Growth of Small Scale Industries In India : Some Policy Issues

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ABSTRACT

A major objective of planned economic development has been industrialisation and employment generation. The Industrial Policy Resolutions had, from time to time, encouraged the growth of small scale industries in order to generate employment, promote balanced regional growth, have equitable distribution of wealth and promote exports.

The analysis in the paper is based on the data available from the ASI; Development Commissioner, Small Scale Industries; and the Plan documents. A comparison is made between the performance of large industries, modern SSI and traditional industries. It is found that the smaller SSIs are growing not only numerically but also in terms of employment, investment and output. SSIs in the factory sector (synonymous with larger SSIs) have however, not been showing any growth in the number of factories and employment, though capital is being accumulated at a fast pace. It is felt that some of the policies of the Government are making capital cheaper vis-a-vis labour and there has been a tendency to substitute capital for labour among the large scale units and SSIs in factory sector. In terms of size, the larger units among the SSIs are becoming larger and small are becoming smaller. As regards efficiency of the units, while labour productivity is higher in larger SSIs, smaller units have better utilization of scarce capital and are also more labour intensive. The traditional industries have also been performing well in terms of labour absorption and capacity to earn foreign exchange.

In this context, it is important to review whether the current policies to set up new units be encouraged, or should the Government policies be directed to promote the growth of existing SSIs. It is also important to examine the growth of SSIs in the context of more liberal economy and see what kind of technology - flexible specialisation or mass production- should be followed for further growth and to encourage employment generation.

GROWTH OF SMALL SCALE INDUSTRIES IN INDIA : SOME POLICY ISSUES

CHARU C. GARG[1]

Introduction

Fostering the growth of small scale industry has been one of the major concerns in development theory. Small scale industry is assumed to play an important role in creation of employment, promotion of exports and alleviation of poverty along with industrialisation. Because of its labour intensive nature and adaptability to local conditions, it is considered as a vehicle for employment generation and industrial dispersion. Consequently, the Government of India has given it an important place while enacting the various industrial policy resolutions. Policies have been formulated for SSIs from time to time by both Centre and State Governments to promote industrialisation along with regional balanced growth.

While the 1950s and 1960s emphasised the policies of protection and import substitution and a need for development of entrepreneurship, the growth of informal sector during the 1970s and 1980s displaced this view on lack of dedicated entrepreneurship, and it was felt that opportunities encouraged initiative. It was argued that growth from small to large was possible if external obstacles were removed and policies formulated to ensure availability of risk capital, access to technology, quality promotion, infrastructural development, easy access to raw material and marketing support. During the 1990s most economies (including ours), became more open than hitherto-fore and hence the growth prospects of the manufacturers are now determined by their ability to compete against imports or sell in international markets (Schmitz 1995). Development in technology and globalisation of capital have thrown open new opportunities and challenges for the small scale industry.

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1 The author is a Fellow at National Institute of Public Finance and Policy, New Delhi.
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Flexible manufacturing technologies (in contrast to mass production) especially in high-tech industries and changing consumer preferences have provided ample scope for the expansion of modern small scale industries. At the same time it is a challenge for the survival of majority of Indian small scale industries. Keeping in view the changing economic environment, and challenges faced by the SSI, there arises a need for restructuring the current incentive structure for the faster growth of small scale industry in India.

This paper analyses the growth of small scale industry, especially after the 1980s and examines as to how far the current incentive structure, especially the central fiscal incentives, have proved to be beneficial for the growth of modern SSI. For the period under study some of the important Central Government incentives were central investment subsidy (CIS) which was prevalent till 1988, scheme for educated unemployed youth (SEEUY) which was started in 1984 and has now been replaced by Prime Minister Rojgar Yojna (PMRY), transport subsidy for setting up units in remote and hilly regions, excise concessions based on turnover criterion and tax concessions under Articles 80 HH, 80 HHA, 80 IA and 80 J for all units under the factory sector. Besides these fiscal incentives, there is a list of 836 items reserved for exclusive production in SSIs.

The paper starts by discussing data sources and framework of analysis. It is followed by a detailed analysis and comparison between large, small and traditional industries[2]. The last section presents summary and conclusions.

Growth of Small Scale Industry

In this paper, growth of SSI has been analysed by considering the growth of number of factories, output, employment, investment and exports besides productivity and size of these industries.

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[2] To define large and small we use capital size definition. Small includes all industries with investment in P & M to be less than Rs. 10 lakhs before 1980, Rs. 20 lakhs before 1985, Rs. 35 lakhs before 1991 and less than Rs. 60 lakhs thereafter. Large includes industries not falling under the above classification and include both medium and large industries. Traditional industries include handicrafts, cottage industries, sericulture etc.

The small scale industry can be viewed from two perspectives - the traditional rural household enterprise and non-traditional small scale sector. Though the traditional industries are more labour absorbing than the small scale sector, the latter contributes about 89 per cent of all output, 40 per cent of all employment and 55 percent of all exports from entire village and small industries (VSI) sector[3] . The modern SSI also makes substantial contribution to the economy as a whole by accounting for 35 per cent of value added by the manufacturing sector, absorbs about 50 per cent of the work force engaged in the organised sector, and accounts for more than one-third of country's total exports.

Data Sources and Framework of Analysis

In India, information on production, number of units, investment, employment, returns to capital and labour, and exports for the manufacturing sector is available from several sources, such as (1) National Accounts Statistics (NAS) brought out by CSO, (2) Data compiled by the Planning Commission, (3) Annual Survey of Industries (ASI) prepared by the CSO, and (4) SIDO statistics prepared by the Small Industry Development Organisation.

Above sources use different classification criteria and different definitions to define small and, hence, a comparison between them may not be very meaningful. Several studies in the past have used different sources and different definitions to assess the growth of SSI (Goldar 1985, Ahluwalia 1991, Little et.al 1988, Sandesara 1992 and Gang 1995). Most of these have used employment definition to define small to work out productivity and trend analysis. The period covered by them is prior to 1988.

The small scale industry for the present analysis has been defined as comprising units having investment in plant and machinery below the ceiling prescribed by the DC(SSI) from time to time. ASI data are used to compare *large* sector and *SSI in factory sector,* hereby

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[3] VSI sector comprises small scale industries, powerloom and traditional industries. Data compiled by Planning Commission are used for calculating these percentages. Here the small scale sector also includes the powerloom sector.

called *SSI (FS)*, which are mostly large SSI units[4]; SSI(SIDO), which represent mostly small units but comprise factory sector units also, are compared with data from SSI (FS) and large sector[5]; Data from Plan documents are used to compare the growth of traditional and modern SSI within the VSI (Village and Small Industries) sector.

The analysis in the paper has been carried out using time series on gross output, gross value added, employees, capital, emoluments and number of factories from 1980-81 to 1991-92 for small and large factories using ASI data. Time series on number of units, employment, gross output and exports for modern SSI units are available from 1980-81 to 1994-95 from SIDO data. Data on investments for SIDO units are available only upto 1988-89. Data for traditional industries are available only for production, employment and exports for 1984-85 and thereafter from 1989-90 to 1993-94. Time series for gross output, emoluments, capital and exports are computed at constant prices by using suitable deflators[6]. The average annual growth rates are worked out for the period as a whole and also for sub-periods. This is done to see if there was any impact on growth of any major policy change or change in general economic conditions.

Large Sector vs. SSI (FS) :

The ASI data shows that of the total units in the factory sector, the SSI(FS)

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4 To define large and small for ASI data, we use capital size definition as in footnote 2. No separate distinction has been used for ancillary industries while using the classification criterion. Price deflation has not been used here. The unspecified category has been included in small scale sector on the basis of the statement " it can be assumed that unspecified group of factories. i.e., those which did not furnish figures on investment in plant and machinery would belong to the lowest size class" (ASI, 1991:21).

5 According to 1987-88 census more than 90 percent of the units registered with SIDO are not registered under factory sector and hence SSI(SIDO) data is taken to represent smaller SSI. However, SSI(SIDO) does not take into account the contribution of unregistered SSI sector.

6 The wholesale price index of manufactured products is used for deflating gross output, wholesale price index of machines and tools for deflating capital stock, consumer price index of factory worker for deflating emoluments and unit value index of export for deflating exports. Capital stock is measured by using the perpetual inventory method . The returns to capital is calculated by using the formula (V-WL)/K. Where V is the gross value added, WL is the emoluments paid to employees and K is the capital stock.

The small scale industry can be viewed from two perspectives - the traditional rural household enterprise and non-traditional small scale sector. Though the traditional industries are more labour absorbing than the small scale sector, the latter contributes about 89 per cent of all output, 40 per cent of all employment and 55 percent of all exports from entire village and small industries (VSI) sector[3] . The modern SSI also makes substantial contribution to the economy as a whole by accounting for 35 per cent of value added by the manufacturing sector, absorbs about 50 per cent of the work force engaged in the organised sector, and accounts for more than one-third of country's total exports.

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comprised more than 80 per cent every year and contributed more than one-third employment and in some years, even more than half of the total employment, but its share in total emoluments was approximately 20 percent, in fixed capital about 5 percent and in gross value added approximately 15 percent.

Units: During the period 1980-81 to 1991-92, the number of factories under SSI (FS) remained almost constant. In fact, there would have been a declining trend if instead of the capital size limits (as given by SIDO) to define small, one had used the price deflators to obtain those limits. This result, however, is not in conformity with the SIDO data where the average annual growth rate of units has been estimated as 10.7 percent per annum during 1980-81 to 1994-95. Therefore, while units getting registered with SIDO might be increasing, those falling under the factory sector were declining or remaining almost constant.

The small sector, though showed no significant change in the number of units registered under the Factories Act, the large sector shows a rise in the rates of growth from 12 per cent between 1980-81 to 1984-85 to 15 per cent between 1985-86 to 1990-91 with a trend growth rate of 8.1 per cent per annum for the period 1980-81 to 1991-92 (Table 1).

The positive growth rate in the number of units for the large sector except for the three years (1980, 1985 and 1991) in which there were definitional changes, could imply that the larger of the small units, that is SSI(FS), had no incentives to stay small and they moved into the large sector. Since both the turnover and employment criteria would take them out of small scale purview where they could get concessions, it is then profitable for them to invest more in plant and machinery and fall under the large category. Almost no growth in SSI (FS) could also be due to the fact that the units which were not able to face competition shrank in size. High positive growth in the number of units in SSI (SIDO) could support this fact, but increasing size of SSI (FS) seem to support the view that SSI (FS) has a potential to grow. At the same time, falling size of SSI (SIDO) shows that smaller SSIs do not have the potential to grow in size and become larger.

Employment: While the 1970s saw a positive growth of 5.1 per cent in employment for SSI (FS) and 4.6 per cent for the large sector, there was a decline of 2 percent for small sector

during the first half of the 1980s and thereafter it increased only marginally. Even in the large scale sector employment grew at a marginal rate of 1 percent per annum during the

Table 1

Growth Rates in Factories, Employees, Capital, Output and Wages for Small and Large Factories

(Per Cent Per Annum at 1981-82 Prices)

Years	Factories		Employees		Gross Fixed Capital		Gross Output		Total Wages /Worker	
	SSI(FS)	Large	SSI(FS)	Large	SSI(FS)	Large	SSI(FS)	Large	SSI(FS)	Large
1980-81 to 1984-85	-0.6	11.9	-2.1	2.1	16.2	10.0	0.6	8.7	1.6	3.8
1985-86 to 1990-91	0.7	15.0	1.5	0.5	12.4	13.1	7.9	9.6	2.4	2.5
1980-81 to 1990-91	0.2	13.7	0.1	1.1	13.9	15.0	5.0	9.3	2.1	3.0
1990-91 to 1991-92	12.4	-45.5	-0.8	1.0	21.6	8.6	25.2	-9.2	20.5	-17.0
Trend Rates										
1973-74 to 1979-80	7.5	6.2	5.1	4.6						
1980-81 to 1991-92	0.5	8.1	0.1	0.7	13.7	14.1	6.0	8.0	3.0	2.4

Source: Annual Survey of Industries, CSO

1980s (Table 1). This would tend to support the view that investment incentives provide substantial subsidies to capital, making labour relatively more expensive (Gandhi 1987, Lim 1992) . This was, probably, what happened during the 1980s when substantial investment incentives induced the small producers to displace labour by capital.

The growth in total emoluments, fixed capital and gross output is significant in both the sectors, though the SSI (FS) shows a marginally lower growth rate as compared to the large scale sector.

Output: Table 1 shows that output in the large sector had grown at a higher rate of growth of 9.3 per cent per annum as compared to 5 per cent in the SSI(FS). In terms of period-wise break up, one finds that in both large and small, the growth of output was higher during 1985-86 to 1990-91 as compared to 1980-81 to 1984-85.

There is some evidence to suggest that increase in output during the second period was due to a general change in economic climate after 1985 with more liberalised trade and

fiscal policies of the Government. A step towards liberalisation with improvement in infrastructure leads to flexibility in production which helps to facilitate technology upgradation. Increases in production in SSI could be due to those policies. Expansion of markets and liberalisation of exports could also have led to increase in output.

There is some evidence to suggest increase in growth of output could also be due to increases in total factor productivity. For example, for organised sector, Ahluwalia showed a 3.4 per cent growth in TFP in the first half of 1980s as compared to no growth in earlier periods. Increases in TFP were attributed to increases in labour productivity and no decline in capital productivity (Ahluwalia 1991).

Capital: In almost all the periods gross fixed capital has shown a positive rate of growth for both small and large sectors. Table 1 shows that in both the small and large sectors fixed capital has grown at rates of 14 and 15 per cent per annum respectively. In SSI (FS) there was slowing down in the rates of growth in 1985-86 to 1990-91 as compared to 1980-81 to 1984-85, whereas in large sector the growth rates have been increasing between the two periods.

Increases in capital in large and small sectors of ASI could be due to Government policies to encourage investment through low interest rates. Depreciation allowance and deductions from profit tax have an effect of reducing effective tax rate of capital intensive projects (Ahluwalia 1991). A lower growth rate in the accumulation of capital in SSI (FS) in late 1980s as compared to the early 1980s could be due to better utilization of capital or reduction in disbursements made under some of the investment incentives that existed in early 1980s.

High growth rate of capital could also be due to it being cheaper vis-a-vis labour. This is supported by figures for employment and total emoluments. Even though employment is not growing, total wages are growing at the trend growth rates of 3 and 2.4 per cent for small and large sector respectively, thereby indicating that cost of labour was increasing. Hence, tax and investment incentives that existed during the 1980s were more capital augmenting than employment generating (Gandhi 1987). Further, this phenomenon

of substituting labour by capital is expected to occur with a general growth in industry. With the increase in output and related incomes, there will be a tendency to substitute relatively inferior input (labour) with relatively superior input (capital), because of the income effect. This is also supported by greater than unitary elasticity of substitution estimated by using the SMAC (Arrow et.al. 1961) version of the CES production function on 12 years data.

Small:	log [V/L]	=	-6.5 + 1.86 log w			
			(8.3)	$\bar{R}^2$	=	.85
Large:	log [V/L]	=	-7.7 + 1.93 log w			
			(6.1)	$\bar{R}^2$	=	.75

t values in brackets

The coefficient of log w which represents the elasticity of substitution is found to be significant, positive and greater than one. Little et.al (1987) also estimated the elasticity of substitution to be greater than one.

Size : In terms of the size of the unit, one finds that SSI (FS) has performed better than the large sector on all the variables given in table 2. Even though the employment per unit marginally fluctuated around 32 employees for the small sector (average annual growth rate is 0.1 percent), it showed a significant fall from 753 employees per unit in 1980-81 to 266 employees per unit in 1990-91 for the large sector, recording a decline in average annual rate of growth of 9.2 percent per annum. This could be quite worrying as two-thirds of the factory sector employment comes from the large sector. Increase in real wage rates in the factory sector, factories employing more contract labour, or resistance from the management to employ more labour due to trade union problems could be some of the reasons responsible for declining employment per unit. Capital per unit has however, been increasing in the SSI(FS) at 14 percent per annum with the rate declining in the second sub-period as compared to the first sub-period. This again could be representative of the fact that SSI(FS) responded favourably to the greater investment incentives that existed during the first half of the 1980s. The per unit performance of SSI(FS) was better in terms of output with 5 percent growth rate as compared to a negative growth rate of 1.6 percent in the large sector. This shows that, in terms of size, small sector has been performing better than large sector.

Table 2

Growth in Indicators of Size of Small and Large Factories :

Average Annual Growth Rates (at 1981-82 prices)

Years	Employment / Unit		GFC / Unit		Output / Unit	
	SSI(FS)	Large	SSI(FS)	Large	SSI(FS)	Large
1980-81 to 1984-85	-0.9	-8.7	17.4	5.6	2.4	-2.6
1985-86 to 1990-91	0.8	-9.6	11.5	2.9	7	-0.8
1980-81 to 1990-91	0.1	-9.2	13.8	4	5.1	-1.6

Intensity and Productivity of factors: The increasing size of SSI (FS) is also accompanied by increasing capital intensity at approximately 14 percent per annum for both the sectors (Table 3). This represents capital deepening process which leads to technological progress. This would also mean that both in the large and the SSI(FS) sectors there has been a significant substitution of labour by capital. This is inspite of the fact that productivity of labour is increasing at the trend rate of 6 and 7 per cent per annum respectively in small and large sectors and productivity of capital is declining at 7 and 5 percent per annum respectively. Even though the productivity of capital is declining more for the SSI(FS) as compared to the large sector, the higher productivity of capital in SSI(FS) for all the years indicates that small sector has better utilisation of capital per unit of output than large sector.

Table 3

Growth of Productivity and Intensity in Small and Large Factories

(at 1981-82 prices)

Years	GFC / Empl		Output/Employment		Output / GFC		GFC / Output		W / r@	
	SSI(FS)	Large	SSI(FS)	Large	SSI(FS)	Large	SSI(FS)	Large	SSI(FS)	Large
1980-81 to 1984-85	18.9	15.6	2.8	6.5	-12.5	-7.8	16.8	8.6	9.8	11.5
1985-86 to 1990-91	10.8	13	6.1	9.4	-4.1	-3.1	4.5	3.3	7.8	3.3
1980-81 to 1990-91	14	14	4.8	8.3	-7.4	-5	9.4	5.5	8.6	6.6
Trend Rates (1980-81 to 1991-92)	13.8	13.3	6.1	7.2	-6.7	-5.4	7.2	5.7	7.2	6.6

Note: @ W/r shows the wage rental ratio.

In sum, one can say that SSI (FS) has been quite efficient in the 1980s when the size of the units increased and the capital deepening process was also accompanied by higher

labour productivity. Capital productivity declined but was still higher as compared to that of the large sector. This sector has the potential to grow if obstacles are removed.

SSI (SIDO) vs. SSI (FS) and Large Sector

The SIDO statistics have data on modern SSI for 1980-81 to 1994-95. The rates of growth of output, investment, employment and number of units are obtained at constant prices by using suitable deflators and are presented in Table 4. A period-wise analysis has also been undertaken.

Units: In contrast to almost constant growth rate of units in SSI (FS), the SIDO results show that the registered units grew at an average annual rates of 10.7 per cent during 1980-81 to 1994-95. If one includes the unregistered category (those not registered with various District Industries Centre), the growth rate would have been higher.

A large number of units registered with SIDO are likely to be small which might have cropped up simply to avail certain incentives prevalent during the 1980s. This is reflected in the falling size of SSI (SIDO) as explained in the next section. A high incidence of closures among small units (as indicated by 1987-88 census, where one finds that of the total 10.6 lakh units identified in the frame, estimation could be done from only 5.8 lakhs working units) which are not deleted from SIDO registration records tend to inflate SIDO data. However, this should not affect the growth rates. Also on comparing 1972 and 1987-88 censuses we find a 282 per cent increase in the number of new units (Sandesara, 1993). Hence, the number of smaller units are definitely increasing and a few which do manage to become large may move to the large sector category.

There has been a decline in the growth rate of units from 11.5 per cent between 1980-81 to 1984-85 to 10.9 per cent between 1985-86 to 1989-90, and to 8.9 per cent between 1990-91 to 1994-95 (Table 4). A decline in the growth rate after 1989 could be due to withdrawal of certain concessions used in initial setting up of units that were given to SSI earlier, e.g. Interest Subsidy for Engineers was withdrawn in 1985 and Central Investment Subsidy was withdrawn in 1988. Further, the sanctioned number of units and disbursement

Table 4

Growth in Units, Employment, Production and Investment in Small Scale Industry

(at 1981-82 Prices)

Year	Units	Employment	Production	Investment@
1980-81 to 1984-85	11.5	6.1	9.5	4.1
1985-86 to 1989-90	10.9	5.8	13.1	8.2
1990-91 to 1994-95	8.9	3.9	6.4	6.4*
1980-81 to 1994-95	10.7	5.4	10.3	6.7*

Source : Development Commissioner, Small Scale Industries, Government of India

@ Investment figures are taken from the publications of the Centre for Monitoring Indian Economy.

* Figures on investment after 1988-89 have been estimated on the basis of trend for the previous year.

amounts under some schemes like SEEUY were much lower in later periods.

At disaggregated level with *state-wise data* for 1980-92 for the cumulative number of units registered with SIDO, one finds that Uttar Pradesh which has maximum reimbursements made under Central Investment Subsidy and was sanctioned maximum amount under SEEUY, accounts for major share (15.1%) of all units registered with SIDO followed by Madhya Pradesh, West Bengal and Punjab. Tamil Nadu and Andhra Pradesh which are other significant beneficiaries of these subsidies also account for significant share of the units. Hence, subsidies have a direct bearing on the number of units in these states. Bihar, Maharashtra and West Bengal which are other major beneficiaries of this subsidy have however, not been able to increase their share of registered units significantly. In fact, in case of Maharashtra and West Bengal the percent share of SIDO units has fallen between 1980 and 1992 (Table 5).

Employment: Employment growth in small scale sector as shown by SIDO statistics is quite impressive. Employment has increased from 71 lakhs in 1980-81 to 146.6 lakhs in 1994-95 showing a growth rate of 5.4 per cent per annum . Since employment in SSI(FS) has remained almost constant (Table 1) most of the employment must be in the new units or already existing smaller SSIs. When the whole period is divided into three sub-periods, the growth in employment in SSI (SIDO) is observed to be lower during 1985-86 to 1989-90 compared with 1980-81 to 1984-85. The growth in employment generation further declined during 1990-91 to 1994-95 (Table 4). This shows that the small scale sector has not been

Table 5

Statewise Distribution and Growth of Registered SIDO units with Subsidies Sanctioned

States	SIDO Units (Per cent) Share		Growth of Regd. Units*	% of Total CIS subsidy Sanctioned (1972 to 1992-93)	% of Total SEEUY subsidy sanctioned (1983-84 to 1992-93)
	1980	1992	1980-92		
Andhra Pradesh	4.96	6.56	14.0	7.4	7.40
Assam	0.82	0.88	12.0	3.0	3.39
Bihar	4.67	5.12	12.3	1.5	10.16
Gujarat	6.20	5.80	10.8	5.9	2.04
Haryana	3.95	4.88	13.4	1.6	2.26
HP	1.46	0.74	5.3	5.8	0.83
Jammu & Kashmir	1.33	1.38	11.8	5.6	0.45
Karnataka	3.85	5.41	14.6	6.4	5.16
Kerala	3.69	5.29	14.8	2.2	5.89
Madhya Pradesh	7.32	11.25	15.5	8.7	7.46
Maharashtra	6.33	4.15	7.6	4.0	7.17
Manipur	0.69	0.26	2.9	0.5	0.84
Meghalaya	0.04	0.10	20.7	0.4	0.08
Nagaland	0.08	0.04	5.5	1.5	0.09
Orissa	1.79	1.01	6.2	2.4	4.56
Punjab	7.49	8.21	12.3	2.3	6.69
Rajasthan	5.34	3.94	8.6	7.3	5.35
Tamil Nadu	6.71	8.17	13.3	7.9	7.99
Tripura	0.25	0.35	14.4	0.1	0.37
Uttar Pradesh	7.45	15.14	18.2	12.7	12.75
Sikkim	0.01	0.01	20.1	0.5	0.02
Arunachal Pradesh	0.04	0.03	10.7	0.2	0.04
West Bengal	22.33	8.70	3.0	2.7	8.42
Mizoram	0.11	0.16	15.4	1.3	0.13
Goa	0.26	0.33	13.6	4.0	0.10
Andaman & Nicobar	0.02	0.05	20.1	0.0	0.04
Chandigarh	0.18	0.17	11.0	0.0	0.13
Dadar & Nagar Haveli	0.03	0.02	8.6	1.0	0.03
Delhi	2.46	1.63	7.6	0.0	0.0
Pondicherry	0.16	0.21	14.2	1.7	0.14
All	100.00	100.0.	11.4	100.0	100.0

Source : Calculated from data provided by DC, SSI, Government of India.

* Average annual compounded rates of growth

able to keep pace in generating employment at the level at which it generated during the 1980s.

Output: Output of SSI (SIDO) units grew annually at 10.3 per cent during 1980-81 to 1994-95. Production between 1990-91 and 1994-95 grew at a much slower pace of 6.4 per cent per annum as compared to 13.1 per cent during 1985-86 to 1990-91 and 9.5 per cent during 1980-81 to 1984-85 (Table 4).

Increase in number of SIDO units accompanied by increase in productivity of labour and capital most likely led to increase in production. Expansions of markets and liberalisation of exports could also have led to increase in output. However, decline in growth rate of production in early 1990s could have been due to a decline in the growth of units after 1990 or due to the recessionary climate of the early 1990s. Upper limits on turnover for availing excise concessions restricted the growth in production, especially of the larger SSI units. RBI Report on Currency and Finance (1992-93) also reports that the deceleration in production (and employment) in SSIs in 1991-92 could be attributed to the combined effect of a number of factors including import restrictions, credit squeeze and hikes in rates of interest on bank advances.

Investment: The estimated figures for investment in SSI(SIDO) at current prices are available from 1980-81 to 1988-89 and these have increased in absolute terms from Rs. 5,840 crore to Rs. 15,229 crore. In real terms this shows an estimated growth of 4.1 per cent per annum during 1980-81 to 1984-85 and 8.2 per cent per annum in 1985-86 to 1988-89. Since the growth rate during the latter period has declined for the SSI (FS), it is more likely that the increase in investment was partly due to setting up of new units which was guided by the incentives like SEEUY and partly as a result of increase in investment in already existing units. Increase in gross fixed capital (GFC) per unit in large SSI, could imply that investment also increased in the already existing units.

Size: In terms of size of the units we have seen that SSI (FS) has been growing, except in terms of employment per unit where it has remained almost constant. In contrast, the size of SSI (SIDO) has declined during 1980-81 to 1994-95 where production per unit fell by 0.4

per cent per annum and employment per unit fell by 4.8 per cent per annum. Investment per unit fell by 5.4 per cent per annum between 1980-81 and 1989-90 (Table 6). This sounds paradoxical because, during this period, there have been two upward revisions in the definition of SSI and, therefore, it was expected that the size of SSI would increase over time. Definitional change has however, helped in increasing the size of SSI (FS), both in terms of capital per unit and output per unit. This implies that the small is going smaller and big is getting bigger, supporting the hypothesis of missing middle among the SSIs. The decline in per unit ratios in SSI (SIDO) could mean that a large number of units simply register for availing the incentives without being really involved in the production or employment activity. This decline could also be due to the fact that a large number of units which have closed down have not been removed from the list. Employment per unit may also decline if a large number of small entrepreneurs run very tiny units and even those who have the capacity to grow do not want to increase the size of their operations in order to avoid labour regulations.

Productivity: Investment-production ratio (I/O or incremental capital-output ratio) continuously declined over time from 0.22 in 1980-81 to 0.14 in 1988-89, showing a fall of 5.2 per cent per annum indicating that utilisation of capital was quite efficient. The reciprocal that is, the production investment ratio which is roughly an indicator of capital productivity increased at the rate of 5.5 per cent per annum (Table 6). This result is different from that obtained for the factory sector where the capital productivity had declined. Even the output to incremental capital ratio (or output-investment ratio) for SSI (FS) was declining at the rate of 1.9 per cent per annum. This shows that in smaller SSIs there has been more productive utilization of capital as compared to large SSI. The improvement in efficiency of SSI (SIDO) could also be seen through rising trend of labour productivity which increased annually at 4.7 per cent during the period under study.

The capital widening process however, is not accompanied by capital deepening process which is indicated by negligible growth in investment-labour ratio. Capital intensity (capital-labour ratio) which is an important indicator of technological change showed a marginal positive growth between 1985-86 to 1989-90 after recording a decline between 1980-81 to 1984-85 (Table 6). Thus, increasing application of capital was accompanied by

Table - 6

Growth in Indicators of Size, Capital Productivity, Labour Productivity and Capital Intensity in Small Scale Industries (at 1981-82 prices)

Year	Emp / Unit	Prod / Unit (Rs)	Inv / Unit (Rs.)	Prod/Emp	Prod/Inv O/K	Inv/Prod (Rs.)	Inv / Emp K/L (Rs.)
1980-81 to 1984-85	-7.0	-4.0	-8.7	3.2	5.1	-4.9	-1.8
1985-86 to 1989-90	-4.4	1.6	-4.1	6.3	6.0	-5.6	0.3
1990-91 to 1994-95	-5.6	-2.3	-	2.4	-	-	-
1980-81 to 1994-95	-4.8	-0.4	-5.4	4.7	5.5*	-5.2*	0.01*

Source : Calculated from data provided by Development Commissioner, SSI, Ministry of Industry

@ Trend Rates of growth in per cent per annum

* Investment figures after 1988-89 are not available. Growth Rates from 1980-81 to 1989-90.

improvement in technological advances only after 1985. Substituting capital for labour seem to have become a dominant feature of growth of SSI in India. The trends have further sharpened during the early 1990s. This indicates that though the SSI(FS) are growing in size, the efficiency of the smaller SSIs is better. This result is found to be at a difference from that derived by Little et. al (1987) where he found that medium size industries (in terms of employment) were the ones which performed the best.

Exports from SSI(SIDO) : The importance of the small scale sector can also be judged by its contribution to the external sector. According to the 1993-94 Economic Survey, small scale sector accounted for about one-third of the country's total exports, thus acting as an important foreign exchange earner.

At current prices, exports from SSI increased from Rs. 1643 crores in 1980-81 to Rs. 28000 crores in 1994-95 (Table 7), which showed that its share in the total exports from the country increased from 24.5 per cent in 1980-81 to 34 per cent in 1994-95. When changed to constant 1981-82 prices using the unit value index for exports, the same grew at a rate of 10.8 per cent per annum.

Table 7

Share and growth of SSI Exports in Total Exports and Export Productivity

Years	Exports (Rs. crores)		Percent Share of SSI exports	Exports / Output for SSI (at 81-82 prices)
	Total	SSI		
1980-81	6710.7	1643.2	24.5	0.06
1981-82	7890.5	2070.6	26.2	0.06
1982-83	8907.8	2045	23.0	0.06
1983-84	9872.1	2163.9	21.9	0.05
1984-85	11493.7	2540.7	22.1	0.04
1985-86	10894.6	2769.1	25.4	0.04
1986-87	12566.6	3643.7	29.0	0.05
1987-88	15741.2	4372.9	27.8	0.04
1988-89	20295.2	5489.6	27.0	0.04
1989-90	27681.5	7625.7	27.5	0.04
1990-91	32553.8	9664.2	29.7	0.05
1991-92	44004.8	13883.3	31.5	0.05
1992-93	53350.5	17784.8	33.3	0.06
1993-94@	69751	25307	36.3	0.07
1994-95@	82674	28000	33.9	0.06
Growth Rates {at constant (1981-82) prices, per cent per annum}				
1980-81 to 1984-85	2.1	-1.8	-3.8	-10.2
1985-86 to 1989-90	11.9	12.9	0.9	0.5
1990-91 to 1994-95	10.8	15.4	4.1	8.4
1980-81 to 1994-95	7.5	10.8	3.1	0.4

Source : Development Commissioner, Small Scale Industries, Government of India

@ Figures obtained from ICSI - Herald No. 1, 1996. Original Source, same as above.

Period-wise trend growth rates show that the exports from SSI increased at 12.9 per cent per annum between 1985-86 to 1989-90 after recording a negative growth rate of 1.8 per cent per annum between 1980-81 to 1984-85. After 1990-91, the growth rate was 15.4 per cent per annum.

The increasing rate of growth after 1985 shows that small sector has responded favourably to the general change in the economic climate where liberalisation has become a

hallmark. After 1991, the rate of growth of exports has been faster and export intensity also increased, implying that SSIs were responding favourably to the export incentives (Gang 1995).

Data are presented in Table 8 according to growth of exports in major industries. The percentage share of SSI exports in the total exports from these major product groups are given for 1991-92 and 1992-93. We find the major growth has taken place in basic chemicals, pharmaceuticals and cosmetic industries. The other industries with annual growth rate of more than 20 per cent in exports are leather and its products, ready-made garments, and processed tobacco and beedi. Share of the SSI sector in the total exports of sport goods is

Table 8

Growth Rates of Exports of Major Product Groups of SSI at 1981-82 prices

Industry Group	Growth Rates	Percentage Share of SSI	
		1991-92	1992-93
Engineering Goods	15.1	30.7	30.2
Basic Chemicals Pharmaceuticals, Cosmetic	41.4	55.0	55.0
Chemicals & Allied Products	20.8	4.6	2.8
Plastic Products	12.5	26.5	45.0
Finished Leather & Products	23.5	82.8	80.0
Marine Products	3.3	-	28.7
Processed Foods	17.7	65.0	65.0
Woolen Garments	6.9	34.5	35.0
Sports Goods	10.3	100.0	100.0
Readymade Garments	27.3	90.0	90.0
Rayon & Synthetic Products	15.8	n.a.*	-
Processed Tobacco, Snuff, Beedi	28.5	48.0	47.3
Traditional Industries			
Cashew Kernal and Nut Shell	17.2	86.6	85.7
Lac	6.8	98.0	97.8
Spices, Spice Oils	23.1	10.0	10.0

Source : Calculated from data provided by Development Commissioner, SSI, Ministry of Industry. Trend Growth Rates calculated for period 1980-81 to 1992-93

* Figures on total exports are not available for this product. However, SSI exports show a 10% increase between the two periods.

100 per cent followed by 90 per cent for ready-made garments and 83 per cent for leather products. Chemicals and pharmaceuticals accounted for 51 per cent share in 1991-92 which was likely to increase further considering the high growth rate these industries were experiencing.

Traditional Industries vs. Modern SSI

The data compiled by Planning Commission are presented in Table 9 for the years 1984-85 and thereafter for 1989-90 to 1993-94. The data are available for production, employment and exports. The percentage share and growth rates of each of the sectors have been worked out in order to compare the growth of traditional sector vis-a-vis the modern SSI sector (excluding powerlooms).

Table 9

Percentage Shares of Modern SSI (Excluding Powerloom) and Traditional Industries in VSI Sector for Production, Employment and Exports

YEARS	PRODUCTION		EMPLOYMENT		EXPORTS	
	Modern SSI*	Traditional Industries	Modern SSI	Traditional Industries	Modern SSI	Traditional Industries
1984-85	78.1	11.9	29.1	60.5	51.6	48.4
1989-90	80.6	10.8	31.1	57.2	51.5	48.5
1990-91	83.5	9.8	29.2	57.9	50.4	49.6
1991-92	81.9	10.7	28.3	59.3	55.1	44.1
1992-93	79.0	10.8	28.0	58.9	48.0	47.4
1993-94	77.5	11.6	27.6	60.0	47.5	48.1
Growth Rates (per cent per annum at 1981-82 prices)						
1984-85-1990-91	12.02	7.2	5.5	4.7	10.1	10.9
1990-91-1993-94	-4.5	3.5	2.3	5.4	5.7	6.8
1984-85 to 1993-94	6.2	5.9	4.4	4.9	8.6	9.6

Source: Eighth Five Year Plan 1992-97, Planning Commission Vol II & Annual Plan (1993-94), Planning Commission, New Delhi

Note 1. Percentage share have been calculated at current prices.

2. Growth rates are average annual compounded rates of growth.

3. * SSI excludes powerloom. Hence the residual share between the traditional and SSI is the contribution of powerloom sector.

The share of traditional sector in total employment from the small scale sector is approximately 60 per cent. The overall growth rate has also been higher at 4.9 per cent per annum for traditional industries as compared to 4.4 per cent for modern SSI. After 1990-91, the growth of employment in modern SSI has been declining, whereas in the traditional sector it has been increasing implying a higher labour absorption capacity of the latter and displacement of labour in the modern SSIs.

Within the VSI sector, we find that modern SSI is performing better than the traditional sector in terms of its share in production which is more than 80 per cent. The share of SSIs in production increased from 81 per cent in 1984-85 to 84 per cent in 1990-91. After 1990-91, the share of modern SSI has, however, been declining in respect of

Table 10

Trend and Growth Rates of Labour and Export Productivity in VSI Sector

(at constant 1981-82 prices)

YEARS	PRODUCTION / EMPLOYMENT		EXPORT / PRODUCTION	
	SSI	Traditional Industries	SSI	Traditional Industries
1984-85	47773	3511	0.04	0.25
1989-90	45664	3336	0.06	0.42
1990-91	68365	4050	0.04	0.30
1991-92	62420	3781	0.05	0.31
1992-93	58134	3762	0.05	0.36
1993-94	55575	3833	0.05	0.33
Growth Rates				
1984-85 to 1990-91	6.2	2.4	-1.7	3.5
1990-91 to 1993-94	-6.7	-1.8	10.8	3.2
1984-85 to 1993-94	1.7	1.0	2.3	3.4

Note: Based on figures in Table 3.

production as well as employment in comparison to traditional sector, implying that the impact of SAP (structural adjustment program) and global recession was felt more by the former than the traditional industries. The data on capital is not available from these statistics and, hence, it is not possible to comment on the intensity and productivity of capital in two sectors. The productivity of labour, measured by production-employment ratio is found to be lower in traditional sector as compared to modern SSI (Table 10). Further, productivity

of labour has been declining after 1991 in the modern SSI as well as the traditional industries. The share in exports from the two sectors is almost the same and has varied between 45 to 50 per cent in both the sectors. For the period 1984-85 to 1993-94 the rate of growth in exports in traditional sector is higher at 9.6 per cent per annum as compared to 8.6 per cent in modern SSI (Table 9). Export intensity (exports/production) of traditional industries is however, much higher as compared to modern SSI showing that traditional sector is a more important source for earning foreign exchange whereas a greater proportion of output of modern SSI is used for domestic consumption (Table 10).

Since the Planning Commission statistics give no data on other variables like emoluments and capital, it is difficult to assess which of these small sectors must be encouraged to fit in the current policy objectives of obtaining maximum output, investment and employment in current scenario of more liberalised economy. However, the role of the traditional sector cannot be undermined considering the strong employment and export potential it has.

Summary and Conclusions

The growth in small scale industrial units has been faster for the smaller of the SSIs as compared to the larger SSIs, which implied that the entrepreneurs responded to incentives for setting up new units. Not many of the already existing small SSIs grew in size whereas the size of SSI (FS) increased. The smaller SSIs became smaller and larger SSIs became larger. In this context, Government policies do not seem to have been very beneficial for the smaller SSIs to grow in size, but seem to lead more towards increasing the number of SSI units. This, of course, has had its benefits in terms of growth in employment, investment, production and exports as reflected in the summary table presented below.

The efficiency of a particular sector is better judged in terms of its productivity. The analysis presented in this paper has shown labour productivity has been increasing in all the sectors with higher rates of growth (and also higher absolute values) in large industrial units followed by SSI (FS), SSI (SIDO) and traditional industries. In terms of capital productivity one finds that the smaller SSIs had the best performance. Capital productivity has been declining in both the SSI (FS) and large sector but has been increasing for smaller SSIs. This shows that though the larger industries are able to use labour more productively, there is a

better utilization of scarce capital in smaller units. While exports from small scale sector had increased but their share in output as reflected by the export intensity had declined till 1990-91 but increased thereafter, showing a U-shaped growth pattern. This shows that SSIs responded to the export incentives after 1990-91. However, modern SSIs have not been performing as well as the traditional industries both in terms of exports and employment generation.

It is quite clear that industries responded quite well to the investment incentives prevalent during the 1980s. This is reflected by increasing rate of growth of investment.

Table 11

Growth Rates (per cent per annum) of Large, SSI (FS), SSI (SIDO), Modern SSI and Traditional Industries

	Large (FS)	SSI (FS)	SSI (SIDO) 1980-81 to 1994-95	VSI	
				Modern SSI	Traditional Industries
	1980-81 to 1991-92			1984-85 to 1993-94	
Units	8.1	0.5	10.7		-
Employment	0.7	0.1	5.4	4.4	4.9
Investment	14.1	13.7	6.4*	-	-
Production	8.0	6.0	10.3	6.2	5.9
Exports	7.5**	-	10.8	8.6	9.6
Size@					
Employment / Unit	-9.2	0.1	-4.8	-	-
Capital / Unit	4.0	13.8	-5.4*	-	-
Output / Unit	-1.6	5.1	-0.4	-	-
Technical Coefficient					
Output / Employment	7.2	6.1	4.7	1.7	1.0
Output / Capital	-5.4	-6.7	5.5*	-	-
Fixed capital / Employment	13.3	13.8	0.0	-	-
Exports / Output	-	-	0.4	2.3	3.4

Notes : 1. The figures in the table are trend rates of growth, except where otherwise mentioned
2. * Based on investment figures: 1980-81 to 1989-90
3. @ For Large (FS) and SSI (FS), average annual growth rates have been worked out for 1980-81 to 1990-91
4. - Data not available
5. ** Shows growth of total exports from the country from 1980-81 to 1994-95

Incentives during the 1980s have however, been lopsided from the point of view of employment generation. They have encouraged the process of capital deepening but have affected the labour-capital ratio adversely. Greater than unitary elasticity of substitution suggests that there has been greater substitution of capital for labour. As labour is becoming more expensive vis-a-vis capital, reflected in rising wage-rental ratios, it leads to a greater tendency to substitute capital for labour.

It is then important to consider whether the country needs Government policies to make capital cheaper vis-a-vis labour so that industries have easy access to capital and substitute scarce capital for relatively abundant labour, or does it need policies for employment generation. It is, of course, important to have a good mix of the two to promote industrialisation. At the same time in the context of globalisation it is important to examine the need for Government intervention when information and technology have become two important instruments for growth and productive efficiency, and SSIs don't have same degree of access to these as large firms. It may then be crucial for Government to play an important role to provide information and encourage small industries to go in for flexible specialisation (instead of mass production) type of technology (Nanjudan 1994). Collective efficiency emphasising horizontal linkages along with vertical linkages (of subcontracting type) needs to be encouraged to promote small scale industries. At the same time, it is important to consider whether the Government policies should be to encourage the growth in the number of small SSI units, which are seen to be performing better than larger SSI in terms of productivity and employment or should larger SSI or large industries be encouraged within this framework. It is also important to ensure that the traditional industries do not die considering their high employment and export potential.

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