

# Employment in the Manufacturing Organized Sector in India: The Rise of Medium Scale Units

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The proposition that labour market rigidities caused by government regulation of wages and job securities restrict expansion of employment opportunities depends on analysis of the manufacturing organized sector during the 1980s. In the 1980s, economic growth without increase of employment in the organized sector became an issue. P.R. Fallon and R.E.B. Lucas ascribe drop of long-run demand for employments to amendments of Industrial Disputes Act in 1976.<sup>1</sup> Besides, I.J. Ahluwalia and A.K. Gosh argued the sharp increase of real wage rates caused rise of the capital-labour ratio.<sup>2</sup> On the other hand, increase of employment in the manufacturing organized sector during the 1990s was pointed out.<sup>3</sup> The rise of medium scale unit employing 50-199 employees became more important in terms of employment during the 1980s and 1990s. The conditions of labour market might be reflected in the rise of medium size units. This paper examines the reasons of economic growth without increase of employment and why employment distribution shifted in favour of medium scale units.

## 1. TRENDS OF EMPLOYMENT IN THE ORGANIZED SECTOR

Economic reforms since 1991 induced investment boom up to 1995-6. Growth rates of gross value added (GVA) in the manufacturing organized sector improved in the first half of 1990s. Although 1991 was the turning point of macroeconomic policies, economic liberalization started in the 1980s. A comprehensive industrial policy statement was made in July 1980. In 1985 government announced the delicensing of 25 categories of industries. If liberalization in the 1980s had impact on labour market, 1991 might not have been its turning point.<sup>4</sup>

The organized sector includes government employees. The purpose of this paper is to analyse relationship between labour market and institution in the manufacturing sector. As supply of government service depends on political decision, government employees engaging in government service are excluded from this analysis. This paper depends on data from Annual Survey of Industries (ASI), which covers manufacturing and infrastructure, and the private and public sector units.

Since ASI does not have used-based classification, we must aggregate three digit level data to produce used-based data series. National industrial classification (NIC) was changed from 1970 code to 1987 code. After it was changed, ASI changed the classification in 1989-90 to follow new classification. This study produces used-based data series on the basis of 1987 code. GVA is deflated by chain index of industry group. Annual inflation rate of specific year, denoted by  $P_t$ , is obtained using the formula:

$$P_t = \sum \frac{WPI_{i,t} V_i}{WPI_{i,t-1} V_a}$$

where  $V_i$  is net value added (NVA) of good  $i$  and  $V_a$  is total NVA of the industry group. Wholesale price index of good  $i$  is compared with previous year's one and is weighted by the share of NVA in total NVA of the industry group. The index takes 1981-2 as base year.

Worker number of total industries (NIC 20-1 to 74) had grown constantly from 4.53 million in 1973-4 to 6.17 million in 1982-3 by 3.6 per cent per annum.<sup>5</sup> However, it fell to 5.67 million in 1986-7. Since 1986-7 it increased again by 2.7 per cent to 7.56 million in 1997-8. Table 1 shows employment decreased in many industries between 1982-3 and 1986-7. Particularly in food industry employment went down by 6.6 per cent during the period. We divide period under examination into three periods: (1) 1973-4 to 1982-3, (2) 1982-3 to 1986-7, (3) 1986-7 to 1997-8. It seems that macro economy might have affected employment in the organized sector during the second period. On the other hand, annual GVA growth rate of total industries rose from 5.0 per cent during the first period, to 6.0 per cent during the second period and 9.4 per cent during the third period.

A.K. Ghose ascribed the reason of the sharp decline of employment elasticity in the manufacturing organized sector during the 1980s to a strategy of capital deepening pursued by firms. The rise of the relative price of product wages encouraged modernization and pure substitution of capital for labour.<sup>6</sup> We examine the relationship between capital-labour ratio and product wages. In ASI the concept of workers includes all persons employed directly or through any agency and engaged in any manufacturing process or in cleaning any part of the machinery or premises used for manufacturing process or in any other kind of work incidental to the manufacturing process. Man-days are obtained by summing-up the number of workers attending in each shift over all the shifts worked on all days. Number of workers represents average daily employment. The figures are furnished by each factory by dividing the total man-days worked during a year by the total number of working days during the year. Thus, they are based on actual attendance and not on the physical number of persons on roll. Wages includes (a) direct wages and salary, i.e. basic wages and salaries, payment of overtime, dearness, compensatory, house rent and

TABLE 1. GROWTH RATES OF GVA AND WORKER NUMBER

(%)

NIC	GVA at 1981-2 prices			Number of workers		
	I	II	III	I	II	III
20-1	5.8	6.0	7.6	5.3	-6.6	2.6
22	2.3	14.8	6.8	9.6	-3.3	3.5
23	1.6*	7.3	2.2	0.3*	-3.9	-0.4*
24	8.3	13.3	11.2	5.7	1.1	2.3
25	2.8*	3.0	1.2*	0.1*	-5.0	0.7*
26	4.8	6.6	15.6	4.9	1.2	12.2
27	-0.3*	1.2	NA	0.9	-3.0	0.7*
28	1.7	5.2	6.6	2.3	-2.9	2.0
29	4.1	7.3	12.2	5.6	3.4	5.0
30	5.8	6.0	11.9	4.5	1.0	4.3
31	4.8	14.6	9.9	5.8	-1.1	5.3
32	5.4	5.6	6.8	3.9	0.4	0.4*
33	4.6	-0.6	9.7	3.8	1.4	0.8*
34	3.8	1.9	7.2	1.7	-3.3	3.6
35-6	5.4	4.0	7.5	2.8	-1.7	1.8
37	6.2	3.7	10.3	3.7	-1.1	1.8
38	5.6	10.5	12.1	0.6*	1.2	6.6
40	7.4	7.4	10.0	6.3	0.7	2.0
41	-8.4*	-16.6	NA	-6.1	9.3	3.0
42	-9.7*	9.4	10.4	5.8	1.4	5.7
74	14.5	7.1	10.6	15.8	-2.6	5.9
Total	5.0	6.0	9.4	3.6	-2.1	2.7
CG	4.3	2.6	7.8	3.1	-2.3	3.8
IG	4.1	4.9	9.2	3.4	-0.9	2.1
CNDG	4.0	7.0	8.9	3.6	-3.6	2.7
CDG	5.1	9.7	11.4	2.6	0.0	3.4
Sub-total	4.2	5.6	9.1	3.4	-2.4	2.7

NOTES: I Period from 1973-4 to 1982-3. Growth rates are calculated by semi-log trends.

II Period from 1982-3 to 1986-7. Growth rates are calculated by compound growth rates.

III Period from 1986-7 to 1997-8. Growth rates are calculated by semi-log trends.

\* Statistically insignificant at 95 per cent confidence level.

CG is capital goods

IG is intermediate goods

CNDG is consumer non-durable goods

CDG is consumer durable goods

Total includes NIC 20 to 74

Sub-total includes CG, IG, CNDG and CDG

SOURCE: Govt. of India, *Annual Survey of Industries: Summary Result of Factory Sector* (various issues).

other allowance, (b) remuneration for period not worked, i.e. basic wages, salaries and allowance payable for leave period, paid holiday and lay-off payments, (c) bonuses and ex-gratia payment paid both at regular and less frequent intervals, i.e. incentive bonuses, good attendance bonuses, productive bonuses, profit sharing bonuses, etc.

When we analyse wage rates, we must take following two points into consideration. First, if workers work for more days during one year and man-days are same, number of workers will decrease. In fact, average annual working days of total industries rose from 273 days during the first period (1974-5 and 1982-3), to 300 days during the second period, to 309 days during the third period (1986-7 and 1996-7). Second, if firms introduce contract or casual workers without replacing formal workers, man-days and number of workers may rise but wages grew less than them. Casual workers are getting lower salary than regular workers.

To calculate capital-labour ratio, we must estimate capital stock first. Capital stock is estimated by the perpetual inventory method. A capital stock in year  $T$ , denoted by  $K_T$ , is based on following formula:

$$K_T = K_0 + \sum_{t=1}^T (I_t - DS_t)$$

where  $K_0$  is fixed capital stock in the benchmark year,  $I_t$  is the gross investment at constant price in fixed assets in year  $t$ , and  $DS_t$  is the amount of fixed assets at constant price discarded during year  $t$ . Hashim and Dadi estimate replacement value of fixed assets in 1960 after analysing the balance sheets of firms.<sup>7</sup> This study uses their estimate as benchmark.  $I_t$  is defined as

$$I_t = (B_t - B_{t-1} + D_t) / P_t$$

where  $B_t$  is the book value of fixed assets at the end of year  $t$ ,  $D_t$  is the amount of depreciation allowances made during year  $t$  and  $P_t$  is the capital goods price deflator. It is difficult, however, to obtain data of  $DS_t$ . In this study we assume  $DS_t$  is zero.

To calculate product wages, wages to workers are deflated by the relevant wholesale price index of industries. Table 2 shows increase of product wages per man-day during the first period was insignificant at 95 per cent confidence level in many industries. But they grew rapidly during the second period. On the other hand, capital-labour ratio also came up during the second period. We can estimate two processes from the phenomenon. First, rapid increase of product wages might have encouraged modernization and pure substitution of capital for labour. As a result, capital-labour ratio jumped up. Second, investment increased to meet growing demand. After investment increased capital-labour ratio and labour productivity, wages rose.

We examine why product wages per man-day increased. Growth rates of labour costs during the second period were between 4.3 and 6.9 per cent at four used-basis industry groups. These figures are exaggerated by two reasons. First, product wages depend on the relative price of food. As workers spend a large proportion of wages to purchase food, all India consumer price index for industrial workers puts 57 per cent weight on food articles. The terms of trade between agriculture and manufacturing affect product wages.<sup>8</sup> During the

TABLE 2. GROWTH RATES OF PRODUCT WAGES AND LABOUR PRODUCTIVITY AND CAPITAL-LABOUR RATIO

NIC	(%)								
	<i>Product wages per man-day at 1981-2 prices</i>			<i>Labour productivity (GVA per man-day)</i>			<i>Capital-labour ratio (fixed capital per number of workers)</i>		
	I	II	III	I	II	III	I	II	III
20-1	2.4*	2.5	2.7	-0.0*	5.6	4.8	1.7*	14.0	5.3
22	-1.1*	5.2	-0.7*	-13.4	14.7	2.7	-2.6*	15.3	6.8
23	1.4*	7.2	-1.9	1.3*	9.1	2.7	4.5	9.1	7.1
24	2.9	9.0	3.7	0.9*	10.5	9.0	3.6	7.3	9.2
25	5.7	8.3	-1.6*	3.6	7.3	-0.7*	2.5	7.6	2.6
26	5.2*	3.2	0.4*	-1.3*	5.1	4.9	7.6	8.0	3.8
27	-2.0	3.8	-3.8*	-2.8	4.6	0.3*	5.6	8.7	6.5
28	1.4*	1.5	1.6	-2.2	6.9	5.2	5.2	10.4	5.6
29	-3.5*	3.6	1.6*	-4.3	3.1	7.1	8.5	4.1	6.5
30	1.3*	7.1	1.5	-0.9*	4.0	8.4	3.5	6.0	5.0
31	-3.8	8.1	3.9	-4.2	15.7	5.7	5.3	11.4	5.0
32	-1.0*	5.4	1.8	0.9*	4.7	5.7	2.9	12.8	8.7
33	-1.2*	0.5	2.2	-1.0*	-3.1	7.9	2.8	3.3	7.2
34	1.6	6.0	0.2	1.0*	4.0	3.1	4.8	9.4	6.4
35-6	0.3*	5.6	1.9	0.2*	5.6	5.7	4.2	8.7	6.3
37	-1.2*	4.6	3.2	-0.1*	3.9	8.9	7.0	7.8	5.4
38	-0.1*	6.9	0.4*	1.9*	8.2	5.7	5.7	6.6	3.9
40	-1.4*	5.9	6.4*	-1.1*	6.8	8.6	NA	NA	NA
41	-1.7*	5.3	1.7*	-0.4*	-23.5	NA	NA	NA	NA
42	-3.6	5.0	3.5	-10.0	7.7	5.4	NA	NA	NA
74	-2.6*	8.2	1.8	-5.6*	6.1	5.7	NA	NA	NA
Total	0.4*	5.2	2.4	0.3*	6.0	6.9	3.9	9.3	6.2
CG	-1.7*	5.3	1.9	-1.9*	4.5	4.0	4.6	7.5	2.8
IG	-3.2	4.3	1.7	-0.2*	4.3	7.2	3.8	7.8	6.6
CNDG	-0.0*	4.9	1.1	-0.2*	7.3	6.4	3.3	10.7	6.4
CDG	-0.1*	6.9	3.1	0.3*	8.3	8.0	4.8	9.3	6.2
Sub-total	-1.4*	4.9	1.7	-0.3*	5.7	6.5	3.9	9.3	5.9

NOTES: I Period from 1973-4 to 1982-3. In the case of Product wages and Labour productivity, from 1974-5 to 1982-3. Growth rates are calculated by semi-log trends.

II Period from 1982-3 to 1986-7. Growth rates are calculated by compound growth rates.

III Period from 1986-7 to 1997-8. In the case of Product wages and Labour productivity, from 1986-7 to 1996-7. Growth rates are calculated by semi-log trends.

\* Statistically insignificant at 95 per cent confidence level.

NA: Not available.

SOURCE: As in Table 1.

second period, wholesale index of food items and consumer price index (CPI) for industrial workers grew by 7.4 and 8.0 per cent. They are higher than 5.7 per cent of wholesale index of manufacturing goods. Growth rates of real wage rates, which are deflated by CPI for industrial workers, were less than 3.2 per

TABLE 3. GROWTH RATES OF PRODUCT WAGE

(%)

Industry group	Product wages per man-day at 1981-2 prices				Real wages per man-day at 1981-2 prices		
	I	II	1978-9 to 1986-7	III	I	II	III
CG	-1.7*	5.3	1.1	1.9	1.8*	3.2	1.5
IG	-3.2	4.3	-2.4	1.7	2.4	2.9	1.6
NCG	-0.0*	4.9	2.3	1.1	0.8*	2.0	0.4
DCG	-0.0*	6.9	2.9	3.1	1.9	3.1	1.2
Sub-total	-1.4*	4.9	0.7	1.7	1.7	2.6	1.2

NOTES: I Period from 1974-5 to 1982-3. Growth rates are calculated by semi-log trends.  
 II Period from 1982-3 to 1986-7. Growth rates are calculated by compound growth rates.  
 III Period from 1986-7 to 1996-7. Growth rates are calculated by semi-log trends.  
 \* Statistically insignificant at 95 per cent confidence level.

SOURCE: As in Table 1.

cent (Table 3). Second, product wages declined at four used-based industry groups after 1978-9 (Figure 1). As product wages were low in 1981-2, their growth rates during the second period were exaggerated. Absolute level of product wages of four used-based industry groups exceeded the level of 1978-9 after 1986-7. For entrepreneurs absolute level of wages is more important than their growth rates. If we calculated compound growth rates of product wages between 1978-9 and 1986-7, they are less than growth rates of the third period except consumer non-durable goods. Product wages per man-day did not increase rapidly between 1978-9 and 1986-7.

If product wages have nothing to do with capital-labour ratio, why growth rates of capital-labour ratio accelerated during the second period? If firms introduced new machinery for modernization or substitution for labour, it

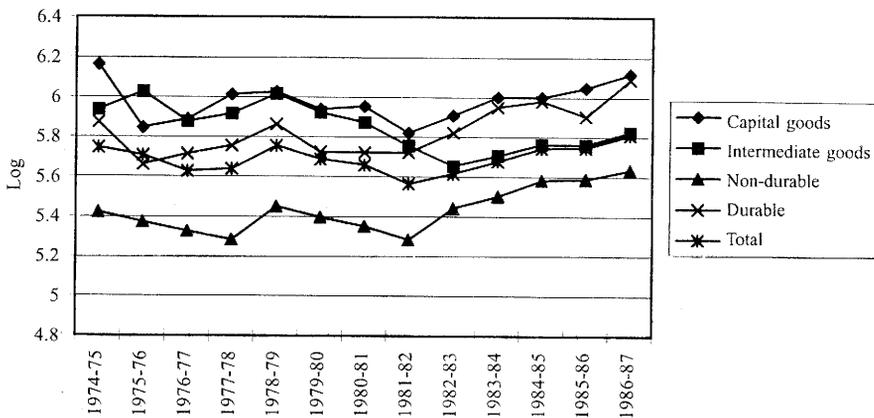


FIGURE 1. PRODUCT WAGES PER MAN-DAYS

should be reflected in production of capital goods and imports of capital goods. However, growth rates of GVA of capital goods industries and machinery and equipment other than transport equipment (NIC 35-6) went down from 4.3 per cent and 5.4 per cent during the first period to 2.6 per cent and 4.0 per cent during the second period. Imports of capital goods at 1981-2 price rose by

TABLE 4. GROWTH RATES OF MAN-DAYS, AVERAGE WORKING DAYS AND CAPITAL MAN-DAYS

(%)

NIC	Man-days			Working days**			Capital-man-days		
	I	II	III	I	II	III	I	II	III
20-1	4.2	0.4	3.1	177	235	264	2.6	6.0	4.8
22	13.7	0	4.1	222	263	288	NA	11.4	5.9
23	0.7*	-1.6	-0.5*	285	311	318	4.1	6.5	6.9
24	7.3	2.5	2.4	303	322	330	2.1*	5.9	9.2
25	-0.1*	-3.9	0.7*	308	304	311	3.7	6.4	2.8
26	5.6	1.3	12.7	279	292	298	NA	7.9	3.2
27	2.5	-3.3	0.6*	273	285	288	3.8	9.1	6.6
28	3.9	-1.6	2.1	303	313	318	3.7	9.0	5.5
29	8.0	4.2	5.7	275	294	295	5.8	3.3	6.4
30	7.2	1.9	4.3	295	320	323	0.6*	5.1	5.0
31	7.9	-1.0	5.6	285	312	317	2.7*	11.2	4.8
32	5.1	0.9	1.4	272	269	281	2.0	12.3	7.8
33	5.4	2.5	1.0*	313	328	334	1.2*	2.1	7.4
34	3.5	-2.0	4.0	285	301	301	2.9	7.9	5.9
35-6	5.3	-1.5	2.1	289	310	306	1.3*	8.5	6.1
37	7.1	-0.1	1.7	289	309	310	4.1	6.8	5.4
38	3.6	2.1	6.5	282	298	298	3.0	5.6	3.9
40	10.2	0.6	1.6*	347	364	363	NA	NA	NA
41	-7.2	9.0	2.9*	329	336	330	NA	NA	NA
42	8.8	1.6	6.7	349	359	362	NA	NA	NA
74	20.3	0.9	6.5	255	306	319	NA	NA	NA
Total	5.0	0	2.8	273	300	309	2.8	6.8	6.0
CG	6.2	-1.9	4.1	288	307	309	1.8*	7.1	2.5
IG	4.5	0.6	2.3	283	300	309	3.0	6.4	6.6
CNDG	4.0	-0.3	2.9	250	284	298	2.2	6.6	5.7
CDG	5.1	1.3	3.5	282	311	307	1.7*	7.6	6.0
Sub-total	4.5	-0.1	2.9	266	294	303	2.6	6.8	5.7

NOTES: I Period from 1974-5 to 1982-3. Growth rates are calculated by semi-log trends.

II Period from 1982-3 to 1986-7. Growth rates are calculated by compound growth rates.

III Period from 1986-7 to 1996-7. Growth rates were calculated by semi-log trends.

\* Statistically insignificant at 95 per cent confidence level.

\*\* Working days are calculated by dividing man-days by number of workers. As number of workers is furnished by each factory, these figures do not express exact ones. However, they suggest the trends.

SOURCE: As in Table 1.

10.8 per cent because of import liberalization. Import share of domestic consumption of capital goods was still low because imports were regulated by quantitative control in spite of its relaxation. Total amount of output value and import of machinery and equipment other than transport equipment grew by 6.2 per cent during the second period. It was less than 6.9 per cent during the first period.

Table 4 shows growth rates of man-days, average working days and capital-man-days ratio. Since number of workers is derived as the ratio of man-days to working days, if working days rise more rapidly than man-days, number of workers decrease. In fact, average working days for one year rose during the second period.<sup>9</sup> That is a reason of decrease of worker number during the second period. Therefore, capital-man-days ratio is better measure than capital-labour (number of workers) ratio.

There are two reasons of increase of capital-man-days ratio during the second period. First, negative growth of man-days pushed up capital-man-days ratio. India had recession between 1978-9 and 1982-3. While GVA growth rates of total industries slightly improved during the second period, some industries could not recover from the recession during the same period. Average growth rates of GVA dropped in metal products (NIC 34), machinery and equipment, and transport equipment (NIC 37) during the second period. Under the circumstances, man-days declined during the second period. Besides, many cotton textile and jute mills closed down during the second period. Number of employees affected by closure of cotton textile mills increased from 32,387 on 31 December 1982 to 1,07,952 on 31 December 1986 (Table 5). Number of units in jute textile (NIC 25) went down from 219 in 1982-3 to 184 in 1986-7. As a result, number of workers in cotton textile (NIC 23) and NIC 25 decreased from 9,26,193 and 2,35,076 in 1982-3 to 7,88,740 and 1,91,436 in 1986-7 respectively. Many workers lost jobs without getting any compensation, which was guaranteed by law. The phenomena reduced incentive of worker to join labour unions. Memberships of workers' unions including service sector decreased from 8.18 million in 1986-7 to 5.61 million in 1996-7.<sup>10</sup> Closure of many mills gave big damage to labour union movement because labour union failed to protect job security. Figure 2 expresses that man-days lost by labour disputes dropped sharply during the second period. Moreover, man-days lost by lockout exceeded those by strike. It implies that bargaining power of labour unions declined. The second period was turning point of labour movement.

Second, the manufacturing sector had redundant workers in the late 1970s. Although growth rates of GVA declined, man-days increased during the recession period between 1978-9 and 1982-3. We estimate utilization rates of capacity on the basis of minimum capital-output ratio. Capital-output ratios are calculated. A benchmark year is then selected on the basis of the observed lowest capital-output ratio. The lowest observed capacity-output ratio is considered as capacity output. The estimate of capacity is obtained by dividing

TABLE 5. CLOSURE OF COTTON TEXTILE MILLS

	Number of mills	Employees on roll
31 December 1980	17	26,517
31 December 1981	37	78,397
31 December 1982	28	32,387
31 December 1983	63	94,431
31 December 1984	77	99,591
31 December 1985	78	1,07,221
31 December 1986	84	1,07,952

SOURCE: Govt. of India, *Annual Report of Ministry of Textile 1986-87*, p. 18.

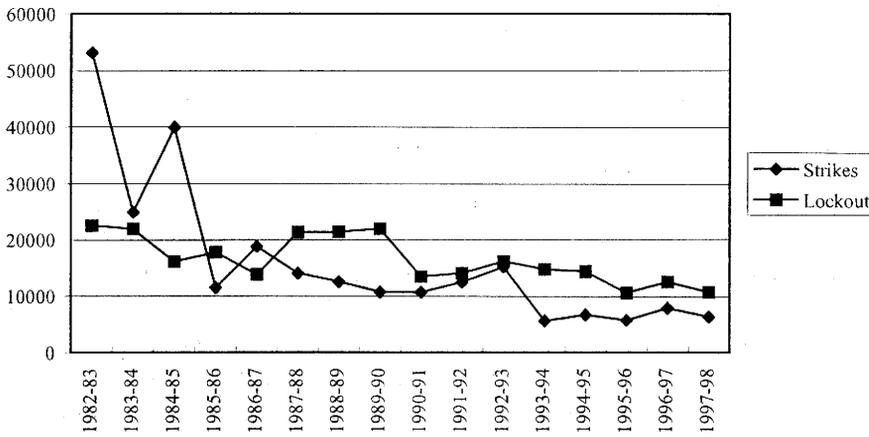


FIGURE 2. MAN-DAYS LOST BY DISPUTES

real fixed capital stock by minimum capital-output ratio. The utilization rate is given by actual output as a proportion of the estimated capacity.

Thus,

$$U = \frac{O}{\underline{C}} \cdot 100$$

$$\underline{C} = \frac{C}{(C/O) \min}$$

where  $U$  is capacity utilization,  $O$  is GVA,  $\underline{C}$  is estimate of capacity,  $C$  is capital stock. Capacity utilization rates dropped clearly at all industry groups after 1978-9 (Table 6). Under the underutilization of capacity, workers became redundant. It seems that strong labour union movement prevented large-scale retrenchment of workers up to 1982-3. Although product wages went down between 1978-9 and 1982-3, real wages did not decrease. Real wages per man-

TABLE 6. CAPACITY UTILIZATION RATES

	1977-8	1978-9	1979-80	1980-1	1981-2	1982-3	1983-4
CG	98.13	90.22	86.39	86.76	73.09	79.31	75.20
IG	96.53	100.00	89.44	81.27	82.63	84.74	81.95
CNDG	93.84	100.00	89.93	78.10	78.68	80.05	91.55
CDG	100.00	97.71	88.04	81.87	84.70	95.27	96.86
Sub-total	97.44	100.00	90.51	82.50	80.33	83.91	86.04

(%)

Source: As in Table 1.

day of four used-based industry groups at 1981-2 prices was Rs. 26.4 in both 1978-9 and 1982-3. From viewpoints of worker, real wages are more important than product wages.

During the third period, most of industries showed high growth of GVA. Under the background of slow rupee depreciation, export oriented industries like textile products (NIC 26) and leather products (NIC 29) developed. Besides, chemical products (NIC 30) and transport equipment grew. Investment and man-days increased to meet growing demand. Growth rates of man-days recovered during the third period although they were less than the first period. Employment elasticity during the third period was much less than that during the first period (Table 7). It decreased even in labour intensive industries like NIC 26 and 29. Economic liberalization forced domestic companies to introduce more capital-intensive technology to meet needs from market. Foreign collaboration companies demand domestic subcontracting companies to supply high quality parts. Domestic companies must improve their product quality to compete with imported products. Export-oriented unit is required to meet international standard quality. High quality control can save west of material costs. Investment became necessary to improve quality control even when cheap labour force was available. More capital-intensive technology was selected during the third period not to save labour costs but to improve quality control and save material costs. Growth rates of real product wages were not high in spite of rapid labour productivity increase during the third period. Growth rate of real product wages in total industries was 2.4 per cent. Growth of wages was not reason of increase of capital-labour ratio. As a result, the share of product wages in GVA dropped sharply during the third period.

## 2. IMPACTS OF ECONOMIC REFORMS

To examine impact of economic reforms since 1991, the third period is divided into two sub-periods. Economic reforms brought investment boom between 1991-2 and 1995-6. As industrial licensing was abolished, firms could set up or expand their capacity by their own judgement. High growth rates of GVA generated the expectation that demand would increase further in the future. To

TABLE 7. EMPLOYMENT ELASTICITY AND SHARE OF WAGES IN GVA

NIC	Employment elasticity		Share of product wage in GVA (%)			
	I	II	1973-4	1982-3	1986-7	1997-8
20-1	0.490	0.311	24.8	25.3	22.4	17.8
22	0.827	0.486	25.2	37.8	26.7	18.9
23	0.179*	-0.010*	41.2	56.5	52.7	34.0
24	0.658	0.182	25.2	28.7	27.2	16.6
25	0.168*	0.272*	68.3	80.9	84.2	75.5
26	0.782	0.724	32.3	26.7	24.8	21.1
27	0.009*	-0.079*	34.1	33.1	32.1	26.4
28	0.902	0.279	31.3	35.1	28.5	25.9
29	1.002	0.391	44.4	36.8	37.6	20.8
30	0.666	0.354	14.9	14.6	16.4	10.4
31	0.647	0.493	19.5	14.2	10.8	12.7
32	0.615	0.076	33.8	23.1	23.8	14.8
33	0.717	0.095	29.5	26.7	30.8	12.9
34	0.447	0.437	29.6	27.8	30.0	21.8
35-6	0.482	0.241	24.7	22.7	22.7	16.3
37	0.594	0.196	40.0	32.6	33.6	22.8
38	0.082*	0.501	36.4	25.9	24.7	18.1
40	0.688	0.217	18.5	20.5	19.8	13.0
41	0.222*	0.085	23.0	10.2	36.7	2.4
42	-0.094*	0.532	6.2	47.4	42.8	41.4
74	1.044	0.514	21.5	21.1	22.7	21.4
Total	0.654	0.286	27.4	26.4	25.7	16.5
CG	0.594	0.462	30.1	26.8	27.7	24.8
IG	0.765	0.231	33.9	22.9	23.0	14.6
CNDG	0.755	0.292	32.4	34.0	31.1	18.8
CDG	0.447	0.299	31.4	25.0	23.7	15.6
Sub-total	0.740	0.298	32.4	27.6	26.7	17.7

NOTES: Employment elasticity was calculated by  $\log E = \alpha + \beta \log G$ . E is number of workers and G is GVA.

\* Statistically insignificant at 90 per cent confidence level.

SOURCE: As in Table 1.

meet growth of demands, gross fixed capital formation rose in the first half of 1990s. Moreover, stock boom and increase of internal financing encouraged the atmosphere. The three factors made entrepreneurs to overestimate growth rates of demand. GVA started declining or stagnating in the mid-1990s. As a result, underutilization of capacity made its appearance across the four industry groups.<sup>11</sup> Although capacity utilization rates of the four industry groups peaked in the mid-1990s, they witnessed a clear drop after the mid-1990s. Labour and capital productivity declined after the mid-1990s due to under-utilization.

Table 8 shows number of workers depends on growth rates of GVA. New units set up and existing units increased their employment and shifts to meet rising demand after economic reforms. As growth rates of GVA declined after

TABLE 8. COMPOUND GROWTH RATE OF GVA AND WORKER NUMBERS

NIC	(%)					
	GVA at 1981-2 prices			Number of workers		
	1986-7 to 1990-1	1991-2 to 1995-6	1991-2 to 1997-8	1986-7 to 1990-1	1991-2 to 1995-6	1991-2 to 1997-8
20-1	8.4	11.0	8.7	3.2	4.0	3.3
22	4.4	4.5	6.8	5.6	0.8	2.7
23	4.8	0.6	3.8	-2.0	2.1	1.3
24	15.9	13.4	12.8	2.3	6.0	3.6
25	-6.9	2.3	6.0	-1.0	7.0	1.4
26	22.1	15.3	8.4	13.0	17.3	13.3
27	14.5	-9.6	-7.3	-1.9	4.7	3.1
28	8.8	13.1	5.0	0.9	4.5	2.2
29	18.2	8.8	9.3	9.7	5.0	1.9
30	15.4	18.8	11.3	3.4	6.3	5.2
31	11.3	17.7	9.1	6.0	6.6	5.3
32	14.3	3.8	1.9	0.7	1.0	-0.8
33	13.3	20.9	18.5	-0.7	5.5	2.0
34	5.5	15.9	9.8	6.4	5.3	3.2
35-6	10.1	11.4	7.4	2.8	3.9	1.1
37	8.0	22.0	12.2	-0.6	5.8	1.8
38	2.1	18.3	14.3	5.4	10.6	7.5
40	8.2	19.6	13.1	1.3	9.2	5.6
41	21.7	89.4	62.9	0.3	-4.2	-0.6
42	7.6	19.7	7.6	6.3	12.4	4.8
74	12.4	16.8	6.2	6.4	10.5	6.2
Total	10.8	15.2	10.5	2.5	5.1	3.3
CG	8.8	14.0	8.0	5.2	4.5	2.7
IG	13.8	17.5	10.7	1.2	5.3	2.9
NDCG	9.9	10.0	9.1	2.6	4.1	3.1
DCG	10.1	14.4	12.6	3.6	5.9	3.8
Sub-total	11.2	14.1	9.9	2.6	4.6	3.0

SOURCE: As in Table 1.

1995-6, many units closed down and number of workers also went down due to retrenchment of workers and reduction of shifts. Growth rates of worker numbers between 1991-2 and 1997-8 were higher than 5 per cent in NIC 26, 30, 31, 38, and 74, whose growth rates of GVA were higher than 6 per cent.

To examine which sector absorbed employment, we calculate compound growth rates of worker numbers (Table 9). The organized sector, i.e. the factory sector consists of the census and sample sectors. It covers all factories registered under the Factory Act which refer to the establishments using power and employing 10 or more workers and those not using power and employing 20 or more workers. The census sector includes all units employing 100 or more workers irrespective of the use of power. The sample sector covers the rest in the organized sector.

TABLE 9. COMPOUND GROWTH RATES OF WORKER NUMBER AND UNIT NUMBER

(%)

Sector	1990-1 to 1995-6			1990-1 to 1996-7		
	Public	Private	Total	Public	Private	Total
<i>Number of Workers</i>						
Sample	-11.3	3.5	2.5	-8.5	4.3	3.5
Census	-0.2	4.3	2.6	-4.7	2.5	0.0
<i>Number of Units</i>						
Sample	-12.8	3.8	3.0	-8.7	3.4	2.8
Census	-0.6	0.4	0.2	-3.3	0.2	-0.5

SOURCE: Govt. of India, *Annual Survey of Industries: Summary Report on Absenteeism, Labour Turnover, Employment and Labour Cost* (various issues).

The sample sector has advantage at four points: (1) cheap labour costs, (2) no job security regulation, (3) low overhead costs, and (4) easy adjustment to change of market. On the other hand, the census sector has advantage at two points: (1) economies of scale and (2) strong financial base. In 1990-1 average labour costs per man-day worked were Rs. 122.0, Rs. 99.1, Rs. 75.3 and Rs. 51.5 in census public, census private, sample public and sample private units respectively. Employments went down in the sample public sector between 1990-1 and 1995-6. As the public sector accounted for only 9.1 per cent of worker numbers of the sample sector in 1990-1, the effect was negligible. In the census public sector, number of workers and units went down by 0.2 per cent and 0.6 per cent respectively. Although units increased slightly in the census private sector, number of workers came up by 4.3 per cent. Many new units set up in the census private sector in the 1990s. Number of units and workers grew by 3.8 per cent and 3.5 per cent respectively.

We can conclude two points from the above analysis. First, the public sector reduced employments in the 1990s. While the public sector decreased employments, the private sector increased them. It does not mean, however, that private units have financial stability. 3,296 cases were registered as sick companies at Board for Industrial and Financial Reconstruction on 31 December 2000. The criteria to determine sickness in an industrial company are that (1) the accumulated losses of the company to be equal to or more than its net worth, i.e. its paid-up capital plus its free reserves, (2) the company should have completed five years after incorporation under the Companies Act, 1956, (3) it should have 50 or more workers on any day of the 12 months preceding the end of the financial year with reference to which sickness is claimed. Among 3,296 cases, 3,121 are private units, 74 are central public sector units, 101 are state public sector units.<sup>12</sup> Although many private units closed down in the 1990s, many units set up. As a result, number of units rose. Second, there

is no clear difference between the census and sample private sectors. Between 1990-1 and 1995-6 the census private sector gained more employments than the sample private sector. As the census private sector lost employment in 1996-7, growth rate of worker number was 2.5 per cent between 1990-1 and 1996-7. On the other hand, the sample private sector increased employment by 4.3 per cent during the same period.

ILO report argues that government interventions played a key role in determining wages in the organized sector. The interventions include setting of minimum wage norms, direct determination of wages in public enterprises, indirect influence on wage determination in private enterprises through the establishment of Wage Boards, setting of norms for wage differentials and establishment of rules of indexation and bonus payment.<sup>13</sup> If the argument is right, labour costs of the census private sector might have correlation with

TABLE 10. COMPOUND GROWTH RATES OF REAL LABOUR COSTS\*  
PER MAN-DAY BETWEEN 1990-1 AND 1996-7

NIC	Sample		Census		(%)
	Public	Private	Public	Private	
20	4.2	2.1	2.6	2.3	
21	9.3	3.3	3.2	0.0	
22	2.5	10.5	-17.0	-1.0	
23	4.1	0.7	-0.2	-1.5	
24	-13.2	0.3	-1.0	0.1	
25	8.0	-1.7	-1.6	-0.7	
26	8.9	-0.3	-5.1	0.0	
27	1.1	1.7	5.0	-0.9	
28	5.5	2.3	2.4	5.0	
29	8.7	0.5	-2.2	-2.4	
30	6.0	2.7	2.6	0.4	
31	6.3	1.7	4.2	1.5	
32	7.2	2.0	5.3	1.6	
33	-2.1	0.2	4.6	0.4	
34	29.8	0.8	4.6	1.4	
35	6.0	3.6	4.4	2.5	
36	14.5	-0.1	3.6	1.1	
37	8.1	3.1	5.2	1.1	
38	-9.2	2.2	1.6	4.4	
39	1.7	3.6	1.4	2.0	
41	NA	NA	6.2	8.1	
42	3.4	-4.8	1.3	0.6	
74	0.8	0.5	11.9	1.2	
97	-2.8	2.2	3.2	3.7	
All	6.0	3.5	3.2	1.0	

NOTE: \* At 1980-1 prices.

SOURCE: As in Table 9.

those of the census public sector. Labour costs include salary and wages, bonus, provident and other fund, and workmen and staff expenses. Table 10 shows that growth rates of labour costs in both sectors did not have correlation. Simple correlation coefficient of 24 industries is 0.395. Besides, it is noteworthy that labour costs per man-day of sample private sector increased faster than that of census private sector in 12 industries among 23 industries although their gap was still large. The census private sector might have been affected more than the sample private sector by the influence of the government intervention. It seems that other reasons except the government intervention push up labour costs in the sample private sector.

### 3. THE RISE OF MEDIUM-SIZE UNITS

B. Goldar points out long-term shift of employments from units employing 2,000 and above to units employing 50 to 499 during the 1980s and 1990s.<sup>14</sup> Table 11 shows distribution of employments by employment size. The share of units employing 1,000 and above declined clearly. Closure of many large-scale cotton and jute mills might have been a reason. On the other hand, the share of medium scale units employing 50 to 199 rose. Medium scale units gained employments. The classification of census and sample sectors is not appropriate to analyse medium-class units because they belong to both sectors.

We examine condition of medium-class units from a long-term viewpoint. If GVA is the sum of profits (P) and total emoluments for employees including white collar (E), and if N indicates number of employees, the labour productivity is given by (P+E)/N. If K<sub>1</sub> is productive capital, which consists of fixed capital and working capital and K<sub>2</sub> is fixed capital stock, the following identity is established:

$$\frac{P + E}{N} = \frac{P}{N} + \frac{E}{N} = \frac{K_2}{N} \frac{K_1}{K_2} \frac{P}{K_1} + \frac{E}{N}$$

The labour productivity may be broken down into profit per employee and labour cost per employee, and the former may be rewritten as the product of

TABLE 11. DISTRIBUTION OF EMPLOYMENTS BY EMPLOYMENT SIZE (%)

<i>Employment size</i>	<i>1973-4</i>	<i>1980-1</i>	<i>1990-1</i>	<i>1995-6</i>	<i>1997-8</i>
Less than 50	14.4	13.8	17.5	16.8	16.8
50-99	8.2	9.0	10.8	11.7	13.1
100-199	9.4	9.2	10.7	13.0	12.9
200-499	13.1	12.1	13.5	17.3	19.0
500-999	11.6	9.7	12.0	14.3	13.6
1,000 and above	43.3	46.3	35.5	26.9	24.6

SOURCE: As in Table 1.

TABLE 12. GROWTH RATES OF LABOUR PRODUCTIVITY

<i>Employment Size</i>	$(P+E)/N$ (Rs.)	$K_2/N$ (Rs.)	$P/K_1$ (%)	$E/N$ (Rs.)
<i>1979-80</i>				
Less than 50	11,435	58,826	29.4	4,330
50-99	12,161	51,948	32.9	4,966
100-199	15,384	77,181	35.6	6,024
200-499	21,239	1,61,147	37.3	7,833
500-999	27,750	2,76,544	21.9	10,518
1,000 and above	24,434	2,52,901	13.9	11,483
<i>1995-6</i>				
Less than 50	26,297	1,20,968	19.9	7,973
50-99	32,709	88,287	35.8	8,286
100-199	51,081	1,56,303	30.7	12,482
200-499	57,562	2,49,534	25.5	15,543
500-999	71,875	3,54,776	26.2	18,624
1,000 and above	75,322	5,72,011	24.7	22,467
<i>1997-8</i>				
Less than 50	35,440	1,13,888	31	9,040
50-99	34,430	97,932	30.9	9,148
100-199	55,099	2,06,121	24.7	13,782
200-499	59,614	2,68,071	21.4	17,524
500-999	78,238	4,33,627	19.9	20,119
1,000 and above	81,400	6,42,360	22.8	23,587
<i>Growth rates</i>				(%)
Less than 50	6.0	3.4	30.7*	3.6
50-99	6.4	3.4	33.5*	3.4
100-199	7.4	4.7	31.3*	4.5
200-499	6.9	3.1	30.2*	4.3
500-999	6.2	2.2	24.2*	3.5
1,000 and above	7.2	5.4	18.0*	4.1

NOTES: Growth rates were calculated by semi-log trends.

\* Average between 1979-80 and 1997-8.

SOURCE: As in Table 1.

capital-labour ratio, the ratio of productive capital to fixed capital stock, and gross capital-profit ratio. Data is available after 1979-80 onwards. Table 12 shows employment size-wise labour productivity.

The three points are noteworthy. First, average gross profit ratio between 1979-80 and 1997-8 was highest in units employing 50 to 99, second in units employing 100 to 199 and lowest in units employing 1,000 and above. Medium scale units were dynamic sector to gain employment and investment. Although many medium-class units closed down due to financial weakness, more units set up to get higher profits in the 1980s and 1990s. That is a reason that medium-class units increased employments.<sup>15</sup> It does not mean, however, that medium-class units were more profitable than large units in the same industry.

Units employing 1,000 and above included many units of cotton and jute textiles. Number of workers per unit in the census sector in 1990-1 was 625 in public sector of NIC 23, 1,851 in public sector of NIC 25 and 1,496 in private sector of NIC 25. Real growth rates of GVA were very low in these two industries during the third period. As many units in the two industries were making loss, average gross profit ratio was low. On the other hand, number of workers per unit in the census sector in 1990-1 was 101, 132 and 132 in private sector of NIC 26, 29, 30, whose growth rates of GVA were higher than 10 per cent during the same period. As average number of workers per unit in total industries of the census sector was 165, unit size was below average in the three industries. Units of the three industries contributed to improvement of average gross profit ratio in medium scale units.

Number of workers per unit had shrunk during the 1970s. However, the trend stopped in the mid-1980s. Worker number per unit of total industries (NIC 20-1 to 38) in the organized sector was 69 in 1973-4. It decreased to 53 in 1985-6 and changed between 50 and 54 after 1985-6 onwards. M. Alam and S.N. Mishra ascribe decline of average employment size per unit to the rigidities of labour legislation and a rise in the incidence of redundancy among a large number of city-based industrial units.<sup>16</sup> However, shrinkage of employment size could be observed in few industries. To examine which industry decreased worker number per unit, its growth rates are calculated, on the basis of semi-log trends. Among 17 industries (NIC 20-1 to 38), only NIC 20-1, 23, 25, 32 and 37 showed higher than 1 per cent negative growth rates at 95 per cent confidence level and above between 1979-80 and 1997-8. On the other hand, NIC 22, 24, 26 and 38 showed higher than 1 per cent positive growth rates. It can be seen that disparities of gross profit ratio did not arise as a result of differences of employment size within the same industry. The profit differential among industries might be reflected in different gross profit ratio of employment size.

Second, the labour productivity differential had been large. Small-scale units had weakness in that sense. While many large size units employing 1,000 and above closed down, remaining large units invested in equipment to improve productivity.

Third, labour costs per employee rose fastest in units employing 100 to 199. Faster rise of product wages did not prevent increase of employments in the units. The share of units employing 100 to 199 in total employees of the factory sector rose from 9.2 per cent in 1980-1 to 12.9 per cent in 1997-8.

P.R. Fallon and R.E.B. Lucas observe that job security regulation affected growth of employments in the census sector after 1976. Industrial Disputes Act was amended in 1976. The amendment prohibited lay-off, retrenchment and closure by industrial units employing not less than 300 workers without prior permission of the government. In 1982 the coverage was extended to include industrial units employing 100 and more workers. ILO report also argues that

employment sedulity regulations induced employers to keep the establishments size artificially small, partially sacrificing economies of scale.<sup>17</sup> However, units employing 100 to 199 developed well along with units employing 50 to 99.

#### 4. TRADE UNION AND INSTITUTION

It has been argued that strong labour union has made labour market rigid. Many sick cotton textile mills had been taken over by the government under the pretext of labour protection. After labour unions failed to prevent closure of many units, power of labour unions has declined since the mid-1980s. Decline of labour unions induced two phenomena.

First, employers started introduction of contract worker to make employment flexible and to save labour costs. Table 13 shows sector-wise percentage of man-days worked by contract workers. The figure does not include casual workers out of workshop. The percentage may be higher if these workers are included. In the census sector the share rose during the 1980s and 1990s. Although the percentage dropped sharply in some industries like NIC 22 and 29 in the sample sector, it increased in many industries in the sector. Employers were using contract worker as buffer of employment.

Second, employers retrenched worker by voluntary retirement scheme. However, redeployment of workers was constrained by lack of large-scale training facilities and poor adaptability among the older workers.<sup>18</sup> Many workers started working as casual labourers.<sup>19</sup> If the income gap between the organized and the unorganized sectors is taken into consideration, it is difficult to maintain the same life standard before retirement. Workers of closed units had the same problem. A survey of the economic activities of displaced workers was conducted by Gandhi Labour Institute in 1984. The closures of a large number of textile mills in Ahmedabad during two years of 1983-4 rendered about 36,000 workers jobless. Different workers supplied information about a period of one week in September 1984. Among 5,773 displaced workers, only 44 per cent reported to have had some earning activity in Ahmedabad during the reference week. In other words, more than half displaced workers did not have any earning activity.<sup>20</sup> After economic reforms, employment situation

TABLE 13. SECTOR-WISE PERCENTAGE OF MAN-DAYS WORKED BY CONTRACT WORKERS

	1980-1			1990-1			1996-7		
	Public	Private	All	Public	Private	All	Public	Private	All
Sample	N.A.	N.A.	N.A.	5.8	21.4	19.9	5.4	17.2	16.6
Census	1.9	6.1	4.6	5.3	10.9	9.1	7.3	17.3	14.2

SOURCE: As in Table 9.

deteriorated further. Between March 1994 and the autumn of 1996, 52 out of 63 composite mills in Ahmedabad closed. The study of J. Howell and U. Kambhampati shows that conditions of retrenched workers did not improved from 1980s.<sup>21</sup>

In 1992 the government established the National Renewal Fund (NRF) to finance retraining and redeployment schemes and compensates the displaced workers. However, the scheme was not working effectively due to two reasons. First, funds were not enough to give compensation to redundant workers. Second, participation rates of training programmes were low because of a lack of confidence to obtain employment after training.<sup>22</sup> Sudden inflow of many retrenched workers into labour market induced over supply of labour force. Under the condition, workers could not have good prospect to find any earning activity in not only organized sector but also unorganized sector.

## CONCLUSION

Manufacturing organized sector faced recession and utilization rates of capacity went down between 1978-9 and 1982-3. Although workers became redundant, strong labour union movement prevented large-scale retrenchment of workers and maintained real wage at the same level up to 1982-3. However, after many cotton textile and jute mills closed down during the mid-1980s, labour union movement declined. Closure of many mills gave big damage to labour union movement because labour union failed to protect job security.

In the 1980s economic growth without increase of employment became an issue. It was argued that rapid increase of wages encouraged modernization and pure substitution of capital for labour. Product wages rose rapidly because they decreased between 1978-9 and 1982-3. Absolute level of product wages in total four used-based industry groups exceeded the level of 1978-9 after 1986-7. Capital-man-days ratio jumped up between 1982-3 and 1986-7 due to two reasons. First, negative growth of man-days pushed up capital-man-days ratio. While GVA growth rates of total industries slightly improved during the second period, some industries could not recover from the recession during the same period. Under the circumstances, man-days declined during the period. Besides, many cotton textile and jute mills closed down during the period. Second, the manufacturing sector had redundant workers in the late 1970s.

Medium-scale units employing 50 to 199 gained employment during the 1980s and 1990s. First, average gross profit ratio between 1979-80 and 1997-8 was highest in units employing 50 to 99, second in units employing 100 to 199. Worker number per unit did not changed in most of industries. It can be seen that disparities of gross profit ratio did not arise as a result of differences of employment size within the same industry. It has been argued that job security regulation affected growth of employments in the census sector after

1976. However, units employing 100 to 199 developed well along with units employing 50 to 99.

Although many workers were retrenched by closure of units and voluntary retirement scheme, redeployment of workers is constrained by lack of large-scale training facilities and poor adaptability among the older workers.

## NOTES

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2. I.J. Ahluwalia, *Productivity and Growth in Indian Manufacturing*, Delhi, Oxford University Press, 1992. A.K. Ghose, 'Employment in Organized Manufacturing in India', *The Indian Journal of Labour Economics*, April-June 1994.
3. B. Goldar Employment, 'Growth in Organised Manufacturing in India', *Economic and Political Weekly*, 1 April 2000.
4. Tirthankar Roy points out employment growth rates accelerated in consumer non-durable goods industry from the late 1980s. (Tirthankar Roy, 'Consumer Non-Durable Goods Industries: Growing Market and Increasing Competition', in Shuji Uchikawa (ed.), *Economic Reforms and Industrial Structure in India*, Chiba, IDE-JETRO, 2000, p. 78.)
5. This figure includes NIC 20 to 42 and 74. NIC 97 is excluded because its coverage shrunk after 1989-90 onwards.
6. A.K. Ghose, op. cit., p. 159.
7. The estimation by Hashim and Dadhi depends on old NIC (1960) code classification. We make arrangement to adjust to 1987 code (S.R. Hashim and M.M. Dadhi, *Capital-Output Relations in Indian Manufacturing*, M.S. University of Baroda, Baroda, 1973, p. 45). To connect 1960 code to 1987 code, four digit level data are required. Between 1959 and 1971-2 data of the sample sector is available only on three digit levels. Data of the sample sector are divided by the proportion of the census sector.

### *NIC 1987 code classification*

20-1	Food products
22	Beverages and Tobacco
23	Cotton textiles
24	Wool, silk and man-made fibre textiles
25	Jute textiles
26	Textile products
27	Wood and wood products
28	Paper and paper products
29	Leather and fur products
30	Chemical and chemical products
31	Rubber and plastic and petroleum products
32	Non-metallic mineral products
33	Basic mineral and alloys
34	Metal products and parts
35-6	Machinery and equipment
37	Transport equipment

### *NIC 1960 code classification*

20	Food products
21	Beverages
22	Tobacco
23	Textiles
24	Footwear and wearing apparel
25	Wood and cork products
26	Furniture and fixtures
27	Paper and paper products
28	Printing and publishing
29	Leather and fur products
31	Chemicals
30	Rubber products
32	Products of petroleum and coal
33	Non-metallic mineral products
34	Iron and steel-basic metal
35	Metal products
36	Non-electrical machinery

38	Other manufacturing industries	37	Electrical machinery
39	Repair of capital goods	38	Transport equipment
40	Electricity generation, transmission and distribution	39	Other manufacturing industries
41	Gas and steam generation		
42	Water supply		
74	Storage and warehousing service		
97	Repair service		

8. A.K. Ghose, op. cit., pp. 156-7.
9. This point was emphasized by R. Nagaraj. (R. Nagaraj, 'Employment and Wages in Manufacturing Industries: Trends, Hypothesis and Evidence', *Economic and Political Weekly*, 22 Jan. 1994.)
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12. Homepage of Board of Industrial and Financial Construction (<http://bifr.nic.in>).
13. ILO, *India: Economic Reforms and Labour Policies*, New Delhi, 1996, p. 49.
14. B. Goldar, op. cit., p. 1193.
15. The same phenomena could be observed in Japan during the 1950s and 1960s. Small and medium size business is characterized by a high start-up, high failure rate. (Takafusa Nakamura, *The Postwar Japanese Economy: Its Development and Structure, 1974-1994*, Tokyo, University of Tokyo Press, 1995, p. 175.)
16. Moneer Alam and S.N. Mishra, 'Structural Reforms and Employment Issues in India: A Case of Industrial Labour', *The Indian Journal of Labour Economics*, vol. 41, no. 2, 1998, p. 284.
17. ILO, op. cit., p. 78.
18. Moneer Alam and S.N. Mishra, op. cit., p. 284.
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