in capital intensity, as the large units sought to beat the limits on expansion of capacity by upgrading equipment quality and productivity. The loss of jobs in the well-paid sector has, unfortunately, been traded off with jobs in the low-wage sector with adverse effects on the distribution of labor earnings.

### **C. The Korean Case**

In the early stages of its industrialization, Korea's economic policies favored large-scale enterprises. At least prior to the 1980s, the Korean government was consistently engaged in a process of targeting fiscal, tax, and tariff incentives toward favored industries and individual firms. The large conglomerates, the *chaebol*, were the major beneficiaries of these targeted policies (Amsden). The result was a rapid growth of large enterprises in Korea. The Korean experience contrasted dramatically with that of Taipei, China, the other East Asian "tiger" pursuing a policy of rapid manufacturing growth. As of the mid-1960s, Taipei, China's LEs with more than 500 workers accounted for a higher

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percentage of manufacturing employment than Korea (35-26 percent). But by 1976, when Korea's LE share peaked at 45 percent, the figure in Taipei,China was down to 26 percent (Levy).

Abe and Kawakami provide evidence to show that differences in export experience had little to do with the different experiences of Korea and Taipei,China. Their summary of the evidence is that "both economies represent successful cases of export-oriented industrialization, but the export drive in Korea has been borne mainly by non-SEs while in Taipei,China it has been carried out by SMEs" (p. 398). In Korea the export-sales ratio of firms hovered in the region of 22-25 percent for most of the period 1977-1993. In Taipei,China, SMEs contributed a little over of 50 percent of total sales in the 1970s, increased to 70 percent or more in the first half of the 1980s, before falling to 35-40 percent in the period 1988-92 (Table VI, 396).<sup>12</sup>

While factor market differences, and particularly differences in "transaction costs"(as described Levy) might have played some role in the predominance of SMEs in Taipei,China and that of LEs in Korea, there can be no doubt that the differences in the bias of government policies was the major cause of the difference. In contrast to Korean policies favoring large firms, Taipei,China was much less interventionist, at least at the level of targeting individual firms. The importance of this factor can be seen in the change in the pattern of size distribution that has taken place dramatically in the Korea after the late 1970s. The share of LEs in Korean manufacturing peaked in 1976. Since then the government has introduced a large set of measures designed to counteract the previous tilt in favor of LEs.

The tilt toward SMEs in government policies was *not* driven by the desire to promote employment or increase the employment elasticity of output growth in manufacturing. Quite the contrary, the labor market motivation seems to have been the shortage of labor and the rising wages affecting profitability in large firms. At the time in the mid-1970s, when the policies to help SMEs were moved into high gear, Korea was in the midst of the push toward heavy industry, unemployment levels had fallen to historically low figures, and the large–small wage differential was being squeezed (Mazumdar 1994, 562). In recent years government measures have derived added strength from the high wage increases starting in the mid-1980s.

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12. In Taipei,China the definition of SMEs was based on capitalization while in Korea it was defined as those employing less than 300 workers. Abe and Kawakami found that as of 1990 99.9 percent of the Taipei,China SMEs employed less than 300 workers. Thus the two definitions were comparable

The change in the size distribution of manufacturing enterprises in Korea since the LE share peaked in 1976 is shown in Table 3. Comparable data for Taipei,China are presented in Table 4. Table 3 shows that in Korea there was some decline in the LEs share by 1986, but then it declined in a major way in the next six or seven years. Small enterprises in the less-than-50 workers category more than doubled their share of employment (from 16 to 39 percent), while the largest enterprises in the 500-plus group shrank from 45 to 25.5 percent of total employment between 1976 and 1993. Taipei,China also reduced its share of employment in such firms, but the rate of the reduction was faster in Korea. By 1993 the pattern of size distribution in Korea was not all that different from that of Taipei,China.

Table 3. **Distribution of Employment in Manufacturing by Size Group and Relative Labor Productivity, Korea**

Size Group	Percent Distribution of Employment			Relative Labor Productivity		
	1976	1986	1993	1976	1986	1993
5-9	3.8	3.8	8.3	31	27	29
10-19	4.2	6.6	11.8	37	31	32
20-49	8.1	14.0	14.2	42	37	38
50-99	8.6	12.9	12.9	59	45	53
100-199	12.9	12.7	10.7	56	55	68
200-299	6.5	7.4	6.0	75	67	75
300-499	10.8	7.4	5.6	85	77	82
500 & over	45.1	35.0	25.5	100	100	100

Source: *Korea Statistical Yearbook*, various years.

Table 4. **Distribution of Employment in Manufacturing by Size Group and Relative Labor Productivity, Taipei,China**

Size Group	1966	1971	1976	1986	1991
Percentage Distribution of Employment					
1-9	12.8	9.4	10.2	10.4	14.1
10-49	21.2	17.0	17.7	24.0	29.6
50-99	8.7	9.2	11.1	13.5	12.8
100-499	22.5	28.2	30.4	28.1	21.3
500 plus	34.1	36.1	30.6	24.1	22.2
Relative Labor Productivity (Value-added per Worker)					
1-9	n.a.	40	33	34	30
10-49	n.a.	36	34	35	31
50-99	n.a.	47	36	38	35
100-499	n.a.	45	48	49	47
500 plus	n.a.	100	100	100	100

Source: Abe and Kawakami (1997, Table 1).

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This is a dramatic change in a country that had favored industrialization through the encouragement of large firms in its early industrial policies. It is also revealed in Table 4 that *this dramatic change in the distribution of employment by size group produced only modest change in relative labor productivity*. The relative productivity of small firms, in particular, in the size groups of below 100 workers did fall between 1976 to 1986, but the magnitude of decline is not spectacular, and seems to have stabilized by 1986.

As indicated in section I the change in the size structure in favor of SMEs in Korea could be expected to be associated with a reduction in the degree of inequality—and this is exactly what we find. Nugent notes that a reversal in the trend of income inequality toward increasing inequality more or less coincided with the shift towards a greater. Fields and Yoo have presented data on wage inequality for the years 1971-1993 based on the Occupational Wage surveys of Korea. Their conclusion is that a trend toward a more equal distribution of *wage earnings* started to take place after 1976, and the data show successive Lorenz-improvements for all the years presented between 1976 and 1993, i.e., each Lorenz curve lies closer to the 45-degree line than the preceding one (see Figure 2.1 and Table 2.3). While Fields and Yoo consider a wide range of factors like narrowing of educational, occupational, and gender differentials, the change in the size distribution of employment toward SMEs is surely a significant contributory factor. The authors show that the firm size wage differential is substantial and has probably widened over the period. But the larger proportion of employment in SMEs has reduced the degree of wage inequality emanating from this factor.

#### 1. *Factors affecting the change in size distribution in Korean manufacturing firms*

While the reversal of the government policies tilting toward LEs was clearly an important part of the bundle of factors influencing the trend, it was clearly not the only factor. It has already been mentioned that changes in labor market conditions, with developing labor scarcity and upward pressure on wages, had an influence on enterprises to look to the SME sector where wages were at a lower level. Capital market segmentation clearly had a factor favoring LEs, and the degree of bias in the financial system seems to have eased in the period after the 1980s. A relevant point here to be emphasized is, however, that government policies, encouraging the tie-up of large-scale finance and conglomerates, was itself an important cause of the capital market bias favoring large firms.

Nugent has attempted an econometric analysis of the relative importance of different factors that caused this V-shaped pattern: an increase in the share of employment in large enterprises until 1976 and a decline in the next two decades. First he rejected the hypothesis that changes in the composition of industry might have produced this trend reversal. In fact the pattern remains even if one holds constant the composition of industry either at its 1963 or its 1973 mix (ibid, Table 2, 230). He then proceeds to explain the increase in the share of large enterprises (LEs), both in terms of employment and value-added, before 1976, and its decline after 1976 in an econometric model with a variety of explanatory factors. In choosing the explanatory variables attention is focused on three broad types: (i) technological and organizational factors, e.g., economies of scale, capital intensity of production, relative importance of advertising; (ii) financial variables that include availability of medium-term finance for SMEs, interest rate differentials between large and small firms etc.; and (iii) trade variables, e.g., relative importance of exports (for a full list see Nugent, Table 4, p.234).

The major conclusion of this exercise was that the financial variables, individually and collectively, were the most important in accounting for the divergent trends in the two periods. In particular the share of minimum credit allocation to SMEs by commercial banks mandated by the government, and the suppression of the curb market for informal finance (which was gradually reduced in its intensity after 1973) were quantitatively important factors in the changing share of SMEs between the two periods. The technical-organizational factors, which have been much stressed in the literature, contributed little to the observed trends. But the trade-related variables, particularly the declining share of exports and the reduced importance of trading firms catering primarily to the large establishments, were also of importance. The last observation does not imply that SMEs were unimportant in exports. In fact their share in commodity exports have increased strongly in recent years—from 22.1 percent in 1982 to 42.1 percent in 1990 (Nugent 1996,1). However, to the extent that the export share of large firms have generally been at a higher level in the past, the fall in the degree of export orientation has been a factor working in favor of SMEs.

The econometric methodology is not really able to capture the full impact of government policies, although the financial variables found to be of dominant influence are part of the policy package. We now turn to a more detailed discussion of the elements of the bundle of policies initiated by the state that was able to turn around the size structure in Korean manufacturing in a very short time.

## 2. Nature of government policies to support SMEs

The support mechanisms for SMEs in Korea are relatively recent vis-à-vis its economic development. They were initiated in the 1970s and gathered strength only in the 1980s. But several international agencies have already identified Korea as a leader in developing effective SME support programs (e.g., UNIDO 1986). Three major points about the foundations of Korea's support policies deserve special emphasis.

First, the Korean policies were not directed at merely *protecting* the existence of small enterprises. They are much more concerned with the *development* of SMEs. Second, in keeping with the concern over dynamic growth of SMEs, attention is not focused exclusively on very small units. Along with neighboring Japan, Korea defines the SME sector as enterprises employing less than 300 workers. This does not imply that only the larger units in the sector benefit from the program. According to the sample survey carried out by Kim and Nugent (1994), most SMEs began with less than 50 workers, but many had grown to more than 200 workers—an indication of the generally high level of success of the support policies.

Third, Korean policies *discriminated* among SMEs in directing the support schemes. The government used a system of “special designations”, and in principle SMEs given special designation received priority in the allocation of various forms of support. Korea had even established “SME sanctuaries” to reserve certain product lines for SMEs *a la* India, but unlike India they were limited in number, carefully chosen, and limited to lasted no more than three years. Kim and Nugent's survey showed that over three quarters of the sample had been designated a “Promising SME”, 30 percent had been selected as part of a subcontracting network, and 13 percent had been favored in the import substitute sector (Table II.7, 51).

Fourth, some important features of *governance* in Korea's support system have been noted by Kim and Nugent. The agencies were controlled and audited by several oversight agents or “bureaucratic principals”, and the authors emphasize that “Korea is unusual in that competence is about equal in importance to political connections” in the appointment of principals and their subordinate executives. Most of the support agencies sampled in the enquiry emphasized educational qualifications, experience and competence in their hiring practices. The average salary level was 50 percent higher than the industry average. Finally, although the state support agencies had some advantage over

private ones, such as the ability to offer services at below-market prices, there were very few restrictions on private sector participation in the supply of financial, technical and marketing support, and the state agencies often felt significant competition from other private institutions and firms.

Turning now to the contents of the support schemes, financial assistance seems to be the most critical. State support comes in three major ways: (i) specialized financial institutions and funds catering to the SMEs; (ii) government-supported venture capital companies that finance technologically based SMEs; and (iii) credit guarantee facilities. In addition, commercial banks (which were heavily controlled by the government until the liberalization of 1993) were required to allocate a substantial percentage of their loans to SMEs. Another important source of financial support has been Central Bank discounting of commercial bills of SMEs and export finance. In the second half of the 1980s government-led funds for SMEs increased its percentage of the net lending increase by commercial banks from 1-2 per cent in the early 1980s to an average of over 10 percent (Nugent, Table V,1:68). All the state financial facilities received high approval rating from the SME units in Kim and Nugent's sample ( a score of over 4 in a 5-point scale).

The next important area of public ME assistance is technological support. Korea has an extensive network of agencies providing support in the form of training programs, information services, and joint research opportunities. The network of agencies is headed by the Industrial Advances Administration under the Ministry of Trade and Industry.

The third general area of the support system is marketing. The largest public sector marketing agency is the Korea Trade Promotion Corporation (KOTRA) which originally was founded to help the export activities of large firms. But as these firms became more self-sufficient, KOTRA focused its activities more on SMEs. More than half of the firms in Nugent's survey used some form of collective marketing services—more so in the early stages of their export growth—but as with technical services, these agencies received low approval and usefulness ratings than the large number of private channels of support available to Korean SMEs.

#### **IV. Conclusion**

This paper has discussed the role of small and medium enterprises (SMEs) in manufacturing as a tool in the promotion of equitable growth, with particular reference to Asian economies. The development of off-farm employment, and of household and micro enterprises with very few hired work-

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ers, are outside the purview of this discussion. SMEs thus defined are an important feature of the industrializing process. The subsidization of LEs as an aid in the rapid expansion of employment, as witnessed in the first phase of Korea's industrialization, has some advocates. Yet there are strong arguments against it based on the need to correct for factor price distortion (particularly in the capital market), and more importantly, to ensure more equitable distribution of income.

It is, however, emphasized that the factors affecting the degree of inequality (as well as overall economic efficiency) are not just the distribution of employment by size, but also the productivity difference between different size groups. Thus it is not enough to aim at increasing the share of employment in SMEs. Policies must also aim at reducing the economic distance between SMEs and LEs in terms of productivity (and wage) differentials.

As to the pattern of size distribution in manufacturing, three basic patterns of size distribution and productivity differentials are identified. The case of Hong Kong, China represents an extreme and "ideal" prototype from a welfare point of view, with a fairly even size distribution of employment and a relatively small productivity differential between SMEs and LEs. But then Hong Kong, China is an extreme economic example: a city state that has been peculiarly free from state intervention in factor markets and industrial evolution. The closest the other Asian economies come to the Hong Kong, China case is Taipei, China.

Korea presents a striking contrast to Taipei, China in having a distribution of establishments skewed to the large size groups, at least until the mid-1970s, when this pattern started to be reversed. Thailand in its recent period of industrial growth has shared some of the characteristics of the pre-1976 Korean pattern.

The more typical pattern of size distribution in Asian economies is the "dualistic" one with a bipolar distribution of firms. It is argued that this pattern emerges because of the coming of new technology and capital market institutions to a peasant economy characterized by "surplus labor" in agriculture. While the "dualistic pattern" is the direct result of segmentation in labor and capital markets, it is strengthened by differentiation in technology and product markets. The dualistic system yields the poorest result from a welfare point of view when there is a wide difference in productivity between small and large firms, and there is the phenomenon of the "missing middle" because of limited upward mobility of small firms. Indonesia, and more seriously, India, are examples of this

pattern. In the Indian case this phenomenon has been exacerbated by unfavorable government policies.

An evaluation of government policies to promote SME growth contrasts India and Korea (after the latter sought to reverse its pro-LE policies around the mid-1970s). Indian policymakers depended heavily on a policy of protecting SMEs from competition from large producers (even as the latter were protected from foreign competition) by reserving a large and growing list of products. These were supplemented by fiscal and other measures (e.g., the administration of labor laws) that provided benefits to SMEs as long as they stayed below a designated size. This made the cost of graduation of small enterprises to a size group above the line of protection very high. The net effect of this bundle of policies was to create a small segment of large units with high productivity, and a competitive low productivity sector, very few from whose ranks are able to grow sufficiently to challenge the market dominance of the large scale. A second important aspect of the polarization is that wage levels reflect productivity levels, and a very large difference exists in the wage levels between the large and the small sectors, with the medium units paying widely varying rates.

In the Korean case, policies were geared to encourage the more competitive SMEs to succeed irrespective of the industry in which they worked. In keeping with this objective the policies favored discriminatory support to units that showed the capacity to graduate to medium-size enterprises.

From a welfare point of view, a size distribution of the Hong Kong, China and Taipei, China type is much closer to the optimum than is found in the other Asian economies. In addition to this static welfare consideration, a productive and vertically mobile SME sector is desirable for the dynamic efficiency and competitiveness of the economy. The development of SMEs not only provides a seed-bed for the creation of a body of flexible entrepreneurs, but it also helps the development of an elastic supply of labor. This general goal is better served by the Korean type of policy than the Indian policy of protection, which seemed to have perpetuated a rather extreme form of dualism in the industrial structure.

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## References

- Abe, Makoto and Momoko Kwakami. 1997. 'A distributive comparison of enterprise size in (the Republic of) Korea and [Taipei,China]', Developing Economies, 35, 4, 382-400.
- Amsden, Alice. 1989. Asia's Next Giant: South Korea and Late Industrialization. Oxford, New York.
- Berry, Albert and Dipak Mazumdar. 1991. 'Small-Scale Industry in the Asian-Pacific Region', Asian Pacific Economic Literature Vol.5 No.2, Sept., 35-67.
- Beng, Chew Soon. 1988. Small firms in Singapore. Oxford, Singapore.
- Broadbridge, Seymour. 1966. Industrial Dualism in Japan. Aldina Publishing Co., Chicago.
- Brown, C. and J. Medoff. 1989. 'Employer Size effect on Wages' Journal of Political Economy, 97, 5, 1027-59.
- Chu, Wan-wen. 1997. 'Causes of Growth: a study of [Taipei,China]'s bicycle industry', Cambridge Journal of Economics, 21, 55-72.
- Fong, Chan Onn. 1990. 'Small and medium Enterprises in Malaysia: Economic efficiency and Entrepreneurship', Developing Economies, 28, 2, 152-179.
- Hill, Hal. 1983. 'Choice of techniques in the Indonesian Weaving Industry', Economic Development and Cultural Change, 31,2.
- Hill, Hal. 1990. 'Indonesia's industrial transformation—Part 1', Bulletin of Indonesian Economic Studies, 26, 2.
- Japan, Government of: Economic Planning Agency. 1961. 'Capital Structure by Firm Size', Economic Bulletin no.6, Economic Research Institute.
- Kaneda, Hiromitsu. 1980. 'Development of Small and Medium Enterprises and Policy Responses' Studies in Employment and Rural Development No.32. World Bank Economics Department, Washington D.C.
- Kim, Linsu and Jeffrey B. Nugent. 1994. 'The Republic of Korea's Small and Medium-Size Enterprises and their Support systems', Policy Research Working Paper No. 1404, World Bank, Washington D.C.
- Koshiro, Kazutoshi. 1990. Chapter on Japan (Chapter 5) in The re-emergence of small enterprises: Industrial restructuring in industrialized countries, edited by W.Sengenburger, G.Lovemen and M.J.Piore, International Institute of Labor Studies, ILO, Geneva.
- Levy, Brian. 1991. 'Transactions costs, the size of firms and industrial policy', Journal of Development Economics, 34.
- Little, Ian, Dipak Mazumdar and John Page. 1987. Small Manufacturing Enterprises. Oxford for the World Bank, Washington D.C.
- Mazumdar, Dipak. 1981. The Urban Labor Market and Income Distribution: A Study of Peninsular Malaysia. A World Bank Research Study. Oxford, New York.
- Mazumdar, Dipak. 1983. 'The Role of Small-scale Enterprises in the Indian Economy', Processed, World Bank Development Research Department. Washington D.C.
- Mazumdar, Dipak. 1984. 'The Rural-urban Wage-gap, Migration and the working of Urban Labor Markets; An Interpretation based on a study of the workers of Bombay City', Indian Economic Review, 18, 2, 169-198. Also in World Bank Reprint Series no. 300.
- Mazumdar, Dipak. 1989. 'Microeconomic Issues of Labor Markets in Developing Countries' EDI Seminar Paper No. 40, Economic Development Institute, World Bank, Washington D.C.
- Mazumdar, Dipak. 1991. 'Import-substituting industrialization and Protection of the small-scale', World Development, 19, 9, 1197-1213.
- Mazumdar, Dipak. 1994a. 'Korea' Chapter 11, Vol. 2 in Kanbur, Horton and Mazumdar, Labor Markets in Structural Adjustment. EDI Economic Development Studies. World Bank. Washington D.C.
- Mazumdar, Dipak. 1994b. 'Structure of Wages in African Manufacturing' Discussion Paper, Research Program in Enterprise Development, World Bank, Washington D.C.
- Mazumdar, Dipak 1997a. 'Structure, Growth and Productivity of the Small-scale manufacturing sector in India: An Overview', processed. National Council of Applied Economic Research, New Delhi.
- Minami, R. 1968. 'The turning point in the Japanese economy', Quarterly Journal of Economics, 3.
- Nugent, Jeffrey B. (1989). 'Variations in the size distribution of Korean manufacturing establishments across sectors and over time' Korea Development Institute Working Paper, No. 8932. Seoul, (the Republic of) Korea.

- 
- Nugent, Jeffrey B. 1996. 'What explains the trend reversal in the Size distribution of Korean Manufacturing establishments', Journal of Development Economics, vol. 48, 225-251.
- Piore, Michael and Charles Sabel. 1984. The Second Industrial Divide. Basic Books, New York.
- Reynolds, Lloyd, and Peter Gregory. 1965. Wages, Productivity and Industrialization in Puerto Rico. Richard D. Irwin, Homewood, Ill
- Sato, Kazuo. 1995. 'Dual Structure and the Macro-economy of Japan' Japanese Economic Studies, July-August, 23, 4.
- Schmitz, Hubert and Bernard Musyck. 1993. 'Industrial districts in Europe: Policy lessons for developing countries?' IDS Discussion Papers no 324, Brighton, Sussex.
- Shinohara, M. 1962. Growth and Cycles in the Japanese Economy. Economic Research Series No. 5, Hitotsubashi University, Tokyo.
- Uyeda, Teijiuro. 1938. The Small Industries of Japan. Institute of Pacific Relations. Oxford, London.
- Valenchick, Ann. 1997. 'Government intervention, efficiency wages, and the employer size wage effect in Zimbabwe', Journal of Development Economics, 53, 305-338.