4 Italy

Giacomo Becattini

I. Introduction

By any standard, Italy represents a most attractive case of a small enterprise development which is of great significance from a comparative point of view. It is not surprising, therefore, that among the countries included in this volume, Italy has aroused remarkable interest within the international scientific community and, more recently, also among politicians and practitioners.

The Italian production system is characterised by relatively small enterprises and establishments, and small-scale business organisation has become even more important during the last two decades. Also, in all economic sectors and geographical areas the small firm contribution to net job creation has been remarkable in recent years.

Equally distinctive is the regional diversity of the national economy, in which old industrialised areas in the north-western part of the country, the much less developed Mezzogiorno, and the "Third Italy" comprise a geographic triangle. This triangle, defined by Udine, Pisa and Ascoli Piceno, and centred on Bologna and Florence, is replete with small firm industrial districts with a renowned business culture of inter-firm competition and co-operation and remarkable economic performance, which is demonstrated, for example, by its export capacity.

There is an inter-disciplinary community in the Italian social sciences to which we owe our fairly extensive knowledge of small firm structures. Perhaps more than elsewhere empirical investigation has been linked to theoretical concerns of industrial organisation, and labour issues and labour market structures have also received much attention. Furthermore, the aforementioned community includes researchers belonging to a whole set of public but not academic research institutions. A remarkable role in the investigation of the new phenomena has been played by several "regional" research institutes (e.g., IRPET for Tuscany, IRES for Lombardy, etc.) and by the Italian branch of the Regional Science Association.

This chapter links the structure and dynamics of small and medium-sized enterprises to the very particular Italian road to industrialisation, emphasises the relevant historical and institutional background to this development, and examines the various strands of reasoning and explanation in the contemporary debate about industrial organisation.
Table 1: Italy: Employment shares by enterprise size, total economy

<table>
<thead>
<tr>
<th>Year</th>
<th>&lt; 20</th>
<th>20-99</th>
<th>100-499</th>
<th>500+</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>45.7</td>
<td>15.9</td>
<td>12.8</td>
<td>25.6</td>
</tr>
<tr>
<td>1981</td>
<td>53.2</td>
<td>16.1</td>
<td>12.2</td>
<td>18.5</td>
</tr>
</tbody>
</table>

Sources: Istituto Centrale di Statistica, 5° Censimento generale dell'industria e del commercio, 25 October 1971. Istituto Centrale di Statistica, 6° Censimento generale dell'industria, del commercio, dei servizi e dell'artigianato, 26 October 1981.

Table 2: Italy: Employment shares by enterprise size, time series for the total economy

<table>
<thead>
<tr>
<th></th>
<th>1951</th>
<th>1961</th>
<th>1971</th>
<th>1981</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small (1)</td>
<td>60.2</td>
<td>63.5</td>
<td>61.6</td>
<td>69.3</td>
</tr>
<tr>
<td>Small and Medium (2)</td>
<td>73.0</td>
<td>77.1</td>
<td>74.4</td>
<td>81.5</td>
</tr>
</tbody>
</table>


Table 3: Italy: Employment shares by enterprise size, manufacturing

<table>
<thead>
<tr>
<th>Year</th>
<th>&lt; 20</th>
<th>20-99</th>
<th>100-499</th>
<th>500+</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971(1)</td>
<td>30.1</td>
<td>20.4</td>
<td>18.7</td>
<td>30.8</td>
</tr>
<tr>
<td>1981(1)</td>
<td>33.6</td>
<td>21.7</td>
<td>18.6</td>
<td>26.1</td>
</tr>
</tbody>
</table>

Note: (1) Manufacturing Industries: NACE Divisions 2 (not including 21 and 23 Classes), 3 and 4.

Sources: Istituto Centrale di Statistica, 5° Censimento generale dell'industria e del commercio, 25 October 1971. Istituto Centrale di Statistica, 6° Censimento generale dell'industria, del commercio, dei servizi e dell'artigianato, 26 October 1981.
II. Size and development of the SME sector in postwar Italy

1. Small average firm and establishment size

Italy stands out as an economy with a very small average scale of business organisation. Table 1 shows that in 1981, the date of the most recent census, 53.2 per cent of all employees worked in very small enterprises (fewer than 20 employees). Conversely, the share of employment in large enterprises with more than 500 employees was 18.5 per cent; smaller than in any other country in this study. Italy's position at the lower end of the size distribution holds also for the manufacturing and service sectors, as well as in the data on employment shares by establishment size. Thus, in 1981, slightly more than one-half of total employment was in establishments with fewer than 20 employees. The corresponding figure for the manufacturing sector was 35.5 per cent (Table 8).

2. Changes in the size structure of employment

What is perhaps most remarkable about Italy is that despite starting from such a relatively large small firm sector in the early 1970s, the employment share of small enterprises and establishments grew quite substantially into the early 1980s. Table 2 shows that the small enterprise share of total employment reversed a decline from 1961 to 1971 with a large 7.7 percentage point increase from 1971 to 1981. The employment share of medium-sized enterprises fell only slightly, so the share of large enterprises declined significantly.

Table 4 shows a similar pattern for manufacturing enterprises, although the magnitude is slightly less: a 4.8 percentage point increase for small enterprises from 1971 to 1981 comes at the expense of a 4.7 percentage point decrease for large enterprises. Time series data are not available for services, but in the light of the relative magnitudes of the changes in manufacturing and the total economy it is unlikely that a significant concentration of employment in large enterprises occurred in the services sector. However, given the large employment shares in very small services enterprises shown in Table 5, it is clear that a shift in employment from manufacturing to services would tend to increase the total economy small enterprise employment share.

The establishment data yield very similar results: significant gains among small establishments at the expense of large establishments. Table 7 shows that the small establishment share of total employment began rising as early as 1961, while Table 9 shows that in manufacturing the more familiar V pattern of a decline and subsequent increase was observed. No establishment level data are available for services.

Finally, in addition to a large small firm sector, Italy has an atypically high proportion of self-employment. For many years, the ratio of self-employment to civilian employment has been higher in Italy than in any
### Table 4: Italy: Employment shares by enterprise size, time series for manufacturing

<table>
<thead>
<tr>
<th></th>
<th>1951</th>
<th>1961</th>
<th>1971</th>
<th>1981(1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small (2)</td>
<td>50.5</td>
<td>53.2</td>
<td>50.5</td>
<td>55.3</td>
</tr>
<tr>
<td>Small and Medium (3)</td>
<td>67.4</td>
<td>72.0</td>
<td>69.2</td>
<td>73.9</td>
</tr>
</tbody>
</table>

**Notes:**
(1) 1981: NACE Divisions 2 (not including 21 and 23 Classes), 3 and 4.
(2) Small: less than 100 employees (1951 and 1961: less than 101).
(3) Small and medium: less than 500 employees (1951 and 1961: less than 501).

**Sources:**
- Istituto Centrale di Statistica, 3° Censimento generale dell'industria e del commercio, 5 November 1951.
- Istituto Centrale di Statistica, 4° Censimento generale dell'industria e del commercio, 16 October 1961.
- Istituto Centrale di Statistica, 6° Censimento generale dell'industria, del commercio, dei servizi e dell'artigianato, 26 October 1981.

### Table 5: Italy: Employment shares by enterprise size, service sector

<table>
<thead>
<tr>
<th>Year</th>
<th>&lt; 20</th>
<th>20-99</th>
<th>100-499</th>
<th>500+</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981 (1)</td>
<td>71.1</td>
<td>9.2</td>
<td>6.1</td>
<td>13.6</td>
</tr>
<tr>
<td>1981 (2)</td>
<td>70.5</td>
<td>9.3</td>
<td>6.3</td>
<td>13.9</td>
</tr>
</tbody>
</table>

**Notes:**
(1) Includes wholesale and retail trade
(2) Not included the following NACE Classes: 61 (Wholesale Distribution), 62 (Dealing in Scrap and Waste Materials), 64/65 (Retail Distribution), 66 (Hotels and Catering), 67 (Repair of Consumer Goods and Vehicles)

**Source:**
- Istituto Centrale di Statistica, 6° Censimento generale dell'industria, del commercio, dei servizi e dell'artigianato, 26 October 1981.

### Table 6: Italy: Employment shares by establishment size, total economy

<table>
<thead>
<tr>
<th>Year</th>
<th>&lt; 20</th>
<th>20-99</th>
<th>100-499</th>
<th>500+</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>n.a. (1)</td>
<td>n.a. (1)</td>
<td>15.7</td>
<td>15.0</td>
</tr>
<tr>
<td>1981</td>
<td>50.7</td>
<td>21.7</td>
<td>14.9</td>
<td>12.7</td>
</tr>
</tbody>
</table>

**Note:**
(1) n.a.: not available.

**Sources:**
- Istituto Centrale di Statistica, 6° Censimento generale dell'industria, del commercio, dei servizi e dell'artigianato, 26 October 1981.
European OECD country [OECD, 1986]. The ratio increased significantly from 1973 to 1983, such that by 1983 over 20 per cent of civilian employment was self-employment. Thus, the share of Italians working either for themselves or for small units is quite high, at least compared to the other countries in this volume.

Table 7: Italy: Employment shares by establishment size, time series for total economy

<table>
<thead>
<tr>
<th></th>
<th>1951</th>
<th>1961</th>
<th>1971</th>
<th>1981</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small 1</td>
<td>67.2</td>
<td>61.6</td>
<td>69.3</td>
<td>72.4</td>
</tr>
<tr>
<td>Small and Medium 2</td>
<td>82.6</td>
<td>82.2</td>
<td>85.0</td>
<td>87.3</td>
</tr>
</tbody>
</table>

Notes: (1) Small: less than 100 employees (1951 and 1961: less than 101) (2) Small and medium: less than 500 employees (1951 and 1961: less than 501)

Sources:
- Istituto Centrale di Statistica, 3° Censimento generale dell'industria e del commercio, 5 November 1951.
- Istituto Centrale di Statistica, 4° Censimento generale dell'industria e del commercio, 16 October 1961.
- Istituto Centrale di Statistica, 6° Censimento generale dell'industria, del commercio, dei servizi e dell'artigianato, 26 October 1981.

Table 8: Italy: Employment shares by establishment size, manufacturing

<table>
<thead>
<tr>
<th>Year</th>
<th>&lt; 20</th>
<th>20-99</th>
<th>100-499</th>
<th>500+</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>n.a. (1)</td>
<td>n.a. (1)</td>
<td>22.3</td>
<td>23.1</td>
</tr>
<tr>
<td>1981</td>
<td>35.5</td>
<td>23.8</td>
<td>21.1</td>
<td>19.6</td>
</tr>
</tbody>
</table>

Note: (1) n.a.: not available. (2) 1981: Manufacturing Industries - NACE Divisions 2, 3 and 4.

Sources:
- Istituto Centrale di Statistica, 6° Censimento generale dell'industria, del commercio, dei servizi e dell'artigianato, 26 October 1981.
Table 9: Italy: Employment shares by establishment size, time series for manufacturing

<table>
<thead>
<tr>
<th></th>
<th>1951 (1)</th>
<th>1961 (2)</th>
<th>1971 (3)</th>
<th>1981 (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small (2)</td>
<td>54.2</td>
<td>56.9</td>
<td>54.6</td>
<td>59.1</td>
</tr>
<tr>
<td>Small and Medium (3)</td>
<td>74.6</td>
<td>78.5</td>
<td>76.9</td>
<td>80.3</td>
</tr>
</tbody>
</table>

Notes: (1) 1951: 1-100, 101-500, 501+.
(3) 1-99.
(4) 1981: NACE Divisions 2 (not including 21 and 23 Classes), 3 and 4.

Sources: Istituto Centrale di Statistica, 3° Censimento generale dell'industria e del commercio, 5 November 1951.
Istituto Centrale di Statistica, 4° Censimento generale dell'industria e del commercio, 16 October 1961.
Istituto Centrale di Statistica, 6° Censimento generale dell'industria, del commercio, dei servizi e dell'artigianato, 26 October 1981.

3. Job generation

The recent release of Italian National Institute of Social Security (INPS) data to researchers has facilitated analysis of job generation and destruction in Italy. Results of the most comprehensive study are summarised below [Contini and Revelli, 1986].

Contini and Revelli analyse employment data for the period 1978-83, and their findings are reminiscent of those of Birch [1979] in the United States. Table 10, reproduced from Contini and Revelli, breaks down employment change by sector into its component parts: in situ expansion and job change from new firms and closures. In each case, figures are presented to compare net job creation for very small firms with the overall average. It is quite clear that during periods of both aggregate employment growth and decline, very small firms vastly outperformed the overall average in terms of job creation; e.g., net total employment fell by 210,000 from 1981-83, while very small firms increased employment by 102,000. Very small firms did better in both sectors and by all measures, but the difference was widest with respect to in situ expansion ("SB" in the table). New firms and closures relate almost entirely to small firms in Italy, and they tend to cancel one another out. Thus, essentially all of the increase comes from the expansion of existing firms (roughly 85 per cent, versus 15 per cent for the net of births and deaths).

The social security data also permit analysis of job turnover. Contini and Revelli find that turnover is quite rapid in Italy, with on average one out of every four workers changing employers each year during the period 1978-83. However, the rate is much higher for very small firms: one out of 2.3, or 44 per cent, of workers change employers each year. Very small firms in Italy are thus part of a very fluid labour market.
Table 10: Jobs created and destroyed by all firms and by very small firms (0-19 employees): Yearly averages (thousands)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>In-situ expansion</td>
<td>All</td>
<td>1,428</td>
<td>1,181</td>
<td>661</td>
<td>605</td>
<td>2,090</td>
</tr>
<tr>
<td></td>
<td>0-19</td>
<td>842</td>
<td>705</td>
<td>456</td>
<td>413</td>
<td>1,298</td>
</tr>
<tr>
<td>In-situ contraction</td>
<td>All</td>
<td>1,376</td>
<td>1,380</td>
<td>632</td>
<td>593</td>
<td>2,099</td>
</tr>
<tr>
<td></td>
<td>0-19</td>
<td>628</td>
<td>643</td>
<td>366</td>
<td>362</td>
<td>995</td>
</tr>
<tr>
<td>New firms</td>
<td>All</td>
<td>241</td>
<td>175</td>
<td>92</td>
<td>83</td>
<td>333</td>
</tr>
<tr>
<td></td>
<td>0-19</td>
<td>111</td>
<td>88</td>
<td>76</td>
<td>72</td>
<td>187</td>
</tr>
<tr>
<td>Closures</td>
<td>All</td>
<td>186</td>
<td>189</td>
<td>93</td>
<td>91</td>
<td>279</td>
</tr>
<tr>
<td></td>
<td>0-19</td>
<td>103</td>
<td>101</td>
<td>69</td>
<td>70</td>
<td>172</td>
</tr>
<tr>
<td>AE</td>
<td>All</td>
<td>106</td>
<td>-213</td>
<td>29</td>
<td>3</td>
<td>135</td>
</tr>
<tr>
<td></td>
<td>0-19</td>
<td>222</td>
<td>49</td>
<td>97</td>
<td>53</td>
<td>319</td>
</tr>
<tr>
<td>SB (1)</td>
<td>All</td>
<td>51</td>
<td>-199</td>
<td>33</td>
<td>11</td>
<td>84</td>
</tr>
<tr>
<td></td>
<td>0-19</td>
<td>214</td>
<td>62</td>
<td>90</td>
<td>51</td>
<td>304</td>
</tr>
<tr>
<td>DB (2)</td>
<td>All</td>
<td>54</td>
<td>-14</td>
<td>0</td>
<td>-8</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>0-19</td>
<td>9</td>
<td>-13</td>
<td>7</td>
<td>2</td>
<td>16</td>
</tr>
</tbody>
</table>

Notes: (1) SB: Structural Balance = jobs created by expanding firms - jobs destroyed by declining firms.
(2) DB: Demographic Balance = jobs created by new firms (hirings) - jobs destroyed by closures (layoffs).

Source: Contini and Revelli [1986].

4. Other developments in the small firm sector

Data on gross product, personnel expenses and investments in industrial, commercial, transport, and communication firms gathered by the Italian *Istituto Centrale di Statistica* permit examination of the relative performance of firms of different sizes [Borzaga, 1985]. However, it must be pointed out that, unfortunately, the data concern firms with 20 employees or more, thus leaving out the largest and most interesting group of small firms. In spite of this, some of the conclusions are sufficiently well established to shed light on the overall tendencies.

Table 11 shows, first of all, that the productivity gap, at least in terms of gross product per employee, has decreased significantly, especially since 1977. The gross product per employee of firms with 20-49 employees was 61.5 per cent of that of firms with 200 or more employees in 1972. By 1982, the proportion increased to slightly more than 90 per cent. The gap
Table 11: Gross product, personnel expenses, investments per employee

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gross product per employee</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-49 employees</td>
<td>61.5</td>
<td>69.6</td>
<td>75.4</td>
<td>74.2</td>
<td>73.1</td>
<td>78.2</td>
<td>79.1</td>
<td>82.1</td>
<td>88.2</td>
<td>89.4</td>
<td>90.6</td>
</tr>
<tr>
<td>50-99 employees</td>
<td>72.0</td>
<td>77.5</td>
<td>83.4</td>
<td>81.0</td>
<td>80.3</td>
<td>85.9</td>
<td>87.2</td>
<td>89.6</td>
<td>95.6</td>
<td>96.3</td>
<td>95.4</td>
</tr>
<tr>
<td>100-199 employees</td>
<td>81.5</td>
<td>85.5</td>
<td>91.0</td>
<td>88.2</td>
<td>87.3</td>
<td>93.5</td>
<td>93.3</td>
<td>98.0</td>
<td>100.4</td>
<td>100.9</td>
<td>100.9</td>
</tr>
<tr>
<td>200 employees and +</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>88.5</td>
<td>91.1</td>
<td>97.5</td>
<td>92.7</td>
<td>92.4</td>
<td>94.6</td>
<td>94.9</td>
<td>95.8</td>
<td>98.0</td>
<td>98.3</td>
<td>98.3</td>
</tr>
</tbody>
</table>

| **Personnel expenses per employee** |      |      |      |      |      |      |      |      |      |      |      |
| 20-49 employees     | 54.8 | 57.7 | 42.6 | 63.3 | 64.6 | 68.9 | 70.0 | 71.3 | 74.4 | 76.3 | 78.9 |
| 50-99 employees     | 65.6 | 68.5 | 71.7 | 73.6 | 74.9 | 78.6 | 80.0 | 80.9 | 83.5 | 85.0 | 86.4 |
| 100-199 employees   | 74.3 | 77.0 | 79.5 | 81.6 | 82.6 | 85.8 | 86.1 | 86.6 | 89.4 | 90.7 | 91.6 |
| 200 employees and + | 100.0| 100.0|100.0 |100.0 |100.0 |100.0 |100.0 |100.0 |100.0 |100.0 |100.0 |
| **Total**           | 85.8 | 87.2 | 88.9 | 89.5 | 90.6 | 91.6 | 92.0 | 92.3 | 93.4 | 93.9 | 94.5 |

| **Investment per employee** |      |      |      |      |      |      |      |      |      |      |      |
| 20-49 employees     | 45.6 | 65.6 | 86.2 | 60.6 | 63.2 | 61.4 | 62.0 | 77.5 | 86.7 | 81.7 | 72.9 |
| 50-99 employees     | 55.6 | 64.8 | 70.3 | 62.9 | 70.8 | 72.6 | 71.8 | 89.2 | 93.9 | 87.9 | 73.6 |
| 100-199 employees   | 62.5 | 81.8 | 76.3 | 70.5 | 78.9 | 76.0 | 76.1 | 94.2 | 100.4| 93.4 | 84.3 |
| 200 employees and + | 100.0| 100.0|100.0 |100.0 |100.0 |100.0 |100.0 |100.0 |100.0 |100.0 |100.0 |
| **Total**           | 81.7 | 88.5 | 91.6 | 86.5 | 88.9 | 88.6 | 88.6 | 88.6 | 88.6 | 88.6 | 88.6 |

in the expenses for personnel per employee between the same size groups decreased considerably during that length of time, rising from 55 per cent to 79 per cent. Investment per employee in firms with 20-99 employees went from 45.6 per cent of the corresponding level in the large category in 1972, to 72.9 per cent in 1982.

A study of export performance by size group suggests that the difference between the small (11-20 employees) and the large (500 employees and more) firms has slightly diminished between 1978 and 1984 [Carnazza and Carone, 1987].

These changes considered together reveal an overall performance of the "small" firms which has improved substantially relative to that of the "large" ones.

III. An outline of postwar Italian industrial development

1. A bird's-eye view of the Italian "miracle" and its aftermath

The war, the reconstruction, the revival of political life, and renewed participation in the international market were the main events that gave the initial spur to postwar industrial and social change in Italy.

The most rapid industrialisation occurred in the 1950s and early 1960s and ended with the 1963-1966 recession (the so-called congiuntura), by which time Italy had already achieved a kind of full employment. The term full employment is intended to mean a situation where several crucial industrial sectors (mechanical, chemical, transport, equipment) were experiencing labour shortages and the main industrial areas of several regions (Piedmont, Lombardy and Liguria) were sufficiently crowded with industrial plants, activities and people to begin to suffer from the external diseconomies (competition for the use of land and water, pollution and so on) and the social problems (urban immigration problems, etc.) typical of that stage of development. So the congiuntura can be considered the end of the so-called "Italian miracle". By the end of 1966 the face of Italy had already changed: a country with half of its active population devoted to agriculture only 20 years earlier had already become, according to the usual standards, an industrial country. The share of output from the machinery, metallurgical and chemical sectors in the gross product of manufacturing industry rose from 42 per cent to 54 per cent in the period 1952-1967, while the share of the more traditional sectors (foodstuffs, textiles, clothing, wood and furniture) fell from 42 per cent to 29 per cent.

The period 1945-63 can be split into a first sub-period (1945-1951) devoted to the material reconstruction of the country, and a second sub-period (1951-63) which saw the take-off of the Italian economy. The rates of GNP growth in the two sub-periods were 8.4 and 5.4 per cent per year, respectively, and the rates of annual increase in gross investment were, correspondingly, 7.7 and 9.3 per cent [Valli, 1986].
The following 11 years (1963-73) can be considered as a "stop-and-go" period with GNP growing at an average rate of 4.7 per cent per year and gross investment growing at the rate of only 3.5 per cent. This period, too, can be split into two sub-periods: the first devoted to an extensive restructuring of industry (1962-68), and the second (1969-73) being a period of intense social turmoil.

During the decade 1963-73 the great majority of Italian scholars saw the evolution of Italian industry as proof that Italy was destined to follow the same industrial path as that followed by the main western advanced industrial economies. The opinion still prevailed that small firms were a mere remnant of the past and that the regions squeezed between the "Industrial Triangle" and the subsidised South were a weak point, or at least a question mark, for the industrial future of the country.

The third and last period started with the 1973 rise in oil prices. The fluctuations in industrial activity became wider; the rate of increase in GNP went down to 1.9 per cent per year (1973-75), and gross investment rose by only 0.5 per cent per year. Despite the modest amount of gross investment, the replacement of capital was rather intense in this period. There was expansion in the sectors characterised by the prevalence of small firms, and consolidation in the more capital-intensive sectors.

As a result of all these developments, the economic structure of Italy changed greatly. In 1981 the distribution of total employment among the three main sectors was as follows: agriculture, 15 per cent; industry, 34 per cent; services, 50 per cent. Given that the corresponding percentages in 1951 were 48, 26 and 26 [Mazzoni, 1988], it is clear that Italy experienced in these 30 years a very real "structural evolution": a rapid and widespread socio-economic "revolution" wherein the period of predominance of industrial activity lasted only a few years.

It is during the third period that the controversy arose about the relative performances of small and large firms. As will be seen, what makes the Italian argument different from similar debates in other countries is that it is intermingled with a debate about regional economic development.

2. Some peculiar social conditions of industrial change

The social transformations which correspond to the process of economic change sketched above are many and multifarious and they cannot be addressed in this overview. But some - certainly not the most important in absolute terms - must be noted because they help to put into correct perspective the specific economic changes which will be examined in some detail. It must be emphasised, however, that the two social phenomena illustrated below were received and have been assessed differently by different observers [Bagnasco, 1988].

The first phenomenon is the disruption and disappearance of the metayage system of land tenure (share-cropping) that prevailed for centuries in Umbria, Marche, Tuscany, Emilia-Romagna and Veneto. The swift fading-out of this system, in less than 30 years, produced a mass of workers
The re-emergence of small enterprises

ready to be employed by a population of small firms requiring general rather than specific skills in order to produce (especially at the beginning of the period) technologically unsophisticated goods. This new manpower proved *ex post* more ready to acquire the necessary know-how, and more reliable on the job, than common wisdom would suggest. Even more surprisingly, against all expectations, the group of former *metayers* produced several new entrepreneurs [Paci, 1980].

These facts were taken by some observers to mean that the socialisation process that had gone on in the *metayer* system over the past centuries had not been properly understood. In addition, many commentators emphasised the culturally revolutionary effects of Italy's having been a battlefield for foreign armies for about two years, giving rise to a strong partisan movement. These circumstances can help explain the active involvement in political life of large masses of rural people after liberation. [IRPET, 1975].

A second phenomenon of importance is the very special role played by the Italian Communist Party (PCI) on the Italian political and, more particularly, the social scene. Despite its official Marxist ideology, since the Second World War the PCI has always been inclined to follow a policy of national development of a somewhat interclass character. The political formula of "class alliances" has permeated the praxis of the PCI to such an extent as to allow local administrators belonging to that party to comply with the needs of the light industrialisation in progress, without paying much attention to the Marxist or class orthodoxy of their action [D'Angelillo and Paggi, 1986; Trigilia, 1986].

Another dimension of PCI activity that has not yet been sufficiently researched is the creation of a full system of formal and informal social institutions in the geographical areas where it is well established. From the National Artisans Federation (CNA) to the Association for Recreation and Culture (ARCI), the PCI has created a continuum of institutions, more or less formal, acting as "socialising agencies" that bind people together, at work (such as unions, or CNA), at home (for example co-operatives) and in leisure time (ARCI and a whole cluster of initiatives, as, for instance the summer festival *Feste dell'Unità*). At those annual gatherings of the PCI members and supporters, the two processes of the political and the local identification merge into and intensify each other.

By means of what is in effect a "system" of "socialising agencies", a concept of life that puts the accent on certain values (work and family ethics, group solidarity even more than class struggle, etc.) has been transmitted from one generation to another, in a non-compulsory way. Surprisingly, some observers contend that a similar role has been played by the catholic network of institutions in regions like Veneto [Bagnasco and Trigilia, 1984 and 1985].
3. The main characteristics of postwar industrialisation

Among the peculiarities of Italy's postwar industrial development the two which have attracted the most attention and comment from foreign observers are the marked increase in the share of the small and medium-sized firms, in terms of both employment and exports, and the formation of a certain number of "industrial districts" in the central and northern part of the country. The development of small and medium-sized firms has been seen in the light of similar, or apparently similar, phenomena occurring in several other countries in Europe and elsewhere.

A careful consideration of the census data for the 30 years from 1951 to 1981 shows that the importance of small and medium-sized firms in Italian manufacturing industry has always been considerable. Table 4 shows that in 1951 firms with fewer than 100 employees accounted for 50.5 per cent of employment and those with fewer than 500 accounted for 67.4 per cent.

In the decade of the "miracle", the share of small and medium-sized firms rose almost 5 per cent, reaching the very high figure of 72 per cent of manufacturing employment. The following decade saw a change in size composition of Italian manufacturing in favour of larger firms. However, it should be noted that the decrease in employment share was greater for medium-sized firms than for small firms.

The most striking change occurred from 1971 to 1981, when the employment share of the small enterprises rose from 50.5 per cent to 55.3 per cent and that of the small and medium-sized group rose from 69.2 per cent to 73.9 per cent of total manufacturing employment measured by the census. Since the employment which escapes the census is mostly that of small businesses, it follows that, in the 1980s, more than three-quarters of Italian manufacturing employment is in firms with fewer than 500 workers. With respect to changes over time, it is important to point out that the increasing coverage and precision of the Italian censuses account for a small part of the increased employment share of small firms [Bruni, 1986].

4. Changes in the regional distribution of Italian manufacturing

The statistical data used in this section do have a severe limitation for regional analysis: the administrative boundaries separating the different regions are seldom if ever adequate from an economic point of view. This is nearly always true, the only exceptions being the Islands and perhaps the small region (or province) of Val d'Aosta. Within these limits Table 12 shows the main changes which took place in the 30 years between 1951 (end of reconstruction and first censuses) and 1981 (latest censuses) at the regional level.

The top half of the table shows changes in resident population, with the population in each region in 1951 set at 100. The second half gives changes in the degree of industrialisation, where the degree of industrialisation is defined as the ratio between employment in
manufacturing (as given in the industrial census) and resident population (as given in the census of population).

At the beginning of the period two regions were well in advance of the others in terms of industrialisation: Lombardy and Piedmont (see Tables 12 and 13). Together with Liguria and Val d'Aosta, two very particular regions, although for different reasons, they constituted what came to be called the "Industrial Triangle". Their industrial take-off occurred in the last decades of the nineteenth century and, in 1951, they still represented the "core" of Italian industry. Among the other regions the only ones that were noticeable for their industrial density were Tuscany (the richest region as far as mining was concerned), Emilia-Romagna and the two frontier regions, Trentino-Alto Adige and Friuli-Venezia Giulia. All the other regions, despite some important plants and some industrial concentrations, were mainly agricultural and artisanal.

The decade 1951-1961 apparently confirms and enhances this position. Despite an increase in its population of the order of 13 per cent, Lombardy's degree of industrialisation increased to 19.50 per cent. A similar situation was seen in Piedmont, while Val d'Aosta and Liguria experienced a small decrease. Thus the gap between the "triangle" as a whole, and the regions of the South widened greatly. In fact, this was a decade of great debate about the "Southern question".

What must be noticed, and was not at the time, is the big jump in terms of degree of industrialisation of the two central regions - i.e. Tuscany and Emilia-Romagna. In the course of a decade they overtook Liguria. What is also noticeable is the fact that they had attracted much lower levels of immigration than Liguria; that is, they industrialised by turning their regional agricultural population into industrial employees.

In the same period some other North-East-Centre (NEC) regions like Veneto, Umbria, Marche and Friuli-Venezia Giulia were both increasing their level of industrialisation and losing population. At the time people were struck by the negative overall migration balance, and it was generally believed that NEC Italy [Fuà and Zacchia, 1983], despite some appearances, was losing ground.

In the decade 1961-71 the industrialisation of the "triangle" continued, albeit at a reduced rate (in fact Liguria continued to de-industrialise), but the influx of immigrants from the South was still so large that the overall "degree of industrialisation" of the "triangle" began to decline. Tuscany and Emilia-Romagna continued to progress and Veneto grew industrially, reversing a secular trend toward declining population. Umbria, Marche and Friuli, although still losing population, showed clear signs of industrialisation.
### Table 12: Population and manufacturing employment in Italy by regions

<table>
<thead>
<tr>
<th></th>
<th>1951</th>
<th>1961</th>
<th>1971</th>
<th>1981</th>
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<th>1961</th>
<th>1971</th>
<th>1981</th>
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<td><strong>B. Employment in manufacturing (in per cent)</strong></td>
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Note: Between the 1961 and 1971 censuses, the Abruzzo-Molise region was split into two regions: Abruzzo and Molise.
Table 13: Population and manufacturing employment in Italy by regions

<table>
<thead>
<tr>
<th></th>
<th>1951</th>
<th>1961</th>
<th>1971</th>
<th>1981</th>
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<tr>
<td><strong>A. Population</strong></td>
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<td>Piemonte</td>
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<table>
<thead>
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<th>1951</th>
<th>1961</th>
<th>1971</th>
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<td><strong>B. Employment in manufacturing</strong></td>
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<td></td>
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<tr>
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<td>( )</td>
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<td>5,055,822</td>
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The decade 1971-81 witnessed the industrialisation of the Marche, Friuli-Venezia Giulia and Umbria regions and interesting changes even in some southern regions (Abruzzi and Molise). The "Triangle" experienced a general tendency towards deindustrialisation, and a simultaneous decline in population levels. However, since this decade saw a great expansion of the tertiary sectors related to industry, at least part of the fall of the index is due to a different statistical classification of tertiary activities previously performed inside industrial firms [Momigliano and Siniscalco, 1982]. The rest of Italy did not show signs of industrial growth. This does not mean that local phenomena of industrialisation, heavy and light, concentrated and dispersed, were altogether absent, only that they were not strong enough to offset, in terms of employment, the increase in population.

At the beginning of the 1970s, discussions were still in terms of a "Third Italy" lagging behind the industrialised North [VV.AA., 1970]. At the end of the decade the tone was partially different. Several observers started to speak of the extraordinary, albeit temporary, performance of the NEC regions: a performance attributable mainly to a very peculiar international conjuncture (high dollar rates and high returns for oil countries) that allowed Italian small firms, although operating in mature sectors, to win sections of the widening international market.

As a result of 30 years of industrial change the situation has greatly changed from the one depicted at the beginning of the chapter. By 1981 there was a group of eight regions with a high "degree of industrialisation", indicated by a share of manufacturing employment above 11.0 per cent, another group of eight regions with a share below 5.40 per cent, and four regions (Val d’Aosta, Trentino-Alto Adige, Liguria, Abruzzo) somewhere in the middle. The gap between the first and the second group was still wide. More importantly, it would appear that the passage of 30 years has produced nothing, in terms of industrialisation, in at least two regions: Sicily and Calabria [Becattini and Bianchi, 1982].

IV. The new industrial districts

Research in Florence by a research fellow of IRPET (Tuscan Institute for Planning) Fabio Sforzi, permits the location of the industrial districts, produced by the post-war wave of industrialisation in Italy [Sforzi, 1987]. As can be seen from Map 1 they belong mainly to NEC regions. Some of them belong also to the older industrial regions (Lombardy and Piedmont). Apparently there are no industrial districts in the South.
Map 1: Marshallian Industrial Districts in Italy

To understand this territorial distribution, one must pause to consider the concept of industrial district adopted here. The industrial district (ID) is a "thickening" of industrial and social interdependencies in a certain place. This thickening appears in at least three ways: as a relatively self-contained labour market; as a matrix of localised technical inter-relationships; and as a web of socio-cultural connections. Following this idea Sforzi builds up a technique for identifying IDs. He begins by identifying self-contained labour market areas using the 1981 census data on commuting. By means of an appropriate algorithm, he isolates groups of agents bound together by a network of daily movements for work or for other reasons.

The result of this first step is a complete classification of every community in Italy, each belonging to one and only one "local system". Thus the map of the local systems (i.e., self-contained labour markets) is the starting point for all successive elaborations.\(^1\)

The second step is an embryonic analysis of the social structure of the local systems. The Census of Population data provide a great deal of information on the activities of respondents on the structure of their families, and on other socio-economic aspects of their lives. Thus a typology of social situations can be constructed. Among the different cases, one is better adapted than others to the requirements of the new industrial districts.

Roughly speaking, it is a situation where the presence of workers, small entrepreneurs and working wives is superior to the average and where the extended family, including both old people who are still active and young people starting work early, prevails. If the local systems are sorted to isolate those with this particular social structure, a sub-set of candidates is identified to be considered as "industrial districts". The results are given in Map 2.

Map 2 shows clearly the regional systems of Marche, Emilia-Romagna, Tuscany, Veneto and Friuli. There are also some areas in Lombardy and Piedmont, a few traces in Trentino and Umbria, and nothing at all in the remaining regions. It is worth noting that the Tuscan block (which corresponds to what has been called the "urbanised countryside") is interrupted by the "urban system" of Florence, where the cosmopolitan character of the city interferes with the social structure typical of the ID.

The next step consists of an attempt to select the "local systems" which present the production characteristics of an ID. Here Sforzi puts the accent on productive specialisation: that is, the prevalence of just one sector or a cluster of strictly related sub-sectors. The new sub-set may appear disappointingly poor (see Map 1), since it does not contain several well-known industrial areas. The reasons for this lie in the method. If the method imposes on a predetermined set of units (the self-contained labour markets) a double set of conditions on the social and productive structures, the result will be a small final sub-set. But there is a logic to the method. The new IDs include neither the areas of very recent industrialisation which are not yet organised around a leading sector, nor the older industrial areas which are already mature and crystallised in terms of social structure. In addition, the way in which the "elementary units" were formed taking

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1. For details of the technique used, see Sforzi [1987].
Map 2: Location of social structures in Italy which are favourable to the emergence of Industrial Districts

together all kinds of commuting movements) undermines the identification of some complex or embryonic industrial districts.

Putting together the result of this attempt at spatially identifying the industrial districts with considerations of a more theoretical character, a general hypothesis may be formulated: the ID can be thought of as a stage in one of the possible paths towards the industrialisation of a country or of a region.

The path of the NEC Italy - which may possibly be replicable - leads from an artisan-agricultural stage to an industrial one, through intermediate stages characterised by high territorial short-range mobility of population, high social mobility of the population, the subdivision of production tasks between firms grouped territorially, and their gradual organisation around a particular sector. But there is a point beyond which the ID as such, with its characteristics of productive flexibility, of bottom-up innovation processes, and of capacity for social integration, starts to change. It then either yields to a mature specialised industrial area, merges into a more complex urban organism (e.g. a conurbation or a metropolitan area), or peters out.

V. The debate: Smallness versus agglomeration

1. The two main options for debate

Several different lines of argument could be pursued to explain the phenomena discussed above. And indeed, several lines have been followed by the scholars who tried to decipher the Italian data, and more generally the empirical evidence of the post-war period. However, this discussion concentrates on two options which, in fact, played the main parts in the Italian controversy over the role played by small firms and the unexpected regional distribution of industrial activities.

The first line of reasoning starts with the "strange" explosion of small firms in recent years. According to some commentators this "strange" result can be explained by a peculiar evolution of final demand, at the level of the world market, and by some technological changes on the side of industrial production. The demand for standardised goods had already reached its limits at the end of the 1960s (at least in the more advanced countries, which comprise the largest part of the world market in consumer durables), so the 1970s were characterised by an explosion of demand for differentiated, even personalised, consumer goods. In this new situation the main advantage of large firms, working on long production series, disappears, and correspondingly the share of the market open to small firms increases. On the production side, technological and other developments take place which allow small firms to increase their utilisation of modern technology without giving up the advantages of their moderate size.

The commentators who stressed these two new developments tended to explain the "strange" growth in NEC regions by the fact that a light industry, in existence there at the beginning of the 1970s, allowed those
regions to capitalise on the specific advantages of the new situation. A "neo-artisan" way of production (an alternative to Fordism) which had been considered for many decades, rightly or wrongly, uneconomical and obsolete, started to flourish again in those places where appropriate historical conditions had survived the long-lasting Fordist supremacy [Sabel and Zeitlin, 1985; Sabel and Piore, 1984].

A second line of reasoning orthogonal, so to speak, to the one just outlined, starts from the geo-historical peculiarities of the North-East and Centre Regions. Some commentators noticed that there were important elements common to the NEC regions: e.g. the "core" of them (Tuscany, Marche, Umbria, and to a lesser extent Emilia-Romagna and Veneto) had for centuries been metayage regions. The metayage system, they said, has an impact on the character of the populations involved that is different from the capitalistic, or other kinds of land tenure systems prevailing elsewhere. The former sharecropper is relatively more apt to become either an autonomous worker developing into a small entrepreneur, or a life-long worker in a small firm, than a dehumanised "hand" in a large factory. This peculiar reservoir of workers and initiative represented, for the central regions, the fuel for an industrialisation that, at least at the beginning, had to rely on low wages and poor working conditions.

Another peculiarity, much emphasised by this group of commentators, is the previous existence in most of NEC regions of formal and informal links with foreign markets. The "culture-tourism-external trade" complex, already well established at the end of the 1960s for these regions and less complete or non-existent for other underdeveloped Italian regions, can explain the rapid build-up of trade connections between their systems of small firms and the foreign, distant, markets for the goods of the district.

In a sense, those commentators put the accent more on the endogenous cultural resources of a population and an area than on technological or demand conditions. They seemed to think that this sort of industrialisation was to be considered more as the outcome of conducive localised phenomena, based on historical heritages, than a temporary switch to a way of production induced by some changes in the external conditions of demand or of technology.

If we take the first view, the accent is on the size of the firms, while the second emphasises the territorial network. In this second case, a qualification is in order. If we take account of the fact that each small firm which belongs to an industrial district operates in one or just a few phases of the production process, it follows that such units of production are different from the small manufacturing firms which operate elsewhere. We are dealing in fact with: (a) units which sell to more than one buyer; (b) units which operate mostly in intermediate and final markets; (c) firms which in whole or in part turn to the outside (buyers, impiantatori and similar figures) for such crucial functions as product design; (d) units which are "components", in essence, of a system and would lose much of their competitiveness if they were taken out of that system. What holds this population of firms together is then a network of economies which are external to the individual firm, but internal to the district. This network lives
on the dynamic interaction between an increasing division of labour and a progressive opening up of new markets for the district as a whole [Bellandi, 1986].

As a consequence of these considerations the data concerning small firms included in this report should be subdivided according to whether or not they refer to small firms grouped in a district. The hypothesis which derives from the interpretation offered here is that the performance of small firms grouped in a district should be, ceteris paribus, better than the average of the firms of the same size bracket.

2. Control of the workforce

There is a central line of reasoning that constitutes the "core" of many works on the issues considered in this study. It can be summarised as follows. Around 1963 the Italian economy started to experience bottlenecks due to scarcity (local and/or sectoral) of labour. The economic situation, together with political and cultural factors originating outside Italy, gave more and more power to the workers' unions and to the left-wing parties. This shifting of the balance of social forces produced an increase in wages (which some said was out of proportion with the increase in productivity) and, what matters most, a new climate in the factories wherein the rights attached to property were reduced in favour of a more civilised - and relaxed - way of working.

These two factors - higher wages and a new industrial climate - were perceived by employers as attacks not only on profits but also on property rights. This started a reaction, the main target of which was the strength of the unions and the unity of the working class. Among the several weapons used by the employers to achieve these aims was a widespread fragmentation of the industrial structure and, consequently, of the industrial workforce. The disintegration of some of the industrial processes (textile, furniture, boots and shoes, etc.) examined in this paper was accordingly considered a side-effect of this "great design" of the industrialists, which was aimed at regaining full control over their firms and factories [Graziani, 1976]. In the end they succeeded, as is shown clearly by the recent divisions among the unions, by the general decline of the same unions and by the erosion of real wages in the past five years.

This explanation is now common wisdom in Italy and nobody rejects it entirely. It certainly contains more than an element of truth, but it would be an oversimplification to use it to explain a whole host of different phenomena. Some commentators, in fact, stressed the element of genuine entrepreneurship incorporated into the growth of many new firms. Even if, and when, these projects have been "tutored" by major firms, they cannot be reduced to the mechanical result of a decision taken at a higher level. The growth of a population of small firms seems to be a manifestation of an outburst of entrepreneurship no less than the result of some industrial asperities felt at the level of the major enterprises [Brusco, 1986].

These are the two main positions on the problem and they are less divided by statistical findings than by theoretical paradigms: one takes for
granted that the basic aim of private enterprise is to guarantee the social reproduction of the capitalistic mode of production and accumulation, and the other places a heavy accent on human entrepreneurship as the major source of change.

3. From agglomeration economies to "industrial districts"

One lateral issue to the argument over small firms that came to occupy an ever more central position in the Italian debate is the "regional" one. In general terms it scales up the argument from the single firm to the territorial system of firms. The problem is no longer the comparison of a small firm, or several small firms, with a large firm producing the same products. Now the focus is on a "system" of small firms operating together to produce a full range of varieties of a certain basic commodity.

Traditional economic theory makes use of agglomeration economies in order to explain why and when the territorial grouping of firms can reduce their individual production costs. But this common wisdom of economists and geographers alike remains unfruitful from the viewpoint considered here until it is applied simply to a generic population of "close firms". The main points are not their smallness as an instrument of production or their territorial proximity as such, but rather their smallness as a link with the everyday life of a certain population and the specific pattern of the localised division of labour.

On one side the small firms and the intermediaries (buying offices and impannatori) are a kind of converter of potentialities embodied in the culture of a community into goods and services that can be sold in the market. The smallness of the firms in a district creates a particular atmosphere inside the individual firm and among the firms. Relationships between members of the small firm do not reach the degree of abstractness that is required by the neoclassical concepts of market and firm. For instance, they remain personalised enough to discourage the spread of "opportunistic behaviour" in the district and in the firms. Social sanctions reinforce and occasionally replace purely economic sanctions against opportunism. This does not mean that there is no competition in the district. On the contrary there is a great deal of it, but competition and cooperation (between participants) are intimately intermingled [Dei Ottati, 1987].

With the industrial district the "small-large" argument is somewhat by-passed, because, if taken together, the small firms of a district act as a large producing entity enjoying analogous economies of scale. Its peculiar strength (and weakness) lies in the fact that it is not the result of a man-made plan, with the rigidities that any abstract plan implies, but the result of a continuous process of adaptation of individual aims and means.

With the introduction of this theme the Italian debate became more complex, shifting from industrial economics to somewhere at the intersection among industrial, regional, labour and development economics. But it would
perhaps be more accurate to say that it shifted to a meeting ground between
economics and the other social sciences.

4. The problem of the "size of a firm"

The "final" stage of the Italian debate was reached with two lines of
reasoning, both aiming to undermine the concept of "firm size". The first
line of reasoning is the direct result of the importation into Italy of the
literature on transaction costs. When the activity of the firm is seen as a
continuous series of transactions, each one of which poses the problem of
whether to produce or to buy outside, the frontier between what is internal
and what is external to the firm becomes very hazy and unstable. So much
so that it becomes legitimate to ask whether it makes sense to speak of the
firm as something distinct from (and opposed to) the market in which it is
immersed. This literature does not stretch the idea to its limit, but its thrust
is - to use a well-known metaphor [Coase, 1937] - towards the melting of
the piece of butter into the surrounding milk.

Some scholars say that this line of reasoning, although an
improvement on the older approach, is a blind alley without much
constructive value. Instead, they take a different approach, based on the
idea that the traditional emphasis on the firm's size was justified by the
conditions prevailing up to 15 years ago. Those conditions were created by
a demand for mass, standardised goods, with the possibility of dominating
the well-defined markets for those goods by means of an enlargement of the
space of control of a single central managerial entity, and by the differential
research and development capabilities possessed by the larger organisations
over the smaller ones.

The current situation is very different. The demand for many final
goods is now much more diversified and even personalised, so the
advantages of long production runs are mainly gone. On the other hand, the
character of technological progress has radically changed in recent years.
The dynamic source of technological improvement is no longer R & D, but
the scientific research carried on outside the firms, in the universities and
other public institutions. Every firm, small or large, is small if compared
with the new tasks. Consequently, the decisive factor becomes the ability of
each firm to "fish" innovations from the common scientific "pond". From this
point of view a relatively small, well-organised firm can be the right size for
this kind of fishing activity, while a big concern may be less well suited to it
[Vaccà, 1986].

In addition to these factors it is important to point out the
tendencies always at work in the bigger organisations, whether public or
private, towards bureaucratisation. Territorial grouping of firms and
decentralisation of decision-making in the big firms have come to be
considered as two different manifestations of one tendency.

All things considered, this group of industrial economists says there
is more room than ever for modern, small or medium-sized firms, provided
they find some form of co-operation for the mutual exchange of information
and the sharing of marketing expenses among themselves. Chains or networks of small or medium-sized firms, spread possibly over the entire world market, and operating on a set of related markets (i.e. selling related goods) are, they think, the future winners of the race. This leaves to the older multinationals - expressions of the traditional way to conquer mass markets - the role of dinosaurs on the way to extinction.

5. Other problems

A related problem is that of exploitation and self-exploitation of workers and small entrepreneurs. There has been a lot of discussion about this, particularly in the 1970s, when Marxist ideas were prominent in the scientific arena and in common discourse alike.

The statistical evidence produced is, as usual, not decisive. What has been proved beyond any doubt is: (a) the rate of wages per hour worked is lower in small firms than in large ones in the same sectors; (b) the length of the working day is longer in small firms than in large ones; (c) the working conditions (mainly health) are worse in small firms than in large ones; (d) the level of unionisation is lower in small firms than in large ones. As far as human relations within the firm are concerned, no clear conclusion is apparent. On the one hand, the closer relationships between managers and workers can foster some subtle forms of exploitation. But on the other hand, the fact that both share the same working conditions and, more frequently than not, even the same (or similar) living conditions, makes for a better understanding and less strife.

All in all, one could infer that there is more exploitation in small firms than in large firms, and several commentators come to that conclusion. But others observed that working conditions are only a part of living conditions, and the overall living conditions in an industrial district, for instance, are more frequently as good as, if not better than, those in many highly industrialised areas. This would not mean much if the working conditions were independent of the living conditions. But if the whole system is considered as a dynamic process, it may be concluded that an industrial district made up of small firms is the result of a mutual adaptation between the contrasting requirements of the accumulation process, which is of necessity competitive, and of a population that wishes to preserve its values and to live in its homeland. Following this line of reasoning, many statistical findings lose their power. Working conditions and the length of the working day have to be judged in the context of a 24-hour day or 365-day year time span, taking into account, too, the living conditions (educational facilities, entertainment, social relationships and so on) of the other members of the worker's family.

The level of wages is a crucial point because it determines the income constraint. But for a member of a non-nuclear family, living in the "urbanised countryside" with concrete possibilities for several ways of supplementing his wage (several allowances of different kinds, social help for children and the elderly, some agricultural products from the cultivation of
a remnant piece of land, and so on), the difference between the rate of wages in a small firm and that of a large firm becomes, in the end, much less relevant. There is, however, the additional problem of the very low earnings coming from moonlighting activities and part-time jobs that form the basis of this system. This is a real problem, but the situations in which moonlighting activities and part-time jobs go together with heavy and chronic unemployment must be distinguished from those in which they provide cash for youngsters or extra earnings for a family which is already relatively well-off. In these latter cases it can safely be assumed that there has been a fine marginal adaptation between means and ends, and it would be preposterous to impose our academic judgement upon the judgement of the actors involved. There are several signs that these last situations arise rather frequently in the industrial districts of NEC. A symptom of this is the high rate of savings by families. A second symptom is the strange fact that in the NEC the total number of strikes corresponds, more or less, to that which prevails in other parts of the country, but they are shorter. This very peculiar behaviour suggests a kind of mixed feelings towards strikes: they have a political meaning and an economic effect. To strike means to show solidarity with fellow workers all over the country, but to prolong the strike means to specifically damage the firm where one works. The solution seems to be shorter strikes.

Finally, there is the problem of self-exploitation of small entrepreneurs. There are many sides to this problem, and they will not all be considered here. In very general terms, the idea of self-exploitation is a puzzling one. It is based, in the final analysis, on the supposition that the small entrepreneurs are hidden dependent workers. They - like the hawthorn seedlings that believe they are acorns in Robertson’s famous metaphor [Robertson, 1927] - live under a delusion, and in the end all their efforts will be harvested by big business. So they are extracting from their human creativity something that, in due time, will push them back to their true position as wage-earners. This construction is derived from the same simplistic approach which viewed share-croppers as imperfect day labourers. As in that case, the approach hinders an understanding of the specific evolution under consideration.

VI. Conclusions

The overall meaning of this chapter lies in demonstrating that the substantial development of small industrial firms which has occurred in Italy during the last 15 years, is not the outcome of a superiority of the small size as such, not even with regard to those goods which have characterised the recent successes of Italian export. What determined the expansion of the Italian population of small firms was the co-operation of two factors: (a) a world-wide tendency towards the decentralisation and disintegration of the firm, which was especially strong in Italy due to special circumstances in the labour market; (b) an explosion of small entrepreneurship, which was
fostered by historical cultural inheritance, by a very stable local political environment that was not hostile to an industrialisation of "lowly" origin, by a polycentric urban structure, and last but not least, by a habit of contacts and exchanges with foreign countries.

One part of this complex and unexpected transformation is most striking, namely the fact that the formation of the territorial systems of small firms has not involved - other than marginally - the area of the earliest industrialisation and has not touched - despite all efforts of public intervention - the regions of the South and the islands. Explanations for this resistance to the rise of new industrial districts are far from complete. However, the research carried out so far seems to point to the role of the social, political and cultural environment. In the North, the social and political milieu was, at the beginning of the period, characterised by the classical direct confrontation between large industrial firms and their masses of employees. With such a climate there was no room for the self-help ideology which at one and the same time with the strengthening of the "local identities", is needed for the development of industrial districts.

The conditions for a strengthening of "local identities" would indeed have existed - theoretically speaking - in the South; yet the system of values and institutions which had been formed in the course of the centuries, developed after the war along lines which were seemingly incompatible with the rise of industrial districts. A recent study of the interplay between Mafia activities and economic development in southern Italy has concluded that the growth of family business based on illegal economic activities and on close relations with local government officers is a strong obstacle to the development of entrepreneurial attitudes on the market and to the genesis of a large set of small and medium-sized enterprises in the industrial sector [Catanzaro, 1988; Trigilia, 1988].

One feature of the industrial district which is linked with those previously mentioned but which has not been extensively studied is the network of specialised connections with foreign markets. The hints on the role of buyers and impettatori that have been offered here are just the starting point of an inquiry, the relevance of which for the future of the districts cannot be over-emphasised [IRPET, 1980; Becattini, 1986].

From the point of view of an evolution of ideas on socio-economic development, the Italian debate may have a relevance which goes beyond the Italian scene. On the one hand, very schematic and aggregate interpretations (e.g. the dualistic ones) of the Italian experience have been abandoned in favour of interpretations which are more complex and disaggregated (e.g the multiregionality of the Italian development). On the other hand the hegemony of interpretations, à la Kuznets, maintaining that essentially only one path towards industrialisation existed, has been challenged. One cannot deny that this approach is still rather popular with Italian economists, yet some greater open-mindedness now exists towards an effort to discover genuinely novel elements in the evidence, statistical or otherwise.
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5 Japan

Kazutoshi Koshiro

1. Introduction

Before commencing a more formal description and analysis of the development of small enterprises in Japan, it would be helpful to provide readers with two sets of background information relating to changes in Japan's labour market conditions after the Second World War. The first set deals with major changes in the labour market up to 1960, while the second covers more recent developments.

After the Second World War, Japan suffered from a large excess supply of labour due to: (a) a net inflow of 5 million immigrants and disbanded forces returning from overseas; (b) 3.6 million demobilised members of the domestic armed forces; and (c) 1.6 million demobilised war production workers. Altogether these three groups constituted a surplus workforce of roughly 10 million people [Uemura, 1964, pp. 64-67]. On the other hand, because of war devastation and an extremely deficient supply of raw materials [Kosai, 1981, pp. 40-46], Japan was unable to provide enough job opportunities for the excess labour force, most of whom found temporary employment on farms and in small, urban-based businesses. This excess supply of labour continued until at least the middle of the 1950s, when economic growth accelerated and demand for labour began to increase.

Reflecting such a labour market situation, the Economic White Paper of 1957 characterised the Japanese economy as being a "dual economy" which depended heavily upon employment in small businesses:

The decreasing proportion of the farming population does not necessarily mean that the dual structure of our country has been mitigated, because the proportion of persons employed by large firms decreased whereas those employed by small firms increased compared with the pre-war days. That is to say, the lower parts of employment have just shifted from the agrarian sector to small businesses, the latter still remaining as the pre-modern sector [Keizai Kikaku Cho (Economic Planning Agency), 1957, p. 39].

Despite a continuing obsession with the idea of a dual economy, some economists also recognised and stressed the emergence since the 1960s of highly prosperous and independent middle-sized firms [Nakamura, 1964; Kiyonari, 1967]. They further proceeded to emphasise the more recent development since the 1970s of 'venture businesses' which succeeded in

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1. In 1947, 51 per cent of employment was in agriculture and forestry, but the percentage decreased to 36 per cent in 1955, 22 per cent in 1965, 11.6 per cent in 1975, and 8.9 per cent in 1984. (For 1947, Census of Population; for others, Prime Minister’s Office, Labour Force Survey).
developing new products and extending their own markets through the intensive use of new technology and R & D activities [Kiyonari et al., 1972].

Side by side with these new views concerning small businesses, government economists were emphasising the necessity of continuous economic growth in order to overcome the dual economic structure. Beginning in 1963, the Medium- and Small-sized Enterprises (SMEs) Agency of the Ministry of International Trade and Industry began to publish annual reports on medium-sized and small firms which emphasised the modernisation and improvement of productivity taking place within these underdeveloped firms.

On the other hand, the majority of scholars who specialised in this field continued to stress the oppression and exploitation of small businesses by large "monopolistic capitalists", who take advantage of low wages and the inferior bargaining position of subcontractors. Most of these studies were strongly influenced by Marxist thought, although a few of them demonstrated empirical objectivity and proficiency in their research [Ikeda, 1972, 1982; M. Watanabe, 1972; Y. Watanabe, 1982].

II. Volume, structure and characteristics of the small enterprise sector

1. The definition of small and medium-sized enterprises

The Basic Law for Small and Medium-Sized Enterprises of 1963 first officially defined small and medium-sized enterprises (SMEs) as follows: "in manufacturing, those firms with fewer than 300 employees and capitalisation less than 50 million yen; but in wholesale and retail trade and services, those with fewer than 50 employees and capitalisation less than 10 million yen".

These definitions were revised by an amendment of the law in 1973 which remains in effect today. It states: "In manufacturing, those firms employing fewer than 300 persons and capitalised with less than 100 million yen; in the wholesale trade, those employing fewer than 100 persons and capitalised with less than 30 million yen; in the retail trade and service industry, those employing fewer than 50 persons and capitalised with less than 10 million yen". This definition is applied to all of the official statistics and regulations relating to SMEs.

In view of this detailed official definition of SMEs, the usual research practice is to define SMEs in terms of employment using 300 employees as the upper limit of classification. Unfortunately, the coverage is not always complete because many official statistics often exclude very small firms below 30 employees (VSFs) or extremely small firms below five persons (EXSFs).
2. Volume and employment share of the small firm sector

A. Enterprises

The latest available Labour Force Survey of 1986 shows that 7.8 per cent of the total (43,500,000) employees in non-agricultural industries were employed in EXSFs, 33.5 per cent in VSFs and 49.4 per cent in enterprises employing fewer than 100 persons (Table 1). Unfortunately, this survey does not include a classification of enterprises employing up to 300 persons. However, it is possible to suggest that a majority (64.9 per cent) of workers is still employed in the small and medium-sized firm sector employing fewer than 500 persons.

Table 1: Employment status of the labour force in 1986 (10 000s)

| Total population 15 years and over | 9,587 (1) |
| Labour force | 6,020 |
| Employed persons | 5,853 |
| Agriculture and forestry | 450 |
| Non-agricultural industries | 5,403 (2) |
| Self-employed workers | 699 |
| Family workers | 338 |
| Employees | 4,350 (100) |
| Size of enterprise | |
| 1-4 persons | 341 (7.8) |
| 5-29 persons | 1,116 (25.7) |
| 30 - 99 persons | 687 (15.8) |
| 100 - 499 persons | 674 (15.5) |
| 500 - 999 persons | 202 (4.6) |
| 1,000 and over | 817 (16.8) |
| Government | 500 (11.5) |
| Unclassifiable | 13 (0.3) |
| Unemployed | 167 |
| Not in labour force | 3,513 |

Notes: (1) Including the unclassifiable (54).
(2) Including the unclassifiable (16).
Table 2 shows the employment of working persons (including self-employed and family workers) by size of enterprise and by industry for 1982, the year of the latest available Employment Status Survey. A majority (51.4 per cent) of the total working population was employed by VSFs, whereas the proportion employed in non-agricultural industries was 46.8 per cent. The corresponding percentages for manufacturing, the wholesale and retail trades, and services were 39.6, 65.5, and 45.8 per cent, respectively.

On the other hand, the employment share of SMEs defined in accordance with the comprehensive official classification noted above shows that such firms account for 67.5 per cent of employment in manufacturing, 76.3 per cent of employment in the wholesale and retail trade, and 50.7 per cent in services. If government employees are excluded from the service sector statistics, 65.0 per cent of total private service workers were in SMEs. Altogether, 25,108,000 persons out of total 47,387,000 persons in the non-agricultural industries excluding government employees, or 53.0 per cent of the total, were employed in SMEs in 1982.

B. Establishments

Up to 1981 the government undertook a census of establishments every three years, but due to financial considerations the interval has been extended to five years. The latest Census of Establishments for 1986 is currently being processed so that the aggregate figures from this source are not yet available. Therefore, the distribution of employment by size of establishment shown in Table 3 is for the year 1981. The majority (53.7 per cent) of all employees were employed by very small establishments (VSEs) engaging fewer than 30 persons. However, the situation differs significantly across industries, with the highest concentration of VSEs being observed in the catering industry (89.7 per cent), followed by real estate (83.9 per cent), the retail trade (79.2 per cent), the wholesale trade (62.7 per cent), the construction industry (62.6 per cent) and the service sector (54.2 per cent). On the other hand, the lowest concentration of employment in VSEs is observed in the public service (12.4 per cent), public utilities (21.0 per cent), the transport and communications industry (27.4 per cent), finance (35.1 per cent), manufacturing (38.0 per cent) and mining (44.4 per cent).

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2. The source for this table is the Employment Status Survey (ESS) which has usually been undertaken every three years since 1956 and is based on the usual status of employment on a specific date, whereas the Labour Force Survey is undertaken every month based on the current status of employment in the survey week. The 'current status' means the kind of gainful work he/she was actually engaged in during the survey week, irrespective of his/her ordinary status of employment in other weeks. On the other hand, the usual status refers to the kind of gainful work he/she is ordinarily engaged in on the survey date (1 October). For example, students or wives who happened to be engaged in gainful work for more than one hour during the survey week are classified as 'employed' by the LFS although their usual status is technically 'outside labour force'.

3. These figures are based solely on the classification standard defined in terms of the amount of capital. Official employment statistics combining these two standards are not available.
<table>
<thead>
<tr>
<th>Size of enterprise</th>
<th>Total</th>
<th>Agriculture and forestry</th>
<th>Total</th>
<th>Non-agricultural industries</th>
<th>Wholesale and retail trade</th>
<th>Services (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Manufacturing (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>57 888 (100.0)</td>
<td>5 264 (24.3)</td>
<td>52 506 (100.0)</td>
<td>14 255 (100.0)</td>
<td>12 886 (100.0)</td>
<td>11 193 (100.0)</td>
</tr>
<tr>
<td>1-4 persons</td>
<td>17 719 (30.6)</td>
<td>4 930 (27.4)</td>
<td>12 778 (24.3)</td>
<td>2 521 (17.7)</td>
<td>4 990 (38.7)</td>
<td>2 839 (25.4)</td>
</tr>
<tr>
<td>5-29 persons</td>
<td>12 027 (20.8)</td>
<td>200 (1.6)</td>
<td>11 805 (22.5)</td>
<td>3 117 (21.9)</td>
<td>3 454 (26.8)</td>
<td>2 283 (20.4)</td>
</tr>
<tr>
<td>30-49 persons</td>
<td>2 838 (4.9)</td>
<td>17 (0.7)</td>
<td>2 814 (5.4)</td>
<td>949 (6.7)</td>
<td>642 (5.0)</td>
<td>545 (4.9)</td>
</tr>
<tr>
<td>50-99 persons</td>
<td>3 619 (6.3)</td>
<td>16 (0.7)</td>
<td>3 597 (6.9)</td>
<td>1 293 (9.1)</td>
<td>742 (5.8)</td>
<td>781 (7.0)</td>
</tr>
<tr>
<td>100-299 persons</td>
<td>4 744 (8.2)</td>
<td>16 (0.7)</td>
<td>4 721 (9.0)</td>
<td>1 733 (12.1)</td>
<td>1 000 (7.8)</td>
<td>1 040 (9.3)</td>
</tr>
<tr>
<td>300-499 persons</td>
<td>1 815 (3.1)</td>
<td>4 (0.1)</td>
<td>1 809 (3.4)</td>
<td>696 (4.9)</td>
<td>418 (3.2)</td>
<td>324 (2.9)</td>
</tr>
<tr>
<td>500-999 persons</td>
<td>1 961 (3.4)</td>
<td>3 (0.1)</td>
<td>1 954 (3.7)</td>
<td>777 (5.4)</td>
<td>454 (3.5)</td>
<td>292 (2.6)</td>
</tr>
<tr>
<td>1000 and over</td>
<td>7 906 (13.7)</td>
<td>3 (0.1)</td>
<td>7 893 (15.0)</td>
<td>3 158 (22.2)</td>
<td>1 142 (8.9)</td>
<td>615 (5.5)</td>
</tr>
<tr>
<td>Government</td>
<td>5 197 (9.0)</td>
<td>75 (1.5)</td>
<td>5 119 (9.7)</td>
<td>10 (0.2)</td>
<td>41 (0.3)</td>
<td>2 470 (22.0)</td>
</tr>
<tr>
<td>Not reported</td>
<td>61 (0.1)</td>
<td>1 (0.2)</td>
<td>60 (0.1)</td>
<td>2 (0.0)</td>
<td>3 (0.0)</td>
<td>4 (0.0)</td>
</tr>
</tbody>
</table>

**Notes:**
(1) and (3) The line in the table indicates the upper limit of SMEs in terms of employment.
(2) The dotted line in the table indicates the upper limit of SMEs in terms of employment in the wholesale trade. Because of simultaneous inclusion of retail trade, the size classification here is not precise.

**Source:** Statistics Bureau, Prime Minister's Office: *1982 Employment status survey, whole Japan*, 1984, p. 48.
Table 3: Number and distribution of employed persons by industry and by size of establishment, 1981

<table>
<thead>
<tr>
<th>Industry</th>
<th>Total persons engaged (000s)</th>
<th>Total persons</th>
<th>1-4 persons</th>
<th>5-9 persons</th>
<th>10-29 persons</th>
<th>30-49 persons</th>
<th>50-99 persons</th>
<th>100-299 persons</th>
<th>300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total non-agricultural</td>
<td>51 237</td>
<td>100.0</td>
<td>18.6</td>
<td>13.7</td>
<td>21.4</td>
<td>9.7</td>
<td>11.0</td>
<td>12.2</td>
<td>13.4</td>
</tr>
<tr>
<td>Mining</td>
<td>129</td>
<td>100.0</td>
<td>4.0</td>
<td>9.3</td>
<td>31.1</td>
<td>11.7</td>
<td>9.9</td>
<td>9.9</td>
<td>24.0</td>
</tr>
<tr>
<td>Construction</td>
<td>4 969</td>
<td>100.0</td>
<td>13.2</td>
<td>17.9</td>
<td>31.5</td>
<td>11.7</td>
<td>11.5</td>
<td>9.3</td>
<td>4.9</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>12 896</td>
<td>100.0</td>
<td>8.5</td>
<td>10.1</td>
<td>19.4</td>
<td>9.5</td>
<td>11.6</td>
<td>15.1</td>
<td>25.9</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>4 350</td>
<td>100.0</td>
<td>12.7</td>
<td>19.0</td>
<td>30.7</td>
<td>11.5</td>
<td>11.6</td>
<td>9.2</td>
<td>5.3</td>
</tr>
<tr>
<td>Retail trade</td>
<td>7 396</td>
<td>100.0</td>
<td>42.5</td>
<td>19.1</td>
<td>17.6</td>
<td>6.1</td>
<td>5.7</td>
<td>5.3</td>
<td>3.7</td>
</tr>
<tr>
<td>Catering</td>
<td>3 123</td>
<td>100.0</td>
<td>45.9</td>
<td>24.4</td>
<td>19.4</td>
<td>5.1</td>
<td>3.3</td>
<td>1.6</td>
<td>0.3</td>
</tr>
<tr>
<td>Finance</td>
<td>1 711</td>
<td>100.0</td>
<td>4.3</td>
<td>4.4</td>
<td>26.4</td>
<td>18.5</td>
<td>17.5</td>
<td>13.9</td>
<td>14.9</td>
</tr>
<tr>
<td>Real estate</td>
<td>629</td>
<td>100.0</td>
<td>54.1</td>
<td>16.7</td>
<td>13.1</td>
<td>4.1</td>
<td>4.8</td>
<td>4.8</td>
<td>2.4</td>
</tr>
<tr>
<td>Transport and communication</td>
<td>3 401</td>
<td>100.0</td>
<td>4.4</td>
<td>4.8</td>
<td>18.2</td>
<td>10.8</td>
<td>15.6</td>
<td>26.5</td>
<td>19.6</td>
</tr>
<tr>
<td>Public utilities</td>
<td>322</td>
<td>100.0</td>
<td>2.6</td>
<td>4.3</td>
<td>14.1</td>
<td>8.7</td>
<td>15.7</td>
<td>30.9</td>
<td>23.7</td>
</tr>
<tr>
<td>Services</td>
<td>10 548</td>
<td>100.0</td>
<td>19.3</td>
<td>13.3</td>
<td>21.6</td>
<td>11.2</td>
<td>12.9</td>
<td>12.3</td>
<td>9.4</td>
</tr>
<tr>
<td>Public service</td>
<td>1 735</td>
<td>100.0</td>
<td>2.3</td>
<td>2.4</td>
<td>7.7</td>
<td>6.2</td>
<td>14.0</td>
<td>24.0</td>
<td>43.4</td>
</tr>
</tbody>
</table>

A more detailed analysis of employment (and other aspects) by size of establishment is given by the Census of Manufacturers. According to the 1981 census, the share of employment in VSEs was 35.2 per cent, which was comparable with the Census of Establishments mentioned above. The latest available Census of Manufacturers for 1985 shows that 34.2 per cent of employed persons were working in VSEs (Table 4).

Table 4: Percentage and total number of employed persons in the manufacturing industry by the size of establishments, 1957-1984

<table>
<thead>
<tr>
<th>Year</th>
<th>Fewer than 30 persons</th>
<th>30 - 99 persons</th>
<th>100 - 299 persons</th>
<th>300 and over</th>
<th>Total number (000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1957</td>
<td>38.8</td>
<td>19.8</td>
<td>13.6</td>
<td>27.7</td>
<td>6 604.6</td>
</tr>
<tr>
<td>1958</td>
<td>38.3</td>
<td>20.1</td>
<td>13.9</td>
<td>27.7</td>
<td>6 664.3</td>
</tr>
<tr>
<td>1959</td>
<td>35.3</td>
<td>20.4</td>
<td>14.7</td>
<td>29.6</td>
<td>7 293.6</td>
</tr>
<tr>
<td>1960</td>
<td>34.0</td>
<td>20.4</td>
<td>15.1</td>
<td>30.5</td>
<td>8 169.5</td>
</tr>
<tr>
<td>1961</td>
<td>32.8</td>
<td>19.9</td>
<td>15.3</td>
<td>32.0</td>
<td>8 751.0</td>
</tr>
<tr>
<td>1962</td>
<td>32.1</td>
<td>20.1</td>
<td>15.7</td>
<td>32.1</td>
<td>8 998.4</td>
</tr>
<tr>
<td>1963</td>
<td>33.8</td>
<td>20.2</td>
<td>15.4</td>
<td>30.6</td>
<td>9 727.9</td>
</tr>
<tr>
<td>1964</td>
<td>32.8</td>
<td>19.9</td>
<td>15.7</td>
<td>31.5</td>
<td>9 900.8</td>
</tr>
<tr>
<td>1965</td>
<td>33.1</td>
<td>20.1</td>
<td>15.6</td>
<td>31.2</td>
<td>9 921.0</td>
</tr>
<tr>
<td>1966</td>
<td>34.0</td>
<td>20.0</td>
<td>15.7</td>
<td>30.3</td>
<td>10 291.6</td>
</tr>
<tr>
<td>1967</td>
<td>33.5</td>
<td>19.7</td>
<td>15.7</td>
<td>31.2</td>
<td>10 554.1</td>
</tr>
<tr>
<td>1968</td>
<td>33.0</td>
<td>19.1</td>
<td>15.9</td>
<td>32.0</td>
<td>10 862.7</td>
</tr>
<tr>
<td>1969</td>
<td>33.3</td>
<td>18.9</td>
<td>15.7</td>
<td>32.1</td>
<td>11 412.1</td>
</tr>
<tr>
<td>1970</td>
<td>32.7</td>
<td>18.9</td>
<td>15.9</td>
<td>32.4</td>
<td>11 679.7</td>
</tr>
<tr>
<td>1971</td>
<td>32.6</td>
<td>19.2</td>
<td>16.1</td>
<td>32.1</td>
<td>11 463.7</td>
</tr>
<tr>
<td>1972</td>
<td>34.3</td>
<td>19.3</td>
<td>15.9</td>
<td>30.5</td>
<td>11 783.4</td>
</tr>
<tr>
<td>1973</td>
<td>34.1</td>
<td>18.9</td>
<td>16.0</td>
<td>31.0</td>
<td>11 961.1</td>
</tr>
<tr>
<td>1974</td>
<td>34.5</td>
<td>19.0</td>
<td>15.7</td>
<td>30.8</td>
<td>11 486.8</td>
</tr>
<tr>
<td>1975</td>
<td>36.5</td>
<td>19.1</td>
<td>15.1</td>
<td>29.3</td>
<td>11 296.2</td>
</tr>
<tr>
<td>1976</td>
<td>36.8</td>
<td>19.2</td>
<td>15.3</td>
<td>28.7</td>
<td>11 173.8</td>
</tr>
<tr>
<td>1977</td>
<td>37.2</td>
<td>19.2</td>
<td>15.3</td>
<td>28.3</td>
<td>10 874.8</td>
</tr>
<tr>
<td>1978</td>
<td>38.7</td>
<td>19.3</td>
<td>15.2</td>
<td>26.8</td>
<td>10 890.1</td>
</tr>
<tr>
<td>1979</td>
<td>38.9</td>
<td>19.4</td>
<td>15.3</td>
<td>26.5</td>
<td>10 859.8</td>
</tr>
<tr>
<td>1980</td>
<td>38.8</td>
<td>19.1</td>
<td>15.5</td>
<td>26.6</td>
<td>10 932.0</td>
</tr>
<tr>
<td>1981</td>
<td>35.2</td>
<td>20.4</td>
<td>16.3</td>
<td>28.1</td>
<td>10 567.6</td>
</tr>
<tr>
<td>1982</td>
<td>35.0</td>
<td>20.5</td>
<td>16.4</td>
<td>28.1</td>
<td>10 481.0</td>
</tr>
<tr>
<td>1983</td>
<td>35.4</td>
<td>20.3</td>
<td>16.5</td>
<td>27.8</td>
<td>10 651.0</td>
</tr>
<tr>
<td>1984</td>
<td>34.4</td>
<td>20.4</td>
<td>17.0</td>
<td>28.2</td>
<td>10 733.4</td>
</tr>
<tr>
<td>1985</td>
<td>34.2</td>
<td>20.5</td>
<td>17.0</td>
<td>28.3</td>
<td>10 889.9</td>
</tr>
</tbody>
</table>

Note: The classification of the size is regrouped due to discontinuity in some years.
Source: Ministry of International Trade and Industry: Census of manufacture for each year.
Table 5: Total number and percentage of employed persons by size of establishment in commerce and industry in 1985

<table>
<thead>
<tr>
<th>Employed persons</th>
<th>Total commerce</th>
<th>Wholesale trade</th>
<th>Retail trade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Incorporated</td>
<td>Unincorporated</td>
</tr>
<tr>
<td>Total number (000s)</td>
<td>10 327</td>
<td>7 023</td>
<td>3 304</td>
</tr>
<tr>
<td>Percentage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2 persons</td>
<td>16.3</td>
<td>3.4</td>
<td>43.9</td>
</tr>
<tr>
<td>3-4 persons</td>
<td>16.8</td>
<td>10.6</td>
<td>30.0</td>
</tr>
<tr>
<td>5-9 persons</td>
<td>18.7</td>
<td>20.8</td>
<td>14.2</td>
</tr>
<tr>
<td>10-19 persons</td>
<td>15.0</td>
<td>19.3</td>
<td>5.7</td>
</tr>
<tr>
<td>20-29 persons</td>
<td>7.7</td>
<td>10.2</td>
<td>2.3</td>
</tr>
<tr>
<td>30-49 persons</td>
<td>8.1</td>
<td>10.9</td>
<td>2.2</td>
</tr>
<tr>
<td>50-99 persons</td>
<td>7.5</td>
<td>10.4</td>
<td>1.5</td>
</tr>
<tr>
<td>100 and over</td>
<td>9.9</td>
<td>14.4</td>
<td>0.2</td>
</tr>
</tbody>
</table>

With respect to commerce, the Ministry of International Trade and Industry undertook a Census of Commerce every two years between 1952 and 1976. Subsequently, the Census has been available every three years and a summary of the latest results for 1985 is shown in Table 5. If the official definition of SMEs noted above is extended to establishments, their employment share was 85.7 per cent in wholesale trade and 88.1 per cent in retail trade. The employment share of EXSEs (below five persons) in the unincorporated sector of the retail trade is an enormous 75.4 per cent, accounting for 2.2 million persons. In the unincorporated wholesale trade, EXSEs account for 62.4 per cent of total workers, or 235,000 people. Finally, in commerce as a whole, two-thirds (74.5 per cent) of the total, or 7.7 million persons, were employed in VSEs.

3. **Main structural features of the small firm sector**

   **A. Typology of small businesses**

   Considering only manufacturing, SMEs were responsible for 50.8 per cent of total shipments and 71.8 per cent of total employment in 1984.4 Kiyonari [1972] classified SMEs into the following four categories:

   (a) Incorporated small firms, which amounted to 680,000 or 11 per cent of the total SMEs in 1966;

   (b) Quasi-incorporated small firms that present official financial reports to the tax office, which amounted to 960,000 or 16 per cent of the total;

   (c) Poor self-employed firms which are running at the subsistence level. Their number is calculated by deducting category (b) from the total number of private firms, and they amounted to 2,190,000 or 26 per cent of the total.

   (d) Subsidiary homework not involving independent offices, which amounted to 2,220,000 or 37 per cent of the total.

   This classification was used by many scholars (Table 6). By 1981, the share of category (b) had increased to 33 per cent and that of category (a) to 19.6 per cent, whereas category (d) reduced its share to 31.8 per cent and category (c) declined most remarkably to 15.6 per cent.

---

Table 6: Categories of SMEs

<table>
<thead>
<tr>
<th>Category</th>
<th>1966 (a)</th>
<th>1975</th>
<th>1981 (b)</th>
<th>(b/a) x 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Incorporated SMEs (1)</td>
<td>68 (11.2)</td>
<td>117</td>
<td>166 (19.6)</td>
<td>224.1%</td>
</tr>
<tr>
<td>Unincorporated SMEs</td>
<td>537 (88.8)</td>
<td>621</td>
<td>680 (80.4)</td>
<td></td>
</tr>
<tr>
<td>Establishment based (2)</td>
<td>315 (52.1)</td>
<td>376</td>
<td>411 (48.6)</td>
<td>130.5</td>
</tr>
<tr>
<td>2. Quasi-incorporated</td>
<td>96 (15.9)</td>
<td>217</td>
<td>279 (33.0)</td>
<td>290.6</td>
</tr>
<tr>
<td>3. Subsistence-related</td>
<td>219 (36.1)</td>
<td>159</td>
<td>132 (15.6)</td>
<td>60.3</td>
</tr>
<tr>
<td>4. Non-establishment based (3)</td>
<td>222 (36.7)</td>
<td>245</td>
<td>269 (31.8)</td>
<td>121.2</td>
</tr>
<tr>
<td>Total</td>
<td>605 (100.0)</td>
<td>738</td>
<td>846 (100.0)</td>
<td>139.8</td>
</tr>
</tbody>
</table>

Note: (1) Capitalised with less than 50 million yen.  
(2) "establishment based" is where the owner of the firm works in separate premises from his own home.  
(3) "non-establishment based" is where the owner's workplace and home are located in the same premises.  
Source: Compiled by Nakamura [1985], p. 25, based on various previous studies.

B. Independence and subordination

Another way of classifying SMEs is the dichotomy between independent and subordinate firms. The dominance of subcontracting has characterised Japan's industrial structure from the very beginning of her industrialisation, for the following reasons: (a) an abundant supply of cheap labour; (b) limited employment opportunities in modern industry, which preferred to borrow labour-saving modern technology from the West; (c) competition among several industrial/financial groups (Zaibatsu) which resulted in increased vertical integration in Japanese industry. This tradition has been continued through time by the reorganised industrial groups that emerged after the dissolution of Zaibatsu groups in the late 1940s; (d) high concentration of a large population in a limited geographical area, with a particularly high percentage of the population concentrated in metropolitan areas.

It has been a long established view that the intensive use of subcontracting has helped parent companies to save on fixed capital, to
mitigate the adverse effects of business cycles, and to exploit cheap labour. As will be discussed later, some commentators argue that such a situation seems to have undergone a dramatic change since the 1960s. The exploitative nature of the subcontracting system has been significantly transformed into a more co-operative relationship on an equal footing, representing a kind of highly developed system of the division of labour [Nakamura, 1985, p. 90].

One of the easiest ways of classifying subcontracting firms is the proportion of subcontracted sales in total shipments. If the proportion exceeds 80 per cent, then those firms are classified as "totally subcontracted firms". Table 7 shows that 65.5 per cent of the total number of firms surveyed by the Agency of Small- and Medium-sized Firms in 1981 were subcontract firms, and 54.0 per cent were "totally subcontracted firms". (In manufacturing, the proportion of subcontract firms increased from 60.7 per cent in 1976 to 65.5 per cent by 1981.) The proportion of subcontract firms was higher than average in the textile industry and various machinery industries.  

Table 7: Percentage composition of subcontracted SMEs (1) in 1981

<table>
<thead>
<tr>
<th>Industry</th>
<th>Total number of firms in the population</th>
<th>of which:</th>
<th>Totally subcontracted</th>
<th>Partly subcontracted</th>
<th>Independent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>710,476</td>
<td>65.5</td>
<td>54.0</td>
<td>11.5</td>
<td>34.5</td>
</tr>
<tr>
<td>Textile</td>
<td>98,474</td>
<td>84.9</td>
<td>80.0</td>
<td>4.9</td>
<td>15.1</td>
</tr>
<tr>
<td>General machinery</td>
<td>62,304</td>
<td>84.2</td>
<td>70.7</td>
<td>13.5</td>
<td>15.8</td>
</tr>
<tr>
<td>Electric appliance and machinery</td>
<td>31,959</td>
<td>85.3</td>
<td>75.6</td>
<td>9.7</td>
<td>14.7</td>
</tr>
<tr>
<td>Transportation equipment</td>
<td>21,428</td>
<td>87.7</td>
<td>78.7</td>
<td>9.0</td>
<td>12.3</td>
</tr>
<tr>
<td>Precision instrument and machinery</td>
<td>12,073</td>
<td>80.9</td>
<td>71.4</td>
<td>9.5</td>
<td>19.1</td>
</tr>
</tbody>
</table>

Note: (1) Totally subcontracted firms mean those firms whose amount of sales depends heavily upon a single customer (80-100 per cent).

Source: Nakamura [1985], p. 92, based on the Agency of SMEs: The sixth basic report on the conditions of industry, 31 December 1981.

5. A graphic example of the extensive use of suppliers by a major automobile company is given in Koshiro [1983a].
C. Firms of medium standing and "venture businesses"

Some researchers emphasised the development of profitable firms of medium standing in the 1960s [Nakamura, 1964; Kiyonari, 1967]. Nakamura defined the "firms of medium standing" as those capitalised with 50 million-1 billion yen, exclusive of subsidiaries of large companies. He estimated that about 10,000 companies could be classified under this category, and that these companies comprised about 20 per cent of total corporate profit. He also estimated that about 225 out of a total 1,409 companies whose stocks are listed in stock exchanges originated from SMEs, the best examples of which are Sony, Honda, Tokyo Kogyo (Matsuda) and Daiei [Nakamura, 1964, pp. 30-31].

According to Nakamura, the basic characteristics of "medium standing" are as follows: (a) independence - subsidiaries are excluded from this definition; (b) capital is raised beyond the limit available from owners. The best examples are those companies whose stocks are listed in the Second Class Stock Exchange Market; (c) despite outside capital, owners or their families may still maintain a strong influence on the management of the company. However, the separation of management from ownership is a prerequisite; (d) the firms serve their own markets, have self-developed products or a unique technology; (e) high profitability; and (f) high wages comparable to large companies [Ibid., pp. 35-36]. Nakamura estimates that the firms of medium standing make up 1.5 per cent of the total number of companies, 16.6 per cent of total corporate capital, and 19.3 per cent of total corporate profit [Ibid., p. 37].

In addition to medium standing firms, a group of new small businesses called "venture businesses" has emerged during the past two decades. Most of them are smaller than the medium standing firms, but have similar characteristics; in particular, they have their own products or technology based on intensive R & D activities and have innovative management. They specialise in certain areas of new technology and maintain profitability. The Agency of Small- and Medium-sized Firms selected and surveyed about 1,500 venture businesses. Its major findings were as follows: most venture businesses are capitalised with 10-30 million yen, and the proportion of large firms with capitalisation in excess of 100 million yen is less than a fifth of the total. Almost nine out of ten venture businesses employ fewer than 300 persons. The majority of them have sales of less than 1 billion yen a year. The profit rate in terms of sales for the most successful one-fifth of these businesses was more than 10 per cent. They suffer from a shortage of engineers, research staff members, supervisors, salesmen, and skilled workers [Agency of SMEs, 1984a].

Koshiro [1986] undertook a questionnaire survey of some 1,800 "venture business" firms and 1,000 ordinary SMEs in 1985, and estimated that about 257,000 workers were employed by these venture business firms. By using a simple quantitative analysis of the relationship between the rate of sales growth (S) and the rate of employment growth (L), based upon the Verdoon Law, he found that the venture business firms (VBFs) have stronger demand for labour than ordinary SMEs in the sense that VBFs absorb more labour than ordinary SMEs at the same growth rate of sales.
and the actual growth rate of sales is much higher in VBFs than in SMEs. Therefore, if the growth rate of sales is 10 per cent, VBFs employment grows at the rate of 9.7 per cent, while that of ordinary SMEs grows at only 4.3 per cent. Koshiro also surveyed 648 workers in 28 VBFs, and found that about six out of ten workers employed by VBFs changed jobs and came to the VBFs after quitting a job elsewhere. Furthermore, about three-quarters of these job changers were previously employed in SMEs. The main reason for their quitting previous jobs was dissatisfaction with wages and other conditions of work. On the other hand, they were mostly satisfied with the conditions of employment at their present firms and did not want to quit their present jobs in the near future. The average annual separation rate among these VBFs was only 5.8 per cent and the absentee rate was minimal.\(^6\)

D. Traditional local small businesses specialised in particular products

There are many localised areas where large numbers of small businesses specialise in a particular kind of product. According to a survey by the Agency of SMEs, there were 427 such areas in 1980. To cite just a few famous examples, the metal industry in the city of Tsubame, Niigata, consisting of 280 small firms; 2,899 bag producers in the city of Toyooka, Hyogo; footwear in Shizuoka; kimono-belt weaving in Nishijin, Kyoto; foundries in Kawaguchi, Saitama; and ceramics in Mashiko, Tochigi, etc. According to another survey by the Agency of SMEs in 1978, there were 334 specialised local industrial areas comprising 75,839 firms, employing about 891,000 persons and with sales totalling 7.8 trillion yen. This was equivalent to 9.6 per cent of total production by SMEs [Nakamura, 1985, p. 115].

Many of these traditional local small businesses have been suffering from falling demand, increasing labour costs, labour shortages, and competition from less developed countries. However, new technology is penetrating this area as well. For example, computer graphics and a direct jacquard weaving system with electronic punching have been introduced by some innovative small firms in Nishijin. Similar innovations can also be observed in new wood lathes for lacquer products in Kawazura, Akita, and Aizu-Wakamatsu, Fukushima, and finally, a painting robot was introduced in mosaic wooden food container production in Hakone, Kanagawa [Koshiro, 1985a, 1985b].

E. Employment and work in small firms

a. The institutional setting: terms of employment and working conditions

(i) The Labour Standards Law

The Labour Standards Law of 1947 is uniformly applied to all employers irrespective of firm size. Therefore, SMEs are also covered by the provisions concerning various aspects of labour protection under this law.

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6. Koshiro [1985a] and [1986, mimeo]. Only 6.8 per cent of workers surveyed were absent from work for more than 10 days per year including paid vacations.
For example, the principle of equal footing between employer and employee; equal treatment of individual workers regardless of nationality, religion, or social status; equal pay for men and women; prohibition of compulsory labour; and prohibition of exploitation of labour by an intermediary. With regard to labour contracts, the law stipulates the prohibition of employment contracts over one year; explicit notification of employment conditions; prohibition of compulsory savings; restriction of dismissal; and notification of dismissal. Concerning wages, the law requires full direct payment of wages in cash, payment at least once a month, payment at the fixed date, and a minimum wage. Working hours are limited to eight hours a day, 48 hours a week, and the law also regulates overtime, rest time, holidays (at least once a week), premiums for overtime work (25 per cent) and night work (50 per cent), paid vacations, etc.\(^7\)

**(ii)** *Unemployment insurance and workmen’s compensation*

Unemployment insurance and workmen’s compensation cover all employees except for seasonal workers employed for a period of less than four months. Employers and employees are required to share the unemployment insurance premium, which is equivalent to 1.5 per cent of monthly wages. Employers are solely responsible for contributing workmen’s compensation premiums.

**(iii)** *Medical care*

Workers employed by very small firms employing fewer than five persons are covered by the National Health Insurance. Workers employed by firms employing five or more but fewer than 300 persons are covered by the government-controlled health insurance plan. Workers employed by large firms employing 300 or more persons are covered by an autonomous health insurance plan at each enterprise which can provide member workers with more generous benefits than other plans. Health insurance plans of large firms often reduce the proportion of premiums paid by workers. Instead of a fifty-fifty contribution under the government-controlled health insurance plan, employers of large firms often contribute 70 per cent of the premium. In this sense, workers in SMEs have fewer benefits than those employed by large firms.

**(iv)** *Old-age pension plans*

Old-age pension plans are separated into eight systems according to the status of the employees. However, the majority of workers in the private sector are covered either by the Welfare Pension Fund or by the

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7. The Labour Standards Law was amended in September 1987 to shorten the maximum hours of work to 46 hours a week. However, small and medium-sized firms are exempt from this new requirement for a further three years. The amended law also declares that 40 hours a week should be adopted in the near future, although the date for the introduction has not been stipulated specifically. These provisions concerning working hours are not applied to agriculture, forestry, and aquaculture industries.
National Pension Plan. An independent Welfare Pension Fund can be established by any firm employing 1,000 or more employees. It can provide workers with benefits in excess of those provided by the nationally uniform basic pension. Workers employed by firms employing fewer than 1,000 persons are covered by the national welfare pension plan. Workers employed by very small firms employing fewer than five persons are covered by the National Pension Plan, which also covers self-employed persons, family workers, and wives who are not covered by other plans. In this respect, workers in small firms are again less favourably treated than those employed by large firms.

(v) the SME’s mutual aid fund for retirement allowances

Large firms usually have a system of retirement allowances stipulated by collective bargaining agreements at each enterprise. For example, the 336 large companies surveyed by the Central Labour Relations Commission in June 1985 paid an average of 38.7 months’ pay for a university graduate at the time of the retirement at age 55 with 33 years of service; 42.9 months’ pay for a senior-high school graduate production worker at age 55 with 37 years of service; 45.0 months’ pay, or 15,129,000 yen for a junior-high school graduate production worker at age 55 with 40 years’ service. It is difficult for SMEs to pay comparable lump sum benefits at the time of retirement without special financial preparation. Therefore, the government enacted a law in 1959 establishing a special programme to assist the mutual aid funds of SMEs in accumulating financial resources for retirement allowances by a law in 1959. Contributions to the mutual fund specified by the law are tax deductible, and the government subsidises a part of the retirement allowance. The SMEs covered by this law are: (a) those which employ fewer than 300 regular employees and whose authorised capital is less than 100 million yen; (b) wholesale trade firms which employ fewer than 100 regular employees and whose authorised capital is less than 30 million yen; (c) retail trade companies which employ fewer than 50 regular employees and whose authorised capital is less than 10 million yen.

As of March 1986, the Fund covered about 255,000 SMEs and roughly 2 million workers. The average amount of retirement allowance paid to 165,368 workers by the Fund in the 1985 fiscal year was 434,000 yen. The rest of SMEs and self-employed small businesses are not covered even by this Fund. Therefore, less than 10 per cent of workers in SMEs benefit from this system.

(vi) **minimum wages**

Local minimum wages are set in each prefecture by a tripartite wage board. The original Labour Standards Law stipulated minimum wages, but they were not effective until 1959 when a separate law was enacted. For the first 20 years, the law was not sufficiently effective, but in 1978 a local across-the-board minimum wage system was introduced in each prefecture. The minimum hourly wage rates as of 1 October 1986 range from the highest (488 yen per hour) in Tokyo to the lowest (407 yen per hour) in the southern (Kyushu) and northern (Tohoku) areas. The national average minimum hourly wage rate is now 451 yen, which is equivalent to 40 per cent of the average hourly earnings of all industries. The rate has been revised every year following the recommendation by the Central Wage Board.

The actual wages and hours of work in small firms have been the subject of serious social concern among academics since the pre-war days. The differentials in wages and other conditions of work between large and small firms are discussed in detail in Section V.

**b. The institutional setting: industrial relations**

Labour unions in Japan concentrate mostly on large firms and public employees. Union activity is very low among SMEs. Currently, only 6.7 per cent of workers in small businesses employing fewer than 100 workers and 0.5 per cent of those employed by very small firms with fewer than 30 are organised into labour unions (Table 8). In terms of industries, the wholesale and retail trades are less organised than others.

In the unorganised sector, some firms have informal employee organisations (usually called *Shinboku Kai*, a friendly society) or profit-sharing plans. Among 605 venture business firms surveyed by Koshiro [1986], only 18.8 per cent had labour unions but about one-half of unorganised firms had friendly societies. In addition, roughly one-third of the venture businesses had profit-sharing plans.

Collective bargaining agreements in Japan are usually negotiated between individual firms and enterprise unions. But in some localities, workers of small firms are organised into a local branch of an industrial union and covered by a regional agreement. Also, some workers in small firms are organised by amalgamated unions covering miscellaneous industries. In the country as a whole, the number of labour disputes has decreased considerably since the oil crisis. There are, however, a few serious industrial conflicts in some small firms, most of which tend to be influenced by new left wing political forces.
## Table 8: Union activity by size of firm and by industry, 1960-1985

<table>
<thead>
<tr>
<th>Sector, size and industry</th>
<th>1960</th>
<th>1970</th>
<th>1980</th>
<th>1985</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private sector</td>
<td>-</td>
<td>28.5</td>
<td>24.5</td>
<td>24.5</td>
</tr>
<tr>
<td>Public sector</td>
<td>-</td>
<td>82.2</td>
<td>74.5</td>
<td>61.7</td>
</tr>
<tr>
<td>Private sector 500 employees and over</td>
<td>67.1</td>
<td>63.9</td>
<td>61.1</td>
<td>59.9</td>
</tr>
<tr>
<td>100 - 499</td>
<td>36.4</td>
<td>30.7</td>
<td>27.8</td>
<td>24.3</td>
</tr>
<tr>
<td>30 - 99</td>
<td>8.9</td>
<td>8.9</td>
<td>7.4</td>
<td>6.7</td>
</tr>
<tr>
<td>1-29</td>
<td>0.6</td>
<td>0.6</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Construction</td>
<td>30.0</td>
<td>25.0</td>
<td>16.2</td>
<td>19.3</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>32.6</td>
<td>38.0</td>
<td>34.7</td>
<td>32.9</td>
</tr>
<tr>
<td>Wholesale and retail trades</td>
<td>15.0</td>
<td>9.7</td>
<td>10.4</td>
<td>10.6</td>
</tr>
<tr>
<td>Financial and real estate</td>
<td>68.5</td>
<td>56.8</td>
<td>49.9</td>
<td></td>
</tr>
<tr>
<td>Transportation and communication</td>
<td>69.9</td>
<td>76.9</td>
<td>79.7</td>
<td>67.9</td>
</tr>
<tr>
<td>Public utilities</td>
<td>27.6</td>
<td>26.2</td>
<td>23.0</td>
<td>20.1</td>
</tr>
<tr>
<td>Service</td>
<td>59.7</td>
<td>65.6</td>
<td>69.1</td>
<td>71.0</td>
</tr>
</tbody>
</table>


### III. Quantitative development of the small firm sector

1. **Increasing employment in small business**

The trend since the late 1960s is seen clearly in Table 9. According to the Employment Status Survey, the relative share of employment in small businesses in the non-agricultural industries has increased sharply since 1971. The number of employees employed by large firms (with more than 300 employees) amounted to 10.7 million (32.1 per cent) in 1971 and increased to 11.7 million by 1982, but its relative share dropped to 27.7 per cent. On the other hand, the middle-sized firms, employing more than 30 but fewer than 300, increased their share from 23.9 per cent in 1959 to 26.4 per cent by 1982. Small firms, employing fewer than 30, experienced a decrease in employment share from 1959 (33.5 per cent) to 1965 (29 per cent), but it subsequently rose to 33.6 per cent by 1982.

9. This survey is conducted by the Prime Minister’s Office every third year, except for the 1979 survey which was one year early in order to avoid overlapping with the population census of 1980.
Table 9: Percentage and total number of employees by size of firm in the non-agricultural industries, 1959-1982

<table>
<thead>
<tr>
<th></th>
<th>Fewer than 4 persons</th>
<th>5-9 persons</th>
<th>10-29 persons</th>
<th>30-99 persons</th>
<th>100-299 persons</th>
<th>300-999 persons</th>
<th>1000 and over</th>
<th>Governments</th>
<th>Total number (000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1959</td>
<td>8.5</td>
<td>9.9</td>
<td>15.1</td>
<td>13.2</td>
<td>7.9</td>
<td>23.9</td>
<td>21.4</td>
<td>19 654</td>
<td></td>
</tr>
<tr>
<td>1962</td>
<td>6.7</td>
<td>8.6</td>
<td>14.1</td>
<td>14.4</td>
<td>9.5</td>
<td>7.8</td>
<td>23.8</td>
<td>14.8</td>
<td>23 740</td>
</tr>
<tr>
<td>1965</td>
<td>5.8</td>
<td>7.9</td>
<td>15.3</td>
<td>14.8</td>
<td>9.9</td>
<td>8.4</td>
<td>23.1</td>
<td>14.2</td>
<td>26 484</td>
</tr>
<tr>
<td>1968</td>
<td>7.0</td>
<td>9.3</td>
<td>14.0</td>
<td>14.7</td>
<td>10.0</td>
<td>8.6</td>
<td>23.5</td>
<td>12.7</td>
<td>30 197</td>
</tr>
<tr>
<td>1971</td>
<td>6.9</td>
<td>9.2</td>
<td>14.2</td>
<td>14.8</td>
<td>10.4</td>
<td>9.0</td>
<td>23.1</td>
<td>12.3</td>
<td>33 360</td>
</tr>
<tr>
<td>1974</td>
<td>7.8</td>
<td>9.6</td>
<td>14.1</td>
<td>15.0</td>
<td>10.5</td>
<td>8.7</td>
<td>21.7</td>
<td>12.2</td>
<td>35 622</td>
</tr>
<tr>
<td>1977</td>
<td>7.8</td>
<td>25.0</td>
<td>15.5</td>
<td>10.6</td>
<td>8.4</td>
<td>20.2</td>
<td>12.5</td>
<td></td>
<td>37 517</td>
</tr>
<tr>
<td>1979</td>
<td>8.1</td>
<td>26.0</td>
<td>15.2</td>
<td>10.9</td>
<td>8.2</td>
<td>19.4</td>
<td>12.2</td>
<td></td>
<td>39 091</td>
</tr>
<tr>
<td>1982</td>
<td>8.2</td>
<td>25.4</td>
<td>15.2</td>
<td>11.2</td>
<td>8.9</td>
<td>18.8</td>
<td>12.2</td>
<td></td>
<td>42 056</td>
</tr>
</tbody>
</table>

Note: Those who are employed by public corporations and institutions are included in "Governments".

Table 10: Percentage and total number (in 10,000s) of employees in non-agricultural industries by size of enterprise (number of persons engaged)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total (2)</td>
<td>3 277</td>
<td>3 387</td>
<td>3 438</td>
<td>3 562</td>
<td>3 585</td>
<td>3 607</td>
<td>3 617</td>
<td>3 682</td>
<td>3 738</td>
<td>3 770</td>
<td>3 846</td>
<td>3 941</td>
<td>4 008</td>
<td>4 068</td>
<td>4 176</td>
<td>4 236</td>
</tr>
<tr>
<td></td>
<td>(3.4)</td>
<td>(1.5)</td>
<td>(1.5)</td>
<td>(3.6)</td>
<td>(3.6)</td>
<td>(0.6)</td>
<td>(0.3)</td>
<td>(1.8)</td>
<td>(1.5)</td>
<td>(0.9)</td>
<td>(2.0)</td>
<td>(2.5)</td>
<td>(1.7)</td>
<td>(1.5)</td>
<td>(2.7)</td>
<td>(1.4)</td>
</tr>
<tr>
<td>Size of enterprise</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-29 persons</td>
<td>32.4</td>
<td>32.2</td>
<td>32.5</td>
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<td>32.7</td>
<td>32.6</td>
<td>33.1</td>
<td>33.6</td>
<td>34.5</td>
<td>34.1</td>
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<td>34.0</td>
<td>34.6</td>
<td>34.2</td>
<td>34.3</td>
<td>34.2</td>
</tr>
<tr>
<td></td>
<td>(2.4)</td>
<td>(2.7)</td>
<td>(4.1)</td>
<td>(3.2)</td>
<td>(3.2)</td>
<td>(0.3)</td>
<td>(2.0)</td>
<td>(3.2)</td>
<td>(4.1)</td>
<td>(2.3)</td>
<td>(0.8)</td>
<td>(1.5)</td>
<td>(1.9)</td>
<td>(1.1)</td>
<td>(1.9)</td>
<td>(0.2)</td>
</tr>
<tr>
<td>30-99 persons</td>
<td>14.7</td>
<td>14.8</td>
<td>14.7</td>
<td>15.0</td>
<td>15.0</td>
<td>14.9</td>
<td>15.0</td>
<td>15.5</td>
<td>15.3</td>
<td>15.4</td>
<td>15.5</td>
<td>15.6</td>
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<td>(3.7)</td>
<td>(1.4)</td>
<td>(5.7)</td>
<td>(0.6)</td>
<td>(5.5)</td>
<td>(0.2)</td>
<td>(1.6)</td>
<td>(2.4)</td>
<td>(3.4)</td>
<td>(0.6)</td>
<td>(1.3)</td>
<td>(2.7)</td>
<td>(2.6)</td>
<td>(2.6)</td>
<td>(4.5)</td>
<td>(6.4)</td>
</tr>
<tr>
<td>100-499 persons</td>
<td>14.2</td>
<td>14.7</td>
<td>14.0</td>
<td>14.2</td>
<td>14.1</td>
<td>14.0</td>
<td>13.9</td>
<td>13.9</td>
<td>13.8</td>
<td>14.2</td>
<td>14.3</td>
<td>14.5</td>
<td>14.5</td>
<td>14.6</td>
<td>14.8</td>
<td>15.3</td>
</tr>
<tr>
<td></td>
<td>(7.1)</td>
<td>(2.8)</td>
<td>(4.8)</td>
<td>(0.0)</td>
<td>(1.4)</td>
<td>(1.2)</td>
<td>(0.2)</td>
<td>(4.8)</td>
<td>(3.7)</td>
<td>(3.2)</td>
<td>(1.0)</td>
<td>(3.6)</td>
<td>(2.6)</td>
<td>(4.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>500 persons and over</td>
<td>26.5</td>
<td>26.5</td>
<td>26.4</td>
<td>25.9</td>
<td>25.7</td>
<td>25.9</td>
<td>25.2</td>
<td>24.5</td>
<td>23.9</td>
<td>23.1</td>
<td>23.1</td>
<td>23.2</td>
<td>23.3</td>
<td>23.6</td>
<td>24.0</td>
<td>24.2</td>
</tr>
<tr>
<td>Government employees</td>
<td>12.0</td>
<td>11.8</td>
<td>12.1</td>
<td>12.0</td>
<td>12.1</td>
<td>12.3</td>
<td>12.5</td>
<td>12.2</td>
<td>12.3</td>
<td>12.5</td>
<td>12.6</td>
<td>12.4</td>
<td>12.3</td>
<td>12.1</td>
<td>11.9</td>
<td>11.8</td>
</tr>
</tbody>
</table>

Notes: (1) Excluding Okinawa.  
(2) The total number includes those who cannot be classified or whose classes are unknown.  
() shows percentage changes compared with the previous year.  
[ ] shows the percentage of the total in every year.  
* indicates a decrease.  

Source: Prime Minister’s Office; Annual report of the labor force survey, 1977 and 1985
2. The recent trend

A similar trend since 1970, based on different size classifications and another source (Labour Force Survey), is shown in Table 10. Here the share of employment in large firms with more than 500 employees declined between 1970 and 1978, but the slow recovery between 1978 and 1984 can also be seen clearly. It should also be noted that the middle-sized firms have been stable or have slightly increased their share throughout this period.

The employment figures by enterprise size for both manufacturing and services are given in Tables 11 and 12. The share of employment in SMEs (employing fewer than 300) in manufacturing remained around 55-57 per cent until 1971, but increased to 61.4 per cent by 1979. The increasing employment share of SMEs, or the decreasing employment share in large enterprises (employing more than 500) is also observed in Table 13. Large enterprises lost a substantial employment share between 1974 and 1979, recovered it slightly until 1984, and then lost it again in 1985 and 1986. Conversely, in the service sector, very small firms (employing fewer than 30) lost employment share from 1959 to 1979, while middle-sized firms (employing between 30 and 1000) have been increasing their share.

Table 11: Percentage and total number of employees by size of firm in the manufacturing industry, 1959-1979

<table>
<thead>
<tr>
<th></th>
<th>Fewer than 4 persons</th>
<th>5-9 persons</th>
<th>30-99 persons</th>
<th>100-299 persons</th>
<th>300-999 persons</th>
<th>1000 and over</th>
<th>Government</th>
<th>Total number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1959</td>
<td>4.0</td>
<td>26.6</td>
<td>19.0</td>
<td>13.0</td>
<td>36.5</td>
<td>0.8</td>
<td>6.855</td>
<td></td>
</tr>
<tr>
<td>1962</td>
<td>2.9</td>
<td>21.7</td>
<td>18.3</td>
<td>13.7</td>
<td>12.4</td>
<td>30.5</td>
<td>0.3</td>
<td>9.041</td>
</tr>
<tr>
<td>1965</td>
<td>2.6</td>
<td>21.6</td>
<td>17.8</td>
<td>13.9</td>
<td>12.9</td>
<td>30.6</td>
<td>0.2</td>
<td>9.837</td>
</tr>
<tr>
<td>1968</td>
<td>3.5</td>
<td>21.6</td>
<td>17.5</td>
<td>13.5</td>
<td>12.8</td>
<td>30.9</td>
<td>0.2</td>
<td>10.750</td>
</tr>
<tr>
<td>1971</td>
<td>3.6</td>
<td>21.2</td>
<td>17.0</td>
<td>13.5</td>
<td>12.7</td>
<td>31.9</td>
<td>0.1</td>
<td>11.743</td>
</tr>
<tr>
<td>1974</td>
<td>4.0</td>
<td>21.3</td>
<td>17.9</td>
<td>13.6</td>
<td>12.5</td>
<td>30.3</td>
<td>0.1</td>
<td>11.861</td>
</tr>
<tr>
<td>1977</td>
<td>4.0</td>
<td>23.2</td>
<td>19.2</td>
<td>13.8</td>
<td>11.7</td>
<td>28.0</td>
<td>0.1</td>
<td>11.640</td>
</tr>
<tr>
<td>1979</td>
<td>4.2</td>
<td>24.3</td>
<td>18.6</td>
<td>14.3</td>
<td>11.3</td>
<td>27.3</td>
<td>0.1</td>
<td>11.403</td>
</tr>
</tbody>
</table>

Note: Figures for 1982 are not available due to changed tabulation.

10. However, Tables 11 and 12 do not contain figures for 1982 which are not available due to changed tabulation caused by financial constraints. Table 13 gives an alternative statistical series for employees by enterprise size in manufacturing, but it differs slightly from the figures in Table 12 because of different statistical methods.
Table 12: Percentage and total number of employees by size of firm in the service industry, 1959-1979

<table>
<thead>
<tr>
<th>Year</th>
<th>Fewer than 4 persons</th>
<th>5-9 persons</th>
<th>30-99 persons</th>
<th>100-299 persons</th>
<th>300-999 persons</th>
<th>1000 and over</th>
<th>Government</th>
<th>Total number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1959</td>
<td>16.5</td>
<td>24.1</td>
<td>8.1</td>
<td>3.9</td>
<td>5.0</td>
<td>42.1</td>
<td>3290</td>
<td></td>
</tr>
<tr>
<td>1962</td>
<td>14.6</td>
<td>23.8</td>
<td>9.9</td>
<td>5.0</td>
<td>2.9</td>
<td>5.9</td>
<td>3541</td>
<td></td>
</tr>
<tr>
<td>1965</td>
<td>11.4</td>
<td>25.6</td>
<td>12.4</td>
<td>6.1</td>
<td>3.4</td>
<td>6.1</td>
<td>4052</td>
<td></td>
</tr>
<tr>
<td>1968</td>
<td>11.9</td>
<td>23.2</td>
<td>13.0</td>
<td>8.3</td>
<td>4.7</td>
<td>6.7</td>
<td>4907</td>
<td></td>
</tr>
<tr>
<td>1971</td>
<td>9.4</td>
<td>22.6</td>
<td>13.9</td>
<td>8.7</td>
<td>5.4</td>
<td>6.8</td>
<td>5637</td>
<td></td>
</tr>
<tr>
<td>1974</td>
<td>10.0</td>
<td>22.1</td>
<td>13.9</td>
<td>9.6</td>
<td>5.5</td>
<td>7.2</td>
<td>6274</td>
<td></td>
</tr>
<tr>
<td>1977</td>
<td>8.8</td>
<td>22.9</td>
<td>14.3</td>
<td>10.3</td>
<td>5.9</td>
<td>6.6</td>
<td>7154</td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td>8.9</td>
<td>23.3</td>
<td>14.5</td>
<td>11.0</td>
<td>6.0</td>
<td>6.9</td>
<td>7789</td>
<td></td>
</tr>
</tbody>
</table>

Note: Figures for 1982 are not available due to changed tabulation.

Table 13: Percentage and total number of employees in the manufacturing industry by size of enterprise

<table>
<thead>
<tr>
<th>Year</th>
<th>1-4 persons</th>
<th>5-29 persons</th>
<th>30-99 persons</th>
<th>100-499 persons</th>
<th>500-999 persons</th>
<th>1000 and over</th>
<th>Government employees</th>
<th>Total number (10 000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>26.6</td>
<td>17.7</td>
<td>19.6</td>
<td>36.1</td>
<td>0.1</td>
<td></td>
<td></td>
<td>1144</td>
</tr>
<tr>
<td>1971</td>
<td>26.0</td>
<td>17.1</td>
<td>20.2</td>
<td>36.4</td>
<td>0.1</td>
<td></td>
<td></td>
<td>1156</td>
</tr>
<tr>
<td>1972</td>
<td>26.5</td>
<td>17.2</td>
<td>19.4</td>
<td>36.8</td>
<td>0.1</td>
<td></td>
<td></td>
<td>1155</td>
</tr>
<tr>
<td>1973</td>
<td>25.1</td>
<td>17.6</td>
<td>19.5</td>
<td>35.7</td>
<td>0.1</td>
<td></td>
<td></td>
<td>1203</td>
</tr>
<tr>
<td>1974</td>
<td>26.4</td>
<td>17.7</td>
<td>19.0</td>
<td>36.8</td>
<td>0.2</td>
<td></td>
<td></td>
<td>1201</td>
</tr>
<tr>
<td>1975</td>
<td>27.2</td>
<td>18.3</td>
<td>19.1</td>
<td>35.3</td>
<td>0.1</td>
<td></td>
<td></td>
<td>1138</td>
</tr>
<tr>
<td>1976</td>
<td>27.9</td>
<td>19.1</td>
<td>19.1</td>
<td>33.8</td>
<td>0.1</td>
<td></td>
<td></td>
<td>1133</td>
</tr>
<tr>
<td>1977</td>
<td>29.0</td>
<td>19.2</td>
<td>18.8</td>
<td>32.9</td>
<td>0.1</td>
<td></td>
<td></td>
<td>1126</td>
</tr>
<tr>
<td>1978</td>
<td>29.3</td>
<td>19.4</td>
<td>18.8</td>
<td>32.4</td>
<td>0.1</td>
<td></td>
<td></td>
<td>1109</td>
</tr>
<tr>
<td>1979</td>
<td>29.4</td>
<td>19.4</td>
<td>19.4</td>
<td>31.6</td>
<td>0.2</td>
<td></td>
<td></td>
<td>1107</td>
</tr>
<tr>
<td>1980</td>
<td>28.8</td>
<td>19.3</td>
<td>19.5</td>
<td>32.2</td>
<td>0.2</td>
<td></td>
<td></td>
<td>1135</td>
</tr>
<tr>
<td>1981</td>
<td>28.2</td>
<td>19.1</td>
<td>19.9</td>
<td>32.7</td>
<td>0.1</td>
<td></td>
<td></td>
<td>1152</td>
</tr>
<tr>
<td>1982</td>
<td>28.1</td>
<td>19.1</td>
<td>19.6</td>
<td>32.8</td>
<td>0.1</td>
<td></td>
<td></td>
<td>1151</td>
</tr>
<tr>
<td>1983</td>
<td>27.7</td>
<td>19.2</td>
<td>19.6</td>
<td>33.3</td>
<td>0.1</td>
<td></td>
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<tr>
<td>1984</td>
<td>27.2</td>
<td>19.2</td>
<td>19.8</td>
<td>33.5</td>
<td>0.1</td>
<td></td>
<td></td>
<td>1212</td>
</tr>
<tr>
<td>1985</td>
<td>27.3</td>
<td>19.4</td>
<td>20.5</td>
<td>33.1</td>
<td>0.1</td>
<td></td>
<td></td>
<td>1229</td>
</tr>
<tr>
<td>1986</td>
<td>27.3</td>
<td>19.5</td>
<td>20.3</td>
<td>32.2</td>
<td>0.1</td>
<td></td>
<td></td>
<td>1235</td>
</tr>
</tbody>
</table>

Note: The total number includes those who cannot be classified by size of enterprise.
A third source, the Census of Establishments, gives employment shares by establishment size for employed persons, including self-employed and family workers, in non-agricultural industries for every third year since 1969 (Table 14). The declining share of large establishments and the increasing share of small establishments is quite striking.

Table 14: Total number and percentage of employed persons by size of establishment

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total number</strong></td>
<td>38 177 026</td>
<td>38 793 883</td>
<td>39 641 176</td>
<td>42 295 443</td>
<td>45 720 190</td>
</tr>
<tr>
<td><strong>Percentage of the total each year</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Size of establishment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-4 persons</td>
<td>18.4</td>
<td>19.5</td>
<td>20.1</td>
<td>20.5</td>
<td>20.5</td>
</tr>
<tr>
<td>5-9 persons</td>
<td>12.0</td>
<td>12.6</td>
<td>13.5</td>
<td>14.5</td>
<td>14.8</td>
</tr>
<tr>
<td>10-19 persons</td>
<td>19.5</td>
<td>12.4</td>
<td>13.3</td>
<td>13.9</td>
<td>14.1</td>
</tr>
<tr>
<td>20-29 persons</td>
<td>7.4</td>
<td>7.6</td>
<td>7.9</td>
<td>8.0</td>
<td></td>
</tr>
<tr>
<td>30-49 persons</td>
<td>9.0</td>
<td>9.1</td>
<td>9.1</td>
<td>9.3</td>
<td></td>
</tr>
<tr>
<td>50-99 persons</td>
<td>20.2</td>
<td>10.6</td>
<td>10.3</td>
<td>10.3</td>
<td></td>
</tr>
<tr>
<td>Subtotal of less than 100</td>
<td>70.1</td>
<td>71.5</td>
<td>73.8</td>
<td>76.1</td>
<td>77.1</td>
</tr>
<tr>
<td>100-299 persons</td>
<td>13.0</td>
<td>12.7</td>
<td>11.8</td>
<td>11.4</td>
<td>11.2</td>
</tr>
<tr>
<td>300 and over</td>
<td>16.9</td>
<td>15.8</td>
<td>14.4</td>
<td>12.5</td>
<td>11.7</td>
</tr>
</tbody>
</table>

**Note:** For 1969 including those who are employed by the public sector - others excluding them.

**Source:** Prime Minister's Office: Census of establishments, Commentary volumes for 1972, p. 15, and for 1981, p. 19.

A similar tendency can be observed within manufacturing. While the relative share of output of large establishments was more than 50 per cent in the 1960s and about 47-49 per cent even after the oil crisis, their employment share was only 33 per cent in the early 1970s and declined continuously to below 30 per cent in the following decade (Table 4). On the other hand, the relative share of both output and employment of very small establishments (employing fewer than 30) increased sharply during the 1970s, but declined in the 1980s. The employment share of medium-sized establishments remained almost constant through the 1970s, and then increased gradually in the 1980s.
3. The job creation process

Birth and mortality rates of business establishments are exhibited by industry in Table 15. The birth rate was 6.1 per cent and the mortality rate 3.7 per cent between June 1978 and June 1981, resulting in a net increase of 2.4 per cent in the number of non-agricultural establishments. It is safe to say that most of these establishments were small and medium-sized firms. The birth rate as well as the rate of net increase were highest in the catering industry, followed by the services sector. Retail trade had higher birth and mortality rates than manufacturing, but the net increase was larger among the latter.

Table 15: Birth and mortality rates of private establishments

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total of</td>
<td>(A) 6.5</td>
<td>7.0</td>
<td>6.1</td>
<td>6.2</td>
<td>6.1</td>
</tr>
<tr>
<td>Non-agricultural</td>
<td>(B) 3.2</td>
<td>3.8</td>
<td>4.2</td>
<td>3.4</td>
<td>3.7</td>
</tr>
<tr>
<td>Private industry</td>
<td>(C) 3.3</td>
<td>3.2</td>
<td>1.9</td>
<td>2.8</td>
<td>2.4</td>
</tr>
<tr>
<td>Construction</td>
<td>A 5.4</td>
<td>6.4</td>
<td>5.4</td>
<td>4.6</td>
<td>4.7</td>
</tr>
<tr>
<td></td>
<td>B ▼0.8</td>
<td>0.5</td>
<td>2.2</td>
<td>1.1</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>C 6.2</td>
<td>5.9</td>
<td>3.2</td>
<td>3.5</td>
<td>3.6</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>A 6.0</td>
<td>5.6</td>
<td>4.3</td>
<td>3.4</td>
<td>3.7</td>
</tr>
<tr>
<td></td>
<td>B 2.5</td>
<td>3.2</td>
<td>3.4</td>
<td>2.3</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>C 3.5</td>
<td>2.4</td>
<td>0.9</td>
<td>1.1</td>
<td>1.2</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>A 6.2</td>
<td>7.7</td>
<td>7.9</td>
<td>6.6</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>B 6.5</td>
<td>4.1</td>
<td>5.3</td>
<td>3.8</td>
<td>3.9</td>
</tr>
<tr>
<td></td>
<td>C ▼0.3</td>
<td>3.6</td>
<td>2.6</td>
<td>2.8</td>
<td>2.4</td>
</tr>
<tr>
<td>Retail trade</td>
<td>A 5.0</td>
<td>4.8</td>
<td>4.3</td>
<td>4.9</td>
<td>4.4</td>
</tr>
<tr>
<td></td>
<td>B 2.1</td>
<td>3.6</td>
<td>3.6</td>
<td>3.3</td>
<td>4.0</td>
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<tr>
<td></td>
<td>C 2.9</td>
<td>1.2</td>
<td>0.7</td>
<td>1.6</td>
<td>0.4</td>
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<tr>
<td>Catering</td>
<td>A 15.8</td>
<td>17.0</td>
<td>13.3</td>
<td>15.1</td>
<td>14.1</td>
</tr>
<tr>
<td></td>
<td>B 6.7</td>
<td>8.6</td>
<td>9.3</td>
<td>8.6</td>
<td>8.9</td>
</tr>
<tr>
<td></td>
<td>C 9.1</td>
<td>8.4</td>
<td>4.0</td>
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<td>5.2</td>
</tr>
<tr>
<td>Service</td>
<td>A 6.3</td>
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<td>6.1</td>
<td>6.1</td>
<td>6.4</td>
</tr>
<tr>
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<td>B 3.9</td>
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<td>3.8</td>
<td>3.3</td>
<td>3.1</td>
</tr>
<tr>
<td></td>
<td>C 2.4</td>
<td>2.7</td>
<td>2.3</td>
<td>2.8</td>
<td>3.3</td>
</tr>
</tbody>
</table>

Note: (A) = birth rate; (B) = mortality rate; (C) = net increase. ▼ indicates a decrease.
Source: National Financing Corporation: Chōsa Geppo (Monthly research), No. 301, May 1986, p. 16, based on the Prime Minister's Office: Census of establishments. The birth rate and the mortality rate of enterprises are calculated by comparing the results of the latest census with those of the previous one.
Table 16: Changes in the number of employed persons by private industries, 1972-1981

<table>
<thead>
<tr>
<th>Industry</th>
<th>Year</th>
<th>Small establishments</th>
<th></th>
<th>Large establishments</th>
<th></th>
<th>Total</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Employed persons</td>
<td>Per cent</td>
<td>Employed persons</td>
<td>Per cent</td>
<td></td>
<td>Employed persons</td>
</tr>
<tr>
<td>Mining</td>
<td>1972</td>
<td>118 518</td>
<td>63.5</td>
<td>68 090</td>
<td>36.5</td>
<td>186 608</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>1975</td>
<td>101 449</td>
<td>69.4</td>
<td>44 749</td>
<td>30.6</td>
<td>146 198</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>1978</td>
<td>93 841</td>
<td>70.4</td>
<td>39 501</td>
<td>29.6</td>
<td>133 342</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>1981</td>
<td>97 590</td>
<td>75.9</td>
<td>30 938</td>
<td>24.1</td>
<td>128 528</td>
<td>100.0</td>
</tr>
<tr>
<td>Construction</td>
<td>1972</td>
<td>3 594 476</td>
<td>90.3</td>
<td>386 636</td>
<td>9.7</td>
<td>3 981 112</td>
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</tr>
<tr>
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<td>1975</td>
<td>3 865 989</td>
<td>92.9</td>
<td>294 738</td>
<td>7.1</td>
<td>4 160 727</td>
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</tr>
<tr>
<td></td>
<td>1978</td>
<td>4 349 173</td>
<td>94.2</td>
<td>267 176</td>
<td>5.8</td>
<td>4 616 349</td>
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<tr>
<td></td>
<td>1981</td>
<td>4 714 388</td>
<td>95.3</td>
<td>234 366</td>
<td>4.7</td>
<td>4 948 754</td>
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<tr>
<td>Manufacturing</td>
<td>1972</td>
<td>9 209 146</td>
<td>69.2</td>
<td>4 088 308</td>
<td>30.8</td>
<td>13 297 654</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>1975</td>
<td>8 929 279</td>
<td>70.5</td>
<td>3 734 632</td>
<td>29.5</td>
<td>12 663 911</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>1978</td>
<td>9 194 642</td>
<td>73.5</td>
<td>3 314 464</td>
<td>26.5</td>
<td>12 509 106</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>1981</td>
<td>9 551 914</td>
<td>74.3</td>
<td>3 311 003</td>
<td>25.7</td>
<td>12 862 917</td>
<td>100.0</td>
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<tr>
<td>Wholesale and</td>
<td>1972</td>
<td>10 056 035</td>
<td>86.0</td>
<td>1 634 808</td>
<td>14.0</td>
<td>11 690 843</td>
<td>100.0</td>
</tr>
<tr>
<td>retail trades</td>
<td>1975</td>
<td>10 703 352</td>
<td>86.8</td>
<td>1 625 283</td>
<td>13.2</td>
<td>12 328 635</td>
<td>100.0</td>
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<tr>
<td></td>
<td>1978</td>
<td>11 868 673</td>
<td>87.6</td>
<td>1 686 972</td>
<td>12.4</td>
<td>13 555 645</td>
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<tr>
<td></td>
<td>1981</td>
<td>12 978 943</td>
<td>87.4</td>
<td>1 872 195</td>
<td>12.6</td>
<td>14 850 238</td>
<td>100.0</td>
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<tr>
<td>Finance and</td>
<td>1972</td>
<td>1 160 649</td>
<td>83.3</td>
<td>232 318</td>
<td>16.7</td>
<td>1 392 967</td>
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<tr>
<td>insurance</td>
<td>1975</td>
<td>1 238 005</td>
<td>82.6</td>
<td>260 858</td>
<td>17.4</td>
<td>1 499 463</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>1978</td>
<td>1 356 899</td>
<td>83.6</td>
<td>267 017</td>
<td>16.4</td>
<td>1 623 916</td>
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<td>1981</td>
<td>1 453 073</td>
<td>85.9</td>
<td>237 624</td>
<td>14.1</td>
<td>1 690 697</td>
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The re-emergence of small enterprises.
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<td>Real estate</td>
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<tr>
<td></td>
<td>384 242</td>
<td>453 726</td>
<td>516 843</td>
<td>605 574</td>
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<tr>
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<td>15 127</td>
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<tr>
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<td>400 091</td>
<td>464 859</td>
<td>527 360</td>
<td>624 701</td>
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<tr>
<td>Transport and communication</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>1 716 437</td>
<td>1 750 712</td>
<td>1 877 206</td>
<td>2 083 364</td>
</tr>
<tr>
<td></td>
<td>83.9</td>
<td>85.6</td>
<td>86.5</td>
<td>88.8</td>
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<td>14.4</td>
<td>13.5</td>
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<tr>
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<td>2 045 492</td>
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<td>2 170 798</td>
<td>2 347 258</td>
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<td>100.0</td>
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<td>Public utilities</td>
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</tr>
<tr>
<td></td>
<td>121 839</td>
<td>125 433</td>
<td>132 621</td>
<td>138 361</td>
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<td>66.1</td>
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<td>65.9</td>
<td>66.5</td>
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<td>62 592</td>
<td>72 864</td>
<td>68 698</td>
<td>69 731</td>
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<td>33.9</td>
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<td>33.5</td>
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<td>184 431</td>
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<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Service</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>4 039 149</td>
<td>4 361 494</td>
<td>4 899 257</td>
<td>5 579 852</td>
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<td>69.2</td>
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<td>28.9</td>
<td>29.6</td>
<td>30.8</td>
</tr>
<tr>
<td></td>
<td>5 614 685</td>
<td>6 134 495</td>
<td>6 957 608</td>
<td>8 059 005</td>
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<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
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<tr>
<td>Total of the secondary and tertiary industries</td>
<td>30 400 491</td>
<td>31 530 039</td>
<td>34 289 155</td>
<td>37 206 159</td>
</tr>
<tr>
<td></td>
<td>78.4</td>
<td>79.5</td>
<td>81.1</td>
<td>81.4</td>
</tr>
<tr>
<td></td>
<td>8 393 392</td>
<td>8 111 137</td>
<td>8 006 288</td>
<td>8 514 031</td>
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<td></td>
<td>21.6</td>
<td>20.5</td>
<td>18.9</td>
<td>18.6</td>
</tr>
<tr>
<td></td>
<td>38 793 883</td>
<td>39 641 176</td>
<td>42 295 443</td>
<td>45 720 190</td>
</tr>
<tr>
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<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Note:* SMEs are those establishments employing fewer than 300, but fewer than 100 for the wholesale trade, and fewer than 50 for the retail trade and services. The establishments of government enterprises and public corporations are excluded.

*Source:* Agency of SMEs: White paper for 1987, Appendix, p. 3; the original source is Census of establishments.
Employment can be generated either by expansion of existing firms or by a net increase in the number of firms. To what extent employment has been generated by either of these two factors is the subject of an OECD study [see country report from Japan by Kuwahara, 1987]. More generally, the Census of Establishments shows that SMEs accounted for the majority of new jobs in the private sector between 1972 and 1981, and 72.2 per cent of these jobs were generated in the retail trade and service industry (Table 16).

IV. Qualitative development of the small firm sector

1. Economic, social and institutional background to recent changes

As shown in Table 9, employment expanded more rapidly in large firms during the period of high economic growth until the early 1970s. The labour market in this period was characterised by the following three aspects: a labour shortage, increased wages, and intensified competition among large firms in order to prepare for the open economy beginning in the 1960s. This labour shortage first became evident in the labour market for students graduating after nine years of compulsory education. They were paid minimum wages under the traditional nenko (seniority-oriented) wage system. The job offers/job seekers ratio in this category of workers became 1.0 in 1956, increased to 1.2 by the late 1950s, jumped to between 2.6 and 2.9 in the 1960s and climbed further to 6.8 by 1971. Similarly, the comparable ratio for the senior high school graduates with 12 years of education became 1.0 in 1957, doubled to 2.0 by 1961 and rose to 8.4 by 1971.11

Reflecting the tightening labour market, the starting monthly wages for male junior high school graduates increased from 6,020 yen (US$16.72) in 1960 to 25,500 yen (US$70.83) in 1970, 81,100 yen (US$398.33) in 1980, and 96,200 yen (US$479.56) by 1985. Similarly, the comparable rates for male senior high school graduates as well as university graduates increased as shown in Table 17. In terms of US dollars (which reflects the appreciation of yen), the starting wage rate for junior and senior high school graduates increased at an annual rate of 14.4 per cent and 13.6 per cent, respectively, during the past 25 years.

At the same time, labour unions of major industries took advantage of the tightening labour market conditions and organised a concerted wage negotiation (spring offensive) beginning in 1955. The rate of wage increase continued to rise throughout the 1960s and amounted to more than 14 per cent after 1969, when the foreign currency reserves of Japan for the first time exceeded the long-planned 2 billion dollar ceiling. Under the fixed exchange rate system, this meant that the money supply began to increase

side by side with increasing foreign reserves, thus creating inflationary pressure.

On the other hand, during these decades Japan gradually moved towards being a more open economy. In 1955, the country joined the General Agreement on Tariff and Trade (GATT), and in 1960 began the liberalisation of trade and capital transfers. Japan also acquired the status of an Article 8 country of the International Monetary Fund and joined OECD in 1964. These changes meant that Japanese companies had to compete in the world market on an equal footing with the gigantic corporations of other advanced countries. Pushed by such international competitive pressure, as well as by increasing labour costs, major companies introduced new technologies and invested in establishing efficient, modern plants which were labour saving. Thus, many large manufacturing companies began to reduce the number of employees even several years before the oil crisis.

The labour market situation changed dramatically after the first oil crisis in 1973. First, large companies whose stocks were listed on the Tokyo First Class Stock Exchange were obliged to reduce their employment quite significantly. Table 18 shows that the employment reduction was more severe in manufacturing than in non-manufacturing: employment fell nearly 12 per cent between 1973 and 1978 in the former, whereas employment fell only 5 per cent in the latter during the same period.

Second, new business opportunities for small firms have expanded dramatically since the 1960s. The increased per capita income during the period of high economic growth provided ambitious entrepreneurs with good opportunities to expand their businesses. For the first time in the history of Japan, a huge domestic market emerged for durable goods such as electric appliances and cars. These metal fabricating industries needed to have an extensive network of suppliers and subcontractors. In addition, the development of these mass-production industries also demanded an expansion of the machinery industry, which generated a large number of small manufacturing companies. Furthermore, demand expanded for other related industries ranging from steel to transportation, wholesale and retail trades, as well as services. The very fact that a huge reservoir of surplus labour existed until the 1950s made it possible to expand small, labour-intensive businesses in the following decades.

Third, new technology such as microelectronics and biochemistry gave a strong impetus to small businesses development. The very nature of new technology allowed entrepreneurs to establish their own businesses with a fairly small amount of capital. In addition, the supply of capital became abundant after the oil crisis due to decreased economic growth, so that small businesses which once suffered from serious capital shortage had easier access to the necessary financial resources. At the same time, consumer tastes changed dramatically after the oil crisis, favouring differentiated rather than homogeneous mass-production goods. The demand for differentiated products intensified the incentive for the development of flexible small businesses. New businesses emerged not only in manufacturing, but also in the trade, distribution and service sectors.
## Table 17: Starting monthly wage rates for school graduates by education level (male)

<table>
<thead>
<tr>
<th>Year</th>
<th>Junior high school</th>
<th>Senior high school</th>
<th>University</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>¥ 6,020 ($16.72)</td>
<td>¥ 8,220 ($22.83)</td>
<td></td>
</tr>
<tr>
<td>1965</td>
<td>13,210 (36.69)</td>
<td>16,670 (46.31)</td>
<td>¥ 23,265 ($64.63)</td>
</tr>
<tr>
<td>1970</td>
<td>25,500 (70.83)</td>
<td>31,700 (88.06)</td>
<td>39,900 (110.83)</td>
</tr>
<tr>
<td>1975</td>
<td>59,900 (195.97)</td>
<td>74,900 (245.45)</td>
<td>89,300 (292.64)</td>
</tr>
<tr>
<td>1980</td>
<td>81,100 (398.33)</td>
<td>92,800 (455.80)</td>
<td>114,500 (562.38)</td>
</tr>
<tr>
<td>1985</td>
<td>96,200 (479.56)</td>
<td>112,200 (559.32)</td>
<td>140,000 (697.91)</td>
</tr>
</tbody>
</table>

Average annual rate of increase: 11.7% (14.4%) 11.0% (13.6%) 9.4% (12.6%)

**Note:** The exchange rate of the yen currency against US dollar changed as follows: 360 yen until August 1971 and 308 yen in December 1971; under the floating exchange rate system, 305.15 yen in 1975, 203.60 yen in 1980, and 200.60 yen in 1985.

**Source:** Ministry of Labor: *Handbook of labor statistics*, 1968 (pp. 136-7); 1977 (p. 142); 1986 (p. 128). For 1960 and 1965, the manufacturing industry; for 1970-85, the average of total industries. For exchange rates, Bank of Japan: *Economic statistics monthly*, September 1986, p. 6 (Inter-Bank Rates US Dollar Spot Closing at the end of the year).

## Table 18: Declining number of employees among major firms, 1973-1983 (thousand persons)

<table>
<thead>
<tr>
<th>Fiscal year</th>
<th>Total industry 863 companies</th>
<th>Manufacturing industry</th>
<th>Non-manufacturing industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973</td>
<td>3,765.9 99.4 (1)</td>
<td>2,757.9 100.0 (1)</td>
<td>1,008.0 97.6 (1)</td>
</tr>
<tr>
<td>1974</td>
<td>3,786.8 100.0</td>
<td>2,753.6 99.8</td>
<td>1,033.2 100.0</td>
</tr>
<tr>
<td>1975</td>
<td>3,719.5 98.2</td>
<td>2,693.6 97.7</td>
<td>1,025.9 99.3</td>
</tr>
<tr>
<td>1976</td>
<td>3,592.3 94.9</td>
<td>2,585.5 93.7</td>
<td>1,006.7 97.4</td>
</tr>
<tr>
<td>1977</td>
<td>2,510.6 92.7</td>
<td>2,518.2 91.3</td>
<td>992.5 96.1</td>
</tr>
<tr>
<td>1978</td>
<td>3,412.2 90.1</td>
<td>2,430.8 88.1</td>
<td>981.4 95.0</td>
</tr>
<tr>
<td>1979</td>
<td>3,368.3 88.9</td>
<td>2,391.6 86.7</td>
<td>976.7 94.5</td>
</tr>
<tr>
<td>1980</td>
<td>3,395.2 89.7</td>
<td>2,411.9 87.5</td>
<td>983.3 95.2</td>
</tr>
<tr>
<td>1981</td>
<td>3,431.6 90.6</td>
<td>2,443.7 88.6</td>
<td>988.0 95.6</td>
</tr>
<tr>
<td>1982</td>
<td>3,416.0 91.4</td>
<td>2,469.5 89.5</td>
<td>991.5 96.0</td>
</tr>
<tr>
<td>1983</td>
<td>3,452.5 91.2</td>
<td>2,465.7 89.4</td>
<td>986.7 95.5</td>
</tr>
</tbody>
</table>

**Note:** (1) The indexes show the change in employment from the peak year (100) in each category.

**Source:** Koshiro [1984], p. 26 based on NEEDS data bank.
Finally, a negative aspect of increased employment among small businesses after the oil crisis must be mentioned. Major companies tried to decrease their labour force after the oil crisis in response to decreased demands for their products, and increased labour and energy costs. In particular, those industries which had depended heavily upon an abundant supply of cheap oil, such as petrochemicals, shipbuilding, ferroalloy, and aluminium refining, were the first to decrease their labour force. Then other industries that suffered during the world depression were also obliged to make reductions. The automobile and electric appliance industries (excluding the heavy electric machinery industry) were the only exceptions, as they expanded employment almost continuously even after the oil crisis.

For example, as stated earlier, major manufacturing companies listed on the Tokyo First Class Stock Exchange Market reduced their employment by 13.3 per cent between 1973 and 1979 (Table 18), whereas total employment and dependent employment increased by 4.5 per cent and 7.5 per cent, respectively, during the same period. This meant that employment increased almost exclusively in the small and medium-sized firms, most of which were in the tertiary sector.

Although it is evident that prosperous and innovative independent small businesses have flourished in the past two decades, it is also undeniable that employment was forced to increase almost exclusively among small firms due to the decreased job generation ability of large firms.

2. The nature and characteristics of change: Alternative views of the subcontracting system

Studies in the field of small businesses in Japan have been dominated by Marxist-oriented scholars since the prewar period. The latest comprehensive bibliographical study in this field, edited by Takizawa [1985], contains about 5,000 books and papers, most of which have a strong inclination toward a Marxist interpretation of the problem; they tend to stress exploitation of small firms by "monopolistic capital" and the misery of poorly paid workers in these firms. It would appear that these studies have been strongly motivated by the political and ideological desire that some day in the future these exploited workers, as well as some owners of these oppressed firms, will become part of the "revolutionary mass" which will overthrow the capitalist system. Although their desire has so far been proved wishful thinking, a few of them have undertaken empirical research which merits mention here.

The development of studies in this field since the pre-war period is summarised by Watanabe [1985] as follows. In the pre-war period, three types of studies existed in this field. One was a microeconomic approach, advanced by Tasugi [1941] and based on the theory of optimum firm size. His studies did not gain widespread support among the experts, who tended

12. Wages rose 33 per cent in 1974, reflecting inflation and social instability following the first oil crisis.
to have strong sympathies with the misery of workers in small businesses. Another approach was that of competing views developed by two Marxist economists: Komiyama [1941] and Fujita [1943]. Both stressed the backwardness of Japanese manufacturing, the subordination of sub-contract firms to large firms, and the exploitation of the former by the latter. However, they differed in their evaluation of the nature or growth possibility of a particular type of small business. In particular, they disagreed over whether subordinated subcontract firms, developing under the militaristic expansion of industry, could realise sufficient technological progress to be free from parent firms. Komiyama looked at the possibility of technological progress among subordinated subcontract firms and stressed the existence of an "equivalent exchange" between parent firms and subcontractors, which denied the exploitative nature of the system. Fujita, on the other hand, emphasised the continuous exploitative nature of the system and denied the possibility of technological catch-up by small businesses.

The controversy between Komiyama and Fujita was continued after the Second World War in the work of different scholars. The technology gap between large and small firms was also an issue tackled in the post-war period. The urgency of this issue was widely acknowledged, not only by scholars in this field but also by government officials. When large firms began to introduce new technology from the West, they faced the necessity of closing the technological gap between themselves and their subcontractors. The latter were required to process new materials supplied by large companies (e.g. in the synthetic chemical fibres) and maintain high quality, or to supply reliable parts to large companies (e.g. in the electric appliance and automobile industries).

This time Fujita developed a positive view, whereas Kobayashi [1958] and Ichikawa [1957] criticised his view and stressed the exploitative nature of the new relationship between large companies and subcontractors. Nakamura [1962] intervened in this controversy and clarified the problem using a more sophisticated theory in which there is competition both among large monopolistic firms for control of efficient suppliers, and among small firms themselves.

The debate became more diversified in the decades after high economic growth. It became evident, even for doctrinaire Marxist economists, that the advanced manufacturing sector, with improved technology, had been able to compete internationally by the 1970s. A 1981 survey conducted by the Central Bank of Commerce and Industry revealed that 51.5 per cent of the 1,592 subcontracting SMEs claimed that their technological competence was equal to or even superior to their parent companies. Nakamura and Kiyonari pointed out such progress and changes among small firms since the 1960s. They insisted that the traditional subordination of subcontractors to large companies had faded away due to increased technological independence of subcontractors and, moreover, that the relationship between large companies and subcontractors had become more or less a co-operative division of labour. On the other hand, many other analysts still concentrate on the traditional view, using extensive case
studies that emphasise the subordinate and exploitative nature of the subcontract system.

3. Explanations for the changes in the 1970s

Among the Marxist economists, some conducted sound, empirically based case studies and recognised the different relationships between large companies and subcontractors. For example, Ikeda [1972] states:

Particularly since 1965, the conditions surrounding SMEs changed dramatically due to an intensified labour shortage and increased wages. These changes forced subcontractors to invest in labour saving machinery and equipment and to improve productivity in order to meet increased wages. Thus, even subcontractors have become modernised in their business management. The development of a productive force (produktivkraft) of subcontractors reduced the subordinate nature of the system, and the vertical relationship between large companies and subcontractors has been transformed into more of a horizontal relationship with all parties on an equal footing. ... Generally, the degree of monopsony by large companies was reduced and the excessive competition among subcontractors has been reduced considerably. The control-subordination relationship between large companies and subcontractors has faded away to a considerable extent, reflecting the changed demand and supply conditions.... It is obvious that the rapid expansion of the machinery industry during the boom period affected the traditional subcontract system to a considerable extent, and even very small subcontractors became relatively independent from the control of large companies [Ikeda, 1972, pp. 160-162].

After examining developments following the 1971 depression that resulted from the re-evaluation of the yen, Ikeda concluded that the changed relationship described above would continue in the 1970s; he foresaw no possibility of a reversal. Furthermore, he anticipated an increasing number of independent subcontractors [Ibid., p. 171]. His study covers the machinery, automobile, electric appliance, and precision machinery industries. Ikeda, among others, admits that the first-tier subcontractors in the automobile industry have already acquired the superior technological ability necessary to meet the severe demands of large companies. In addition, by the early 1970s, many large suppliers, such as Nihon Springs and Nihon Oil Seal, were trying to reduce their dependency on the automobile industry through increasing sales to other industries. Ikeda also emphasises that major large companies in the machinery and electric appliance industries have reduced the number of subcontractors they work with by reallocating their business to a select few of the most competent subcontractors. For example, Hitachi selected only 27 per cent of their existing subcontractors and ceased doing business with the remainder. Many efficient SMEs succeeded in reducing their dependency upon sole customers in order to achieve a better bargaining position [Ibid., pp. 172-202].

The research division of the Central Bank for Commerce and Industry published its report on the status of subcontracting SMEs in June 1971. It classifies the total 4,364 subcontracting firms surveyed into the following five categories:
(a) Subcontractors relying exclusively on a single customer for 75 per cent or more of their sales (26 per cent of the total subcontractors surveyed). Their products are of a high quality, and can be produced only with high technology and specialised modern capital equipment.

(b) Independent subcontractors whose products are as in (a), but depend on a single customer for only 25 per cent or less of their sales (19.5 per cent of the total).

(c) Subordinate subcontractors who produce ordinary parts without having any specialised high technology, and depend on a single customer for 75 per cent or more of their sales (8 per cent of the total).

(d) Floating subcontractors who produce products as in (c), but depend on a single customer for 25 per cent or less of their sales (3.7 per cent of the total).

(e) Intermediate subcontractors who cannot be classified in any of the above categories (42.3 per cent of the total) [Ikeda, 1972, p. 207].

4. Relations between large and small firms: technology and structural changes in the 1980s

During the period between the late 1970s and the 1980s, Japanese industries suffered from a series of structural changes, in addition to increased oil prices. These include an appreciation of the yen once in 1978 (by 70 per cent) and again since late 1985 (by 80 per cent). Such a tremendous appreciation of the yen forced export industries to reduce costs. Cost reduction has been achieved through the introduction of microelectronic technology, automation of the production process, and reductions in the labour force. At the same time, demands for improved quality have been intensified by fierce international competition. Furthermore, in the late 1970s major electric appliance companies were obliged to shift their colour TV production into the advanced countries, instead of exporting, in order to avoid trade conflicts. Similarly, in the 1980s automobile manufacturers were obliged to invest abroad, particularly in the United States.

Subcontractors in these export industries suffered from such changes, and struggled to survive. The introduction of integrated circuits and other microelectronic technology reduced the number of parts to be assembled. Increased overseas TV production reduced the demand for domestic parts, and more flexibility to meet the changing tastes of customers became imperative for survival. Some large automobile parts producers established co-operative relationships with foreign producers such as Akebono Brakes and Bendix (USA), Nihon Spring and Hesch (the Federal Republic of Germany), and Atsugi Automobile and Karl Schmidt (the Federal Republic of Germany). Others increased their supply of automobile parts to American producers, who preferred to increase their use of international outsourcing. Major automobile parts and electric appliances producers
proceeded further to select efficient subcontractors and to drop less efficient ones in order to meet these challenges [Ikeda, 1982, pp. 81-128].

Koshiro undertook field research in the Japanese automobile industry under the Massachusetts Institute of Technology’s Future of Automobile Project in the 1980s. The results suggest that even one of the most competitive automobile producers in the world still depends upon a multi-tiered hierarchy of subcontractors, which includes handwork by women at home. The use of homework is more extensive in the electric appliance and apparel industries. More generally, the percentage of subcontract firms in the total number of firms exceeds 80 per cent in such industries as textile, apparel, general machinery, electric appliance and machinery, transportation equipment, and precision machinery.

Nakamura points out the diversity of these subcontractors, and emphasises the positive aspect of the subcontract system as a system of social division of labour. He criticises as over-simplified a view which concentrates on the exploitive nature of a multi-tiered hierarchy. As explained earlier, he underlines the simultaneous development of medium standing R & D firms and small venture businesses. According to Nakamura, the international competitive advantages from outsourcing are based on a subcontracting system which developed mostly after the middle 1960s. Now, the competitiveness rests not upon the exploitation of cheap labour, but mainly on an accumulation of technical knowledge which supports high productivity in each specific engineering area. Nakamura examines a number of exciting cases in this field to support his arguments, and concludes: ‘If the high productivity of Japan’s ‘mechatronics’ (a compound of mechanics and electronics) still depends heavily on the existence of changing subcontractors, there remain a number of problems to be re-examined relating to the role of subcontracting as an economic system’ [Nakamura, 1985, p. 112].

In contrast to Nakamura, Mitsui presents an orthodox Marxist view criticising “the positive argument for the Japanese-style division of labour”. He emphasises the intensive competition among and exploitation of subcontractors through reorganisation by “monopolists” at the international level. The exploitive nature of the subcontract system still remains unchanged, which is reflected in wide profit and wage differentials. Subcontractors are still exploited as effective buffers for business cycles, in spite of the seemingly modern appearance of a technical division of labour [Mitsui, 1985, pp. 128 and 153].

V. The extent of the remaining labour market duality

The dual structure of the Japanese economy has long been a subject of heated discussions among experts such as Ohkawa and Rosovsky [1965], Fei and Ranis [1964], Minami [1970], and Taira [1970]. As stated earlier, the Economic Planning Agency’s White Paper in 1957 paid special attention
Figure 1: The rate of current profit against the amount of sales by capital size of firm in all industries

Source: Ministry of Finance, Hojin Kigyo Tokei (Statistics of Incorporated Firms).
to this subject. The wage differential between small and large firms decreased remarkably between 1955 and the 1960s but has increased gradually since around 1970, particularly after the oil crisis. Some experts stress the resurgence of the dual economy whereas others point out that simple average wage differentials tend to overstate any true duality in the economy.

1. Profit differentials

Figure 1 shows the difference in profit rates between large and small firms for the total economy. Here the profit rate is defined as the ratio of current profits to sales, and firm size is defined in terms of capital. With the exception of the oil shock period of 1973-75, there have been clear differences in profitability between large and small firms since at least 1960, and the differentials have widened since 1975. A similar tendency can be observed in manufacturing. However, the picture for wholesale and retail trade is different, with large firms experiencing lower profit rates than smaller ones, at least up to a few years ago.

The situation is different when the profit rate is measured as a percentage of capital in use (including borrowed capital). Comparing these profit rates at the total industry level, large firms recorded roughly equal, lower, and then higher profit rates than smaller firms in the 1960s, 1970s and 1980s, respectively (Figure 2). In manufacturing, large firms had a lower profit rate than smaller firms almost throughout the period until the early 1980s. It is noteworthy that smaller manufacturing firms earned considerably higher profits between the late 1960s and the early 1970s. In wholesale and retail trade (as in the earlier case), larger firms continuously earned less than smaller firms until the early 1980s.

The discussion so far has been limited to the average profit rate by firm size. However, Nakamura and Kiyonari stress that a wide range of profit rates exists within each size group. For example, Kiyonari [1980] shows that there are many profitable and growing small firms. Therefore, arguments concentrating on duality tend to overlook the emergence and existence of profitable "medium standing" firms and venture businesses. Unfortunately, in 1975 the Bank of Japan stopped publishing the survey showing the distribution of profit rates by firm size, and no similar data are available for the 1980s.

2. Wages, working hours and hourly wage differentials

In analysing wage differentials, a distinction must be made between regularly paid wages and salaries (including overtime allowances), and total cash earnings (including bonus payments and retroactive payments of increased pay). With regard to the former, significant average wage differentials between large firms and smaller firms have existed since at least 1965 (Table 19). The differentials were fairly stable between 1965 and 1975,
Figure 2: Rate of current profit against the amount of capital used by capital size of firm in all industries

but began to increase thereafter. By 1984, average wages in firms with fewer than 100 employees were no more than 75 per cent those in firms with 500 or more employees. Looking at these differentials it seems obvious that labour market duality in terms of wage differentials re-emerged after 1975. The expansion of differentials was most significant for companies with 30-99 employees.

Table 19: Average monthly regular pay of regular employees by size of firm in all industries excluding the service industry, 1965-1984

<table>
<thead>
<tr>
<th>Year</th>
<th>100-499 persons</th>
<th>30-99 persons</th>
<th>5-29 persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>89.5</td>
<td>84.3</td>
<td>74.6</td>
</tr>
<tr>
<td>1966</td>
<td>88.6</td>
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<tr>
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<td>87.4</td>
<td>81.5</td>
<td>71.0</td>
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<tr>
<td>1968</td>
<td>87.9</td>
<td>81.8</td>
<td>73.7</td>
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<td>1969</td>
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<tr>
<td>1982</td>
<td>85.1</td>
<td>76.3</td>
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<tr>
<td>1983</td>
<td>85.4</td>
<td>75.4</td>
<td>68.9</td>
</tr>
<tr>
<td>1984</td>
<td>85.2</td>
<td>74.8</td>
<td>68.3</td>
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</tbody>
</table>


Wage differentials by size of firm are even greater with respect to cash earnings including bonus payments than in the case of regular pay (Table 20). In addition, the pattern of stable and then increasing differentials is apparent also for total cash earnings. The combination of wider and increasing differentials resulted in earnings in firms with 5-29 employees dropping below 60 per cent of those in large firms since 1983.

It is not easy to conclude from these statistics alone whether labour market duality exists or was revived. At least two points must be considered in this respect: the average wage differentials by firm size may not reflect the true differentials because the quality of labour (education, skill, age, years of service, and gender, etc.) is not controlled for. This point is particularly important in Japan because wages are usually strongly related to age, years
of service, education, and gender; workers' career patterns are very different in large versus small firms. As Koike [1981] points out, in Japan many blue collar workers in small businesses can be promoted to white collar status, and may even become independent owners of small businesses mostly by their late thirties or early forties.13

Table 20: Average monthly cash earnings of regular employees by size of firm in all industries excluding the service industry, 1965-1984

<table>
<thead>
<tr>
<th>Year</th>
<th>100-499 persons</th>
<th>30-99 persons</th>
<th>5-29 persons</th>
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<tbody>
<tr>
<td>1965</td>
<td>78.3</td>
<td>65.9</td>
<td>74.6</td>
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<tr>
<td>1966</td>
<td>86.4</td>
<td>76.7</td>
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<tr>
<td>1967</td>
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<td>1968</td>
<td>85.4</td>
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<td>1969</td>
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<td>64.5</td>
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<tr>
<td>1970</td>
<td>85.8</td>
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<tr>
<td>1972</td>
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<tr>
<td>1973</td>
<td>85.4</td>
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<td>1974</td>
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<td>1978</td>
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<td>1979</td>
<td>84.3</td>
<td>74.3</td>
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<td>1980</td>
<td>83.6</td>
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<tr>
<td>1982</td>
<td>83.1</td>
<td>71.9</td>
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<td>1983</td>
<td>83.1</td>
<td>70.4</td>
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<tr>
<td>1984</td>
<td>73.4</td>
<td>70.0</td>
<td>59.3</td>
</tr>
</tbody>
</table>


In order to estimate true wage differentials by firm size, it is necessary to control for such essential factors as age, education, job content (blue- and white-collar), and years of service. Figure 3 shows monthly regular pay differentials between large (employing 1,000 workers and over) and small (employing 10-99 workers) firms for male employees by age group in manufacturing in 1961, 1972, and 1984. Here other essential factors (blue-and white-collar, education, and years of service) are controlled for using the Laspeyres formula. It is noteworthy that, first, pay differentials are reduced remarkably by controlling for these factors and, second, the differentials have

13. Koike [1981], pp. 75, 79-97. He contends that the real wage differentials between large and small firms could be halved if these two elements were taken into account.
decreased during the past 23 years for the standard male workers. However, the differentials are still significant for workers in their forties and fifties.

Significant differences by firm size also exist with respect to hours of work. Hours of work are longer in small firms than in large firms for the following reasons: (a) the five-day week is less prevalent among small firms; (b) the standard hours of work are longer among small firms. Labour and management in large firms have reduced their standard hours of work by collective bargaining agreements to almost 40 hours a week, whereas small firms are mostly unorganised and are still bound only by the Labour Standards Law; (c) many small firms operate even on national holidays (only 8 days out of the total 12 national holidays are observed); (d) the number of days of paid vacation is fewer among small firms, because the average worker there has fewer years of service. The Labour Standards Law requires an additional paid vacation day for each additional year of service, up to a maximum of 20 days a year. Therefore, workers in small firms whose turnover rate is greater and who have fewer years of service have fewer days of paid vacation than workers in large firms. Furthermore, workers in small firms tend to leave more days of vacation unused; (e) on the other hand, overtime hours are shorter on average in small firms than in large firms, although small subcontracted firms may be forced by their customers to do overtime work.

Table 21 shows that the total monthly hours worked including overtime have, with the exception of a few years, been lowest in large firms. Small firms (employing fewer than 30 employees) have worked the longest hours throughout the period from 1970 to 1984.

Table 21: Total monthly hours worked in all industries by size of firm, 1970-1984

<table>
<thead>
<tr>
<th>Year</th>
<th>500 and over</th>
<th>100-499 employees</th>
<th>20-99 employees</th>
<th>5-29 employees</th>
</tr>
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<tbody>
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<td>1970</td>
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<td>1984</td>
<td>176.1</td>
<td>175.2</td>
<td>177.5</td>
<td>182.9</td>
</tr>
</tbody>
</table>

Figure 3: Wage differentials for the standardised workers in 1961, 1972 and 1984 (male workers in the manufacturing industry)

(1) 1961

Index of wage differentials between large and small firms

(2) 1972

(3) 1984

Notes: --- shows the wage differentials by age group.
        shows the wage differentials when the education levels and the occupations are controlled.
        shows the wage differentials when the years of service are further controlled.

It follows from the preceding analysis that hourly earnings should be lower in small firms than in large firms. Table 22 shows that the differentials in terms of average total hourly earnings, including both overtime and bonus payments, have expanded since 1970 in firms of all size groups under 500 employees. The rate of decrease of relative earnings was largest in the smallest group of firms.

Table 22: Average hourly earnings in all industries by size of firm, 1970-1984

<table>
<thead>
<tr>
<th>Year</th>
<th>500 and over</th>
<th>100-499 employees</th>
<th>30-99 employees</th>
<th>5-29 employees</th>
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<td>1974</td>
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Differentials (size 500 and over = 100)

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<tr>
<td>1984</td>
<td>84.9</td>
<td>73.6</td>
<td>58.2</td>
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</table>

3. Differentials in other benefits

There are considerable size-related differentials in other benefits. Lump-sum retirement allowances, pensions and medical care have already been mentioned. Moreover, there are differentials in company welfare facilities, housing loans, and so on, and workers in small firms are also more vulnerable to work accidents. Furthermore, it is undeniable that workers in small businesses tend to have less social prestige and less psychological satisfaction. In a traditional society like Japan, these intangible factors are sometimes more important than pecuniary differentials, particularly in terms of social status and marriage relationships.

It is important to take into account the challenging views developed by Nakamura, Kiyonari and Koike, which emphasise the positive new aspects that have emerged among small businesses since the 1970s. But the conclusion seems unavoidable that the differentials in working conditions between large and small firms have been expanding considerably since the oil crisis.14

4. Causes of the wage differentials

It has been a long-established view among economists that the wage differentials between large and small firms resulted from differentials in value added per employee, which in turn was a result of differences in the capital/labour (K/L) ratio. The availability of capital has been limited for small businesses until recent years. Figure 4 shows these differentials between 1957 and 1984. The differentials in value added per employee (V/L) and K/L narrowed considerably between the 1960s and the middle of the 1970s but they have widened somewhat since then. Since wages are a function of value added per worker, the evolution of value added per employee seems closely related to that of wage differentials.15

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14. In this respect, it may be worthwhile mentioning here an argument raised by Nakamura [1985]. He cites evidence showing that there are many well-paid job opportunities even among small firms. But the data he quotes is for 1978. In order to support his arguments further, it is necessary to update the figures to cover the 1980s. Time limitations do not allow the present author to undertake this task in this study.

15. On a more technical note, labour productivity is a function of the capital stock. Since capital's share in total output is typically higher in large firms (due to more capital-intensive technologies), it follows from a Cobb-Douglas production function that labour productivity will increase more in large firms for a given increase in K/L.
Figure 4: Differentials of labour productivity and capital intensiveness between large and small firms in the manufacturing industry, 1957-1984

Differentials between large (employing 1,000 and over) and small (employing 10-299 employees) establishments

Note: (V/L) denotes the average added value per employee in a small firm as a percentage of that in a large firm, and likewise (K/L) denotes the average amount of asset value per employee in a small firm as a percentage of that in a large firm.


VI. Attitudes and policies toward the small firm sector

1. Financial measures to help SMEs

The Agency of SMEs within the Ministry of International Trade and Industry provides a wide range of financial measures to help small businesses. The Law to Promote Modernisation of SMEs was enacted in March 1963. It designates 185 industries and trades as the target of modernisation, 72 of which are the object of emergency measures. They include such traditional industries as soy-sauce brewing, sake brewing, small printing shops, etc. Two special governmental banks provide loans to firms in these designated industries and trades in order to modernise their production facilities and equipment. The SME Financing Bank provides ten-year loans of up to 350 million yen per firm at below-market interest rates. The National Financing Bank also provides low interest ten-year loans of up to 30 million yen per firm. When a group of SMEs in the designated

16. Descriptions in this section are taken from the Agency of SMEs [1985a].
industries or trades applies for financial aid to modernise their production facilities and equipment, a special loan to facilitate structural reform is available through the SME Financing Bank (maximum of 350 or 750 million yen) or the National Financing Bank (maximum of 35 million yen).

The government also established in 1980 the SME Undertaking, which has special judicial status and is intended to promote the structural reform and modernisation of SMEs. The Undertaking helps to develop land for groups of SMEs, integrate SMEs into co-operative unions, construct joint warehouses, and modernise shopping centres, etc. in co-operation with prefectural governments. The SME Undertaking and prefectural governments jointly provide SMEs with loans at low interest rates. The Undertaking also provides managerial expertise and consulting services.

The Agency of SMEs provides prefectural governments with financial aid to renovate local specialised industries. For those areas that suffered from structural changes, a special temporary law to help renovation and transformation of SMEs was enacted in 1983. The law provides special tax considerations, special loans through the SME Financing Bank and National Financing Bank, and a total of 220 million yen available through the prefectural governments in 55 areas.

In order to facilitate access to financial resources, special arrangements for SMEs are made through three kinds of institutions: 69 mutual banks (established by a special law in 1951) give loans to SMEs (those firms with fewer than 300 employees or capitalised with less than 800 million yen) up to a maximum of 15 billion yen; 561 credit banks (established by a special law in 1951) give similar loans to the members of credit co-operatives; 464 credit unions (established by SME Co-operative Law in 1949) give smaller loans, up to a maximum of 400 million yen, to their members.

Beside these special financial institutions, an association to guarantee credit for SMEs is set up in each prefecture. This is necessary because many SMEs lack sufficient security to get loans from ordinary banks. The association provides guarantees for loans without adequate security, which are further supported by the Public Insurance Institution for SMEs (Chusho Kigyo Shin'yō Hoken Koko). A sum of 5.7 billion yen is now available for SMEs through this arrangement.

Furthermore, three governmental banks for SMEs provide loans directly to small businesses: (a) the SME Financing Bank, set up in 1953, fully capitalised by the government, and supplied with money from a special fiscal fund (postal savings and premiums of the Welfare Pension Plan) provides long-term (ten-year) loans at low interest rates up to a maximum of 250 million or 350 million yen. The loan balance amounted to 5.2 trillion yen by March 1985; (b) the National Financing Bank, set up in 1949, fully capitalised by the government, and supplied with money from the government and a special fiscal fund, provides a small amount of long-term loans to those small firms which cannot raise money from ordinary banks. The interest rate is also low and the maximum loan is limited to 25 million yen. The loan balance amounted to 4.9 trillion yen by March 1985; (c) the Central Bank for Commercial and Industrial Co-operatives was set up in
Japan

1936 by the government in co-operation with qualified co-operatives. It provides low interest loans to member co-operatives or their affiliates. The loan balance amounted to 7.7 trillion yen by March 1985. In addition, two government finance institutions (The Environmental Safety Finance Bank and the Finance Bank to Develop the Okinawa Islands) are providing special loans for specific purposes.

Finally, SME Investment Promotion Companies were established in 1963 in Tokyo, Nagoya, and Osaka. It is difficult for SMEs to raise capital through equity markets. In order to cope with this problem, these companies provide SMEs with capital as well as managerial and technological consulting services. The qualifications for receiving financial aid from SMEIPC are as follows: (a) capital less than 100 million yen; (b) operating in the designated 28 industries or trades; (c) having an intention to list stock on the exchange in the future; (d) paying dividends of more than five yen per share over the previous two years; (e) the stockholders do not have ability to raise money for increasing capital; and (f) having plans to modernise or rationalise equipment. Venture business firms which have unique technology or products and spend more than 3 per cent of revenue from sales for R & D have preferential access to SMEIPC money.

2. Tax exemptions and reductions

Self-employed businessmen can choose between a "blue tax report" or a "quasi-corporation tax" system. The former allows tax exemptions on wages and salaries paid to family workers. The latter allows tax exemptions on remuneration to the owner of a business equivalent to that of a corporation.

Incorporated SMEs with capital of less than 100 million yen are treated more favourably than ordinary corporations in terms of corporate income tax. Ordinary corporations must pay a corporate income tax of 43.3 per cent, whereas small companies must pay 31.0 per cent on income less than 8 million yen and 43.3 per cent on income over 8 million yen. If companies pay dividends, large companies must pay 25.0 per cent on income of less than 8 million yen and 33.3 per cent on income of more than 8 million yen. There are various other tax reductions for SMEs, such as accelerated depreciation, tax exemptions for R & D, special treatment in cases of succession of businesses, etc.

17. Descriptions in this section are taken from the Agency of SMFs [1985a].

18. For more details, see the Agency of SMFs [1985a], pp. 154-202.
VII. Conclusions

Labour market duality between large and small firms has been a subject of serious discussion among economists and sociologists in Japan since the 1930s. The low standard of living of the working class and the misery of exploited small businesses in the early days engendered considerable sympathy among intellectuals. Moreover, political oppression by the militarist government angered pre-war Marxists, with the result that Marxist economists and sociologists paid a great deal of attention to the problem of SMEs in Japan. This pre-war tradition has continued to the present day and, as a result of such a tradition, the overwhelming majority of studies in this field have been strongly tinged with a stereotypical Marxist flavour. However, on a more positive note, the strong criticisms by Marxist scholars have made government economists in charge of the SMEs, as well as other labour problems, highly sensitive to the seriousness of the state of workers in small businesses. As a result, they have undertaken a series of voluminous statistical surveys designed to clarify the situation of SMEs. This information has provided Japanese scholars with material to aid their analysis of many aspects of the problems of SMEs. Unfortunately, most of their studies have been largely descriptive, and few empirical studies have been undertaken in this field except for publications by governmental agencies.

This study has attempted to bring out the various important features relating to the small business sector within the Japanese economy and to explain the complicated industrial matrix which links small and large firms. Explaining the role and relevance of small firms in any economy is a difficult task as the nature of this sector may change over time. This study has attempted to clarify the Japanese situation in a number of ways. First, it has been pointed out that the definition of the small firm is a conceptual problem in itself, and that any study of this sector must begin by using the statistical sources which are relevant to the analysis at hand.

Second, the importance of small businesses in the Japanese economy and their contribution to employment generation have been emphasised. About 99 per cent of the total establishments in the private sector belong to the small and medium-sized sector (where this sector is defined to be employing fewer than 300 employees in general, but fewer than 100 in the wholesale trade and fewer than 50 in the retail trade). In total, SMEs in 1981 employed more than 80 per cent of the 46 million people employed in the private sector, and the employment share of SMEs in 1982 was 53 per cent. If the analysis is confined to incorporated firms, then 58 per cent of total value added in the fiscal year 1985 was produced by SMEs [Agency of SMEs, 1987, Appendix, p. 19]. Therefore, approximately 60 per cent or more of Japan's GNP can be accounted for by small businesses. The

19. Compiled in Agency of SMEs [1987], Appendix, pp. 2-3. Table 3 in the text includes the establishments of government enterprises in several industries besides "public service" so that the figure here does not coincide with those in Table 3. On the other hand, Table 16 of this paper does exclude all the public enterprises.
corresponding figure in the United States is estimated to be almost 40 per cent.\textsuperscript{a} Almost all of the increased employment opportunities created in the secondary and tertiary industries between 1972 and 1981 (6.8 million out of total 6.93 million people) were attributable to SMEs. In particular, the retail trade and the service industries accounted for 72.2 per cent of this employment growth [Agency of SMEs, 1985a, pp. 96-97].

Third, the study has shown that the small business sector is not a homogeneous entity but varies according to many factors. The growth and performance of small businesses depend on whether they are traditional firms or "venture" businesses with higher R & D capabilities. However, dynamic changes have been identified which occur even within the so-called traditional businesses.

Fourth, it has been noted that the health of the small business sector depends partly on aggregate demand for goods and services, but also on the subtle inter-relations between large and small businesses. In many sectors the technological gap between the small subcontractor and large parent firm has narrowed as technology "cascades" from large to small businesses. Profit rates based on a return on capital measure shows that many small businesses have performed well vis-à-vis large firms. Flexibility and intelligent dependence have been the key to the health and survival of SMEs.

Fifth, the study has attempted to address the problem of "duality" in Japan's industrial structure. Workers in small businesses are relatively less well off in terms of medical care, pensions, union representation, hours of work and status than workers in larger firms, and this is a problem which still needs to be considered in more depth. Wage differentials also exist between small and large enterprises, although the gap narrows when workers of the same educational background and experience level are compared.

Sixth, the response of government to the problems of small businesses shows that some attempt has been made towards solving certain resource bottlenecks frequently faced by small enterprises.

Finally, there is the issue of "monopolist capital exploitation", a phrase still used to describe large firms' dominance over their smaller counterparts. This relationship has also been described as symptomatic of a "premodern" era. If this simple definition is accepted, then it would be difficult to avoid defining most modern industrialised countries as being to some extent "premodern". Japan is not unique in having a structure based on a foundation of small firms, although the volume of statistics collected in Japan on this subject appears to be more comprehensive, and thus more open to discussion, than in other countries [see Bannock, 1980]. The key to research on this subject is further international comparative study which would permit a meaningful assessment of the small firm sector's contribution to economic performance and to meeting workers' aspirations.

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The re-emergence of small enterprises

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* The books marked with an asterisk are bibliographical studies.
6 United Kingdom

David Marsden

I. Introduction and summary

The role of small firms in the economy and their influence on labour markets has engendered a good deal of controversy recently. The idea that small firms, or at least some small firms, might hold the key to economic regeneration may have seemed eccentric 15 years ago, but now such ideas appear attractive to many at various points on the political spectrum. This paper has two main aims: the first is to examine the development of small firms in the United Kingdom and to look at some of the implications of recent changes; and the second is to review some of the existing material on small firms.

Piore and Sabel [1984] have argued that many developed countries have now reached a point at which there is a choice between pursuing economic prosperity by further development of mass production, reinforced by the economic institutions and policies required to make such systems viable, and encouraging the development of a small firm sector using different forms of economic and social co-operation. A renewed emphasis upon market as opposed to hierarchical co-ordination can be found in their argument, but it is a market supported by a strong body of social institutions. These institutions enable market co-ordination and competition to be combined with a greater degree of "high trust" relationships between firms than is normally associated with free market competition in which the contract is supposed to dominate trust. As will be seen in the course of this chapter, their argument leads one to highlight one of the weaknesses of the small firm sector in the United Kingdom compared, for example, to the Federal Republic of Germany, or their own examples from Italy; namely, the apparent absence of strong social organisations of small firms. Although many of the hallmarks of Piore and Sabel's theory seem absent or underdeveloped in the United Kingdom, there has nevertheless been a marked growth in the employment share, and some decline in the size of units of production used by large firms. Whether or not Piore and Sabel's thesis is borne out for the United Kingdom - and most of the existing data reviewed in this paper cannot give a clear answer - it is still important to assess the implications of this change in the structure of the British economy for labour market policies and for regulation of labour markets.

This paper seeks, as far as possible, to follow the standard format used for all the countries involved, thus facilitating comparisons. It falls into five sections. Section II deals briefly with typologies of small firms and their
relations with other firms. It also compares the numerical importance of small firms in the United Kingdom with that in some other European countries, showing this to be smaller in the United Kingdom, although the gap has been reduced in recent years. The evidence that small firms are commonly "satellites" of larger ones receives only limited support, and this accounts for the inapplicability of some of the "dual labour market" theories developed in other countries. Nevertheless, the problems of low pay and poor working conditions have proved more difficult to tackle among small firms, although such firms have often been competitors with, rather than satellites of, larger, better paying, and more strongly unionised firms.

Section II also examines some of the institutional arrangements for the representation of small firms, which is much weaker than in many countries of continental Europe. In several cases, such representation has arisen from the feeling among small firm owners that organisations designed to represent all firms are inadequate for their special needs, and they subsequently break away. Part of the weakness of small firms organisations could stem from their diversity, but if this is so, it would be interesting to know how such problems have been overcome in, for example, the Federal Republic of Germany.

Union recognition is less common in small establishments, and there is a greater tendency than elsewhere for reliance upon multi-employer bargaining arrangements. But even among small establishments, establishment level bargaining is often the norm, perhaps reflecting the weakness of collective representation of small firms noted earlier.

Section III deals with the long-term historical, and recent, evolution of small firms in the United Kingdom. In manufacturing, for which the data are best, small establishments declined in share of output and employment until the late 1960s. Evidence of a similar decline in small retail shops could also be found for the post-war period. In manufacturing, one of the most important developments was the rise of giant multi-establishment firms. Many of the reasons commonly put forward for the decline of small firms, such as those relating to marketing, finance, transportation, and technical economies of scale appear to explain the decline of small firms as the inverse of factors explaining the rise of giant firms, and so implicitly presume that the provision of many such services from within the firm is more efficient than from outside.

As concerns changes during the 1970s, Section III documents in particular the resurgence of small establishments, especially after the deep recession of 1979-82. Within manufacturing, this resurgence affected all branches, but in retail distribution - the services sector for which the information is clearest - it seems that although the decline stopped, such increases did not occur. The structural aspects of the changes of the 1970s

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1. The terms "establishment" and "plant" are used interchangeably in this chapter, as are those of "enterprise", "firm", and "business". For stylistic reasons, the less cumbersome terms "plant" and "firm" are used frequently.
are also considered, notably the characteristics of new firms, and the questions of concentration and dependency. Production, construction, the retail and catering trades account for most business starts, and in these sectors the median completed life of firms is about four years. Most small firms deal with local markets, and many depend on a few major customers.

Ownership concentration increased during the 1970s, continuing a much longer-standing movement, and the number of establishments owned by the 100 largest firms increased by about 14 per cent. However, the average size of these establishments decreased in line with the overall decrease in average establishment size. Small firms appear to have played a bigger role in job creation, as in the United States, but this occurred in a period of employment shake-out in large establishments, and so may not be typical.

Section IV examines factors in the economic and social background to the development of small firms, and the reasons for their development. Labour costs have been lower in smaller establishments, and unit labour costs may also have been lower in the early 1970s. However, any unit labour cost gap appears to have been eliminated by 1983. If this is sustained by a more rigorous analysis, it may suggest that the labour cost advantage of smaller establishments has been a factor in the move to smaller establishments, at least in the United Kingdom. At the same time, the elimination of the unit labour cost differential could have been the purpose of heavy labour shedding by many large establishments after 1979, of which the car, steel, and shipbuilding industries provide some good illustrations (and also show the role of industrial relations in such changes).

Section V covers aspects of small firm development, but it was not possible to include much evidence of small firm communities in the United Kingdom, despite the historical importance of industrial districts. This weakness may be related to the comparative weakness in the United Kingdom of small firm collective organisations.

Section VI looks at government attitudes and policies towards small firms. In terms of government influence, employment law does not appear to have harmed small firms, although the present government has removed small firms from coverage under some provisions. The government has also acted to help small firm finance, one of the most important steps being its fiscal support of the unlisted securities market since its foundation in 1980.

The chapter concludes by arguing that the resurgence of small establishments may be an important development, but that much depends upon the reasons for it. If it is primarily because unit labour costs escaped management control in large establishments during the 1960s and 1970s, then the apparent reduction of the cost disadvantage of large establishments may neutralise further development. But the reasons for this loss of control are complex, and a return of the unit labour cost disadvantage depends on the reversibility of the changes occurring in labour and product markets and in management methods and industrial relations since 1979.
Small firm development has been favoured by a number of other factors, including changes in the cost and the flexibility of some capital equipment, new forms of management organisation for small firms, and moves by governments and by some large employers to "deregulate" labour markets. These, too, have important consequences for labour protection and collective bargaining, and the difficult problem of potential trade-offs between these issues and employment promotion.

II. Characteristics and extent of small firms

1. Definition of small firms

There is no institutional definition of the small firm sector in the United Kingdom arising from any special legal status similar to that of the West German Handwerk or the French Artisanat sectors. The Bolton Committee, which reported in 1971, established a statistical convention for its own purposes by taking small firms in manufacturing as those with under 200 employees. But with the gradual change in the concerns of policy and research, this definition has slowly become less influential, and the OECD's convention of 100 employees, because of its wider reference, is likely to become more widely accepted. In any case, a crude statistical threshold is bound to be arbitrary, and unsuited to the investigation of certain problems.

2. Volume and employment share of the small firm sector

During much of the post-war period, the United Kingdom has had a relatively weak small business sector in numerical terms. In the early 1960s, its share of small establishment (fewer than 100 employees) manufacturing employment was the lowest of the 13 advanced industrial countries surveyed by the Bolton Committee, at 31 per cent, against 34 per cent for the Federal Republic of Germany, 39 per cent for the United States, and 66 per cent for Italy. Ganguly's [1982] estimates for a period 10-15 years later suggest that the gap has narrowed owing to a faster decline in small firms in the other countries, except the United States and Canada. The results of the 1981 Eurostat Labour Cost survey show the United Kingdom to be closer to the position of the largest EEC economies, especially in manufacturing, but still very different in retail distribution, banking and insurance. In the latter sectors, the dominance of large firms in the United Kingdom is very striking.

The picture in Table 1 is somewhat distorted by exclusion of establishments and firms with fewer than 10 employees. In the United Kingdom, in 1982, these accounted for 5 per cent of manufacturing employment, but 31 per cent of retail employment. In addition, recent comparisons of the small firm sectors in the United Kingdom and the
Federal Republic of Germany reveal many more very small firms in the latter [Bannock, 1976; Prais et al, 1981; Doran, 1984]. It may, therefore, understate the difference between the United Kingdom and other countries. This might explain the rather different emphasis in research on small firms to that found in, for example, Italy or the Federal Republic of Germany.

The boundary between small firms and other forms of employment activity is not a clear one in economic terms, and so it is worth comparing also the level of self-employment in the United Kingdom (Table 2) with some other countries. Self-employment is also less developed in the United Kingdom than elsewhere, even when agriculture is excluded, but there has been a marked increase since the severe recession of 1979-82.

Table 1: Employment share by enterprise size, 1981

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</tr>
<tr>
<td>Manufacturing</td>
<td>27.1</td>
<td>36.9</td>
<td>29.2</td>
</tr>
<tr>
<td>Wholesale distribution</td>
<td>42.2</td>
<td>48.4</td>
<td>38.6</td>
</tr>
<tr>
<td>Retail distribution</td>
<td>35.3</td>
<td>39.1</td>
<td>50.1</td>
</tr>
<tr>
<td>Banking</td>
<td>0.8</td>
<td>1.5</td>
<td>95.5</td>
</tr>
<tr>
<td>Insurance</td>
<td>2.6</td>
<td>4.8</td>
<td>80.0</td>
</tr>
</tbody>
</table>

Notes: Industry = establishments, services, enterprises; Industry and construction = NACE 1-5; Wholesale = NACE 61, 64, 653-56; Retail = NACE 64 + 65 except 651 and 652; Banking = NACE 812/813; Insurance = NACE 82. Establishment = 'local unit'.

Source: Eurostat/LCI.

Table 2: Percentage self-employed in industry and services, by gender, 1979 and 1983

<table>
<thead>
<tr>
<th>Year</th>
<th>Industry</th>
<th>Services</th>
<th>All workers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>('000s)</td>
</tr>
<tr>
<td>1979</td>
<td>2.1</td>
<td>0.1</td>
<td>3.3</td>
</tr>
<tr>
<td>1983</td>
<td>2.8</td>
<td>0.2</td>
<td>4.2</td>
</tr>
</tbody>
</table>


One contributory factor to the lesser development of small firms and self-employment in the United Kingdom is the relative concentration of taxation upon wages and salaries instead of upon firms. The proportion of total labour costs represented by statutory social charges in the United Kingdom remains light by EEC standards, so there is correspondingly less incentive to avoid tax by subcontracting to moonlighting firms and individuals. For industry and construction, statutory social charges in 1981
accounted for 17 per cent of total labour costs in the Federal Republic of Germany, 19 per cent in France, and 23 per cent in Italy, but only 9 per cent in the United Kingdom.

3. Types of small firms

As in all countries, there is great diversity among small firms in the United Kingdom. Some of this has been given institutional expression through the organisations created to represent small firms but, as will be seen later, there is no institutional equivalent to the organisations of the German Handwerk sector, nor to those of the French artisanat. There is a variety of legal forms of small firms running from those quoted on the stock exchange, through partnerships, to sole proprietorships, and self-employment (Table 3). But many of the collective organisations, for example in those sectors where partnerships are strong, are based primarily on the type of activity (legal, medical, etc.) and not the scale or type of organisation. If such lines of cleavage are weak in the United Kingdom, what other bases of typologies have been discussed?

There are two strands to thinking about small firms in relation to labour market segmentation. One relates to theories of dependence of small firms producing for larger ones, providing them with a greater degree of cost flexibility in recession. The second strand relates to the problem of low pay. For many years it seemed doubtful that there was any simple identification that could be made between small firms and "secondary labour market" conditions. In the early 1970s there was not much evidence that small firms were fulfilling such functions in the economy. Indeed, the Merrett Cyriax survey [1970] found that 78 per cent of small (fewer than 200 employees) firms in manufacturing were in competition with large firms, 16 per cent were specialists, and only 6 per cent were what they called "satellites" of large firms. Only 35 per cent of small firms were dependent for more than 25 per cent of their business on a single customer [Bolton, 1971, p. 32]. The proportion of "satellites" would diminish further if the sample included retail shops and partnerships in many services.

According to the second strand, small firms have been seen as part of the problem of low pay (see Tables 5 and 6), but this is a separate question from that of the links between large and small firms [for a recent discussion see Craig et al., 1984]. Indeed, often such small firms have been seen as a threat to larger firms offering union rates and conditions, a point raised in the defence of the Wages Councils and the Fair Wage Resolution (forms of minimum wage protection) by several members of the Confederation of British Industry in its consultations on minimum wage policy in 1984 [see Chronicle, British Journal of Industrial Relations, November, 1984].
Table 3: The legal status of small enterprises by economic sector, 1970

<table>
<thead>
<tr>
<th>Enterprise size</th>
<th>Quoted companies</th>
<th>Non-quoted limited companies</th>
<th>Unlimited companies</th>
<th>Partnerships</th>
<th>Sole proprietorships</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - 24</td>
<td>0.0</td>
<td>77.4</td>
<td>2.6</td>
<td>7.4</td>
<td>12.6</td>
<td>100.0</td>
</tr>
<tr>
<td>25 - 99</td>
<td>1.0</td>
<td>94.6</td>
<td>1.1</td>
<td>2.3</td>
<td>1.0</td>
<td>100.0</td>
</tr>
<tr>
<td>100 - 199</td>
<td>5.4</td>
<td>91.7</td>
<td>1.6</td>
<td>0.7</td>
<td>0.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Non-manufacturing</td>
<td>0.3</td>
<td>33.3</td>
<td>0.4</td>
<td>20.3</td>
<td>45.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Retail</td>
<td>0.4</td>
<td>34.5</td>
<td>0.6</td>
<td>22.6</td>
<td>41.8</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Notes: Definition of small firms: manufacturing, fewer than 200 employees; non-manufacturing: construction, fewer than 25 employees; motor trades, turnover less than £100,000; retail, less than £50,000; wholesale, less than £200,000; catering, all excluding multiples and brewery managed public houses; road transport, fewer than 6 vehicles.

Turnover values in real terms using 1963 prices.

Source: Bolton [1971, p. 6], based on questionnaire sample survey.

Reflecting the concerns of the time, the Bolton Committee's chief interest in small firms arose from their potentially beneficial role in the economy as a source of innovation and new ideas, and in maintaining competition; in particular, what Lydall [1979] later characterised as "entry and product market competition". Completed shortly afterwards, Boswell's [1973] study of small firms stressed the "two-edged" nature of the sector: on the one hand, a source of vitality and renewal; and on the other, an area of inefficiency and decay, something which had also been of concern to Bolton.

Interest in small firms has revived recently because of changes in some employers' policies, and the present government's policy to "deregulating" labour markets. For example, in October 1985, the Director General of the Engineering Employers' Federation (EEF) James McFarlane, boldly stating many of the points on the EEF's negotiating agenda with the engineering unions, urged further moves towards more flexible employment patterns. Notably, he urged contracting out such functions as security and catering; offering temporary contracts to semi-skilled workers when orders so justified; employing easily acquired staff, such as telephonists and truck drivers, on standard terms; and offering superior conditions of employment, including job security, to key permanent workers, electricians and toolmakers, who would be expected to offer complete job flexibility. Beyond statements of bargaining intention, Atkinson's [1986] case studies suggest that a number of firms have been seeking to adopt more flexible employment patterns.
Firms have sought flexibility of deployment between jobs for core employees, and a range of practices from temporary contracts to contracting work out for activities the demand for which is likely to fluctuate, or which are not central to the firm’s main business. In these examples, the reason for contracting out is one of cost, but it is a cost arising from under-utilisation of labour due to fluctuating output demands and the difficulties of redeploying labour within the firm, rather than one arising from subcontracting to individuals or organisations which can avoid taxes and social charges.

The present government has also come to regard small firms as a source of vitality and job creation. It has pursued a variety of policies designed to alter the environment in which small firms work, including changes in industrial relations, dilution of social legislation for small firms (e.g. maternity benefits), removal of impediments to firms taking on new labour, plus measures to boost youth employment which small firms have utilised a great deal. This emphasis on small firms is particularly strong in the government’s 1986 white paper on deregulation [Building business ... not barriers, United Kingdom Government White Paper] and this has been sustained in the Government’s 1988 Industry White Paper.

Recently there has also been much discussion of particular types of small firms, for example those organised by "franchising", especially in distribution, and technological "spin-offs" in which small firms are established by former employees of large R & D-based firms. It is, however, very difficult to assess the extent of these developments (see for example Financial Times special supplement 1 April 1986).

4. The collective organisation of small firms

The Handwerk sector in the Federal Republic of Germany plays an important institutional role in regulating the life of small businesses by defining the training content and minimum standards for a particular trade, and by providing comprehensive sectoral representation for its businesses. No such comprehensive arrangements exist in the United Kingdom. They are much more piecemeal, and much less comprehensive in their coverage, their representation, and their regulation of standards. There is no compulsory registration of small firms other than that arising from legislation affecting all firms, such as the 1961 Factories Act which regulates health and safety in all establishments employing manual workers, the obligation to register for Value Added Tax (VAT) if annual turnover exceeds a certain limit, for taxation, and for filing annual reports under the Companies Acts.

Differences in the legal status among small firms provide an illustration of the diversity of the small business sector. In manufacturing, sole proprietorships are important only among the very smallest firms, and the predominant form is that of limited companies not quoted on the Stock Exchange (Table 3). Outside manufacturing, sole proprietorships are more
important, except in construction and in wholesale distribution, which are closer to the pattern for manufacturing.

Small firms are represented by a number of organisations including trade associations, employers' associations, chambers of commerce, and some organisations specially for small businesses. Particularly important for small engineering firms is the Engineering Industries Association (EIA), and the Engineering Employers Federation (EEF). The latter negotiates minimum rates of pay, overtime provisions, standard hours and training provisions with the Confederation of Engineering and Shipbuilding Unions for the whole industry. Although not specifically intended for small firms, many large engineering firms have left the EEF on the grounds that it represents more the interests of smaller firms. Small firm participation in such bodies is not very great. Doran estimated that the small firm membership density in the EIA was only 5 per cent, although it is higher in some other activities (as high as 60 per cent for the British Printing Industries Federation). He estimated that over all sectors, only about 7.5 per cent of small firms were members of a trade association or an employers' organisation [Doran, 1984, pp. 38-39].

Broader forms of representation are provided by the Confederation of British Industry (CBI), which has a long-standing interest in small firms through its Small Firms Council, and the Association of Independent Businesses, which broke off from the CBI in 1968. Another important organisation is the National Federation of the Self-Employed and Small Businesses, set up in 1974. Its foundation was stimulated by the self-employed sector's protest against the Social Security Amendment Act (1974), which required them to pay a National Insurance contribution of 8 per cent of gross profits. It also stimulated the formation of two other bodies, the National Association of the Self-employed (NASE), and the Association of Self-employed People (ASP). VAT and employment legislation provided major campaign issues notably in connection with complaints about harassment by the tax authorities, unfair dismissal compensation and maternity rights [McHugh, 1979]. For these and other representative associations for small businesses, political and economic influence is greatly weakened by their relatively small and diverse membership. This may not appear surprising in the light of the desire of many small business owners for independence, but it seems unlikely that small businessmen in other countries have any lesser preference for independence.

A. Industrial training

A system of industry training boards was set up by the 1966 Industrial Training Act, and revised by the Employment and Training Act (1973). It provided for a training levy to be raised on all employers within the scope of a particular board, and the money to be used to reimburse employers providing apprenticeship training. Small firms were exempt from the levy, but the benefit to such firms has been reduced over time. The levy
was reduced in 1973, and several training boards were abolished in 1981. On the other hand, small firms have been major beneficiaries of a number of government employment subsidies, especially for young workers, such as the Young Workers' Scheme, and the Youth Training Scheme.

5. Employment and work in small firms

Information on management and employee relations in new firms is not readily available, but as most new firms are small ones, an approximation may be obtained by looking at evidence on employee representation and pay and conditions in small firms. Unfortunately, much of the statistical material on management and industrial relations in small firms does not distinguish between new and established small firms.

A. Labour costs and wage levels

It has often been argued that small firms play an important part in secondary labour markets, offering lower labour costs and poorer working conditions than larger firms. On the labour supply side, small firms can recruit lower wage groups who are prevented, by family obligations, from travelling to work in higher paid firms. The small firms thus offer convenient location instead of good pay. On the demand side, many small firms are more closely tied to local markets, and if they do supply a local large firm, a degree of monopsony may enter their relations, restricting the small firm's capacity to offer better wages. In addition, small firms are less highly unionised, and so are less likely to pay the union mark-up. Recent estimates in the United Kingdom suggest a mark-up of about 8 per cent in aggregate [Stewart, 1983].

Labour costs are lower in smaller establishments, as is shown by Eurostat's labour cost survey (Table 4): £363 a month in establishments with 10-49 employees, against £420 in those with 50 or more employees. The structure of labour costs is broadly similar, the main difference arising from a smaller proportion of voluntary social payments and payment for days not worked in the small establishments. The voluntary social payments include redundancy payments, plus all other non-statutory social payments, and probably reflect the stronger degree of unionisation of larger establishments (see Table 8).

There is evidence that expenditure on vocational training is higher both absolutely and as a proportion of labour costs, in small firms (Table 4). This may be because smaller firms make greater use of apprenticeships than do larger firms, as they employ a higher proportion of skilled and craft labour (Table 5). The larger firms employ a higher proportion of semi-skilled workers whose main training takes place informally on the job, and as such is unlikely to figure in company accounting systems. This would reduce the real difference in training expenditures, but might not eliminate it, as apprenticeships are more expensive and provide a higher quality of skill.
Table 4: The structure of labour costs in small establishments in industry and construction (NACE 1-5), 1978

<table>
<thead>
<tr>
<th>Labour cost component</th>
<th>Size of establishment (no. of employees)</th>
<th>10 - 49</th>
<th>50 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct earnings</td>
<td></td>
<td>75.4</td>
<td>71.8</td>
</tr>
<tr>
<td>Periodic bonuses</td>
<td></td>
<td>1.7</td>
<td>1.0</td>
</tr>
<tr>
<td>Payment for days not worked</td>
<td></td>
<td>7.1</td>
<td>8.5</td>
</tr>
<tr>
<td>Pay in kind</td>
<td></td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Total direct costs</td>
<td></td>
<td>84.5</td>
<td>81.6</td>
</tr>
<tr>
<td>Statutory social security</td>
<td></td>
<td>(10.1)</td>
<td>8.7</td>
</tr>
<tr>
<td>Voluntary social payments</td>
<td></td>
<td>(3.2)</td>
<td>6.8</td>
</tr>
<tr>
<td>Total social payments</td>
<td></td>
<td>12.6</td>
<td>15.5</td>
</tr>
<tr>
<td>Vocational training</td>
<td></td>
<td>2.5</td>
<td>1.8</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>2.9</td>
<td>2.9</td>
</tr>
<tr>
<td>Total labour cost (£ Sterling)</td>
<td></td>
<td>363</td>
<td>420</td>
</tr>
</tbody>
</table>

Note: Estimate for 10-49 size range obtained by extracting range less than 50 from that less than 10. Vocational training expenditure includes apprentices' pay.
Source: Eurostat Labour Cost Survey.

Table 5: Weekly earnings and skill composition of manual workers in the engineering industry, by establishment size, 1970 and 1980

<table>
<thead>
<tr>
<th>Skill group</th>
<th>Average weekly earnings (1)</th>
<th>Employment share</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Establishment size (no. of manual employees)</td>
<td>25-99 500 or more</td>
</tr>
<tr>
<td>Maintenance</td>
<td>99.5 121.9 105.8 120.6</td>
<td>4.4 4.9 3.4 5.9</td>
</tr>
<tr>
<td>Toolroom</td>
<td>101.8 118.3 109.1 113.2</td>
<td>4.7 4.2 4.8 3.7</td>
</tr>
<tr>
<td>Other skilled</td>
<td>93.7 110.9 100.6 110.5</td>
<td>49.0 34.8 53.5 33.1</td>
</tr>
<tr>
<td>Semi-skilled</td>
<td>83.9 100.0 85.3 95.6</td>
<td>32.6 50.3 31.2 52.4</td>
</tr>
<tr>
<td>Unskilled</td>
<td>69.7 81.2 74.9 87.6</td>
<td>9.3 5.9 7.1 5.0</td>
</tr>
<tr>
<td>All manual</td>
<td>88.9 104.5 94.6 102.2</td>
<td>100.0 100.0 100.0 100.0</td>
</tr>
<tr>
<td>Total (’000s)</td>
<td>107.4 643.8 166.4 441.5</td>
<td></td>
</tr>
</tbody>
</table>

Note: (1) Average gross weekly earnings in all engineering: 1970 £28.67; 1980 £105.93.
Source: UK/GB/EESC.

However, earnings and labour cost data from the production census and the labour cost survey say nothing about the possible effect of differences in the type of workforce used. The engineering industry is particularly interesting because it provides a degree of homogeneity both in terms of the industrial activities undertaken and of the types of skill used, although it is
confined to male manual workers. Thus, if larger firms were considering decentralising production, or subcontracting major activities to other firms, they might well do it within the same industry.

In engineering, it is clear that differences in pay levels and in working conditions prevail even for workers with the same skill level between small and large establishments. Surprisingly, if one remembers the growth in small firm employment during the 1970s, pay differences between large and small establishments were considerably reduced during that period (Table 5), and the reduction in the differential in weekly hours shows that this also occurred in hourly pay rates.

Two factors may be relevant. First, incomes policies of the 1970s, combined with the two periods in which bigger percentage increases were allowed for the lower paid (1972-73 and 1975-77), may have held back pay increases in larger establishments (especially because more visible) and also pushed up the lower paid small establishments. It may seem ironic that employment should also have increased in small establishments. However, the second factor may be that the crisis of 1979 and after hit large establishments hardest (see below).

For a view of non-manual workers' earnings it is necessary to turn to the workplace industrial relations survey. Differentials by plant size within occupations appear slightly larger than in engineering, but the present survey covers the whole economy and includes women. Table 6 shows that clerical pay increases about the same amount with plant size as it does for manual workers, but pay increases most for middle management. The advantage small firms have in labour costs must be considered together with their relative disadvantage in labour productivity. Labour costs and labour productivity together determine unit labour costs, which are discussed later (Table 13). Nevertheless, despite offering lower pay at each skill level than large plants, in the early 1980s, small firms did not pay so much less as to constitute a low paid sector.

B. Working conditions

Another important change is that the differential in hours of work between small and larger engineering firms has narrowed considerably. Payment by results (PBR) systems have often been associated with unpleasant working conditions, and a work environment in which cooperation between workers is undermined. In this respect, small firms might appear to offer better working conditions than larger ones (Table 7). Here again, differences have narrowed between large and small establishments, with the decline in PBR in large establishments and a small increase in small ones. One reason for the move away from PBR in large firms was the increasing difficulty that management had in controlling such schemes, a factor which could be related to the higher levels of strike activity in large plants (Table 10).
C. Differences in skill composition

One final point worth noting is the difference in structure of the workforce in small and large plants, especially with regard to skilled and semi-skilled labour. Unfortunately, 1980 was probably too soon to see the effects of microelectronic technology on skills, but the difference in fixed capital investment can surely be seen in the higher proportion of semi-skilled workers in the larger engineering establishments (Table 5).

The different skill composition may also be indicative of a different relation with labour markets. Smaller firms rely more on workers with readily identifiable skills who can be hired directly from their local labour markets, instead of relying on their internal markets. The latter option is more available to larger establishments. However, as has been argued elsewhere [Marsden et al, 1985], the existence of occupational labour markets for skilled labour in the United Kingdom, coupled with the patterns of occupational defence used by skilled workers, has meant that many British firms have much less scope for organising strong internal markets based on upgrading even in large establishments.

D. Patterns of worker representation

It has long been known that unionisation has been weakest in small firms. The reasons for this difference include the less bureaucratic and more personalised relations in small firms, and the fact that unions have only limited resources to service members scattered in small firms. The 1980 workplace industrial relations survey confirms this view, showing that union recognition (for bargaining purposes) declines sharply with establishment size, from nine out of ten establishments with more than 200 employees, to only one in four among those with under 25 employees. In small establishments which were not part of a larger firm, it fell to only one establishment in six (Table 8).

For establishments which do recognise unions, the Warwick survey [Brown (ed.) 1981] showed that, in manufacturing, multi-employer bargaining predominated among small establishments (fewer than 100 employees, Table 9). Nevertheless, the amount of single employer bargaining was high even among small establishments, and higher still for non-manual workers. Allowing for differences in size definition and coverage, the importance of single-employer bargaining may help explain the low participation by small firms in employers' organisations and trade associations mentioned earlier. Nevertheless, the Warwick finding that 44 per cent of establishments with 50-99 employees had multi-employer bargaining seems to be high compared with Doran's [1984] estimates of small employer participation in multi-firm organisations.
Table 6: Weekly earnings (1) of non-manual workers, by skill level and establishment size, 1980

<table>
<thead>
<tr>
<th>Skill level</th>
<th>Establishment size (no. of employees)</th>
<th>25-49</th>
<th>50-99</th>
<th>100-199</th>
<th>200-499</th>
<th>500-999</th>
<th>1000-1999</th>
<th>2000+</th>
<th>All sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semi-skilled</td>
<td></td>
<td>67</td>
<td>76</td>
<td>75</td>
<td>80</td>
<td>83</td>
<td>85</td>
<td>88</td>
<td>74</td>
</tr>
<tr>
<td>Skilled</td>
<td></td>
<td>90</td>
<td>97</td>
<td>95</td>
<td>103</td>
<td>104</td>
<td>107</td>
<td>110</td>
<td>96</td>
</tr>
<tr>
<td>Clerical</td>
<td></td>
<td>69</td>
<td>72</td>
<td>73</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>84</td>
<td>72</td>
</tr>
<tr>
<td>Middle management</td>
<td></td>
<td>117</td>
<td>121</td>
<td>121</td>
<td>125</td>
<td>132</td>
<td>135</td>
<td>143</td>
<td>121</td>
</tr>
</tbody>
</table>

Note: (1) £ per week.

Table 7: Working hours and payment systems in engineering, by establishment size, 1970 and 1980

<table>
<thead>
<tr>
<th>Establishment size (no. of manual employees)</th>
<th>Working hours</th>
<th>Payment systems</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>25-99 500 or more</td>
<td>25-99 500 or more</td>
</tr>
<tr>
<td>Time rates</td>
<td>46.1 44.5</td>
<td>42.6 41.6</td>
</tr>
<tr>
<td>PBR (1)</td>
<td>44.6 42.6</td>
<td>40.7 40.7</td>
</tr>
<tr>
<td>All workers</td>
<td>45.7 43.5</td>
<td>42.0 41.3</td>
</tr>
</tbody>
</table>

Note: (1) Payment by results.
Source: UK/GB/EESC.

Table 8: Trade union recognition by type and size of establishment, 1980
(proportion of establishments that recognised manual trade unions)

<table>
<thead>
<tr>
<th>Type of establishment</th>
<th>Size of establishment (Number of manual workers employed)</th>
<th>Total</th>
<th>1-24</th>
<th>25-49</th>
<th>50-99</th>
<th>100-199</th>
<th>200+</th>
</tr>
</thead>
<tbody>
<tr>
<td>All establishments</td>
<td></td>
<td>50</td>
<td>25</td>
<td>43</td>
<td>63</td>
<td>78</td>
<td>91</td>
</tr>
<tr>
<td>Independent establishments</td>
<td></td>
<td>31</td>
<td>16</td>
<td>24</td>
<td>50</td>
<td>66 (1)</td>
<td>67 (1)</td>
</tr>
<tr>
<td>Establishments part of a group</td>
<td></td>
<td>58</td>
<td>28</td>
<td>55</td>
<td>68</td>
<td>81</td>
<td>92</td>
</tr>
</tbody>
</table>

Note: Union recognition for manual workers; private sector.
Source: Daniel and Milward [1983], p. 25.
The union weakness in small firms has caused many unions to regard
government policies which favour small firms as part of a wider policy to
undermine collective bargaining and to weaken the unions' influence on the
economy. The main response by the unions so far to the rise of employment
in firms in which they are most weakly represented has been twofold. First
they have campaigned against contracting-out, with some success in the
public sector, notably the National Health Service and local government, but
less success in the private sector. Indeed, a number of the recent flexibility
agreements have specifically included a provision for use of contractors, but
with a common proviso that the existing workforce should not be available
to do the work. The second response, again as much motivated by public as
by private sector considerations, has been the decision to press for a national
minimum wage, adopted, after long preparation, at the Trade Union
Council's annual congress on 3 September 1986.

E. Industrial relations in small firms

Strike patterns might be taken as a very crude indicator of the
climate of industrial relations. It has been observed in a number of countries
that strike frequency increases with plant size, and this has been taken as an
indicator of the more difficult nature of industrial relations as the size of
production units increases. Strike frequency increases with plant size, but
only up to plants with about 500 employees, after which it levels off. This
could indicate that in larger plants there is some tendency to organise action
into larger disputes, and to group grievances together which in smaller plants
could lead to a stoppage. Working days lost per thousand employees shows
a more continuous rate of increase with plant size (Table 10).

Prais et al. [1981] take the analysis further providing comparisons
with strike patterns by plant size in the United States and the Federal
Republic of Germany. They show that, for 1965-75, strike activity increased
most with plant size in the United Kingdom, followed by the United States,
with the Federal Republic of Germany a long way behind. At least one of
the authors has taken this to be an indicator of management's lesser ability
to run large plants in the United Kingdom, given their pattern of industrial
relations as compared with the other two countries [Jones, 1981]. This point
has been further supported by an analysis of the United Kingdom's
productivity gap with the United States [Davies and Caves, 1987]. These
observations perhaps call for some qualification of Bolton's argument that
the rise of large firms in the United Kingdom had been helped by the
development of expertise in managing large production units.
Table 9: Bargaining patterns in manufacturing by worker status and establishment size, 1977-78

<table>
<thead>
<tr>
<th>Worker status</th>
<th>Establishment size (no. of employees)</th>
<th>% of establishments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50-99</td>
<td>100-199</td>
</tr>
<tr>
<td>Manual workers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi-employer</td>
<td>44</td>
<td>33</td>
</tr>
<tr>
<td>Single-employer</td>
<td>39</td>
<td>59</td>
</tr>
<tr>
<td>of which:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>Establishment</td>
<td>32</td>
<td>48</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>No bargaining</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Non-manual workers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi-employer</td>
<td>23</td>
<td>18</td>
</tr>
<tr>
<td>Single-employer</td>
<td>43</td>
<td>56</td>
</tr>
<tr>
<td>of which:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>Establishment</td>
<td>36</td>
<td>40</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>No bargaining</td>
<td>32</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>


Table 10: Industrial stoppages in manufacturing by size of establishment, 1971-1973

<table>
<thead>
<tr>
<th>Establishment size (no. of employees)</th>
<th>Working days lost per 1,000 employees</th>
<th>Number of stoppages per 100,000 employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-24</td>
<td>14.8</td>
<td>8.0</td>
</tr>
<tr>
<td>25-99</td>
<td>72.4</td>
<td>19.2</td>
</tr>
<tr>
<td>100-199</td>
<td>155.0</td>
<td>23.0</td>
</tr>
<tr>
<td>200-499</td>
<td>329.1</td>
<td>25.4</td>
</tr>
<tr>
<td>500-999</td>
<td>719.4</td>
<td>29.7</td>
</tr>
<tr>
<td>1000-1999</td>
<td>1127.8</td>
<td>26.7</td>
</tr>
<tr>
<td>2000-4999</td>
<td>2075.4</td>
<td>29.4</td>
</tr>
<tr>
<td>5000 +</td>
<td>3708.0</td>
<td>31.7</td>
</tr>
</tbody>
</table>

Note: Annual average 1971-73, Great Britain.
Source: Smith et al. [1978], p. 57.
III. Quantitative development of the small firm sector

1. Long-term trends

The Bolton Committee [1971] reported towards the end of a long period of decline of small firms in the British economy. It was a period in which many of those concerned with economic and industrial policy still looked to giant enterprises as the way to rationalise and restore the economy. The British car firms had been amalgamated to form the ill-fated British Leyland Motor Corporation (later to become BL) in 1968, and the steel industry was still to embark upon a huge investment in large-scale production facilities intended to capture the economies of scale enjoyed by large firms in Japan and South Korea. Consequently, much of its evidence documented the decline of small firms, especially in manufacturing, but later also in certain services, and sought to explain the decline and suggest policies that could sustain the small firm sector as a spur to competition.

After a small rise during the 1920s, the number of small manufacturing firms declined sharply after 1935. Whereas the employment share of establishments with fewer than 200 employees stood at about 44 per cent between 1924 and 1935, it declined to 37 per cent by 1948, and to 31 per cent by 1963. Their share of net output similarly fell from about 40 per cent to 27 per cent. The employment share of small enterprises fell from 38 per cent in 1935 to only 20 per cent in 1963 [Bolton, 1971, pp. 58-9]. A similar decline in employment share of small manufacturing establishments between the 1950s and the middle 1960s occurred in a number of other countries, including the Federal Republic of Germany, Sweden, France and Japan, but not in the United States and Canada. In the United States, part of the increase was the result of a move to more multi-plant enterprises [Bolton, 1971, p. 70].

Equally striking was the growth of giant firms. Between 1958 and 1970, the number of employees in firms employing more than 50,000 people more than doubled from 547,000 to 1,181,000 [HRCP, Table 15]. Over the same period, the concentration of industrial output increased as the share of net output by the 100 largest firms (defined in terms of net output) increased from 22 per cent of manufacturing net output in 1949 to about 40 per cent in 1970 [Prais, 1976]. It remained at more or less that level through the 1970s, and early 1980s (41 per cent in 1983, Census of Production). Merger activity remained through the early 1980s at a level well below that reached in 1972-73.

Also important within manufacturing have been changes in the relationship between establishments and enterprises. Prais [1976, p. 62], using the "local unit" definition of establishment, showed that the average number of establishments belonging to the 100 largest enterprises increased greatly between 1958 - the first year such data were available - and 1972, rising from 27 to 72. But, at the same time, the average plant size in these enterprises declined from 750 employees to 430. Employment per enterprise
increased from 20,300 to 31,180, again showing the increased importance of large employers in the economy. However, as shown in Table 9, for establishments of all sizes the establishment level is more common for bargaining than the corporate level, indicating a good deal of independence for plant level management. Since 1970 the number of establishments owned by the largest 100 (in terms of employment) enterprises has further increased rising from 36 establishments in 1970 to 41 in 1983. And the average size of these establishments has continued to fall, dropping from 774 employees in 1970 to 429 in 1983, with nearly two-thirds of the fall coming after 1979 (Census of Production, see Table 15).

Table 11: Employment and share of net output in manufacturing, by enterprise size, 1930-1983

<table>
<thead>
<tr>
<th>Year</th>
<th>1-24</th>
<th>25-99</th>
<th>100-499</th>
<th>500-999</th>
<th>1000+</th>
<th>Total ('000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1930</td>
<td>12.8</td>
<td>16.1</td>
<td>32.7</td>
<td>38.4</td>
<td></td>
<td>5.554</td>
</tr>
<tr>
<td>1948</td>
<td>9.9</td>
<td>16.9</td>
<td>32.2</td>
<td>13.5</td>
<td>27.5</td>
<td>7.080</td>
</tr>
<tr>
<td>1954</td>
<td>8.4</td>
<td>15.7</td>
<td>32.4</td>
<td>13.1</td>
<td>30.4</td>
<td>7.672</td>
</tr>
<tr>
<td>1963</td>
<td>8.0</td>
<td>12.2</td>
<td>30.7</td>
<td>14.2</td>
<td>34.9</td>
<td>7.952</td>
</tr>
<tr>
<td>1970</td>
<td>7.3</td>
<td>11.1</td>
<td>27.0</td>
<td>13.9</td>
<td>40.6</td>
<td>8.033</td>
</tr>
<tr>
<td>1974/5</td>
<td>19.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.467</td>
</tr>
<tr>
<td>1983</td>
<td>26.2</td>
<td></td>
<td>27.0</td>
<td>13.3</td>
<td>33.5</td>
<td>5.079</td>
</tr>
</tbody>
</table>

Share of net output

<table>
<thead>
<tr>
<th>Year</th>
<th>1-24</th>
<th>25-99</th>
<th>100-499</th>
<th>500-999</th>
<th>1000+</th>
</tr>
</thead>
<tbody>
<tr>
<td>1930</td>
<td>12.3</td>
<td>15.4</td>
<td>30.6</td>
<td>41.6</td>
<td></td>
</tr>
<tr>
<td>1948</td>
<td>9.4</td>
<td>16.9</td>
<td>32.6</td>
<td>13.6</td>
<td>27.4</td>
</tr>
<tr>
<td>1954</td>
<td>7.6</td>
<td>13.7</td>
<td>30.9</td>
<td>13.7</td>
<td>34.2</td>
</tr>
<tr>
<td>1963</td>
<td>7.1</td>
<td>10.5</td>
<td>28.6</td>
<td>14.8</td>
<td>39.0</td>
</tr>
<tr>
<td>1970</td>
<td>16.4</td>
<td></td>
<td>25.7</td>
<td>14.4</td>
<td>43.5</td>
</tr>
<tr>
<td>1974/5</td>
<td>16.7</td>
<td></td>
<td>24.2</td>
<td>14.3</td>
<td>44.9</td>
</tr>
<tr>
<td>1983</td>
<td>22.3</td>
<td></td>
<td>25.8</td>
<td>14.2</td>
<td>37.7</td>
</tr>
</tbody>
</table>

Note: In 1970 the establishment definition changed from that of "local unit" to "smallest unit for which information required in a production census can be made". Prais [1976] estimated that in 1970 there were roughly 1.5 times as many local units as establishments.

Source: HRCP: Historical record of the census of production 1907-1970, updated from later production censuses. Results for 1930-70 not shown for less than 200 range.

Retail distribution is another important employment sector. Here, too, the importance of small establishments and, by implication, small businesses has declined, although satisfactory data are available only for the post-war period. The decline of small businesses was no less striking in the retail trade in terms of both their shares of employment and of turnover. Applying the Bolton definition, Bannock [1976] showed that the employment
share of small retail shops had declined to 65 per cent in 1971.\(^2\) Up to the late 1960s, employment in small shops remained fairly steady at between 1.6 million and 1.7 million, so the loss of employment share could be attributed to the growth of new larger shops, notably supermarkets and discount stores. In contrast, their declining employment and turnover shares in the 1970s were associated with absolute decline, as employment declined in the sector as a whole. The decline slowed in the late 1970s, but does not appear to have been reversed, in contrast to manufacturing (see below). The Bolton Report also revealed some decline in small organisations between 1950 and 1965 in wholesale distribution [Bolton, 1971, p. 66]. The share of self-employed also declined, although as Bannock [1976] has shown, it roughly halved between 1911 and 1951 (12.8 per cent to 7.2 per cent of the labour force), but declined only half a percentage point between then and 1965. Only recently has it started to grow again (Table 2).

Table 12: Small firms in retail distribution since 1950

<table>
<thead>
<tr>
<th>A. Small establishments defined by turnover (1)</th>
<th>Employment all establishments ('000s)</th>
<th>% employment in small establishments</th>
<th>% of turnover small establishments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>2 348</td>
<td>72</td>
<td>63</td>
</tr>
<tr>
<td>1957</td>
<td>2 472</td>
<td>70</td>
<td>63</td>
</tr>
<tr>
<td>1961</td>
<td>2 485</td>
<td>66</td>
<td>59</td>
</tr>
<tr>
<td>1966</td>
<td>2 556</td>
<td>67</td>
<td>60</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Small establishments defined by no. of outlets and employment size</th>
<th>emp. all estabs ('000s)</th>
<th>shops with 1 outlet</th>
<th>shops with fewer than 10 employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>2 541</td>
<td>49.5</td>
<td>40.8</td>
</tr>
<tr>
<td>1976</td>
<td>2 503</td>
<td>39.8</td>
<td>34.0</td>
</tr>
<tr>
<td>1979</td>
<td>2 429</td>
<td>36.6</td>
<td>31.7</td>
</tr>
<tr>
<td>1982</td>
<td>2 264</td>
<td>36.6</td>
<td>30.2</td>
</tr>
</tbody>
</table>

Note: Establishments with an annual turnover of less than £50,000 in 1963 prices.

2. The Bolton definition of small retailing establishments could not be applied for 1976 and later because the size ranges of annual turnover in published data were too great.
The re-emergence of small enterprises

The image of decline painted by the Committee did not pass uncontested. Boswell [1973], from his own research, argued that a declining employment share could also be caused by an increase in the dynamism of small firms expressed in increased "birth" and "death" rates, and in increased rates of expansion. The cross-sectional data used so far does not give any information on such developments, but the data now most widely used, based on VAT registrations, only started with the introduction of VAT in 1973 (see Table 16).

2. The recent period: Since 1970

The decline of small firms in manufacturing appears to have ceased by the middle 1970s. The recent sharp increase in the employment and output shares of small firms started in 1979 with the worst recession to hit British industry since the 1930s, as a 20 per cent rise in the value of Sterling against other major currencies coincided with the arrival of recession in the United Kingdom's main export markets.

Between 1979 and 1983 the number of small manufacturing establishments increased, as did their share of employment, whereas that of the largest establishments declined (Table 13). Moreover, the employment share of small establishments increased in every branch of manufacturing (Table 14), and in some branches, despite the overall decline in employment, numbers increased in small establishments. Throughout the period, small firms and small establishments have been roughly synonymous, the average number of establishments per enterprise being only 1.2 in each year from 1970 to 1983.

On the whole, changes in net output were smaller than those in employment, hence the increase in the labour productivity gap between small and large establishments. Taken with the observation (Table 15) that the size of the average establishment of the 100 largest firms decreased, this would suggest that one important factor has been the employment shake-out in large establishments since 1979. These may have been harder hit by the Sterling overvaluation due to their greater involvement in products which are traded internationally. Job losses in the car and steel industries after 1979 would be good illustrations of this explanation.

3. Concentration and dependency

Although employment in small establishments and small firms had increased, especially after 1979, the number of establishments per enterprise has hardly changed since 1970, remaining at 1.2 establishments throughout (Table 15). Thus, these figures might be interpreted as showing a growth in the importance of legally independent small establishments. However, the picture has to be qualified by changes among the top 100 firms, whose average number of establishments increased from 36 in 1970 to 41 in 1983, with much of the increase occurring after 1979. As these are only snapshots
it is impossible to tell whether large firms are decentralising production into smaller establishments by breaking up their own operations, or whether they are buying up existing small and medium-sized firms. Either way, the average size of establishments belonging to them declined from 774 employees in 1970 to 429 in 1983, again with much of the fall occurring after 1979. As mentioned earlier, at least part of this change seems to be due to the employment shake-out in large firms after 1979. If the change were due solely to this factor, then it would follow that the employment share of the 100 largest firms would have fallen. However, it fell only modestly, from 37.3 per cent in 1979 to 36.0 per cent in 1983, while the average number of establishments per firm rose. This leaves room for other explanations, including the buying up of smaller firms and the subdivision of existing operations. Unfortunately, the production census gives no indication as to the nature of such changes.

Table 13: Distribution of employment, net output, and productivity in manufacturing, by establishment size, 1974-1983

<table>
<thead>
<tr>
<th>Establishment size (no. of employees)</th>
<th>Establishments (in %)</th>
<th>Employees (in %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10</td>
<td>51.9</td>
<td>55.7</td>
</tr>
<tr>
<td>11-19</td>
<td>16.1</td>
<td>15.9</td>
</tr>
<tr>
<td>20-49</td>
<td>14.0</td>
<td>12.3</td>
</tr>
<tr>
<td>50-99</td>
<td>7.2</td>
<td>6.2</td>
</tr>
<tr>
<td>100-199</td>
<td>4.7</td>
<td>4.4</td>
</tr>
<tr>
<td>200-499</td>
<td>3.7</td>
<td>3.4</td>
</tr>
<tr>
<td>500-999</td>
<td>1.4</td>
<td>1.2</td>
</tr>
<tr>
<td>1000-1499</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>1500 +</td>
<td>0.6</td>
<td>0.5</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Numbers ('000s)</td>
<td>104.1</td>
<td>107.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Net output (in %)</th>
<th>Net output per head (% of all sizes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-99</td>
<td>16.7</td>
</tr>
<tr>
<td>100-199</td>
<td>8.5</td>
</tr>
<tr>
<td>200-499</td>
<td>15.7</td>
</tr>
<tr>
<td>500-999</td>
<td>14.3</td>
</tr>
<tr>
<td>1000-1499</td>
<td>7.2</td>
</tr>
<tr>
<td>1500 +</td>
<td>37.7</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: UK Census of Production.
Table 14: Distribution of small establishments\(^{(1)}\) by branch of manufacturing,\(^{(2)}\) 1979, 1983

<table>
<thead>
<tr>
<th>NACE manufacturing branch</th>
<th>Numbers of small establishments ('000s)</th>
<th>Per cent small establishments within branch</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1979</td>
<td>1983</td>
</tr>
<tr>
<td>21  Extraction metal ores</td>
<td>0.4</td>
<td>-</td>
</tr>
<tr>
<td>22  Metal manufacture</td>
<td>31.7</td>
<td>29.0</td>
</tr>
<tr>
<td>23  Extraction other minerals</td>
<td>9.9</td>
<td>9.0</td>
</tr>
<tr>
<td>24  Manufacture non-metal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mineral products</td>
<td>62.4</td>
<td>57.3</td>
</tr>
<tr>
<td>25  Chemicals</td>
<td>42.3</td>
<td>41.8</td>
</tr>
<tr>
<td>26  Man-made fibres</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>31  Manufacture metal goods nes.</td>
<td>175.1</td>
<td>163.0</td>
</tr>
<tr>
<td>32  Mechanical engineering</td>
<td>242.2</td>
<td>220.0</td>
</tr>
<tr>
<td>33  Office and data processing equipt.</td>
<td>3.2</td>
<td>4.3</td>
</tr>
<tr>
<td>34  Electrical engineering</td>
<td>69.7</td>
<td>73.7</td>
</tr>
<tr>
<td>35  Motor vehicles and parts</td>
<td>34.1</td>
<td>33.8</td>
</tr>
<tr>
<td>36  Other transport equipment</td>
<td>22.2</td>
<td>21.7</td>
</tr>
<tr>
<td>37  Instrument engineering</td>
<td>28.2</td>
<td>30.3</td>
</tr>
<tr>
<td>41/42 Food, drink, tobacco manufacture</td>
<td>96.5</td>
<td>95.5</td>
</tr>
<tr>
<td>43  Textiles</td>
<td>69.3</td>
<td>60.1</td>
</tr>
<tr>
<td>44  Leather and leather goods</td>
<td>17.4</td>
<td>14.1</td>
</tr>
<tr>
<td>45  Footwear and clothing</td>
<td>138.2</td>
<td>109.3</td>
</tr>
<tr>
<td>46  Timber and wood furniture</td>
<td>130.3</td>
<td>120.9</td>
</tr>
<tr>
<td>47  Paper and printing</td>
<td>155.2</td>
<td>150.9</td>
</tr>
<tr>
<td>48  Rubber and plastics</td>
<td>57.0</td>
<td>59.8</td>
</tr>
<tr>
<td>49  Miscellaneous manufacturing</td>
<td>37.5</td>
<td>32.3</td>
</tr>
<tr>
<td>50  Construction</td>
<td>626.6</td>
<td>686.2</td>
</tr>
<tr>
<td>2-4 Manufacturing</td>
<td>1423.6</td>
<td>1327.4</td>
</tr>
<tr>
<td>2-5 Manufacturing and construction</td>
<td>2050.2</td>
<td>2013.6</td>
</tr>
</tbody>
</table>

Notes: (1) Establishments with more than 100 employees; (2) SIC 1980.
Source: UK Census of Production.

Table 15: Employment and number of establishments of the 100 largest enterprises and of all enterprises, 1970-1983

<table>
<thead>
<tr>
<th>Year</th>
<th>100 largest enterprises</th>
<th>All enterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average no. establishments</td>
<td>Average establishment size (employees)</td>
</tr>
<tr>
<td>1970</td>
<td>36.2</td>
<td>774</td>
</tr>
<tr>
<td>1975</td>
<td>38.4</td>
<td>695</td>
</tr>
<tr>
<td>1979</td>
<td>37.5</td>
<td>644</td>
</tr>
<tr>
<td>1983</td>
<td>40.7</td>
<td>429</td>
</tr>
</tbody>
</table>

Note: 100 largest firms by employment size.
Source: Census of Production.
One attempt to estimate the extent to which larger firms have been contracting-out work has been based on an analysis of expenditure on non-industrial services by manufacturing firms. Ray [1986] showed that the purchase of non-industrial services increased from 4.5 per cent to 8.0 per cent of gross manufacturing output between 1973 and 1983. However, Ray pointed out that part of the growth in spending probably arose from the need for new services not hitherto provided by existing manufacturing firms. Hence at least part of the increase does not seem attributable to contracting-out of established in-house activities.

The Bolton report's evidence suggested that a relatively small percentage of small firms was engaged as satellites of larger firms, although many were heavily dependent upon a few large customers. Without citing specific figures, studies by Lloyd and Mason [1985] and by Gould and Keeble [1985] suggest that many small new manufacturing firms serve local markets, and have a few major customers.

4. Characteristics of new firms

An increase in employment and output shares of small firms does not, by itself, say much about the nature of new firms. The introduction of Value Added Tax (VAT) in 1973 and the obligation on all firms, except the very smallest, to register, has created a new source of information on new enterprises.

In which sectors are most new firms established, and what is their initial size? About 45 per cent of starts occurred in three branches: production industries, construction, and the retail trade, although when starts are compared to the existing stock of firms, these branches appear to be about average (Table 16). Thus, no branches stand out as being especially fertile in the rise of new firms, except for the rug-bag of "other services". If median sales turnover can be taken as an indicator of entry costs, it is perhaps surprising that there is no strong tendency for new firms to have started more frequently in branches in which median turnover was lowest, although too much should not be made of one year's figures. It is also clear that not all new firms are small ones. The upper quartile turnover of new firms in some branches were £129,600 in production, and £204,600 in wholesale distribution, which were in both cases well above the median turnover for the branch as a whole.

The median age of firms which deregistered for VAT in 1981 was nearly four years. This might understate the true age of some very small firms which may deregister for tax reasons by keeping their turnover below the VAT threshold. This can be done in small-scale construction, for example, by getting the client to pay directly for all building materials used so that turnover consists solely of labour-related costs.

On the other hand, median ages on deregistration in 1981 may overstate the survival potential of new firms because many firms which registered in 1973 had already been going for a considerable time.
According to VAT registrations, in 1982, about two-thirds of new businesses fail within the first two-and-a-half years [British Business, 12 Aug. and 7 Oct., 1983]. Nevertheless, the ages on deregistration in Table 16 show a surprising consistency between branches if agriculture, motor trades and 'other services' are excluded.

### Table 16: New firms by sector and turnover in 1982

<table>
<thead>
<tr>
<th>Sector</th>
<th>Stock '000s</th>
<th>Starts % of stock</th>
<th>Starters % of starts</th>
<th>Median stock</th>
<th>Median starts</th>
<th>Q75 starts</th>
<th>Median age at 'death'(1) (months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>181.1</td>
<td>3.6</td>
<td>4.0</td>
<td>35.1</td>
<td>16.8</td>
<td>40.7</td>
<td>less than 84</td>
</tr>
<tr>
<td>Production</td>
<td>131.2</td>
<td>12.9</td>
<td>10.4</td>
<td>81.2</td>
<td>44.5</td>
<td>129.6</td>
<td>50.3</td>
</tr>
<tr>
<td>Construction</td>
<td>199.3</td>
<td>11.8</td>
<td>14.4</td>
<td>37.5</td>
<td>34.1</td>
<td>49.6</td>
<td>45.4</td>
</tr>
<tr>
<td>Transport</td>
<td>56.0</td>
<td>13.1</td>
<td>4.5</td>
<td>42.6</td>
<td>35.3</td>
<td>54.2</td>
<td>43.2</td>
</tr>
<tr>
<td>Wholesale</td>
<td>104.5</td>
<td>14.2</td>
<td>9.1</td>
<td>100.4</td>
<td>48.6</td>
<td>204.6</td>
<td>40.9</td>
</tr>
<tr>
<td>Retail</td>
<td>264.6</td>
<td>12.5</td>
<td>20.7</td>
<td>61.7</td>
<td>45.3</td>
<td>84.5</td>
<td>51.5</td>
</tr>
<tr>
<td>Finance</td>
<td>86.6</td>
<td>11.1</td>
<td>5.9</td>
<td>39.4</td>
<td>31.9</td>
<td>47.8</td>
<td>45.7</td>
</tr>
<tr>
<td>Catering</td>
<td>118.9</td>
<td>13.5</td>
<td>9.8</td>
<td>57.5</td>
<td>45.2</td>
<td>80.9</td>
<td>46.1</td>
</tr>
<tr>
<td>Motor trades</td>
<td>71.4</td>
<td>13.2</td>
<td>5.8</td>
<td>76.0</td>
<td>42.1</td>
<td>97.7</td>
<td>38.3</td>
</tr>
<tr>
<td>Other services</td>
<td>145.4</td>
<td>17.3</td>
<td>15.4</td>
<td>35.6</td>
<td>33.5</td>
<td>49.4</td>
<td>37.1</td>
</tr>
<tr>
<td>All sectors</td>
<td>1 359.0</td>
<td>12.0</td>
<td>100.0</td>
<td>46.5</td>
<td>39.2</td>
<td>77.8</td>
<td>47.2</td>
</tr>
</tbody>
</table>

**Notes:** Based on VAT registrations.
(1) Median age of businesses deregistering in 1981, in months.


These figures are compatible with those of the Merrett and Cyriax survey [1970] which found that once firms survive the early years, their life can be quite considerable. They found that the median ages of small firms interviewed in 1970 which had been active seven years earlier were quite high, ranging from 19 years in retail and in motor trades to 22 years in manufacturing and 69 years in construction.

## 5. Job creation by small firms

The opening of a new small firm creates new jobs in that firm, and the higher birth rate of small firms has aroused widespread interest in the contribution by small firms to job creation in aggregate. However, their higher mortality rate, as compared with larger firms, also has to be considered to measure net job creation properly.

The work in the United States by Birch [1979], which showed that small firms (with fewer than 20 employees) there had been responsible for 66 per cent of all net new jobs between 1969 and 1976, has stimulated similar work in the United Kingdom. Gallagher and Stewart [1984] also found that small firms were responsible for a greater than proportionate share of net new job creation in the United Kingdom. They compared information on...
firms from a commercial credit rating and market research agency for 1971 and 1981: firms present in 1971 but not in 1981 were counted as "deaths"; those present in 1981 but not in 1971 as "births"; and those whose employment size changed between the two dates as "contractions" or "expansions". Their study showed a lower annual rate of "births" of new firms in the United Kingdom compared with the United States (2.4 per cent against 5.9 per cent), but also a lower annual rate of "deaths" (3.8 per cent against 5.1 per cent). Likewise, British firms expanded and contracted more slowly than those in the United States. One factor they mentioned, borne out by other studies of firms' hiring practices, is that British firms are more likely to lose jobs by closure than by smaller scale lay-offs - at least this was the case in the 1970s [Bowers et al., 1982]. Gallagher and Stewart also showed that rates of job loss between 1971 and 1981 were greater in large firms (48 per cent for those with more than 500 employees against 14 per cent for those with between 1 and 19 employees), but recall that the employment shake-out of 1979-82 hit large establishments especially hard (see above).

Table 17: Net job creation by firm size, between 1971 and 1981

<table>
<thead>
<tr>
<th>Enterprise Size (no. of employees)</th>
<th>% of job creation in sample</th>
<th>&quot;Fertility&quot; ratio (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-19</td>
<td>31</td>
<td>2.4</td>
</tr>
<tr>
<td>20-49</td>
<td>11</td>
<td>1.4</td>
</tr>
<tr>
<td>50-99</td>
<td>10</td>
<td>1.2</td>
</tr>
<tr>
<td>100-199</td>
<td>21</td>
<td>0.9</td>
</tr>
<tr>
<td>500-999</td>
<td>10</td>
<td>0.8</td>
</tr>
<tr>
<td>&gt; 1000</td>
<td>17</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Note: (1) Ratio of % of job creation to % of employment in sample.

Gallagher and Stewart's estimates of net job creation by small firms show a strong relative advantage for small firms, but in view of the higher birth and death rate of such firms, it is likely that many such jobs are of shorter duration and less secure than those in larger firms. This aspect of job creation by small firms has also been stressed by Storey [1985]. His study of employment change in Northern England 1965-78 used a number of local authority sources, and found that although small establishments had contributed more than large ones to employment creation, in many cases they were not independent, but part of larger groups based outside the region, and often attracted by regional subsidies. Hence he was less sanguine about the impact of small firms on net job creation. Finally, the studies brought together by Storey [(ed.), 1985] show considerable regional variation in patterns of new firm formation.
IV. The economic and social background to recent changes

Surveying the changes up to 1970, the Bolton Committee identified a number of economic and social factors responsible for the decline of small firms. The factors it analysed are interesting both as an analysis of the causes of the decline of the small firm sector in the United Kingdom up to the early 1970s, and as a summary of the accumulated research and knowledge at that time.

The factors included:

- technical change and optimum plant size;
- economies of research and development;
- improved management for large firms;
- economies of transport and communication;
- economies of marketing;
- greater social appeal of large organisations;
- state intervention.

In their view, in a broadly competitive economy the decline of small firms for such reasons may not be harmful. These should be examined in greater detail.

Although technical change had favoured the growth of large plants in some industries, the studies carried out for the Bolton Committee suggested that in many cases technical economies of scale had not changed greatly since the 1930s, and stressed instead economies in marketing and finance. In retailing, the economies of "self-service" have been less readily available to small shops, as have been new techniques of warehousing and stock control. Nevertheless, many small shops have been able to pool resources whilst retaining some independence - for example, in purchasing and advertising - and many small stores have been able to organise their layout on self-service lines.

Research and development expenditures have risen sharply since the last war, and there are industries in which considerable economies of scale exist, such as the automobile industry and certain defence industries. However, in many sectors, such as the new science-based ones, small size has proved an advantage. Indeed, more recently in the biotechnology area, several large firms have preferred to buy up successful small innovating firms, rather than do all the research themselves and face the associated risks.

Managerial factors were also put forward, notably the increased skill in managing large organisations in such areas as financial control, plus the possibilities opened up by modern communication methods. These factors could favour co-ordination by "hierarchies" rather than by "markets", and hence facilitate the growth of very large organisations. Any advantages from these factors could, however, be partly offset by the disadvantages of greater specialisation within such organisations, and a possible loss of flexibility.
Changes in transport and communication were thought to favour larger firms because of the way in which they turned previously local markets into national markets and, in turn, opened up international markets. Because larger firms are better placed to deal with national and international markets, primarily because of economies of marketing and of production for export, such changes were thought to favour large firms relative to small firms.

The importance of marketing in the Committee's thinking is already clear, but social factors deserve some consideration, particularly in relation to countries with a strong small firm culture such as the Federal Republic of Germany and Italy. In the United Kingdom, small firms do not have the social organisations equivalent to those of the Handwerk sector in the Federal Republic of Germany, nor do they have the effective pressure-group organisations like the French General Confederation of Small- and Medium-Sized Firms (CGPME). The social image of small firms has also proved less attractive to highly trained manpower. This is because higher education graduates have mostly sought jobs in larger organisations. Furthermore, technical training in the United Kingdom is generally weak. There is, for example, no equivalent to the middle-level technical training for engineers found in the Federal Republic of Germany. The absence of such training restricts the availability of technical expertise to small firms.

The State has, until the 1980s at least, contributed to the rise of large organisations, in part by virtue of being a large employer itself either directly through government and social services (the National Health Service is the largest employer in Western Europe), and indirectly through the nationalised industries. But the State has partly also played a role through the way government policies for labour markets and for industrial development can affect firms. The Committee argued that the growth of the public sector restricted the areas of activity open to small firms: the state's purchasing policy had often unwittingly militated against small firms; government intervention in industrial reorganisation had concentrated on creating large units (for example in automobiles and shipbuilding, but also in coal and steel); state regulation of environmental problems could also hurt small firms, for example by planning controls and increased social regulations, such as redundancy payments; and finally, taxation policies, through their impact on incentives and on the transmission of wealth between generations, could discourage small firm development.

From these factors, it is clear that the decline of small firms, and the rise of giant enterprises are closely, but not necessarily inversely, related phenomena. The Committee's view that these factors did not call for urgent remedial action depended, in part, on their belief that there was no major discrepancy between public and private benefits involved. Yamey [1972] criticised the report for failing to distinguish adequately between the fate of the relatively few high-fliers, rewarded for their merit, and the decline of the overall population of small firms.

Implicit in the Committee's reasoning (and indeed also their terms of reference) was the idea that change is not irreversible. Of the reasons put
forward, optimal plant size could decline, and there is a good deal of evidence of such a decline in certain sectors. In the automobile industry, for example, the technical pressure for large plants has declined. Process and product changes have made it possible to work with smaller volumes for each model, although the minimum efficient production of certain parts, such as gearboxes, could require the same basic gear box to be used in several different models [Althuler et al, 1984].

Economies of transport and communication, marketing, and possibly even improved management are also not necessarily irreversible. Hannah [1980] stressed the importance of the sophistication of intermediate markets in nineteenth century Britain in explaining why it developed patterns of vertical integration later than the United States, and then on a smaller scale. Should the forms of intermediate business service activities, and of marketing organisation stressed by Piore and Sabel [1984], develop further in the United Kingdom, it is conceivable that firms would find it more efficient to contract-out a number of activities internalised by the growth of large firms.

The rise of small firms in manufacturing during the 1970s, but especially since 1979 in the United Kingdom, could owe something to a shift in relative costs between large and small establishments. It was noted earlier that wage levels had been lower in small establishments in the early 1970s, and that the gap had narrowed somewhat by 1980. Output per head, however, is higher in large establishments. A very crude way of adjusting for differences in the quality of labour in large and small establishments is to give output per head as output per unit wage cost: in other words, to take labour costs as a proportion of net output. In 1983, labour costs as a percentage of net output in manufacturing were 46 per cent in establishments with under 100 employees, and 45 per cent in those with over 1,000 employees, suggesting that lower pay was slightly more than offset by lower labour productivity. A full analysis would require taking account of the capital stock in large and small establishments. Nevertheless, it suggests that there is no great advantage currently on straight unit labour cost grounds.

However, in earlier years there appears to have been such an advantage: in 1975 the comparable figure for establishments under 100 employees was 51 per cent, while for 1,000 and over it was 53 per cent; and in 1979, 45 per cent and 49 per cent, respectively. Could this explain part of the decline in large establishments? Clearly, if large and small establishments were in equilibrium and operating at their desired production levels in both periods, then a higher labour share would indicate higher labour productivity. But if management and industrial relations difficulties in large establishments were such as to prevent the achievement of output levels for which the plants were designed, then the reduced labour cost differential could be interpreted as indicating an improved position for large establishments.

It was suggested earlier that strike rates were higher in large than in small establishments, and that this difference was greater than in other countries, such as the Federal Republic of Germany or the United States.
United Kingdom

This argument has been used to suggest that the United Kingdom has a comparative disadvantage in the management of large plants [Jones, 1981; Davies and Caves, 1987]. The major management and industrial relations changes which have occurred in large plants when facing major job losses, and the decline in private sector strike activity in the United Kingdom, both point to improved management as a factor in the improved performance of large plants in that country. Without further evidence, however, such an interpretation must remain tentative.

1. Small firms and technical change

It is in the area of technical change where the balance of the argument has perhaps shifted more. Piore and Sabel’s [1984] argument rested mostly on new flexible forms of automated equipment, but small firms may also contribute more directly to innovation. Reviewing work by SPRU, Rothwell [1986] shows that in the United Kingdom small and medium-sized firms (1-499 employees) have played a major part in technical innovation, as have very large ones (over 10,000 employees). Intermediate sized firms did less well. Moreover, he showed that the performance of small firms had improved between 1955-59 and 1975-80 (measured as innovations per employee). One of the reasons for the bimodal pattern, Rothwell argued, was that many large firms encourage innovation in small firms if they are component suppliers, and many also enter into joint technological ventures with innovative small firms which supply them with sophisticated goods, or which complement their product range.

V. Special studies on small firm development

Small firms have received a great deal of attention in studies of regional and inner city regeneration but, as already noted, a good deal of the literature has been somewhat sceptical, perhaps in response to the excessive expectations.

One irony raised by the studies of British business in the nineteenth century is that the sophistication, by contemporary standards, of intermediate markets, and the importance of the "industrial districts" that played an important part in Alfred Marshall’s thinking [Bellandi, 1986], should not have given rise to a stronger small firm sector akin to the German Handwerk sector.

Small firms have, however, had an important part to play in the development of what might be thought of as contemporary forms of Marshallian industrial districts in some of the "hi-tech" areas in the United Kingdom; notably in Scotland’s "Silicon Glen", around Cambridge, or in the Thames Valley. In such cases, the firms involved are not all small, but they could be said to group into industrial districts in so far as they provide services to each other, work in competition and, perhaps most important,
VI. Attitudes and policies towards small firms

British governments have influenced small firm development mainly through employment law, and through financial support. The main support from business has come from the establishment of new forms of access to equity finance, notably through the Unlisted Securities Market and, more recently, the new Third Market. Unions under pressure from a declining membership base in large firms have recently been seeking ways to increase recruitment of workers in small firms and in non-standard forms of employment, both of which are traditionally difficult areas for recruiting and retaining new members. One area of interest has been the recent establishment of training schools by two unions with important craft memberships.

1. Role and impact of government

As was noted above, the two main ways in which government has had an impact on small firm development have been through employment laws and financial support.

A. Employment law

One way in which government activity has been thought to influence, and perhaps harm, small firms has been employment legislation, especially in areas of unfair dismissal, maternity leave, redundancy, health and safety, and the support for collective bargaining and trade union activities. Several of these measures had been reinforced during the 1970s, and this generated some concern that they would discourage new employment. In particular, it was feared that they would disadvantage smaller enterprises which are unable to afford specialist personnel managers, to arrange cover for absent workers (e.g. on maternity leave), and to carry inefficient workers.

A survey of firms with under 50 employees carried out by the Department of Employment in 1978 [Clifton and Tatton-Brown, 1979] revealed that 54 per cent of their sample had had no experience with the employment legislation provisions. Of those which had, the most important were health and safety (28 per cent), unfair dismissal (15 per cent), need to pay workers temporarily laid off (10 per cent), maternity provisions (8 per cent), and union-related provisions (5 per cent). On the whole, these experiences were not considered to be among the major difficulties of the
firms, although provisions such as unfair dismissal had caused many small firms to increase care in recruitment (47 per cent), and to reduce numbers recruited (26 per cent - prompted answers). So the survey showed that employment legislation up to 1979 had had some effect on the policies and recruitment by small companies, but a modest one.

Nevertheless, since 1979 the emphasis in employment legislation has moved sharply in the direction of reducing trade union power and individual employment rights, especially in the more weakly unionised small firm sector. The 1980 and 1982 Employment Acts restricted picketing and outlawed the use of secondary picketing (picketing the premises of an employer not directly involved in the dispute), which, it could be argued, reduced the likelihood of small firms being drawn into disputes in larger firms they were supplying. The termination of legal encouragement of trade union recognition in 1980 perhaps reduced the likelihood of further extension of unionisation to small firms, although it had in fact been a small firm, Grunwick, which proved the inefficacy of the earlier legislation in this area. Removal of small firms from the coverage of maternity protection in 1980, and the extension of the minimum period for an employee to qualify for unfair dismissal protection, could also be seen as measures to help job creation in small firms. These moves are soon to be reinforced by the government's new white paper on deregulation [UK Government White Paper, 1986].

B. White Paper on deregulation, 1986

In May 1986, the Government published its White Paper on further deregulation measures to promote employment. It emphasised that the way to reduce unemployment is to promote more businesses, more self-employment, and greater wealth creation, and to direct the Department of Employment to encourage the development of an enterprise economy. Among the main proposals of the White Paper were recommendations: to review the impact of VAT on small businesses; to review planning regulations to allow a wider range of changes of use without planning permission; to reject the idea that small companies should be exempted from having their accounts audited, or from compliance with health and safety provisions; to deter "ill-founded" unfair dismissal claims by charging applicants £25 to appear before an industrial tribunal; to restrict the range of industrial relations duties for which lay union officials must be allowed time off with pay; to consult on the amount of information companies are required to file with the registration offices.

Key aspects of the Department's new role should include: promoting enterprise and job creation in growth areas such as small firms, self-employment and tourism; helping businesses to grow by cutting red tape, improving industrial relations by ensuring a fair balance under the law, and encouraging employee involvement; improving training arrangements; helping the young and the long-term unemployed to find work.
C. **Government help**

After publication of the Bolton Report in 1971, the then government set up the Small Firms Service within the Department of Industry, and this has evolved into a counselling and consultancy service for small firms with 50 area offices around the country. A similar service is provided in rural areas by the Council for Small Industries in Rural Areas (CoSIRA). Local government has since also become involved, sponsoring projects such as the pioneering London Enterprise Agency set up in 1978. Direct public sector finance has been fairly limited in the United Kingdom. Doran [1984] estimated that in 1981 the total public sector loans to small- and medium-sized businesses were about £66 million, and reached only one in 500 firms. The bulk of the finance came from CoSIRA, the Scottish and the Welsh Department Agencies. The government also planned to allocate £20 million in 1982/3 through the Department of Industry's Small Engineering Firms Investment Scheme, for firms employing under 200 people.

Private sector finance has been promoted through the Industrial and Commercial Finance Corporation, jointly owned by the English and Scottish clearing banks and the Bank of England. It provides loans and loan/equity arrangements between £5,000 and £2,000,000, and in 1982 had advanced about £400 million. Another important joint public and private sector initiative has been the government’s Loan Guarantee Scheme, designed to encourage banks to lend to small firms.

D. **Financial help**

The Enterprise Allowance Scheme was set up in 1983 to help unemployed people set up on their own account, or to start small businesses. It is run by the Manpower Services Commission, and can provide a subsidy of £40 a week to people starting their own ventures.

Moving up the scale, the Small Business Loan Guarantee scheme, introduced in 1981 initially as a three-year experiment, is designed to encourage participating banks and financial institutions to make additional loan finance available to small businesses when they would otherwise not have lent the money. It provides a 70 per cent government guarantee for a 2.5 per cent premium over the normal small business lending rates. A report commissioned by the Department of Industry [British Business, 6 April 1984] suggested that the scheme had been fairly successful in encouraging greater support by financial institutions, but that it had encouraged the use of loan finance when often equity finance would have been more appropriate. By January 1986 it had helped over 17,000 businesses with loans totalling £554 million. However, the restrictive rules attached to the scheme caused many to predict its demise at the last Budget. In fact, it was renewed for a further three years.
2. **Industry and unions**

For the larger small firms, the City's launching of the Unlisted Securities Market (USM) in 1980 has provided a new source of equity finance especially adapted for smaller firms. By 1986, the USM had 113 fund management organisations, plus a large number of smaller organisations operating at its fringes [Financial Times, 3 July 1986]. Since 1980, institutional investors have put in about £700 million into venture capital funds. The USM has been boosted also by the Government's Business Expansion Scheme (BES), set up in 1983, which permits private investors to claim tax relief for supporting unlisted companies. The 1986 Budget made the first sale of BES shares exempt from capital gains tax.

Union interest in small firms has been mainly representational, although initiatives to recruit among small firms and in the new "hi-tech" assembly plants, have been of fairly recent origin. This has been a difficult area in which to establish membership, and has to some extent required new methods, such as the highly controversial "no strike" agreements [Bassett, 1986]. Other union initiatives which could prove important include those of the electricians' and the engineers' unions to establish training schools in new technology skills for their members. In view of the reluctance of private employers to undertake training, and the decline of apprenticeships, one avenue for the future would be the re-establishment of craft labour markets with greater union control over training. One of their prime interests would be to preserve the transferability of skills of use to their members, but also useful to small firms which are not in a position to have high overheads. However, so far, these schools are of limited capacity, and the unions' main concern has been to help their members keep their skills up to date.

**VII. Conclusions**

1. **Permanency of the changes**

One of the most important ideas recently put forward has been that technical change has enabled smaller scale organisations to thrive, because the flexibility of "electronically controlled" capital goods enables firms to spread their cost over more varied and smaller markets, obviating the need to capture homogeneous mass markets. This argument may place too much emphasis on the technical side of production, as distinct from the economies of scale in finance and marketing that have been stressed by Bolton [1971] and later by Prais [1976]. The financial and marketing factors put forward by Prais are not inconsistent with Piore and Sabel's [1984] concept of "flexible specialisation". But in this case the economies of scale in finance and marketing are provided by the continued existence of giant firms, and the advantages of more flexible capital equipment give a further push to the decline in establishment size (a trend which has continued even in the 100 largest enterprises). It may be that Piore and Sabel's argument runs into
trouble in the United Kingdom over the structure of ownership rather than the structure of production. This recalls the apparent weakness of the institutional organisation of small firms in the United Kingdom, but this is only part of the problem. It is also necessary to explain why intermediaries, specialising in marketing or financial risk-spreading, have not developed at the expense of giant firms which provide these services internally.

Nevertheless, there are important forms of market organisation geared to smaller firms, such as the importance of occupational markets for skilled labour which enable small employers to hire ready-trained skilled workers without having to develop their own internal labour markets. In addition, multi-employer bargaining, although not predominant, remains an important feature of industrial relations in smaller firms in industries such as engineering. But in recent years this form of bargaining has declined somewhat in favour of enterprise based systems.

One potentially important factor behind the revival of small firms and establishments in manufacturing has been their unit labour cost advantage (measured as the proportion of labour costs in net output, to take account of lower wages and social contributions in small firms). The reversal of this cost differential by 1983 raises the possibility that further growth of small establishments may be limited. The reasons for this change need to be analysed in greater depth and, in particular, this has to be set in the context of a rise in small firms in several other countries during the same period. Again, these developments are not necessarily inconsistent with Piore and Sabel's hypothesis because more flexible capital goods can help multi-establishment firms as much as single establishment ones. But there is another potentially important factor: that the decline in employment share of large establishments arose because management regained control of industrial relations and manning levels, and so was able to introduce major manpower cuts.

The likely impact of increased production flexibility requires an assessment of economies of market size, in which marketing and financial costs are also a component, but it is beyond the scope of this paper. At least as far as the technical side is concerned, it seems probable that the adaptability of capital goods will increase further and their cost continue to fall, and this could further enhance the position of small production units, however organised.

Assessing the internal management and industrial relations problems of large and small plants in the United Kingdom is equally difficult. Controlling the growth of workplace "custom and practice" needs constant management attention, because the employment relation is at heart a bargaining relation. Large plant managers in the United Kingdom have been greatly assisted in their negotiation over changing working practices by high levels of unemployment, and the acute awareness of many workers that even many large firms faced closure. A major change in product or labour markets could well reverse some of the changes which have taken place.
A third force promoting small firms has been government policy aimed at reducing regulations applying to small firms, and also at making labour markets more flexible, especially as concerns weaker groups of workers. The Department of Employment survey [Clifton and Tatton-Brown, 1979] showed evidence of a modest side-effect of employment protection legislation on employment in small firms, and the removal or weakening of some of these provisions would seem likely to have helped employment in small firms. Similarly, removing young workers from the coverage of wages councils (which set industry-specific minimum wages), plus the special youth employment and training subsidies, could prove advantageous to small firms, although it is common for many such schemes to have a fairly high "deadweight effect" as employers can claim them for people they would have recruited anyway. On the whole, it seems likely that these measures will produce some increased employment in small firms, but not a prolonged growth of the sector at the expense of larger firms and plants.

One factor which could have a more prolonged effect is the encouragement of the unlisted securities market, offering a permanent, and possibly growing, source of finance for small and medium-sized firms. It seems possible that this could offset some of the financial factors favouring giant firms, and possibly even encourage the development of marketing organisations which would provide services to many small firms as an alternative to the multi-plant firm with internally provided services. However, Ray's [1986] analysis of non-manufacturing services purchased by manufacturing firms shows that the growth of such services has so far been limited.

Overall, therefore, it seems possible that employment in small manufacturing plants and in small firms will continue to grow, if not at the rate of the last five years. This has a number of implications for economic and labour market policy, some of which are discussed below.

2. Some implications

As concerns the quality of jobs and employment, there has been a long-standing concern that workers in small firms receive lower pay and less security than workers in larger firms, although there may be some compensation through more personal contact. Smaller firms offer fewer opportunities for internal advancement, particularly for managerial staff, and this point is visible in the greater differentiation of management pay between small and larger establishments (Table 6), especially if the small ones are independent. However, the pay differential, within engineering at least, declined greatly during the 1970s, as did the differential in hours of work and payment systems. The growth of small firm employment may have accentuated the problems of low pay to some extent, but the question of low
pay should be kept separate from that of poverty, as there are strong economic arguments for attacking poverty through improved social security.

As concerns labour market structure, perhaps the most important point relates to skills and training. If small firms are to contribute to, and to draw from, a pool of well-trained manpower, it is important to maintain a system of occupational labour markets rather than to rely upon company internal labour markets. In the latter case, skills are often non-transferable, and even if similar equipment is used, training often lacks the degree of standardisation required to facilitate mobility between firms. Indeed, employers often wish to restrict this in order to reduce labour turnover. In the United Kingdom, apprenticeship linked to craft labour markets developed originally as a form of training suitable to small organisations. It would be ironic if the system finally decayed just when small establishments and small firms appeared to be reviving.

Much policy on worker representation in the United Kingdom has been based on the idea that collective bargaining is the norm, but if small firms continue to increase, given the organisational problems that unions have in small firms, there may be other methods which can be used. The British TUC and the Labour Party have opted for a national minimum wage in order to protect workers in the growing areas outside the reach of collective bargaining. But although it may be possible to fix pay by remote control, it is not usually possible to deal with individual workers' grievances in this way. It may be preferable to offer workers in small firms in the United Kingdom rights, similar to those of workers in the Federal Republic of Germany, to have a works council if there are more than five employees, or to have a statutory elected representative as in France. Given the very large number of small employers outside any form of representative institution in the United Kingdom, it is unlikely that a general framework for representation in small firms could be set up by voluntary agreement.

Growth of small firms, if sustained, could also raise new demands on the social welfare system. Direct regulation of employment conditions by law could be more damaging in small firms than larger ones because the marginal recruit or employee represents a much larger proportion of the existing workforce. Provisions for maternity benefit or for training which can be easily dealt with by large organisations can impose severe burdens, particularly on very small firms. One solution is to exempt small firms from such provisions, but this may harm the employees concerned. An alternative would be to spread the burden across all employers or across society as a whole. As they increase their demands for functional flexibility of their core workforces, larger firms may be less willing than before to take on workers.

3. There remain, however, three main arguments for removing low pay: that it is an affront to people's dignity (claiming social security remains a humiliating process for many); it can undermine the efforts of better paid workers to maintain their own conditions; and it reduces the opportunities of unscrupulous employers to take advantage of unequal bargaining power.
in more vulnerable groups or who need training, thus pushing these groups more into areas of employment where small firms predominate. Exempting small firms from employment protection provisions could thus have a disproportionate effect on these sections of the workforce. Providing for these workers could be by a form of levy on all employers which would fund certain social benefits and training, or by direct State intervention.

Bibliography


The re-emergence of small enterprises


United States of America

Michael J. Piore

This paper reviews research on the role of small business in the United States economy and on its organisation and structure. It focuses upon three principal questions: (1) Is there in fact evidence of a shift toward smaller business units? (2) What is the nature of the organisational context in which small business units operate? (3) What are the contextual factors which make these units effective?

I. Small business as a concept in the United States

Small business is salient in American political rhetoric and iconography but it is not a distinct category in the actual organisation of the United States, politically, economically, or socially, and it has achieved only limited and precarious recognition as a category of social and economic legislation. Moreover, in and of itself, small business is not an organised political force. The two major business lobbies are the National Association of Manufacturers and the Chamber of Commerce. Smaller businesses are more important in the latter than in the former, but neither is exclusively, or even particularly, concerned with the needs of small companies.

1. The Small Business Administration

The only really enduring institutional manifestation of the country's concern with small business is the Small Business Administration (SBA). This agency was created in 1953 within the Department of Commerce. It offers technical assistance and low interest loans under a variety of categorical programmes and helps small businesses in the competition for federal government contracts. The SBA defines a small business as "one which is independently owned and is not dominant in its field".1

The specific criteria defining eligibility for SBA aid are summarised in Chart I. As can be seen there, the criteria vary from industry to industry: in manufacturing, for example, a small business eligible for SBA loans can have a maximum of 500 to 1,500 employees; in retail trade, the criteria is annual sales or receipts not exceeding $3.5 to $13.5 million. Most of the loan money thus goes to firms which in other countries would be classed as medium sized, or even large. The SBA certainly does not cater to the

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1. *Your business and the SBA*, SBA Public Communications Departments, October 1981.
American equivalent of the artisanal sector in countries like Italy and Japan. And it is not the major channel through which any significant category of business gets either funds or technical assistance. In recent years, a very large part of its activities has been concerned with promoting minority business enterprises.

2. Legal framework

American law has a variety of special provisions designed either to favour small business directly or to exempt it from one or another form of government regulation. These legislative provisions are apparently similar to those existing in countries like France and Italy, but they do not appear to have an important influence upon business decisions and hence do not seem to influence the size distribution of enterprises or establishments in and of themselves. They do not create an artisanal sector as they do in Italy, for example; nor do businesses resist employment expansion above legal thresholds as seems to be the case in France.

Indicative of the role which these legislative exemptions play on business decisions is the fact that it is virtually impossible to find a summary of them. Even legal handbooks for small businessmen neglect to mention some of these provisions and refer to the rest only casually as an aside.

Why have these provisions played such a minor role in the structuring of the United States economy? The most plausible answer is their heterogeneity: they have been neither stable in time nor uniform across different pieces of legislation. The rhetorical commitment to small business surrounded these legislative provisions when they were initially introduced and thus facilitated their introduction, but the most important factor historically in generating such provisions is a peculiarly American institution, the “Commerce Clause” of the United States Constitution. This clause limits the capacity of the Federal Government to regulate the economy to that part of economic activity which is involved in interstate, as opposed to intrastate, trade. The courts, and Congress, have often used size as a surrogate for a real measure of involvement in interstate trade and the exemptions in the laws were thus thought necessary to guarantee their constitutionality. The legal inhibitions upon Federal economic regulation were much more important in early regulatory legislation. Over time, the courts have become more willing to sanction Federal activity; arguably, the national economy has become more integrated as well.

In the early legislation, particularly that which dates from the 1930s, the Commerce Clause interacted with the other factors: one was the political problem of garnering support for the legislation; a second was the administrative problem of setting up a new regulatory system. Both of these factors led the initial sponsors of the legislation to accept exemptions for smaller enterprises, but both also led them to conceive such exemptions as temporary, to be reduced over time. And, over time, they moved in fact in this direction. These moves were facilitated by the increasingly liberal construction of the Commerce Clause by the courts.
Chart 1: Definitions of small business in United States Labor Legislation and administrative practice

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Source: SBA, Business loans from the SBA, GPO publication, 1984, 0-453-353, OPC-6, September 1984

The third factor differentiating the American structure from that of other countries was that many state and city governments supplemented Federal regulation with legislation of their own, legislation which was designed precisely to cover intrastate commerce. This legislation was most common, and most comprehensive, in the most industrial states. This fact, of course, makes it even more difficult to summarise the legal climate in which small business operates. And it has tended to undermine the political resistance to the expansion of Federal regulations, since by the time the expansion was proposed, most of the exempted groups were already covered by state law. Recent legislation (for example, the laws governing the hiring of women and minorities) have tended to programme the expansion of coverage in the initial legislation.

A last factor, which should be mentioned in differentiating the American case, is that union organisation of small businesses in a number of industries (notably construction, garment, printing, and trucking) long predates governmental protections for the right to organisation and the law has, if anything, acted to restrain union organisation in these areas by substituting the union election for economic weapons such as strikes and, most importantly, boycotts. Thus, there was little point in trying to stay small in order to avoid unions, as has been the case in France and Italy.

The legal discussions about small business in the United States thus do not focus upon government regulation of internal operations. They seem to be primarily concerned instead with so-called "fair trade" laws, which protect small retail establishments by limiting price competition. This form of regulation has tended to diminish greatly in recent years.
II. The statistics

1. The distribution of employment

There are two major sources of statistics in the United States on the distribution of employment by size of the business unit: *The country business patterns* provides annual data on establishments. The Bureau of the Census conducts a census of business every five years, and the results, published in *Enterprise statistics*, provide data on the distribution of employment by size of enterprise. An enterprise is roughly equivalent to a business or a company: a given enterprise may have more than one establishment. Given available resources, it was impossible to make an exhaustive analysis of this data; the results of the analysis which was feasible, supplemented by other recent work on the characteristics of the size distribution (which, however, is rather limited) yield the following results.

1. There has been a redistribution of employment toward small units in the last decade. This constitutes a reversal of the pattern of the earlier postwar period in which employment shifted toward larger units. The pattern is most pronounced in the establishment data. Here the shift seems to be largely one in which the share of units of 250 or more declines and that of units of under 100 rises. The middle class of establishments, units with 100 to 250 employees, retains a fairly steady share. The pattern is less marked in the enterprise data: through 1977, the share of employment in large enterprises continued to expand and that of smaller enterprises to decline. This suggests that the early shift in the establishment distribution reflected decentralisation of employment within large business, or possibly a merger and conglomerate process in which larger companies bought up smaller, independent producers. By 1982, however, the pattern seems to have changed, and the enterprise distribution also shows a very marked shift toward smaller units. The percentage of total employment in firms with fewer than 100 employees, for example, jumps from 40.1 per cent in 1977 to 45.7 per cent, a figure which is higher even than the figure for 1958 (41.3 per cent). Thus, it does not appear that current trends can be attributed to decentralisation of large business alone.

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2. Sources of data on small business in the United States are summarised by Candee S. Harris with Nancy O'Connor and Kirk Kumiil, in the *Handbook of small business data: A sourcebook and guide for researchers and policy-makers* (The Brookings Institute, January 1983).

3. Other studies bearing on this question are presented by Barry Bluestone and Bennett Harrison in their book *The deindustrialisation of America* [1982]. Their work suggests that the concentration of ownership is continuing. There is, however, some contradictory evidence, which Bluestone and Harrison do not cite. For example, an analysis of unemployment insurance data in California, suggests that enterprises with a single establishment in that state (although not necessarily in the nation as a whole) are growing more rapidly than enterprises with more than one establishment in the state [Teitz et al., 1981].
2. These shifting trends could reflect changes in the industrial composition of employment away from manufacturing, where the typical establishment is much larger than average. This, however, does not appear to be the whole story. For the establishment distribution we made a shift-share analysis, calculating what the distribution of employment by size class would have looked like in 1983, assuming that the distribution of employment across industries had remained as it was in 1977 and only the size distribution within industries had shifted. This analysis suggests that roughly half of the shift toward units of less than 100 employees could be explained by the changes in the industrial composition of employment. The remainder was due to a shift in the pattern within industries. Most of that "internal" shift occurred within manufacturing. A shift-share analysis within the manufacturing sector itself (at the two digit level) suggests that the deconcentration within manufacturing is fairly evenly spread across sectors: almost none of the manufacturing shift, in other words, can be explained by the relative growth of industries where employment has traditionally been concentrated in smaller units. In certain respects, the trends in the manufacturing distribution are quite dramatic. For example, between 1977 and 1983, while overall employment in manufacturing fell from 20.6 million to 18.2 million, and declined in the larger size class below 250 (i.e. 1-4 employees, 5-9, 10-19, 20-49, 50-99, and 100-249), the shifts in manufacturing were partially offset by services where the distribution is moving in the other direction. But within services, there are significant exceptions. In the rapidly growing business service sector, the pattern resembles that in manufacturing.

We did not undertake a comprehensive analysis of the compositional effects in the enterprise statistics, but it is clear that the shift in the distribution which occurred in 1982 cannot be readily explained by the industrial composition of employment. It is evident not only in the aggregate statistics but also in both the "manufacturing" and the "selected services" categories taken separately.
Table 1: Distribution of employment by size of establishment for the economy as a whole, 1974-1985

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Table 2:  Employment shares by establishment size: Time series for manufacturing sector, 1974-1985

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Table 3: Shift-share analysis of entire United States economy: Employment shares by establishment size

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Table 4: Shift-share analysis of manufacturing sector: Employment shares by establishment size

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Table 5: Employment shares by establishment size - selected industries, 1978 and 1984

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Table 6: Average payroll per employee indices by employment size class: Entire economy. Overall average payroll/employee = 100

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<td>&gt; 999</td>
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Table 8: Employment shares by size of enterprise, by sector, for selected years between 1958 and 1982

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<th>Year</th>
<th>All industries</th>
<th>Mineral</th>
<th>Construction</th>
<th>Manufacturing</th>
<th>Transportation</th>
<th>Warehousing</th>
<th>Wholesale trade</th>
<th>Retail trade</th>
<th>Selected services</th>
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<tbody>
<tr>
<td>1958</td>
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<td>-</td>
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<td>67.7</td>
<td>78.6</td>
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<td>69.5</td>
</tr>
<tr>
<td>1963</td>
<td>39.9</td>
<td>51.0</td>
<td>-</td>
<td>19.1</td>
<td>73.6</td>
<td>-</td>
<td>79.4</td>
<td>62.9</td>
<td>67.3</td>
</tr>
<tr>
<td>1967</td>
<td>39.9</td>
<td>45.0</td>
<td>68.8</td>
<td>16.3</td>
<td>78.5</td>
<td>-</td>
<td>75.8</td>
<td>60.2</td>
<td>65.4</td>
</tr>
<tr>
<td>1972</td>
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<td>34.1</td>
<td>69.6</td>
<td>16.2</td>
<td>-</td>
<td>-</td>
<td>76.9</td>
<td>56.9</td>
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<td>-</td>
<td>68.9</td>
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<td>53.9</td>
<td>59.1</td>
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<tr>
<td>1982</td>
<td>45.7</td>
<td>40.5</td>
<td>67.5</td>
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<td>-</td>
<td>-</td>
<td>70.6</td>
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% of employment in companies with fewer than 100 employees - excluding owner

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<th>Transportation</th>
<th>Warehousing</th>
<th>Wholesale trade</th>
<th>Retail trade</th>
<th>Selected services</th>
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<td>1958</td>
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<td>69.8</td>
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<tr>
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<td>54.1</td>
<td>-</td>
<td>20.2</td>
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<td>-</td>
<td>81.2</td>
<td>68.9</td>
<td>75.3</td>
</tr>
<tr>
<td>1967</td>
<td>45.6</td>
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<td>74.9</td>
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<td>-</td>
<td>-</td>
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<tr>
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<td>-</td>
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% of employment in companies with fewer than 500 employees - excluding owner

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<th>Transportation</th>
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<th>Retail trade</th>
<th>Selected services</th>
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<td>-</td>
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<td>94.1</td>
<td>72.5</td>
<td>84.0</td>
</tr>
<tr>
<td>1963</td>
<td>52.9</td>
<td>68.1</td>
<td>-</td>
<td>34.5</td>
<td>90.7</td>
<td>-</td>
<td>93.7</td>
<td>69.4</td>
<td>81.7</td>
</tr>
<tr>
<td>1967</td>
<td>53.2</td>
<td>61.5</td>
<td>86.5</td>
<td>30.4</td>
<td>92.0</td>
<td>-</td>
<td>92.0</td>
<td>67.8</td>
<td>81.0</td>
</tr>
<tr>
<td>1972</td>
<td>53.5</td>
<td>48.6</td>
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<td>-</td>
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<td>91.7</td>
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<tr>
<td>1977</td>
<td>52.5</td>
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<td>85.3</td>
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<td>-</td>
<td>62.3</td>
<td>75.7</td>
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<tr>
<td>1982</td>
<td>58.7</td>
<td>55.8</td>
<td>81.4</td>
<td>30.3</td>
<td>-</td>
<td>-</td>
<td>87.6</td>
<td>61.7</td>
<td>77.2</td>
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Note: *Not available for 1982
Table 8 (continued)

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<th>Year</th>
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<th>Mineral</th>
<th>Construction</th>
<th>Manufacturing</th>
<th>Transportation</th>
<th>Warehousing</th>
<th>Wholesale trade</th>
<th>Retail trade</th>
<th>Selected services</th>
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</thead>
<tbody>
<tr>
<td>1958</td>
<td>59.4</td>
<td>63.0</td>
<td>-</td>
<td>38.1</td>
<td>-</td>
<td>87.1</td>
<td>94.7</td>
<td>77.4</td>
<td>88.1</td>
</tr>
<tr>
<td>1963</td>
<td>57.1</td>
<td>70.1</td>
<td>-</td>
<td>35.5</td>
<td>91.4</td>
<td>-</td>
<td>94.3</td>
<td>74.4</td>
<td>86.2</td>
</tr>
<tr>
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<td>63.4</td>
<td>89.0</td>
<td>31.3</td>
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<td>92.6</td>
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<tr>
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<td>1977</td>
<td>55.0</td>
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<td>86.9</td>
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<td>65.2</td>
<td>78.1</td>
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Gini coefficient for employment - excluding owner

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<th>Mineral</th>
<th>Construction</th>
<th>Manufacturing</th>
<th>Transportation</th>
<th>Warehousing</th>
<th>Wholesale trade</th>
<th>Retail trade</th>
<th>Selected services</th>
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<tbody>
<tr>
<td>1958</td>
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<td>-</td>
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<td>0.571</td>
<td>0.478</td>
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<td>0.509</td>
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<tr>
<td>1963</td>
<td>0.737</td>
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<td>0.525</td>
</tr>
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<td>1967</td>
<td>0.738</td>
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<td>0.883</td>
<td>0.494</td>
<td>-</td>
<td>0.494</td>
<td>0.466</td>
<td>0.542</td>
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<tr>
<td>1972</td>
<td>0.731</td>
<td>0.789</td>
<td>0.541</td>
<td>0.883</td>
<td>-</td>
<td>-</td>
<td>0.484</td>
<td>0.606</td>
<td>0.566</td>
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Gini coefficient for employment - including owner

<table>
<thead>
<tr>
<th>Year</th>
<th>All industries</th>
<th>Mineral</th>
<th>Construction</th>
<th>Manufacturing</th>
<th>Transportation</th>
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<th>Wholesale trade</th>
<th>Retail trade</th>
<th>Selected services</th>
</tr>
</thead>
<tbody>
<tr>
<td>1958</td>
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<td>-</td>
<td>0.843</td>
<td>-</td>
<td>0.534</td>
<td>0.468</td>
<td>0.581</td>
<td>0.590</td>
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<tr>
<td>1963</td>
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<td>-</td>
<td>0.444</td>
<td>0.586</td>
<td>0.606</td>
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<td>0.780</td>
<td>0.615</td>
<td>0.656</td>
<td>0.878</td>
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<td>-</td>
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<tr>
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<td>0.881</td>
<td>-</td>
<td>-</td>
<td>0.505</td>
<td>0.686</td>
<td>0.642</td>
</tr>
</tbody>
</table>

* Not available for 1982.

3. A second possible explanation for the shifting distribution is "cyclical effects" associated with rising levels of unemployment in the last decade relative to earlier postwar periods. It is very difficult to separate out this effect without a detailed specification of the manner in which the economy responds to changes in economic activity and labour market conditions. We made a crude effort to separate the cyclical and trend effects by regressing the shares of employment in the less than 100 and the greater than 250 size classes against unemployment and a time trend. The results are presented in Tables 9-12. Basically, they show:

(a) Both the time trend and the unemployment rate are significant: in other words, there is a trend toward smaller units which appears to be separate and distinct from the tendency for higher levels of unemployment to reduce the size of the business unit.

(b) The trend in the period 1973-1984 is a reversal of a trend in the other direction which was also significant in the 1964-1974 period.

(c) While unemployment shifts the distribution toward smaller units in both sub-periods, it appears to have a stronger impact prior to 1974 than after 1975. In the 1974-1984 period, the qualitative results of the regressions of size shares against unemployment and time are the same for the economy as a whole and for most individual two-digit manufacturing industries. An exception is the garment industry, which we have been studying for other reasons: in this industry, however, when a variable reflecting imports is added to the equation, both the time trend and the unemployment rate become statistically significant.

4. Finally, we examined the distribution of average earnings across size-class. This distribution of earning is of interest for two reasons. First, earnings differentials might explain the movement of employment: economic activity might be shifting toward smaller units because labour is cheaper there. Second, earnings distributions might indicate the welfare effects of the change in the size distribution: one might be less favourably inclined toward these trends if they were having an adverse effect on earnings. It is, however, difficult to separate the effect of establishment size upon earnings from other factors which might be expected to vary systematically with size such as the skill requirements and educational levels of the labour force. The OECD collected a variety of disparate pieces of evidence on this question for the United States and concluded that there was a substantial differential between conditions in small and larger enterprises, even after correction for worker characteristics [OECD, 1985, p. 78-81].

The establishment data yielded figures on annual earnings per employee by size class. These figures are uncorrected for any determinants of earnings; they treat part-time and full-time work indiscriminately. The differentials, as can be seen in Tables 6 and 7, are large and tend to have increased over the period not only for the economy as a whole but also in individual manufacturing sectors. A secondary finding is that in a number of industries, establishments of fewer than 20 employees tend to have higher
earnings than the subsequent two or three size classes, but the differential advantages tend to decline or even disappear over time. We tried to explain the pattern of the wage differentials through regression analysis using the unemployment rate and the minimum wage, without success.

<table>
<thead>
<tr>
<th>Table 9: Coefficients on time in small establishment regressions, 1974-1984</th>
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</thead>
<tbody>
<tr>
<td>A</td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td><strong>Total economy</strong></td>
</tr>
<tr>
<td><strong>Manufacturing sector</strong></td>
</tr>
<tr>
<td>SIC 20</td>
</tr>
<tr>
<td>SIC 21</td>
</tr>
<tr>
<td>SIC 22</td>
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<td>SIC 26</td>
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<td>SIC 27</td>
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<td>SIC 28</td>
</tr>
</tbody>
</table>

*Note: A: not differenced, B: first differenced*


<table>
<thead>
<tr>
<th></th>
<th>( A )</th>
<th>( B )</th>
<th>( \text{SIC} ) 29</th>
<th>( A )</th>
<th>( B )</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total economy</strong></td>
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<td>0.26</td>
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<td>0.39</td>
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<tr>
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**Note:** A: not differenced, B: first differenced
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**Note:** A: not differenced, B: first differenced
Table 12: Coefficients on unemployment rate in large establishment regressions, 1974-1984 (t statistics in parentheses)

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*Note: A: not differenced, B: first differenced*
Table 13: Average wage by employment size class regressions

\[
Wage_{\text{small}} = \beta_0 + 0.34^*U_{\text{rate}} - 0.70^*\text{trend} \\
Wage_{\text{large}} = \alpha_0 + 0.10^*U_{\text{rate}} + 0.50^*\text{trend}
\]

Differenced:

\[
(1') Wage_{\text{small}} = 0.17^*U_{\text{rate}} - 0.69^*\text{trend} \\
(2') Wage_{\text{large}} = \alpha_0 - 0.10^*U_{\text{rate}} + 0.50^*\text{trend}
\]

2. Small business and job creation

The most active area of public policy discussion and debate in the United States concerns the role of small business in job creation. This discussion was sparked by a 1979 study by David Birch, who began his work at the Harvard Business School and is now in the MIT Department of Urban Studies. Birch purported to show that small business was responsible for a major portion of net new job creation in the United States (establishments under 20 created 66 per cent of new jobs, establishments under 100, 88 per cent in the period 1969-1976) [Birch, 1979]. These figures were widely used to support the policy conclusion that the government should give special aid and encouragement to small business.

The figures have generated enormous controversy. There is no analytical literature which would create strong expectations about the role of size and the job generation process, but Birch's findings nonetheless apparently violate a widely-held set of prior beliefs. The controversy has also been fueled by people who oppose the notion of government intervention in the economy (although the policy conclusions do not follow directly from the figures: one might in fact argue that small business is doing a fine job generating jobs without government help).

The Birch data have been refined and reworked by a group of analysts at The Brookings Institute, which was generally sceptical of his results. The findings show a relatively large contribution of smaller companies to total job creation, although the Brookings' numbers are somewhat smaller than Birch's.
The issues in this debate are extremely complex and technical but I would draw the following tentative conclusions.

1. The initial scepticism about the Birch results was based, in part, upon the belief that the size distribution of business units was stable. They are most plausible, however, in the light of recent data which appears to exhibit, as we have noted above, a trend toward smaller units. Nonetheless, the concentration of net job creation in smaller units revealed by even the Brookings studies, which reworked the original Birch data, is incompatible with the magnitude of the shift in the distribution of employment revealed by the County Business Survey. For example, between 1975 and 1983, employment covered by the County Business Survey grew 12.4 million with a stable distribution over size classes, employment in establishments of fewer than 100 employees would have been 29,404 million, a growth of 6.7 million and such establishments would have counted for 54 per cent of the growth. In fact, employment was 40,936 million, a growth of 8.2 million or 66 per cent of the total net increase in employment. This 66 per cent compares to figures of 78 per cent, 88 per cent and 82 per cent reported in Brookings and MIT studies. Those studies, it is true, cover somewhat different time periods, but they also cover time periods in which the change in the underlying distribution was less dramatic, or even the reverse of that required to produce these results. These figures also demonstrate, incidentally, that the bulk of employment is in small units, and small units are likely to account for the bulk of employment growth.

2. It would be possible to reconcile the County Business Pattern data with the Birch-Brookings results if a sizeable number of establishments under 100 employees moved through employment growth into larger size classes. There is some evidence that this is the case, but it is not conclusive [Harris, 1983, p. 9].

3. Jonathan Leonard has argued that the Birch results reflect a statistical phenomenon known as regression toward the mean [Leonard, 1986]. In essence, the argument is that at any given time, the tails of a distribution include a large number of observations which are "out of place" relative to their "real", "permanent", or "long-term" position in the economy. In the case of the size distribution of enterprises, the smallest size classes will include a disproportionate number of firms which are experiencing temporary employment loss and the largest size classes, a disproportionate number with temporary gains. Over a long period of time, these temporary or transitory factors will "go away". As a result of the process through which they "go away", one will observe larger rates of growth in the smaller classes and smaller rates of growth in the larger classes. Leonard investigates these phenomena with a special data set constructed from Equal Employment Opportunity Reports for the period 1974-1980, which seems to confirm his hypothesis. On the other hand, Bronwyn M. Hall, using another data set focusing on the manufacturing sector alone, rejects Leonard's hypothesis. Her findings imply that the rapid growth of small firms is a real
phenomenon, and she is able to explain them by such variables as investment and R & D expenditures [Hall, 1986].

4. There is now a growing literature on the data base which Birch and the analysts at the Brookings Institute used to study job generation. It suggests that the data which Birch has been using are too unreliable to draw any firm conclusions about the job generation process at this time. There is a real question as to whether it will ever be a useful research instrument. Birch’s data consists of a file of establishments created by Dun and Bradstreet, a private company which sells information on individual firms to clients who use it primarily for credit rating. The biggest problem appears to be that the data under-report the branches of multi-establishment firms. All of the analysts have made some attempt to correct for this bias, and much of the literature debates these corrections. The corrections, however, are substantial, and none of the procedures would appear to render the data adequate for analysing the job generation process.

Other important problems with the Dun and Bradstreet data include: reporting lags, particularly in recording the death of firms which have merged or gone out of business (D & B clients do not usually request credit ratings for "dead" establishments), under-reporting of small retail and service establishments, and random coding errors.

There are several other sources of data which are just emerging and may enable more precise answers to the questions asked in this literature in the future. These include the Equal Employment Opportunity Commission (EEOC) data which Leonard has been working with and the data base of publicly-rated manufacturing firms used by Hall. Unemployment and social security tax records are also a ready potential source of data on job creation by firm size.4

5. There is a growing literature in industrial organisation, an applied field in the discipline of economics, on the relationship between firm size and firm growth. Much of the recent work is essentially theoretical (see, for example, Lucas [1978] and Jovanovic and Rob [1987]), but the latest empirical contributions examine the growth of a panel of firms over time. These studies indicate that employment growth is most rapid for small and new firms and that firms then tend to stabilise [Dunne et al., 1988; Evans, 1987]. This finding is essentially consistent with Birch’s contention although it does not focus on small firms per se and it is not yet able to shed light on the changes in patterns of firm growth over the post-war period.

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4. This data is presumably more reliable than the Dun and Bradstreet records or EEOC because it is generated by a payroll tax collection process to which are attached stiff legal penalties (both civil and criminal) for reporting errors. Unemployment insurance is a state programme (although operating with Federal guidelines). So far as I know, only one study has made use of this data. The study was for the State of California; a problem with the California data is that it cannot distinguish among establishments of the same company in the state or establishments which are parts of much larger companies which span more than one state [Teitz et al., 1981].
III. Potential explanations

These trends in the size distribution of business units are not the salient facts of American economic life, and the number of analysts who have attempted to explain them is limited. Nonetheless, there would appear to be two distinct theories of what is happening. One of these is the thesis about the need for flexibility and the move toward flexible specialisation developed in *The second industrial divide*. The second is the effort of large companies to increase their power and control over the labour process through the decentralisation of economic activity. The most forceful statement of this view is by Barry Bluestone and Bennett Harrison in *The deindustrialisation of America*. Bluestone and Harrison place particular emphasis upon efforts of large corporations to buy up and milk establishments in older industrial regions by diverting profits and depreciation reserves from reinvestment in these establishments themselves toward investment in other corporate activities in newer regions and even totally different industries. Their argument thus focuses upon trends in the size of enterprises - rather than size of establishments. The trend toward larger enterprises - if indeed there is such a trend - is obviously more striking if the average size of establishments is growing smaller. But the latter has not been a major focus of the Bluestone/Harrison work. Presumably, they see it, however, as part of the effort of employers to avoid concentrations of worker power. And at this point, their argument does join the flexible specialisation debate in the sense that it implies that the declining productivity in older (and presumably larger) establishments is due not to the inefficiency of such enterprises but rather to management’s refusal to reinvest in plant and equipment and hence to maintain them up to date.

The potential debate has never, however, been joined. Bluestone and Harrison themselves have directed their attention toward an argument with conventional economists at the Brookings Institution about the inevitability of the decline in traditional manufacturing activities and the desirability of state industrial policy to forestall it [e.g. Lawrence, 1983]. To the extent that flexible specialisation is a way of sustaining manufacturing activity, it can be seen as strengthening Bluestone and Harrison’s position in the Brookings debate. The Bluestone/Harrison argument about otherwise viable enterprises being milked by distant corporate owners has been an important factor in union bargaining and regional industrial policy in some specific situations. And in the one case with which I am personally familiar, New Bedford, the continued viability of local producers does indeed appear to be due to the fact that they have moved into specialised niches in their markets, using more flexible production techniques than their competitors in newer industrial regions. Whether the parent companies who had apparently written them off and were milking them for cash, understood this or not is hard to say. There is also some evidence on this point in the study of a central Massachusetts industrial region discussed below [Doeringer et al., 1987].

The argument about decentralisation and the reassertion of managerial authority, particularly in large companies is, it should be noted,
very widely accepted [Kochan et al., 1986]. It may be difficult to document it precisely but there is considerable evidence to support it in the business press - and indirectly in studies of the changing strategy of American industrial relations. The question is thus not so much whether it exists but how it relates to flexible specialisation.

Three other views about trends toward smaller business units may be distinguished in United States commentary although it is not easy to identify explicit expositions of them. One of these is related to the product life cycle model: the argument essentially is that small size is related to early stages in the life of an industry when the products are new and the market small and that the optimal productive unit grows as the industry matures. In this view, the down-sizing of the enterprise distribution is associated with the rapid movement of the United States economy out of mature manufacturing industries into new high technology manufacturing and newer services [Dorffman, 1983]. This view would also be consistent with some of the latest work in industrial organisation cited earlier [i.e. Dunne et al., 1988]. The theoretical branch of that literature would probably yield other hypotheses were it to focus on the apparent discontinuity in the post-war growth patterns. A second view is that the deregulation of economic activity and the "supply-side" reforms associated with Reaganesomics have encouraged entrepreneurial activity (Friedlander). A third view, prominent in business schools, is that there has been a break-through in managerial science, and the newly discovered techniques favour smaller business units [Horwitch, 1988].

IV. Institutional studies

There is a wide variety of institutional studies of small business which shed some light on the trends in organisational structure and the various explanations and debates associated with them. By and large, however, the studies do not speak directly to these issues. They were engendered by different and largely orthogonal concerns. They are presented here under six headings. The headings are somewhat arbitrary, but by and large they do group together studies whose authors see their work as closely related.

1. Studies of the relationship between large and small companies

I have been studying changes in the organisational structure of major United States corporations as part of the "Management of the 1990s Project" of the Sloan School of Management of MIT. My own view of the shifting relationship between small and large companies is based largely on that work. Thus, I tend to see this question in terms of the broader set of organisational reforms and experiments in which major American corporations are currently engaged. Broadly speaking, developments
suggested by that study, as well as reports in the business press and in a
growing managerial literature from business scholars and scholar-
practitioners, may be summarised in the following points.

1. Most major American corporations are engaged in a conscientious
effort to alter their relationship with the external business units with whom
they do business. This includes their subcontractors, vendors of capital
equipment, wholly or partly-owned subsidiaries, consultants and the like.
Most of these extra-organisational units are smaller than the corporation and
have traditionally seen themselves as in one way or another subordinate, but
they are not necessarily, or even typically, "small business" in any meaningful
sense of that term. The relationships of the large companies to each other
are also changing [e.g. Von Hippel, 1986].

These changes are a response to what are perceived as competitive
pressures emanating from the external environment. The threat of Japanese
competition is felt to be especially strong, and many of the reforms are
modelled on Japanese practices. The reform movement began in the 1970s
but it was catalysed by the recession of 1981-82.

2. The reforms are generally characterised by those responsible for
them as an effort to "increase flexibility", but this term is subject to a variety
of different interpretations by those who employ it. Those interpretations
are roughly captured by the contrast between the Bluestone/Harrison version
of decentralisation and the Piore/Sabel one. Some executives are seeking
to reduce costs by forcing their subordinates to bear them, through lower
wages in the case of the workforce and reduced profit margins in the case
of subcontractors, vendors, and other external business collaborators. Other
executives seek to improve efficiency by reforms in the nature of the
collaborative relationship with subordinates: generally, they are seeking
more flexibility to adjust quickly to the shifting business environment,
although not necessary to institute what Sabel and I describe as flexible
specialisation. Typically, the flexibility they are seeking is built into the
productive apparatus by pre-programming automated equipment and cross-
training workers to operate on several distinct products. Thus, it is a kind
of flexible mass production as distinct from flexible specialisation, where the
production set is open-ended. Nonetheless, it is very different from classic
mass production and from simple cost-cutting tactics within the traditional
production strategy. The contrast and conflict among different views of
flexibility can be found within almost every organisation and although one
may dominate at any moment of time, many organisations vacillate among
them.

3. The specific organisational reforms include:

(a) A reduction in the number of subcontractors and the development of
a more permanent long-term relationship with those which remain.

(b) A reduction of in-process inventories within the parent company and
a movement toward the Kan-Ban system in which parts producers
deliver closer to the time at which their supplies actually go into production.

(c) Closer collaboration in the product design with vendors and external parts manufacturers.

(d) The granting of considerably greater freedom to subsidiaries to make business decisions on their own and to pursue business policies which are independent of, even at variance with, those of the parent company. As part of this tendency, companies who used to purchase external business units outright and integrate them wholly often now simply purchase equity.

(e) Encouraging employees to establish their own companies by providing capital and commitments to purchase in whole or in part the new company's output.

(f) A trend, particularly marked in the last year, to recentre the company on its basic business activity; to sell off businesses not directly related to that activity; and to purchase highly specialised services, even those related to the company's main line of business, from outside companies or individual consultants. This is a sharp reversal of earlier trends to diversify risk and maintain historic growth rates through conglomeration.

4. Virtually all of these policies can be used either to increase competition and shift cost or to increase efficiency by promoting flexibility. In the competitive-cost shifting strategy, the reduction in the number of subcontractors is used as an occasion to orchestrate a more intensive competition among them and thus drive down the price of parts; the Kan-Ban system is used to shift inventory costs to the subcontractor; the new independence of subsidies is used to enable them to establish lower wages than the parent and to escape fringe benefits and personnel policies which inhibit (or increase the cost of) discharge, early retirement and the like; the aid to employees to form their own business is used to increase the subcontracting options, etc. In the flexibility strategy, the reduction in subcontractors facilitates the establishment of permanent, collaborative relationships; the Kan-Ban system reduces in-process inventories and thus facilitates a shift from one product to another and promotes lateral information flows and co-ordination; the independence of subsidies and promotion of employee entrepreneurship fosters product diversification.

It is much too early to say where these reforms are headed in the long run and which of the two strategies will ultimately predominate. It is, however, worth noting that the reforms as part of a new "high road" approach are the subject of a growing body of managerial literature and the focus of an increasing body of research. Unfortunately, for our purposes, most of this research is prescriptive rather than descriptive and no-one, to my knowledge, has tried to quantify these developments. Among the work which might be mentioned in this regard is: Abernathy et al., 1983;
2. The classic small business industries: Garments and construction

The two industries in the United States which have been traditionally characterised by communities of small firms are garments and construction. The literature on the socio-economic structures of these two industries is limited, but both have drawn upon academic economists as arbitrators and mediators in labour relations and there is, therefore, a long oral tradition among industrial relations scholars about their structures. Sabel and I drew heavily upon this tradition in our attempt to understand and characterise industrial regions. The most salient features of the industries in the United States are twofold: (a) the role of particular immigrant groups in the industry and the consequent embeddedness of the industrial structure in the social structures of the immigrant community; and (b) the strength of trade union organisations and their key role, not only for the workforce - a role which trade unions play in most industries - but for industrial organisation more generally.

Both industries have historically been characterised by a multitude of very small firms. Capital requirements are minimal. Entry for new firms is easy, and existing firms can expand (and contract) their employment easily as well. As a result, the industry is extremely competitive. Firms are very interested in reducing the amount of competition - and the number of decision-making margins upon which competition takes place - but the ease with which new firms can enter the industry makes this very difficult to do. In construction, firms have an additional interest in predictability: they must bid on jobs and commit themselves to a price in advance for some relatively prolonged period in the future. The competitive nature of the industry makes the bidding precarious and creates a strong interest in a mechanism which will impose the same costs upon everybody in the industry and fix those costs in advance of the bidding process. For these reasons, employers welcome union organisations as the key to wage stabilisation in the industry provided that the union can enforce the same wage bargain upon all employers, potential as well as actual. And unions are often organised from the "top down", i.e. the firm commits its employees to membership. Contractors' associations may be organised in this way as well: with prime contractors (the general contractor is in construction; the manufacturer is in garments) obligated to impose labour conditions on the subcontractors or, as they are called in garments, "jobbers".

The immigrant community plays a central role in this process because it is able to bring community pressure to bear upon both workers and employers to adhere to the labour agreement. Without this kind of strong community sanction, apparently, competitive pressure makes it very difficult to maintain the requisite cohesion. In any case, both the union and the employer associations are closely tied to the political, religious and/or nationalist organisations of the immigrant communities, and the two
organisations are often actually divided into sub-units (union locals and contractors' associations) along ethnic lines.

A key to community (and hence trade union) control in both garments and construction (although in somewhat different ways) is the skill involved in the work and the nature of the skill acquisition process. Labour skills depend almost entirely on on-the-job training in which senior workers teach novices in the process of production. Entrepreneurial skills appear to be acquired in this way as well: subcontractors "learn" how to manage from their contractors and expect over time to move "up-market" toward increasingly sophisticated and profitable lines of work just as employees move from low to high skilled tasks. The nature of skill enables the immigrant community to limit entry at least to its own members, although that control has been periodically breached in the United States by the entry of new immigrant groups with skills acquired abroad. In construction, this control is formalised in an apprenticeship system, but apprenticeship's main contribution seems to be in the training of managerial workers, and rank-and-file workers are largely trained more informally on the job. The garment industry has a training problem related to the generation of fashion designers similar to the problem of supervisory training in construction. In New York, this is resolved in part through formal educational institutions maintained under employer and union pressure by the municipality. The construction industry has additional problems of allocating labour with specialised skill which is required on demand for short periods of time and this has been resolved through the union-controlled hiring hall.

The hiring hall problem, or rather the technical problem which the hiring hall resolves, is a particular manifestation of a general problem which appears in industrial regions of this kind: the regional industry is composed of a variety of individuals and small enterprises, many of which have highly specialised skills or knowledge required for operations which, while often utilised regularly in the region as a whole, may be rarely needed by any particular employer. In construction, the union business agent at the hiring hall is the repository of knowledge about who has these skills and where they are required. In the garment industry, that knowledge is apparently more diffuse.

Because employers are small and often short-lived, the union - in combination with a limited group of stable contractors and operating through the municipality with the help of the ethnic community and ethnically controlled political institutions - has been responsible for the "industrial policy" and strategy. These include industrial standards (i.e. building codes in construction); the preservation of industrial space, through zoning requirements in garments; and, as we have seen, training. Both the garment and construction unions, alone or in co-operation with contractors, have also been active in industry research and development and the garment unions have been heavily involved in the development and maintenance of foreign trade protection (actually negotiating with foreign governments).

An important problem in the garment and construction industry has been the maintenance of wage and labour supply controls over time. It appears that in both industries, this has been done so as to foster product
innovation but forestall innovation in the production technology. In the garment industry, wages have been controlled by an elaborate piece-rate system. In the construction industry, the system of work jurisdictions has inhibited certain kinds of technological change.

From these origins in the oral wisdom about garments and construction crafts, the literature on small-scale industry in the United States branches in three directions: (1) a still largely oral and increasingly thin thread of work updating our understanding of construction and garments; (2) a rich and growing literature on immigrant industries and immigrant entrepreneurship; and (3) a somewhat diverse and disjointed literature on particular industries and regional economies characterised by small-scale production.

3. Recent developments in garments and construction

In the last decade, practising lawyers have largely replaced academic economists as neutrals in labour relations, and the oral tradition out of which the preceding picture of the garment and construction industries is abstracted has languished. It would appear, however, that in the post-war period, both industries evolved away from the paradigmatic structures just described toward organisations and practices more typical of mass production. In the garment industry, this evolution began very early in the post-war era; in the men’s clothing industry perhaps even before the war. Fairly standard items, which were not subject to fashion changes and hence for which relatively long production runs were possible (men’s suits, for example, and sportswear, especially blue jeans) were broken into "section work", a division of labour reminiscent of the automobile assembly line. The shops moved out of the city centres, especially New York City, to rural areas, where they employed unskilled farm women in large units. A certain amount of specialised machinery was used in these shops, and they were increasingly non-union.

New York City, however, continued to operate in essentially the old way, producing for the high fashion industry and "reorders", i.e. short runs of standard items which catered to peaks in demand which had not been anticipated in advance.

However, in the most recent years, for which our knowledge is least comprehensive, these trends may have been reversed or at least altered. The industry has come under intense foreign competition, but the impact has been greatest on the standard production segments which had already left the original New York City centre. In the City itself, output has fluctuated but around a more stable trend, and production organisation has changed little. A major change has, however, occurred in the ethnic composition of the industry. Second and third generation Jews and Italians have been reluctant to enter the industry labour force and they have been replaced by new immigrants from the Far East and Latin America. Most recently, the newer immigrant groups have replaced Jewish and Italian contractors as well. This ethnic transition has strained the structure of the trade unions and the contractors’ association. The old organisation forms appear to be re-
emerging within the Chinese community; less so among Hispanics who, because of the diverse origins of Spanish-speaking immigrants, do not really constitute a community anyway. These pieces of the story have been more closely followed in the literature on immigrant entrepreneurship. In most recent years, the unions appear to have recognised the problems posed by the piece-rate system for technological dynamics, and have begun to experiment with other forms of wage controls. The unions themselves appear to be reasserting their traditional role in industrial strategy and leadership: they have become active in research and development of new technologies, a role which languished in the 1950s and 1960s; they are if anything more aggressive than ever in seeking protection from foreign competition; although their political power is no longer what it was, they continue to influence zoning and other forms of municipal regulation; finally, they have begun to formulate training policies for the industry, a function which previously took place within immigrant families and was largely ignored by the unions and contractors. A major development, however, which has accompanied the new immigration, is the creation of urban garment centres outside New York, especially in Los Angeles and Miami, where the union is much weaker. We know virtually nothing about the evolving industrial organisation in these newer areas.

The organisation in construction has also changed in the last decade and a half. Beginning in the early 1970s, several large national construction contractors began to operate either partly or wholly non-union. It appears that these non-union contractors have attempted to abrogate the old craft organisation of the industry. They employ a permanent core of broadly trained workers, who serve largely as supervisors and team leaders and hire, on the local labour market, a crew of unskilled or semi-skilled workers for each job. The work itself is divided into tasks and distributed without respect for old craft lines. These non-union, industrial-type companies must, however, have always had recourse to speciality subcontractors for certain highly-skilled specialists, and there is some indication that they are moving from direct employment and supervision toward progressively greater reliance on specialised subcontractors of this kind.

Meanwhile, some of the construction unions (most prominently the bricklayers), like their brothers and sisters in garments, have been revitalising their traditional roles in training and in research and development. The bricklayers, at least, are also reorganising the unions on a regional basis, which will presumably place the union in a better position to deal with large contractors which operate over broad geographic areas.

4. Immigrant industries and immigrant entrepreneurship

Most of the literature on migrant workers in Europe, and my own work on undocumented migration in the United States, has emphasised the flow of foreigners into unskilled, dead-end jobs. The contemporary literature on immigrant entrepreneurship developed in large measure in reaction to this characterisation.
The most coherent statement of an alternative position can be found in the work of Alejandro Portes comparing the experiences of Mexican and Cuban immigrants to the United States. He found that the Cubans experienced much higher incomes and much greater upward occupational mobility in both the first and second generations. He argues that this can be explained by the differences in the labour market structures into which they flowed. The Mexican labour market experience, Portes argues, is correctly captured by a dual labour market model with the migrants confined to a secondary sector, where the employing enterprises are owned and managed by United States nationals from other racial and ethnic groups. The Cubans who are concentrated in the city of Miami, however, managed to establish what Portes calls an ethnic enclave, where most enterprises were Cuban owned and managed. The enclave constitutes a kind of internal labour market in which unskilled workers are able to advance to progressively more highly-skilled and better paying positions which are elsewhere monopolised by United States nationals. This advancement provides a kind of social mobility for the first generation itself. But it also permits that generation to sustain the professional education of their children and thus enables the immigrant community to enter the mainstream of American life through the professions, at a high level of socio-economic status, in the second generation [Portes and Bach, 1985].

This model suggests that clusters of immigrant enterprises have a critical impact not only upon the entrepreneurs themselves but upon the whole ethnic group and points clearly toward community effects. But Portes' work has not described the structure of the Miami Cuban community in a way which would enable us to understand how it operates and how or why it developed in the first place, and I am not aware of other research which effectively does so.

In a sense, Roger Waldinger's work on the New York City garment industry can be viewed as an extension of Portes' efforts at theorisation. In these terms Waldinger produces several interesting findings. First, his work, as well as the earlier oral traditions about the old Italian and Jewish communities, suggests that the immigrants are not unskilled: on the contrary, they are able to enter the industry - indeed are initially recruited from abroad - precisely because they already possess the requisite skills. The reason that the old immigrants were replaced by new ones, rather than by United States nationals, was because the latter were not skilled and, in a piece-rate industry where earnings depended on skill and where novices learn only if experienced workers are willing to sacrifice their own earnings in order to teach them, never acquired enough skill to obtain income levels which were competitive with other opportunities. Second, Waldinger found substantial immigrant entrepreneurship among virtually all ethnic groups. Third, however, the kind of community structures that one might imagine underlie the Portes' enclaves were not universal. The Chinese entrepreneurs in New York employ exclusively Chinese workers and, as noted above, are regenerating the kinds of contractor and union structures that were characteristic of the industry when it was dominated by Jews and Italians. But the Hispanic entrepreneurs often pursue exactly the opposite policy,
employing workers from diverse national and ethnic backgrounds in order to forestall organisation and communitarian effects. One would like to know then how one or the other of these alternatives was chosen and how the choice affects the future evolution of the industry [Waldinger, 1986].

A third type of industry study which further complicates this picture examines the relationship between the structures of the industry in the United States into which the immigrants move, and the structure of the industry at the point of origin abroad. I am aware of two studies of this kind, one looking at Mexicans in the shoe industry in Los Angeles [Runsten, 1985], and the other at the Colombians of the textile industry in New England [Glaessel-Brown, 1984]. In both cases, the immigration is highly structured and their arrival permits the perpetuation or, in the case of Los Angeles, the creation of an industry which is unable to attract the requisite skilled labour at home. The studies thus far undermine the simplistic dual labour market model of the immigration process. The Los Angeles shoe study, however, also calls into question Portes’ enclave model, at least in so far as Portes draws upon the assumed unskilled nature of Mexican immigrants to explain their jobs in the United States. In neither industry does the immigration lead to the formation of particularly dynamic industrial regions in the United States. The firms do seem to survive by finding specialised niches within their own industry but they continue to lead a precarious and marginal existence. The immigration, if anything, facilitates this, because when employment turns down, the workers simply go home, thus reducing pressures upon their employers to find alternative market niches. One might hypothesise that it is this return flow which distinguishes the Mexicans and Colombians from the Cubans and explains why in the former case there is so little entrepreneurship or community.

The Mexican shoe industry, from which the Los Angeles workers came, is bifurcated into two parts: one producing relatively standard products in long runs using semi-skilled labour in large enterprises, the other producing high quality items with skilled labour in small shops. The latter sector, however, yields very low incomes and miserable working conditions. The skilled workers in Los Angeles are drawn from this small enterprise segment. The study does not provide a good explanation of why the Mexican industry has not been more dynamic although drawing on a comparison with Brazil it suggests that the stagnation in Mexico is related to the protected nature of the Mexican market and the lack of an effective industrial policy for the industry. One wonders whether the Mexican industry, had it been more dynamic, would have led to a more dynamic industry in Los Angeles as well, perhaps with more Mexican entrepreneurs. Alternatively, a dynamic Mexican industry might have paid high wages in Mexico, holding the workers there and using Los Angeles as an export market for its products, thus effectively precluding the kind of development of the Los Angeles industry which occurred.

These skilled textile workers in New England evidently come out of very large enterprises in Colombia with very extensive formal training programmes. In this case, it does not appear that one could have transferred entrepreneurial skills from one country to another although, of course, an
industrial region might nonetheless have developed for other reasons had the immigrants themselves been less mobile.

I have not made a complete search of the literature. There are probably other immigrant industry studies - indeed, I am aware of several others myself [see, especially, Portes and Manning, 1986]. But the particular focus upon the relationship between the industry structure and the community structure, which is central to the dynamics of small-scale industry, is not common. The literature which we have does not suggest that the multiplication of case studies, by itself, is going to clarify the issues in this area. Generalisation seems to become more difficult, not less so, as the number of case studies expands. This implies that the problem may be conceptual and theoretical, not empirical, a point to which we return below.

5. Industry studies

The third strand, which follows from the garment and construction tradition, concerns studies of particular industries and/or regions in which small-scale production predominates. Roughly speaking, these divide into two groups. One focuses upon older, traditional industries, the second on high tech. The latter tend to have a regional focus and are discussed under that heading in the next section. The non high tech industrial studies are really a hodge-podge. Researchers become interested in them for a variety of different reasons. They are largely unaware of each other's activities. One could not say, therefore, that there is a literature here in the sense that it is accumulating knowledge or undergoing theoretical development over time. And for that same reason, there are undoubtedly a number of potentially relevant studies that I have missed. Nonetheless, in terms of the interests of this project, the following material seems relevant.

A group of researchers at the University of Illinois has recently developed a history of the organisational structure of the radio broadcasting industry in the United States. This industry is particularly interesting because organisationally it has shifted over time from a highly centralised to a highly decentralised structure. The transformation, moreover, was not linear and yielded various intermediate structures along the way. Initially, broadcasting was viewed as an adjunct to the sale of radios and the original centralisation of the industry was due to the concentration of the radio manufacturing industry which financed the broadcasting companies. When the market for radio equipment became saturated, the interest of the manufacturers subsided and a new source of financing was required. In the United States, this eventually became advertising. But the structure of the advertising market then evolved substantially over time. In the beginning, the advertisers bought radio time, and produced their own programmes. The intermediary in this transaction of radio time was the advertising agency. The agency gradually assumed responsibility for the production of the programmes which were being aired during the time it sold. And the programme then became the key commodity and the agency the central organisation unit. The next step in the evolution was towards a fee structure
for programmes which was based upon the size of the audience so that, in effect, it was the size of the audience which became the basic commodity around which transactions took place and not the air time nor the programme itself. Once this change occurred, power within the industry increasingly shifted to the major networks. They began to produce and sell their own programmes and, at the same time, increased their power over their local affiliates so that the latter were obliged to air the network productions. The reversal of this trend appears to centre around the use of recorded programmes. The centralised industry developed in a period where there was a strong belief that audiences would only accept live programmes by major (and hence limited and expensive) talent. There was an ideological barrier to broadcasting prerecorded programmes and, especially, record music. But when local stations began to experiment successfully in the 1940s and 1950s with the disc-jockey/record format, it became economically feasible for them to produce their own programmes and sell local advertising time directly. As the local stations increased their autonomy in this way, they began to specialise on particular audience groups, further fragmenting and decentralising the industry. This final phase, however, was accompanied, somewhat ironically, by one critical countervailing trend: i.e. the creation of centralised rating services, which foreclosed fraud and permitted and assured measurement of the size of the audience, which was the metric for comparing and calculating charges for the specialised programming of the fragmented stations.

Three features of this particular study should be underscored. First, the relative instability of the product which is being produced and sold and the way in which the evolution of the definition of that product is bound up with the structure of the industry. Second, the fact that the shifting product definition and the related shifts in industrial structure have relatively little to do with technology. And three, the role of communal (centralising) institutional structures like the rating service in the consolidation of a decentralised organisational structure. (A piece of the history not well developed in the Illinois study but of great interest is Mutual Broadcasting, a network created during the centralised phase of the industry which, unlike NBC, ABC, and CBS (the major networks) was a syndicate of independent local stations designed to produce national programmes for their own use.)

The focus upon the changing nature of the "product" in the radio study reflects the theoretical concerns of the Illinois researchers. They are organisational theorists in a business school whose primary interest is in a reorientation of transaction-based organisational theory - a subject to which we will return below.

A different focus underlies a study of organisational decentralisation in the motion picture industry conducted by Michael Storper and Susan Christopherson at the University of California, Los Angeles [Storper and Christopherson, 1986a, 1986b]. The early history of this industry is also one of a highly centralised, vertically integrated organisational structure in which the key organisational unit was the major motion picture studio. The major studios owned chains of movie houses and held under contract virtually all important theatrical talent. The pictures produced in the studios utilised the
talent under contract and were exhibited in the studios' own theatres. A sophisticated publicity operation, also controlled by the studios, promoted both the contracted performers and the pictures in which they appeared. The production process was also highly repetitive and routinised. Not only did the same stars reappear in film after film but the basic story lines, scenery, and costumes tended to repeat themselves, and the films were often produced in assembly-line fashion, breaking up a series of scripts into component scenes which could be grouped on the basis of their common production elements and shot in sequences totally unrelated to the particular films into which they were later incorporated. This pattern was overturned in the course of the 1950s and 1960s by two major "events": first, the court ordered break-up of the studio control over movie theatres and then, by the advent of television as a competitor to the movie theatre and a second consumer of motion picture products. The new structure, which Storper and Christopherson explicitly link to flexible specialisation, is one in which the major studio continued to maintain "a firm grip on the financing and distribution of high budget theatrical releases and also moved into production for television. But the production process itself became organised on the external market rather than within the firm." The films were produced by independent production companies which hired, rented, or subcontracted the necessary elements for each film from specialised experts or subcontractors and put them together film by film in a craft-like way.

Storper and Christopherson are geographers and what interests them is the fact that over the period of organisational decentralisation, the industry became, if anything, more geographically centralised in Los Angeles than it was in the days of the major studios. The paradox is easily explained, however, by the requirements of the resources, especially the workers, for continuity in employment as the institutional continuity of any particular employer becomes increasingly problematic and by the parallel need of the employer, whose labour requirements varied radically and unpredictably over time, to find specialised skilled manpower at short notice. A general rationale for an industrial district emerges directly from this explanation. Storper and Christopherson also identify several institutional structures which seem critical to the successful functioning of the district. In addition to the vestigial but critical role of the major studios in financing and distribution, they give a great deal of attention to the unions. The role and structure of the unions in motion pictures is remarkably similar to that in construction and garments. It appears, however, that the union functioned in a similar way under the older, vertically integrated studio structure, a fact which the authors do not emphasise and never analyse. They also note that union strength has been declining in recent years. This is discussed at some length by the authors but the discussion is not really satisfactory in the light of the critical functions which the unions seem to perform, not only in this industry but in garments and construction as well.

Because the Storper/Christopherson study derives from a set of theoretical concerns so different from those in the Illinois radio study, the parallels between them never emerge. But there are several. First, it seems
that it is changes in the product, or the conception of the product, rather than in the technology of production (and, arguably, even the technology of the product) which generates the shift from mass production to flexible specialisation (to apply a term which the radio study does not use). Second, to the extent that there are exogenous changes in the environment in either case, it is in the legal structure facilitating (or inhibiting) the vertical integration of the industry. Finally, it should be noted that in both cases the decentralisation precedes the period upon which Sabel and I concentrate in The second industrial divide. And neither movies nor broadcasting are manufacturing industries in any standard sense of the term.

A third case study which can be read as a companion to movies and broadcasting is a study of the scholarly book industry by Walter Powell, an organisational sociologist at Yale. Powell identifies [1985] the critical organisational units in this industry as the "network" of scholars surrounding textbook editors. These networks move with the editor as the latter shifts among firms, and Powell traces this movement and shows how it is affected by various efforts at concentration within the publishing industry. Perhaps his most interesting finding is the ability of the large corporate organisation to adapt to this structure and incorporate it within itself. This study has led Powell to a more general concern with "networks" as a form of organisation intermediate between markets and hierarchies, and he is attempting a more general theoretical formulation of the properties of the "network" form [Powell, 1984].

6. Industrial regions

In addition to the industry and ethnic community studies, there is a certain amount of new work on local and regional economies. In some respects, this literature may be viewed as a continuation of a venerable tradition in economic geography and urban economics stressing economics of agglomeration, particular locational advantages, input-output relationships and the like. This line of reasoning was eclipsed in the 1950s and 1960s by the dispersion of American industry from the cities to the suburbs and by the geographic decentralisation of production, most notably industries which had once been associated with particular urban centres such as Detroit in car manufacturing, Akron, Ohio, in rubber, Chicago in meat packing, and the like.

A. Traditional industries

The most germane to the problematic of the "new industrial organisation" - not coincidentally since it was directed by one of our colleagues in Boston - is a study of Montachusett, an old industrial region in central Massachusetts. The study reveals that the region is adapting to a new economic climate by a strategy of "nicheism". The original industrial base of the region was spread over a rather wide variety of industries ranging from paper and paper products to furniture, garments, and plastics. In all of these industries, mass production is moving, or has already moved, out
of the region. The remaining firms are small, often (although not always) locally owned, and are concentrating on special order production of either new or customised products or items where quality, workmanship, or speed of delivery are the key competitive factors. The study attempts to separate out the contribution of the "invisible" factors associated with business strategies of this kind from conventional and quantifiable competitive factors such as wages and labour productivity, and to trace the success to the regional heritage of skilled labour, an entrepreneurial tradition, and certain interorganisational relationships.

Several factors seem to distinguish this regional economy from those identified in other studies. First, there does not seem to be a single dominant industry or industrial agglomeration. The closest candidate is a plastics complex, including plastic mould making, raw material production, and finished plastic goods (there is a possible comparison with the Oyonnax region in France) which appears to account for somewhat less than one-third of total manufacturing employment in the region (it is difficult to tell from the study because the employment in mould making is not specifically identified; about 25 per cent of total employment seems to be in resin manufacture and fabrication [Ibid., p. 120]; mould making and machine tools account for 21 per cent of total employment but the division between them is not given [Ibid., pp. 102 ff]). The importance of this concentration, as an explanatory factor, is somewhat reduced by the fact that all industries seem to be pursuing similar strategies. Second, ethnic ties do not seem to be important in the development of any of the industries. The region has the largest concentration of Finns in the United States, but this group is not mentioned at all in the study. Three, a number of small companies in the study have developed alliances with foreign producers to whom they provide marketing services, technical assistance, and apparently some supplementary production in the States. These foreign alliances are presented in the text in the context of the adjustment to the overvalued dollar, but they may also serve as a substitute for relationships with other firms in the region. Fourth, the small increasingly specialised enterprises in the Montachusetts region have not drawn heavily on modern technologies, such as robotics or numerically controlled machine tools. They feel that the skilled labour force in the region gives them a special advantage and enables them to obtain better quality and higher productivity out of conventional equipment than other producers obtained from the high tech alternatives. At the same time, the skilled craftsmen upon which the industry of the region is increasingly dependent are afraid of the new equipment and this deters its introduction. The policy conclusions of the Montachusetts study focus upon the problems caused by skill and technology and suggest that, for industry to survive in the future, the region will have to develop more formal education and training programmes to replicate the present generation of craftsmen and a system of re-education and technological assistance which will help the region overcome the technological gap which is emerging between it and its competitors abroad.
B. State development strategy

The changes occurring in business organisation are being accompanied by a shift in the economic development strategy of individual states. The dominant strategy in the postwar period has been an effort to attract national and, increasingly, multinational companies to locate branch manufacturing plants in the states. The strategy originated in the low wage, largely agricultural sites of the Old South. The first programme was developed in the lowest wage state, Mississippi, in 1936, under the name BAWI (Balance Agriculture With Industry) and was designed, as the name indicates, to diversify the State's cotton-based economy. The State, and its local subdivisions, provided tax incentives, subsidised land, direct subsidies (financed by tax-exempt municipal bonds), training assistance and, where necessary, specialised physical infrastructure and exemptions from local regulatory requirements. The policy was carried even further in Puerto Rico, which was the lowest wage area with free access to the United States market and, because of its special status, was able to exempt companies from minimum wage laws and corporate income taxes. By the 1970s, the competition of the low wage states was being strongly felt in the older industrial states which felt compelled to moderate their tax, regulatory and welfare provisions and, in some cases, to introduce special tax exemptions and financial subsidies of their own.

In the last ten years, there has been a major change in the philosophy of state economic development. This change has both a "negative" and a "positive" component. The "negative" component, signalled by a planning document very widely circulated by the National Governors' Association, emphasises what might be called internal economic development and the role of traditional government services. It is specifically critical of the older effort to attract branch plants of national companies, arguing that such a policy approach tends to create unstable, unskilled, low wage jobs that are eventually lost to foreign competition while, at the same time, eroding the financial base of state government and, hence, its ability to provide governmental services and maintain the state infrastructure. The report highlights instead the role of small business in job creation noted in the first section of this report, drawing the conclusion that most jobs are created by local business entrepreneurship. It argues that this kind of job creation needs the support of a strong educational system and sound physical infrastructure and that the erosion of the tax base through exemptions threatens the state's ability to provide this. The report also places great emphasis on the elimination of state regulations which may inhibit or deter entrepreneurship. It is particularly concerned with limitations on competition imposed by consumer protection legislation, banking regulations, barriers to entry of out-of-state producers, and the like. There is heavy emphasis on the creative force of destructive competition, which the report illustrates by reference to a small area study which found that "65 per cent of the influences leading to the start-up of new companies were negative: 'getting fired', 'boss sold the company', 'organisational changes', 'being transferred but did not want to leave the area', 'no future'; 'didn't like the job" [Vaughan et al., 1985, p. 57]."
The "positive" approach to the new state industrial policy is represented by a recent policy statement of the Committee for Economic Development [CED, 1986]. It starts from the presumption that spontaneous entrepreneurship is not sufficient in itself to generate growth: active government promotion is required as well. Such an active approach has been developed in several industrial states including Pennsylvania, New York, Michigan, and Massachusetts. The instruments of the positive policy include the state provision of venture capital, state "incubators" for small business which provide technical and managerial assistance for new start-ups and fledgling entrepreneurs, and export promotion through state-sponsored advertising and business representation abroad. In most programmes, these newer instruments are combined with traditional approaches such as industrial parks, training and vocational education, and university-based research and engineering activities.

These approaches are too recent to have been evaluated and it is premature to form a judgment about them. One obvious view is that they are simply turning internally the range of policy instruments which were previously directed at attracting institutions from out of state, and that the resources are largely dissipated by subsidising operations which would have happened anyway and/or moving activity around from one state to another without net addition to the national economy. Undoubtedly, there was much of this in the beginning although one can believe that over time, state officials are learning on the job and thereby giving some substantive meaning to such terms as "venture capital" and "entrepreneurial incubators" which will distinguish them from a simple subsidy, in cash or in kind. The expressed philosophy implies a much greater emphasis upon real education and education-related research and development than in the old state development policy which tended to short-run training, and one could attempt to measure the extent to which such a change has indeed taken place. Because the United States economy has become internationalised and the states are selling in the international market place, the new programmes are much less likely to be simply drawing activity from others parts of the country: the efforts by states at export promotion is a genuinely new dimension of their development activity.

C. High tech

Finally, there has been a lot of interest in the United States in high tech industrial regions. The amount of genuine research and scholarship on these regions which I was able to uncover, however, is limited. There are by common consensus two paradigmatic regions, Route 128, the circumferential highway around Boston, Mass., and Silicon Valley, in Northern California near San Francisco. A fairly large number of other United States cities and states have tried to reproduce similar phenomena (as well as a number of foreign cities and regions). Prominent on the United States list of such areas would be Austin, Texas; Chapel Hill, North Carolina; Pittsburgh, Pennsylvania; some areas of Southern California around Los Angeles. The literatures divides into two parts: studies which focus on
the structure of Route 128 and Silicon Valley, and studies about the attempt to produce analogous development elsewhere.

Thus far, the literature seems basically to have identified a list of factors which are critical to success. The standard lists include (1) a major research university; (2) an academic tradition, or ethos, which encourages researchers to engage in practical activities and which is not hostile to linkage between the academic and business community; (3) venture capital or, more precisely, a local financial community with both the resources and the willingness to provide funds for start-up enterprises; and (4) a local entrepreneurial tradition and a reservoir of expertise in the management of start-up business. The attempts to create new regions have essentially tried to create the institutions on this list. They have, for that reason, virtually all occurred in areas which already had a research university. They have first moved to expand and/or redirect their activities toward high tech engineering. This has usually been combined with some efforts to provide venture capital and promote entrepreneurship. The experience has, as noted above, been rather disappointing. That development which has occurred appears largely due to the attraction of facilities, both research and production, of national corporations and a limited spin-off of people, projects and capital from these activities. There is, of course, nothing wrong with such development - indeed, quite the contrary. But it is not a reproduction of the pattern which the projects initially sought to imitate and suggests that our understanding of what those patterns are and how they develop is limited.

One possible explanation for the difficulties of the newer regions is that there is a very limited space within the economy for the kinds of activities in which these regions engage and that space is already occupied by the existing regions. But this is not a line of reasoning which, as far as I can tell, anyone has seriously pursued. People seem to operate with the notion that a good innovation can always find a niche in the market if it is properly managed and financed. Instead, researchers have sought to expand the list of institutional structures which are required to systematically generate and launch the innovations or increase the precision with which institutions already on this list are described. The literature along these lines is still very diffuse and not easily summarised. Part of it consists of elaborate regional histories emphasising the unique combination of people and events which produce Route 128 and Silicon Valley. There is a study now under way of the Route 128 region for the Austrian Government by an Austrian national with considerable experience in the United States which attempts to clarify the nature of the university-business link and compare it to the stylised picture which Europeans have created, working against the model of their own academic tradition. One of the things which she manages to show is that the strict boundary between research and production is maintained in Boston and, hence, the relationship between business and the academic world, while perhaps very different from that on the continent, does not provide anything like the merger between the two which is often pictured abroad.
Two graduate students at the Sloan School at MIT are working from the hypothesis that one of the critical factors in the Boston area is the existence of networks of individuals and institutions which link together the critical ingredients required for high-tech start-ups through complex social structures [Norhia, 1986; Kanai, 1986]. These students are seeking to identify what those structures are, how they develop and the kinds of information which flow through them by examining various high tech clubs which have grown up around MIT. The clubs are of special interest, however, because they are a new institution, or institution-like entity not previously on the "list" which may catalyse the other elements already present in the community. To understand how this catalytic action works, these students are particularly influenced by a notion of Granovetter's about the "strength of weak ties" [Granovetter, 1973; 1982]. The basic idea is that the most efficient informational network consists of people who are not so strongly tied to each other that they all process the same information. There must nonetheless be enough trust and commonality of language to permit communication to take place.

V. Conclusion

Taken together, the United States material confirms a shift toward smaller productive units. This is unquestionably true at the establishment level. The shift is indicated by both qualitative case study and interview findings and by quantitative evidence, including the distribution of employment across establishments classified by employment levels. The evidence at the enterprise level is less conclusive but it is consistent with a shift toward smaller enterprises as well. Looking at establishments, where there is complete data annually, it is clear that the shift toward smaller establishments is not merely a compositional effect: it is occurring within virtually all manufacturing industries and within certain service industries as well. Moreover, statistical tests indicate that it represents a secular trend, which began in the early 1970s, and represents a reversal of a trend toward larger establishments in prior postwar decades: the tests indicate that the movement toward small establishments is not simply a response to the relatively higher levels of unemployment in recent years.

The causes of this shift in productive activity are not clear. There are too broad classes of hypotheses in this regard. One class explains the shift as an effort to take advantage of lower employment costs in smaller productive units. The second class of hypotheses attributes the shifts to changes in productive and organisational technologies. The evidence examined for this study is inconclusive in this regard. In the United States, earnings are, on average, lower in smaller establishments; and the differential has increased in the last 15 years, but the data examined for this study did not permit us to distinguish part-time from full-time work, let alone to correct for skill levels, geographic location or other factors which might be correlated with size. Other evidence indicates that wage rates, corrected
for these factors, are positively correlated with size, but we do not know whether the size differential has increased over time in a way which might have induced the shift toward smaller enterprises. Qualitative evidence indicates that business is shifting toward smaller productive units both in search of lower labour costs and to implement new productive techniques and organisational reforms and that these two developments are distinct. The organisational and technological trends would probably cause wages in smaller units to increase, but the relative magnitudes of the two effects are unclear.

A good deal of case study material was collected about dynamic small businesses that embody the organisational and technological forms likely to produce high wage employment. These studies suggest that more conceptual work is required in order to understand this phenomenon. The existing literature about business organisation is structured by the hypotheses that the modern business enterprise is a response to very large economies of scale, involving highly specialised capital equipment that is profitably employed only in mass markets for standardised products, and that efficient production and marketing under these circumstances thus requires extremely large, vertically integrated, hierarchical organisational structures. Small establishments exist only in the penumbral of this dominant organisational form, working either as specialised subcontractors without independent design or marketing capabilities; in narrow luxury markets; or at early stages in the product life cycle. Given that the dominant hypothesis creates a space for smaller enterprises in the economy, albeit a very restricted one, it is difficult to question that hypothesis through case study evidence alone. The studies do clearly undermine the unidirectional development which the hypothesis suggests: the two entertainment studies (broadcasting and movies) as well as the organisational reforms in large companies are about movements over time in a very different direction.

The collection of case study material also suggests that the dominant hypothesis is a very misleading way to organise our understanding of small business. When viewed in the light of that hypothesis, the case studies are of a piece, because they all suggest that hypotheses’ limitations. But when removed from the debate structured by the large corporate form and read in the light of a more agnostic view, the case studies reveal a great diversity in the forms which dynamic, independent small business organisations can take. None of the studies indicated that the small organisations are successful in isolation: all seem to involve larger agglomerations. But the forms which those agglomerations take are various and to understand them we need a richer typology than the debate about the larger corporation has yielded. This is probably the most important finding of this review, and we conclude with some abbreviated suggestions about the construction of such a typology.
1. Toward a typology of small firms

There are two distinct approaches to developing typologies: one is theoretical: it abstracts a series of possible forms from some set of hypothesis or axioms which lay out the dimensions over which organisations can vary. The advantage of this approach is that it is in some sense exhaustive: all possible forms can be derived. On the other hand, the relevance of the typology depends completely on the theory: if the axioms are invalid or focus on dimensions of business organisation which are irrelevant or incomplete in terms of the issues of efficiency or welfare with which we are concerned, the typology itself will be irrelevant as well. In any case, at the present juncture there is simply no theoretical structure which provides this kind of closed typology of organisation forms.

The case material at hand lends itself to the second approach, which is empirical and inductive: it abstracts a set of types from the existing material. This approach is also limited: the typology is open in the sense that there is no way of knowing whether some other set of cases might generate additional types. And it is ad hoc, in the sense that one has no prior idea of what the relevant dimensions of the material might be and, as a result, cannot be sure whether the types reflect the underlying material or the investigators’ preconceptions about what is interesting or relevant to look at. Ideally, however, inductive typologies of this kind lead to theory, in the sense that they stimulate the development of a theoretical structure which will link together and explain the variation across types. Such a theory, if it can be derived, will also suggest what additional types are possible and might be identified in a comprehensive search. For typology construction, the most important observations to emerge from the case study literature are as follows.

First, the decentralisation of business activity is not a movement from a tightly integrated hierarchical organisation to a market of isolated business units who communicate with each other indirectly through price signals (co-ordinated by impersonal price signals). The smaller, decentralised business units of the case studies are members of social networks, federations, or confederations of units who are in direct communication with each other, continually defining and/or redefining their inter-relationships and sharing a variety of communal services and functions. This does not necessarily mean that the isolated firms of competitive economic theory do not exist: this review, however, did not make a determined effort to find studies about them, and none turned up by accident along the way. The relationship among business units was, in other words, social rather than strictly economic.

Second, the economic functions of the social structure appeared to be extremely complex. Some of those economic functions seems to be related to trust, something which has recently received a good deal of emphasis within the economics literature. But, in other respects, the social structure appeared to function in a way which facilitated communication like a language community. The members of the community were likely to bond with each other rather than with outsiders because they understood each
other better and hence could consummate the relationship more readily and rapidly. Trust and communications might thus constitute two dimensions in a typology but it is not clear that they are actually separable socially (although clearly they are separable in terms of their economic functions). They may actually be a dimension of a more fundamental aspect of human societies, like culture.

Third, to the extent we are talking about cultures, the cultures observed in the literature are of at least two kinds. One is organisational culture growing out of large business corporations. The second are geographically based cultures which are often ethnic in nature. A third cultural category might be that associated with Route 128 or Silicon Valley: in a sense, it is a professional culture but since it extends beyond members of the engineering profession in a narrow sense, "professional" is too limited a term to capture the essence of this third type. At any rate, the three types of culture clearly have different origins and different capacities to span geographic distance.

Fourth, the degree of direct co-ordination among the business units also seemed to differ substantially. In corporate organisations, there remained a managerial hierarchy. Its long run role in directing the organisation is debatable but is clearly an important factor now and seems likely to continue into the foreseeable future. In construction and movies, there was also clearly a general contractor who put the various components together, co-ordinated their activities, and mediated their relationship with each other. In the garment industry or in Route 128 ventures, or in the decentralised broadcasting industry, this kind of co-ordination was weaker (possibly even non-existent) and certainly less apparent.

Fifth, in some cases there was a central organisation which mediated the relationship between the community and the produce market whereas in others that was not apparent. The corporation was one such organisation. The general contractor did this in construction, the studios in the decentralised movie industry. It is harder to identify a single mediating organisation in the broadcasting industry although, at various times, advertising agencies and rating services played important roles. There is no mediating organisation in garments, or Route 128 and even the general contractor in construction is not a mediator in the sense that the studio is in the movies or the corporation is in manufacturing. The role of the mediating organisation is related to the idea of "economies of scope", a term much used in the literature but never tightly defined.

Finally, these small firms were linked together by other formal organisations which provided the community with social overhead capital, such as skill training, research and development, and physical infrastructure in the form of roads, sewers, industrial parks and the like. The organisations providing formal services were different from the mediating organisations. They tended to be trade unions, trade associations, or municipal governments.
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