

# **DOCUMENT**

**PROGRAMME OF RESEARCH  
AND ACTIONS ON THE DEVELOPMENT  
OF THE LABOUR MARKET**

**JOB CREATION IN SMALL  
AND MEDIUM SIZED  
ENTERPRISES**

**SUMMARY REPORT  
ISSUES FOR RESEARCH AND POLICY  
UNITED KINGDOM  
ITALY**

**VOLUME I : MAIN REPORT**



**COMMISSION  
OF THE EUROPEAN COMMUNITIES**

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**Commission of the European Communities**

**Programme of Research and Actions  
on the Development of the Labour Market**

**JOB CREATION IN SMALL AND MEDIUM SIZED ENTERPRISES**

**Summary Report  
Issues for Research and Policy  
United Kingdom  
Italy**

**VOLUME I**

**Main Report**

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The research (study 85/9) on which these reports were based was financed by the Commission of the European Communities as part of its programme of Research and Actions on the development of the Labour Market.

The analysis and conclusions are the responsibility of the authors. They do not necessarily reflect any views held within the Commission of the European Communities nor do they commit it to a particular view of the Labour Market or any other policy matters.

## SUMMARY

This study analyses the various studies which have taken place into the role of small and medium sized enterprises (SMEs) in the creation of employment in the 12 countries of the European Economic Community. It also reviews the policy initiatives which have been introduced at national, regional and local level, with the objective of stimulating employment creation in SMEs.

The main results of the study are:

- SMEs are increasing their share of employment in most Community countries;
- studies which trace the development of individual firms through time (job generation studies) show that SMEs are creating jobs at a more rapid rate than are large firms;
- relatively few firms are responsible for the majority of jobs created;
- the reasons for these trends are unclear, and may vary from country to country;
- the characteristics of jobs created by SMEs differ from those created by large firms;
- in many Community countries, the creation of jobs in new and small firms is a major component of employment policy at national and local level;
- the impact of most policy initiatives on registered unemployment is unclear. In particular deadweight and displacement effects are difficult to identify and measure;
- it is suggested that a more selective approach to small firms policy would be effective in creating large numbers of jobs with minimum deadweight and displacement effects.

This study was financed by the Commission of the European Communities as part of its Programme of Action and Research on the Development of the Labour Market. The analyses and results presented do not necessarily reflect the views of the Commission, nor do they commit it to a particular view of the labour market or on other policy matters.

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CHAPTER 1

SMALL AND MEDIUM SIZED ENTERPRISES AND EMPLOYMENT CREATION  
IN THE EEC COUNTRIES - SUMMARY REPORT

S. Johnson

D.J. Storey

1. SMALL AND MEDIUM SIZED ENTERPRISES AND EMPLOYMENT CREATION IN THE  
E.E.C. COUNTRIES - SUMMARY REPORT

1.1 Background and research methodology

The creation of jobs in small and medium sized enterprises (SMEs) and the stimulation of new firm formation and self employment are major components of the employment policies of all E.E.C. Governments, and forms the basis of numerous job creation strategies at regional and local levels within the Community. However, relatively little is known about the role of SMEs in job generation within Europe - the arguments for small firms policies are often based upon the experience of the U.S.A. where several major studies (and particularly the pioneering work of Birch in 1979) have suggested that small firms are a major source of new jobs.

This study has been undertaken on behalf of DG V (Employment and Social Affairs) of the European Commission as part of its Programme of Research and Actions on the Development of the Labour Market. The main objectives of the study are:

- (i) to collate and analyse existing studies of job generation in SMEs in the twelve countries of the Community;
- (ii) to identify gaps in the existing information on job creation in SMEs which should be filled;
- (iii) to draw out the main conclusions of the existing research on job creation in SMEs;
- (iv) to identify national or local measures which directly or indirectly stimulate or impede the growth of existing SMEs, and the birth of new SMEs;

- (v) to identify policy actions concerning SMEs which should be considered by the Commission in pursuing its programme of action to combat unemployment.

The project has not therefore involved the undertaking of any new original research, but has been concerned with collating and synthesising material from all E.C. countries on the following issues:

- The size distribution of employment in the manufacturing and service sectors;
- recent developments in the size distribution of employment;
- the role of SMEs in employment creation;
- the characteristics of jobs created by SME's;
- rates of new firm formation, and the contribution of new firms to employment;
- policies aimed at SMEs and their effectiveness in the creation of employment.

Reports were commissioned from experts on the Federal Republic of Germany, Italy, France, the Netherlands, Belgium/Luxembourg and Spain/Portugal. The reports on the United Kingdom, Ireland, Denmark and Greece were compiled by the co-ordinators. A list of contributors to the study is contained in an Appendix to this report.

This report provides a brief summary of the findings of the country reports, together with some overall conclusions and recommendations for future research and policy. The reader is encouraged to consult the full report for details of the situation in each of the member countries.

## 1.2 Definitional and methodological problems

International comparisons are always extremely difficult, and this is particularly the case with comparisons of firm size and employment. Official data sources often cover different sectors, different time

periods and use different classification intervals. For instance, only five E.C. countries (France, Belgium, Spain, Greece and Netherlands) have reliable recent data on the size distribution of employment in the service sector, with comparable figures for the Federal Republic of Germany available only for 1970. Recent data for FRG and Denmark are only available for manufacturing firms with more than 20 and 6 employees respectively.

It is important to define Small and Medium Sized Enterprise (SME) for the purposes of comparisons. Contributors from the various countries used different cut-off points, but in this chapter we will follow the OECD convention in defining a firm with less than 20 employees as a small enterprise, and one with between 20 and 99 employees as a medium-sized enterprise. Hence, an SME employs less than 100 workers. This cut-off point is most appropriate to the larger economies and to the manufacturing sector. For the service sector, a lower cut-off point may be desirable, but as most of our comparisons apply to the manufacturing sector, this problem is relatively unimportant.

It is important to distinguish between an enterprise which is a separate legal entity, and an establishment which is a single place of work which may be part of a larger multiplant enterprise. Where possible, data is presented on the basis of enterprise size, but in some cases, establishment size is used due to the lack of enterprise-based data.

Ideally, the contribution of SMEs to job creation should be measured by tracking the development of individual firms over time, measuring employment change due to the opening, closure, expansion and contraction of firms of different size groups. Unfortunately such 'job generation' studies have been carried out only in five E.C. countries - the United Kingdom, Ireland, FRG, Italy and France. The studies which were reported by the collaborators differ widely in their sectoral and geographical coverage, the time periods covered, the reliability of the data and in the way in which the results are presented. Only the U.K and France have national job generation studies which cover both the manufacturing and the service sectors. Detailed descriptions of the

studies are given in the appropriate chapters of the main report, and technical details are kept to a minimum in this chapter. The reader is, however, warned that the comparisons presented here should be taken as indicative rather than definitive of trends in the various EEC countries.

The remainder of this report is divided into six sections. Section 1.3 reviews recent trends in the distribution of employment by enterprise size. Section 1.4 examines and compares the results of the 'job generation' studies which have been carried out in some countries. The contribution of new firms to job creation is analysed in Section 1.5 and the important question of the type of jobs created by SMEs is discussed in Section 1.6. Section 1.7 describes the various measures which have been introduced in E.C. countries to encourage the creation of jobs by SMEs. and finally in Section 1.8 some suggestions for future research and policy directions are made.

### 1.3 The Size Distribution of Employment

The relative importance of small and medium sized firms in employment in the EEC countries is illustrated in Tables 1.1 to 1.3. In five out of the six countries for which data for the whole economy is available (Table 1.1) over half of the working population is employed in SMEs. In Greece, half of the population works in firms with less than 10 employees. There are clear sectoral variations in the size distribution of employment. Data on a broadly comparable basis for all EC countries is available only for the manufacturing sector (Table 1.2). This shows that there are significant variations between member states in the proportional contribution of SMEs to total employment. SMEs provide around 20 per cent of manufacturing jobs in the UK and Luxembourg, between 30 and 45 per cent in France, the Netherlands, Belgium, Spain, Portugal, Ireland and Denmark and over half of manufacturing jobs in Greece and Italy. SMEs are more important in the service sector, providing well over half of all jobs in the six countries for which data is available (Table 1.3).

TABLE 1.1

Size Distribution of Employment at latest available date  
- whole economy (percentages)

<u>Country</u>	<u>Date</u>	<u>Enterprise Size (Number of employees)</u>			
		<u>&lt; 20</u>	<u>20-99</u>	<u>100-499</u>	<u>500+</u>
France	(1986)	29.7	25.4	[ 44.9 ]	
Netherlands	(1980)	26.6 <sup>a</sup>	30.9 <sup>b</sup>	[ 57.5 ]	
Belgium	(1983)	25.0	20.9	21.5	32.6
Spain	(1986)	24.3 <sup>a</sup>	34.3 <sup>b</sup>	20.0	21.3
Greece	(1978)	51.7 <sup>a</sup>	17.0 <sup>e</sup>	[ 31.3 ]	
Portugal	(1985)	[ 57.6 ]		25.5	16.9

Notes :

- a 1-9
- b 10-99
- c 20+
- d 6-19
- e 10-49



Table 1.2

Size Distribution of Employment at latest available date  
manufacturing (percentages)

<u>Country</u>	<u>Date</u>	<u>Enterprise Size (Number of employees)</u>			
		<u>&lt; 20</u>	<u>20-99</u>	<u>100-499</u>	<u>500+</u>
United Kingdom	(1983)	[ 22.0 ]		14.4	63.6
Italy	(1981)	22.9 <sup>a</sup>	36.0 <sup>b</sup>	21.3	19.8
F.R. Germany <sup>c</sup>	(1983)	-	16.0	24.8	59.2
France	(1980)	18.8	25.3	28.8	27.1
Netherlands	(1980)	10.7 <sup>a</sup>	27.1 <sup>b</sup>	[ 62.2 ]	
Belgium	(1983)	12.1	20.7	25.8	41.3
Luxembourg	(1980)	7.7	11.5	25.8	55.0
Spain	(1978)	20.2	23.2	21.8	34.8
Portugal	(1985)	[ 43.8 ]		33.7	22.5
Ireland	(1980)	9.5	28.6	30.6	20.4
Denmark	(1982)	10.1 <sup>d</sup>	29.7	34.6	25.6
Greece	(1978)	39.3 <sup>a</sup>	[	60.7	]

See notes to Table 1.1

TABLE 1.3

Size Distribution of Employment at latest available date  
- Service Sector (percentages)

<u>Country</u>	<u>Date</u>	<u>Enterprise Size (Number of employees)</u>			
		<u>&lt; 20</u>	<u>20-99</u>	<u>100-499</u>	<u>500+</u>
France	(1986)	41.8	30.3	18.8	9.1
Netherlands	(1980)	35.9 <sup>a</sup>	29.1 <sup>b</sup>	[ 35.0	]
Belgium	(1983)	33.8	21.9	20.2	24.2
Spain	(1986)	[ 59.7	]	18.0	22.3
Greece	(1978)	63.7 <sup>a</sup>	[	36.3	]
Portugal	(1985)	[ 78.8	]	14.8	6.3

See notes to Table 1.1

Table 1.4 presents time series data on the percentage share of SMEs in manufacturing employment in the countries of the E.E.C. Data are presented for manufacturing only for two reasons. Firstly figures for the whole economy are available for less than half of the member states. Secondly, the inclusion of the service sector would make it difficult to distinguish between trends related to the changing sectoral distribution of employment and more general secular trends. Table 1.4 suggests that SMEs are becoming more important employers of labour in most EEC countries. Notable exceptions to this trend are the Netherlands where SME employment has remained relatively constant, and Greece where small firm (less than 10 employees) employment has declined in importance. It should be noted, however, that in most cases the changes are relatively minor. Only the United Kingdom has experienced an enormous increase in the share of SMEs in manufacturing employment, although changes in Italy, FRG, France and Denmark are constant and noticeable.

An increase in the share of SMEs in total employment does not necessarily imply that SMEs are creating jobs. It may be for instance that they are simply losing employment less rapidly than are larger firms. Table 1.5 illustrates that in the UK, France, Netherlands, Belgium and Denmark, there is an absolute decline in employment in manufacturing SMEs. In all cases except the Netherlands, large firm employment has declined at a more rapid rate than has SME employment leading to an increased share of SMEs in total employment. In Italy and F.R. Germany, SME employment has increased whilst large firm employment has declined. Only in Ireland has both large firm and SME employment increased. SME employment increased at a relatively more rapid rate over the 1973 to 1980 period meaning that the share of large firms in total employment has declined.

For most of the participating countries, the only national evidence which is available regarding the role of SMEs in employment creation are the figures reproduced in Tables 1.4 and 1.5. In many cases, an increasing share of SMEs in total employment is taken to indicate that SMEs are creating jobs more rapidly than are large firms. However, it

TABLE 1.4

Percentage Share of SMEs in Total Manufacturing Employment 1970-1984

<u>Country</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>
United Kingdom		15.5	16.0	15.3	16.0	16.6	17.0	17.1	17.3	17.5	18.8	20.3	21.1	22.0	
Italy		53.1										59.0			
F.R. Germany <sup>a</sup>	12.5						13.1	15.9			15.4			16.0	
France		23.6	24.3		24.4	25.3	25.5	24.7	25.8	26.1	26.7	27.7			
Netherlands									34.9	35.1	34.8	34.7	34.6		
Belgium											28.1	28.2	28.5	28.6	28.9
Luxembourg				18.0				17.9	18.5	19.3	19.2				
Spain												56.4	57.5	57.8	57.8 <sup>d</sup>
Portugal	46.0											42.6			43.8 <sup>d</sup>
Ireland				36.6							38.1				
Denmark				31.3	31.3	33.7	33.5	34.3	34.0	33.6	33.0	34.3	34.0	35.1	
Greece	47.8								39.3						

Notes : a 20+  
b Whole economy  
c 1 - 9  
d 1985

SME is defined as a firm with less than 100 employees

**TABLE 1.5**  
**Absolute Changes in Manufacturing Employment by Firm Size**

<u>Country</u>	<u>Time Period</u>		<u>Base Year</u> <u>Employment</u> <u>(000)</u>	<u>Final Year</u> <u>Employment</u> <u>(000)</u>	<u>Absolute</u> <u>Change</u> <u>(000)</u>	<u>Percentage</u> <u>Change</u> <u>(%)</u>
U.K.	1971-1982	SME	1159.0	1078.1	- 80.9	- 7.0
		LGE	6299.8	4040.9	- 2258.9	- 35.9
		TOT	7458.8	5119.0	- 2339.8	- 31.4
Italy	1971-1981	SME	2713.0	3379.6	+ 666.6	+ 24.6
		LGE	2422.4	2368.5	- 53.9	- 2.2
		TOT	5135.4	5748.1	+ 612.7	+ 11.9
F.R. Germany	1971-1985	SME	1049.6	1073.5	+ 23.9	+ 2.3
		LGE	7346.9	5635.6	- 1711.3	- 23.3
		TOT	8396.5	6709.1	- 1687.4	- 20.1
France	1980-1984	SME	2978.3	2787.8	- 199.5	- 6.7
		LGE	3781.2	3171.4	- 609.8	- 16.1
		TOT	6768.4	5959.2	- 809.2	- 12.0
Netherlands	1960-1980	SME	524.0	389.0	- 125.0	- 24.3
		LGE	751.0	641.0	- 110.0	- 14.6
		TOT	1265.0	1030.0	- 235.0	- 18.6
Belgium	1978-1983	SME	267.9	228.7	- 39.2	- 14.6
		LGE	548.1	566.9	- 81.2	- 14.8
		TOT	816.1	696.6	- 119.5	- 14.6
Ireland	1973-1980	SME	79.6	92.3	+ 12.7	+ 16.0
		LGE	138.0	150.2	+ 12.2	+ 8.8
		TOT	217.6	242.5	+ 24.9	+ 11.4
Denmark	1970-1982	SME	156.9	142.7	- 14.2	- 9.1
		LGE	261.7	215.8	- 45.9	- 17.5
		TOT	418.6	358.5	- 60.1	- 14.4

comparative static data presented in this section. Changes over time in the stock of employment in different size groups are the result of considerable flows of firms between size groups (expansions and contractions) and moves in and out of the population of firms (births and deaths). Hence, an increase in the share of employment in the SME

is not possible to draw such unambiguous conclusions from the type of sector may reflect a combination of dynamic processes, each of which has profoundly different policy implications, viz:

- an increase in the average size of firms within the SME sector;
- an excess of births of SMEs over deaths;
- an increase in SME employment due to the movement of larger firms into the SME category as a result of contraction;
- a reduction in the average size of firms remaining in the 'large' category;
- an excess of deaths of large firms over births.

It is only possible to distinguish these underlying movements by tracing the development of firms through time and recording the employment created/lost through expansions, contractions, births and deaths, according to size category. This type of longitudinal study is known as a 'job generation' or 'components of change' study.

#### 1.4 The Contribution of SMEs to Employment Creation

A clear description of the role of SMEs in job creation within a country should ideally be based on the analysis of a database which includes all firms which have existed within that country at any time between the two dates between which employment change is being analysed. Unfortunately, such databases are extremely rare and those which do exist tend to be held by central government departments which are often unwilling to allow outside bodies to examine them, due to problems of confidentiality. This means that researchers have been forced to compile their own databases from sources which are publicly available. The largest of such databases are those collected by private credit-rating or business information firms such as Dun and Bradstreet (the source used by Birch in the USA). Credit-rating databases have been used by researchers in the UK and in West Germany to analyse employment change, but serious doubts are expressed in the UK and FRG reports about the representativeness of such databases.

Other sources of information which have been used include local/regional databases compiled from various public and private sector databases (East Midlands, Northern England, Poitton-Charentes), data supplied in confidence by authorities responsible for administering public sector industrial assistance schemes (Ireland, FRG) and data derived from surveys (FRG). All of the studies which have been reviewed suffer from some problems such as restricted geographical or sectoral coverage, or the absence of data on key components such as openings and closures. The latter problem is particularly important in studies of SMEs because of the relatively high birth and death rates recorded by such firms. For instance, studies which only analyse the behaviour of survivors and new firms and do not include firm death in their analysis, tend to overstate the role of SMEs in job generation.

For the reasons outlined above, it is difficult to obtain a clear international comparison of the results of job generation studies. In addition, results can be presented in different ways - some researchers prefer to report the percentage of new jobs created by small firms; others present percentage rates of change; some studies omit key figures such as base year employment. An attempt has been made here to present the results of the various studies reviewed by our collaborators, on a reasonably comparable basis. This is shown in Table 1.6, where employment change in each size group of firm is expressed as an annualised percentage of total base year employment. A study of Italy by Contini et al has been excluded from this table as it only analyses employment change due to births and deaths, and the Italian report does not provide base year figures upon which percentages could be calculated. This study is reviewed in Section 1.5.

The clear picture which emerges from Table 1.6 is that studies covering a variety of time periods, geographical areas and economic sectors have

TABLE 1.6  
Job Generation Studies in Europe

<u>Country/Area</u>	<u>Time Period</u>	<u>Coverage</u>	<u>Annualised % Change in Employment</u> <u>(% of Total Base Year Employment)</u>					<u>Total</u>
			<u>Size of Firm/Establishment</u>					
			<u>&lt; 20</u>	<u>20-49</u>	<u>50-99</u>	<u>100-499</u>	<u>500+</u>	
<u>UNITED KINGDOM</u>								
East Midlands	1968-1975	Manuf.	+ 0.4	+ 0.3	+ 0.2	- 0.3	- 0.9	- 0.3
Northern England	1965-1976	Manuf.	+ 0.2	+ 0.1	+ 0.0	- 0.1	- 1.0	- 0.8
Northern England	1976-1981	Manuf.	+ 0.2	- 0.0	- 0.2	- 1.6	- 3.8	- 5.4
United Kingdom	1972-1975	Manuf.	0.0	0.0	- 0.0	- 0.0	- 0.1	- 0.1
United Kingdom	1971-1981	All Sectors	+ 0.8	- 0.1	- 0.0	- 0.1	- 1.4	- 0.7
United Kingdom	1982-1984	All Sectors	+ 2.0	+ 0.3	- 0.0	- 1.0	- 2.2	- 0.9
Northern Ireland	1971-1981	Manuf.	+ 0.1	- 0.0	- 0.2	- 1.2	- 1.9	- 3.2
<u>F.R. GERMANY</u>								
F.R.G. (sample)	1974-1981	All Sectors	+ 0.2	+ 0.2	+ 0.2	+ 0.2	- 0.5	+ 0.3
F.R.G. (4 regions)	1974-1980	All Sectors	+ 0.8	+ 0.7	- 0.0	- 0.2	- 0.5	+ 0.8
Northrhine - Westfalia	1978-1984	Manuf.	- 0.2	- 0.3	- 0.3	- 0.9	- 1.3	- 3.0
Ruhr & Frankfurt	1975-1980	All Sectors	+ 1.1	- 0.4	- 0.4	- 0.5	+ 0.5	+ 0.3
<u>FRANCE</u>								
Poitou-Charentes	1972-1984	All Sectors	+ 1.0	+ 0.7	- 0.1	- 1.9	- 2.4	- 2.6
France	1981-1983	All Sectors	+ 0.0	- 0.1	- 0.1	- 0.4	- 0.4	- 1.0
<u>IRELAND</u>								
Ireland	1973-1980	Manuf.	[ + 0.7 ]	+ 0.3	- 0.3	- 0.2	+ 0.6	



shown that small and medium sized enterprises are creating jobs at a time when large enterprises have been reducing their employment levels. In all studies, apart from Northrhine-Westfalia in FRG, firms with less than twenty employees are experiencing a net increase in employment. The studies of UK and Ireland show that firms with 500 or more workers are losing jobs. Moreover, in the only two studies where time-series comparisons are possible (UK all sectors, Northern England) the rate of job loss in large enterprises has accelerated in the more recent time period.

Most studies reveal a declining rate of job creation or an increasing rate of job loss as firm size increases. Exceptions to this occur in Ruhr/Frankfurt where large firms (500+) are creating jobs. The main differences between the various results lie in the point at which net job generation becomes negative. Most UK studies suggest negative, or very weak, job generation rates in firms with more than 20 employees. The French national results and the FRG regional studies exhibit a similar pattern. In the national (sample) FRG study of 1974-1980, and in Poitiou Charentes, job generation becomes negative at 50 employees, whereas in Ireland and Northern England (1965-76) firms continue to exhibit positive net job generation up to the 100 employee point. It is unclear whether these findings reflect genuine international differences, or whether they are simply due to variations in coverage and methodology between the different studies.

Several important points should be noted regarding the results discussed in this section. Firstly, in only four of the fourteen studies examined in Table 6 is the overall net change in employment positive. In the case of the two studies of the FRG this is undoubtedly due to the fact that job losses due to firm closures are excluded from the analysis. In one of the remaining cases of positive employment change - Ruhr/Frankfurt - it is interesting to note that large firms as well as small experienced a net increase in employment. In the case of Ireland, the data is based on establishments rather than firms, and a more detailed analysis of the evidence suggests that much of the increased employment in small establishments is due to the opening and expansion

of branches of multi-national enterprises. This suggests that the overall job generation performance of an economy is strongly influenced by the behaviour of large enterprises. Small firms appear to be net creators of jobs in both expansionary and recessionary employment conditions, but the small firm contribution to job growth appears to be greater in periods of overall decline in employment.

Secondly, the net figures presented in Table 1.6 do not imply that all small firms are creating jobs nor that all large firms are losing jobs. Indeed, a detailed analysis of the evidence suggests that, if we exclude births and deaths of firms, relatively few firms are responsible for the vast majority of jobs created in expansions of existing firms. This is clearly illustrated in Table 7 which traces the development of firms which are in the smallest size group at the beginning of the period under study, in the UK, France and Ireland. This shows that, even over a period as long as twelve years, only a very small minority (less than ten per cent) of small firms grow out of the smallest size category, and less than one per cent of firms grow sufficiently to become large enterprises (with more than 100 employees). However, these few firms are responsible for a significant proportion of the new jobs which are created in the expansion of small firms. For instance, according to the UK (1982-1984) study, 0.12 per cent of small firms were responsible for the creation of 275,000 jobs. Similarly, relatively few firms are responsible for the majority of job losses. For instance, the closures of just 400 firms (0.07 per cent of all firms in existence in 1982) led to the loss of 570,000 jobs in the UK between 1982 and 1984.

Thirdly, it is perhaps not surprising that small firms exhibit net job growth in the vast majority of studies. By definition, the closure or contraction of a small firm will lead to relatively few job losses, whereas the rapid expansion of one or two firms can 'make up' for losses in a large number of firms. For larger firms, the position is reversed. The contraction or closure of one or two firms will outweigh job gains made in other large firms.

TABLE 1.7

Jobs created in Expansions of Small Firms\*

	<u>Employment size group at end year</u>						<u>Total (n)</u>
	<u>0</u>	<u>1-19</u>	<u>20-49</u>	<u>50-99</u>	<u>100-499</u>	<u>500+</u>	
<u>UK 1982-84</u>							
% of Firms	10.6	87.7	1.2	0.3	0.1	0.02	560,250
% of Jobs in Expansions	-	0.0	23.1	19.7	22.0	28.3	550,000
<u>France 1981-83</u>							
% of Firms	30.5	64.7	4.5	0.2	0.09	0.005	22,200
% of Jobs in Expansions	-	0.0	57.0	16.1	23.5	3.2	15,805
<u>Poitou Charentes 1972-84</u>							
% of Firms	61.9	33.3	4.2	0.5	0.06	0.06	1,682
% of Jobs in Expansions	-	0.0	47.8	14.5	6.6	31.1	2,483
<u>Ireland 1973-80</u>							
% of Firms	25.9	65.5	6.2	1.7	0.7	0.0	1,980
% of Jobs in Expansions	-	na	na	na	na	na	34,587

\* 'Small firms' defined as less than 20 employees, apart from Ireland - less than 25 employees.

This point is most clearly explained by Hull, in his review of job generation in the Federal Republic of Germany:

" (the observed pattern of employment change) may simply reflect size-related differences in employment behaviour which a life-cycle view of the firm would lead one to expect as normal... Job generation studies have yet to be undertaken which calibrate size-specific employment trends against a life-cycle prediction of what might be considered normal"

Thus it can be concluded that the job generation studies which have been undertaken to date in the EEC countries are unanimous in finding that the net employment performance of SMEs is better than that of large firms. However, it must be noted that the vast majority of SMEs either remain small or die; only a small minority create the vast majority of new jobs. Similarly job loss is concentrated in relatively few large firms, and some medium-large and large firms are creating significant numbers of jobs. We now turn to a specific examination of the contribution of new firms to employment change.

#### 4.5. New firms and Job Generation

New firms have been the focus of a great deal of attention by researchers and policy-makers in the recent past. Many studies have attempted to investigate the factors which influence new firm formation rates, and the motivations of entrepreneurs. This section will confine itself to an analysis of the employment impact of new firms.

Several contributors noted a recent trend towards higher levels of new firm formation and self-employment in their countries. This trend is not, however, uniform across the Community, with Denmark in particular noting a decline in the number of business units in existence. Death rates of firms have also increased in many countries, but in most cases births have exceeded deaths, leading to an increase in the stock of

businesses. Sectoral and spatial variations in new firm formation rates were also noted by contributors.

The employment impact of new firms is more difficult to discern, as national figures on firm formation rates (such as those based upon VAT registrations) tend not to include employment figures. However, some evidence is available from job generation studies which include new firms and from various surveys which have been conducted.

Remarkably similar results emerge from the various studies. Firstly, a significant proportion of new firms fail within a relatively short period of time, meaning that their contribution to employment is essentially transient. A study of the Netherlands suggests that around 40 per cent of new firms survive for a decade, and that surviving firms create an average of six jobs in those ten years.

Similar results emerge from studies in the UK and Ireland. The contribution to overall employment of new firms which survive over a relatively long period of time is modest. In Ireland, the median size of wholly new plants born in 1971 and surviving to 1981 is 11 employees. Of the 146 plants born during that year and surviving to 1981, only 12 employed more than 50 employees by 1981. A comparison of various UK studies reveals that, at any one time, firms born during the past ten years account for between one and eight per cent of total employment - an important, but not overwhelming contribution. Although it is not possible to make direct international comparisons, it seems that the pattern for new firms is similar to that of small firms - a majority fail within ten years of opening, most of the rest remain small, and very few new firms grow sufficiently to make a noticeable contribution to total employment.

#### 1.6 The Type of Jobs Created

Several of the country reports examine the issue of the type of jobs created by small and medium sized enterprises. Only in the case of

France do comprehensive official statistics exist on this issue, but in other countries such as the UK, F.R. Germany, Netherlands and Spain there is some evidence from the results of various surveys and special enquiries.

The results of the various analyses which are presented in this report are that the jobs which exist in small firms are fundamentally different from those in larger enterprises in several ways.

Firstly, small firms tend to employ a greater proportion of female workers and particularly part-time females, than their larger counterparts. A Dutch survey reported in Chapter 7 suggests that 37 per cent of small firm employees (i.e. with 1-9 employees) are female, compared with 26 per cent of large firm (100+) employees. In the Federal Republic of Germany, it is found that a disproportionate number of female small firm employees were working part-time. Firms with less than 20 workers employed 30 per cent of all female workers, but 40 per cent of all female part-time workers, a substantial proportion of which worked less than 15 hours per week. In Northern England, it was found that the proportion of part-time females in the workforce is negatively related to plant size. Finally, the French "Survey of the Activity and Conditions of Employment of the Labour Force" found that 7.5 per cent of workers in firms with less than 50 employees were part-time, compared with 4 per cent of large firm workers. The proportion of part-time workers is increasing over time within all size categories, but is increasing more rapidly in the larger size group.

The skill level of manufacturing employees is found to be higher in small than in large firms in both the UK and F.R. Germany. The German report suggests that 76 per cent of male manual workers in small manufacturing firms are in the skilled category, compared with 60 per cent in large firms and 64 per cent overall. The proportion of unskilled male manual workers is unaffected by firm size, but the proportion of semi-skilled workers increases with firm size. The evidence for France is slightly more ambiguous, as data on the occupational distribution of employment is not disaggregated by sector.

When compared with large firms, small firms in France employ a similar proportion of skilled manual workers, a lower proportion of unskilled manual workers and a higher proportion of white collar employees (both skilled and unskilled).

The French report suggests that small firm employment is more unstable than large firm employment. Small firms experience much higher levels of turnover than do large enterprises, which have a high proportion of 'permanent' workers, who tend to be better paid than their small firm counterparts. Evidence from F.R. Germany suggests that small firm employees experience lower levels of pay than is the case for those working in large firms. French data suggests that remuneration in large firms is 60 per cent higher than in smaller firms.

It must therefore be concluded that, although the evidence is not conclusive, the type of jobs created in small firms are likely to be of a lower quality than those which exist in large firms. A particularly important aspect of this matter is that it may be expected that a relatively small proportion of jobs created by SMEs are likely to be filled by the registered unemployed, and in particular the long term unemployed in the depressed industrial regions. Low-paid, unstable part-time jobs, or skilled manual jobs are unlikely to be attractive to the unskilled and semi-skilled males who dominate the unemployment registers in many EEC countries.

### 1.7 Small Firms Policies in the Member States

A detailed description of all of the policies which have been implemented in the EEC countries to encourage employment creation in SMEs would take up a great deal of space. Almost every member state has introduced a large variety of measures which differ in scope and detail, most of which have been introduced over the past ten to fifteen years. In addition to the national policies, local and regional authorities have been active in the promotion of SMEs, and private sector and voluntary sector initiatives are common in some countries. This section

will provide a brief overview of the type of policies which have been introduced, together with some specific examples from the country reports. Readers are advised to consult the appropriate chapter(s) for full details of schemes and policies in which they are interested.

The various small firms policies will be discussed under the following headings:

- (i) Financial assistance for business start-ups;
- (ii) Financial assistance for investment and expansion;
- (iii) Advice, consultancy and training;
- (iv) Support for innovation and technology transfer;
- (v) Assistance with premises;
- (vi) Locally-based initiatives;
- (vii) Private sector and voluntary initiatives.

#### 1.7.1 Support for business start-ups

The promotion of new firm formation and self-employment, particularly amongst the unemployed population, is a major aspect of the employment policies of member states. Various financial support schemes have been devised to encourage this process. In both the UK and Ireland, an Enterprise Allowance Scheme is in operation, whereby unemployed people wishing to start their own businesses receive a grant approximately equivalent to the unemployment benefit they would have received over a period of one year. A similar scheme operates in France, with the unemployed having the option of capitalising future benefits in order to provide sufficient capital to start a business. In other countries, such as FR Germany, the Netherlands and Belgium, soft loans are available to suitable people wishing to start a business. A scheme operates in Germany whereby savings which are made by people with a view to business start-up are subsidised from central government funds.



### 1.7.2 Financial assistance for investment and expansion

All member states offer some form of grant or subsidy towards capital investment, often under the auspices of regional development policy. Examples of this approach include the Small Industry Programme of the Irish Industrial Development Authority, the 'Sabatini Law' in Italy and Law 1262/82 in Greece. In addition, various credit guarantee schemes aimed at small businesses are found in several countries. In the UK the Loan Guarantee Scheme provides a guarantee of 70 per cent of funds lent by banks to small businesses. A similar Credit Guarantee Scheme operates in the Netherlands. Equity investment in small businesses is encouraged through schemes operated in the UK and FRG. Finally, the Belgian authorities operate various schemes designed to encourage small firms to take on extra staff in specified groups, such as the disabled or young unemployed. Employment and wage subsidies also operate at a regional and local level in some countries (see Section 1.7.6).

### 1.7.3 Advice, consultancy and training

Instances of support for advice, consultancy and training for small firms were noted in most country reports. Two categories of support can be distinguished - direct provision of free advice (UK Small Firm Centres, local EOMEX in Greece and regional advice centres in the Netherlands) and the subsidisation of consultancy and training obtained from independent bodies by small businesses. The latter approach appears to be favoured in F.R. Germany and Denmark, where small firms are refunded a proportion of the costs involved. The UK government is also involved in supporting various small business training schemes such as 'Skills into Business' and the Graduate Enterprise Programme.

### 1.7.4 Support for Innovation

This type of support appears to be attracting growing attention in the member states surveyed in this report. Grants to support the

development of new products and processes are available in the UK, Italy, Netherlands, Belgium, Greece and Denmark. Several countries are experimenting with the introduction of Science Parks (UK, Netherlands, Italy) or Innovation Centres (Ireland) in order to facilitate the transfer of technology between universities and research institutes and SMEs. The report for the Federal Republic of Germany notes that government policy is moving away from the direct provision of R and D support (thought to benefit large firms) towards indirect support through grants and loans which will be beneficial to SMEs. The German Federal government operates a scheme whereby the costs to SMEs of recruiting R and D personnel are partly offset.

#### 1.7.5 Assistance with premises

This aspect of small firms policy is mainly implemented on a local level (see 1.7.6. below). The UK government supports English Estates, which is responsible for ensuring an adequate supply of premises, particularly in depressed areas, and the Danish government subsidises the building of Community Industrial Houses which provide small starter premises with central office facilities.

#### 1.7.6 Locally-based initiatives

In addition to the national schemes outlined above, local and regional authorities have become more and more involved in attempting to create jobs in the local economy. The approach has been almost exclusively aimed at small and medium sized firms, who are seen as sources of new jobs which are likely to remain in the local area rather than move elsewhere. The provision of suitable premises has been an important aspect of local intervention, but local authorities are increasingly providing grants and subsidies over and above those available through national schemes. Hence many UK local authorities provide wage subsidies to employers taking on local unemployed workers. Local advice and support centres are now common in many countries, and many local

authorities are keen to support co-operatives and community business ventures and businesses started by members of the ethnic minorities. Finally, an increasing number of local authorities, particularly in the UK are investing directly in local firms with a view to encouraging expansion and job creation in the local area.

#### 1.7.7. Private sector and voluntary initiatives

Large companies have become involved in support for small businesses in various ways. In industries undergoing substantial job losses in depressed areas of the UK (Iron and Steel, Mining) the firms have set up their own companies designed to help create jobs for redundant workers through grants subsidies, advice and retraining. Similar ventures have been attempted in Italy through IRI, the government holding company as well as 'private' initiatives undertaken by Montedison or Olivetti. In the Netherlands, the Philips company has set up a small business centre in the Hague in association with Job Creation Limited, a private sector company.

Private companies have been involved in support for various initiatives in the UK under the umbrella title of 'Enterprise Agencies'. These are organisations supported by private, voluntary and public sector sources, which provide advice and training to people wishing to set up businesses, or businesses wishing to expand. Enterprise Agencies have undergone an enormous growth over the past five years in the UK, and similar movements exist in France and the Netherlands.

It can thus be seen that there is no shortage of initiatives designed to assist SMEs in a variety of ways. The impact of these initiatives on jobs is extremely difficult to gauge, however, for several reasons. Firstly, many schemes have only been in existence for a short time and so analysis would be premature. Secondly, schemes may have a variety of objectives of which job creation is only one. Thirdly, it is often difficult to attribute jobs created to a particular initiative. Firms may be supported by several schemes, and there is often an element of

'deadweight', in that some jobs may have been created in the absence of policy. Finally, the information necessary to carry out a useful appraisal is often not available or available in a form which makes it extremely difficult to relate jobs created to resources expended. For these reasons it is impossible to provide a detailed comparative analysis of the effectiveness of small firms policies in job creation. Nevertheless we believe that monitoring and evaluation of the effectiveness of these schemes is important in order to assess 'best practice' in this complex field.

#### 1.8 Future directions for research and policy

This issue is discussed in detail in Chapter 2 of the main report, but the key points will be reiterated here.

This review has clearly indicated that small firms have become relatively more important in providing employment in almost all EEC countries. However, the key factors which influence these trends are poorly understood. Changes in technology, in world and domestic markets, in the sectoral distribution of employment, and in the behaviour of large companies (subcontracting etc.) have all been put forward as explanations of the observed trends. More recently, the role of unemployment in 'forcing' people to start their own businesses has become an important issue. Finally, the overall impact of the type of government policies discussed in Section 1.7 is unclear. It is important that policy makers understand the key factors underlying changes in the size distribution of employment if appropriate policies are to be introduced.

A finding which is of central importance in this report is that relatively few firms are responsible for the majority of new jobs created. It seems that the most cost-effective methods of creating jobs through public policy would be those which focus attention upon these few dynamic firms, and which encourage the maximisation of their job creation potential. Research has indicated that fast-growing small

firms encounter significant problems in many areas (premises, finance, recruitment, training) and that they would benefit from appropriate public sector intervention. In addition, firms which are growing rapidly tend to be selling a substantial proportion of output on national and international markets. Hence, policies which are designed to encourage such firms to create jobs are likely to result in low displacement and relatively high multiplier effects. Policy-makers should investigate the characteristics of fast-growing firms, and examine ways in which the public sector can help to overcome the problems which they face, and so maximise job creation potential.

Finally, the labour market impact of policies designed to create jobs in new and small firms is unclear. There is considerable evidence in this report to suggest that the jobs created in small firms differ from those which exist (or are lost) in large firms, in many respects. Small firms employ a relatively high proportion of female and part-time workers, skilled workers (in manufacturing firms) and tend to pay lower wages and offer inferior conditions of employment than do larger enterprises. Moreover, small firms jobs are relatively unstable and are often not created in areas in which there are large numbers of unemployed. It seems likely that the overall impact of small firm job generation on the unemployment register in most EEC countries will be relatively low, once displacement and labour market mismatch problems are considered. If small firms policies are to continue to be a major component of employment policies in Europe, this aspect should be given careful consideration.

AppendixList of Collaborators

<u>Country</u>	<u>Collaborator(s)</u>	<u>Institutions</u>
United Kingdom	D.J. Storey S. Johnson	University of Newcastle upon Tyne, England.
Italy	A. del Monte	University of Naples.
Federal Republic of Germany	C. Hull	International Institute of Management, Berlin.
France	B. Guesnier	University of Poitiers.
Netherlands	M.W. De Jong	University of Amsterdam.
Belgium ]	R. Donkels	KMO Studiecentrum.
Luxembourg ]	C. Bert	UFSAL, Brussels.
Spain ]	J. Lewis	University of Durham,
Portugal ]		England.
Ireland ]	D.J. Storey	University of Newcastle upon Tyne,
Denmark ]	S. Johnson	England.
Greece ]		

## 2. THE ROLE OF SME'S IN EUROPEAN JOB CREATION : KEY ISSUES FOR POLICY AND RESEARCH

### 2.1 Introduction

For those Politicians, Economists and Industrialists interested in the question of firm size the prime question, until the early 1970's, was whether there was an inevitable trend towards increasing size and increasing concentration. This was of key importance for the efficiency of a market because, although larger firms were often able to obtain scale economies at the plant level, and were able to marshal sufficient resources to undertake R & D, they were also often able to influence market price by variations in their own output. Of perhaps even greater concern was that large firms could both discourage the entry into the market of potential competitors and, by their advertising expenditure influence, in an unacceptable manner, the purchasing patterns of consumers.

From the 1920's onwards there seemed to be an inevitable tendency towards an increasing share of employment and output being concentrated in larger firms. For example, Hull reports the long period results of Stockman et al. (1983) who shows that in 1907 in Germany, firms with less than 10 workers provided 41.8% of employment and those with more than 1000 workers provided 31.8%. By 1970 matters had changed fundamentally, so that firms with less than 10 employees provided 22% of employment and those with more than 1000 employees provided 31.2%. Similar trends are likely to have been apparent in other countries. For example in the United Kingdom the proportion of total manufacturing employment in firms with less than 200 workers fell from 38.0% in 1935 to 22.6% in 1976 [Storey (1982)].

During the 1960's, and for some of the 1970's, there appeared to be little doubt that large firms would take an increased share of output and

employment. The policy questions which were discussed in that period were the extent to which these developments were desirable. The broad consensus which was apparent amongst European governments was that the growth of large firms had mixed benefits and that it was appropriate to impose controls upon them. Many governments often felt threatened by the presence of multinational companies within their borders especially when, worldwide, the company was more powerful than the government and within its borders the company was a major, often strategic, employer.

The outcome of these considerations was that in most countries a code of competition was drawn up (under a variety of different names) the objective of which was to ensure that the large firm did not exploit its strength within the market-place, either to provide a poorer quality product or charge an unacceptably high price for the product. On the other hand there were relatively few cases where large firms were required to become smaller since it was felt that such policies could seriously damage the competitive position of the firm. The major policy initiatives in this area covered merger and acquisitions, where large firms were often prevented from becoming even larger.

## 2.2 The Changes in the 1970's

During the 1970's these developments came to an abrupt halt. Not a single major OECD country for which data are available experienced, during the 1970's, the type of uninterrupted decline in importance of small firms and increasing concentration which had so characterised most of the previous three decades.

In Table 2.1 data for twelve OECD countries is taken and plotted on a time series. For each country the upper row provides an indication of the percentage of employment in manufacturing enterprises in the smallest size of enterprise (generally with less than 20 employees) and the lower row provides data on the percentage of employment in manufacturing enterprises in the largest size of enterprise (generally more than 500 employees).



TABLE 2.4  
EMPLOYMENT IN DIFFERENT SIZED ENTERPRISES : MANUFACTURING IN OECD COUNTRIES

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	COMMENT
Australia	1-19					11.6			11.3	11.2	11.8	11.8	12.6		Generally increase in small.
	500+					49.6			50.2	50.8	49.5	49.7	48.6		
Austria	1-19			15.8								17.4			
	500+			40.7								38.2			
Belgium	1-19								11.8	11.9	11.8	12.1	12.5	12.1	Very small and very large have grown
	500+								40.7	41.8	41.7	41.6	41.6	41.3	
Denmark	1-19			6.8	7.5	8.4	7.9	8.7	8.6	8.5	8.7	9.3	9.1	9.2	Increase in small Decrease in large
	500+			37.0	38.1	37.0	35.6	35.4	36.8	37.0	37.2	36.6	36.1	35.3	
Finland	1-19	8.8		8.4		7.7		7.8		8.6		9.1			Generally increasing small after 1974.
	500+	59.0		59.1		59.5		59.9		58.9		57.6			
France	1-19	6.5		6.8		7.0	7.6	7.7	6.6	7.5	7.6	8.0	8.7		General increase in small. 1977 is a blip.
	500+	52.5		53.1		53.1	52.2	52.0	52.1	51.8	51.3	50.7	49.4		
Luxembourg	1-19			8.2				7.5	7.5	7.6	7.7				Little change in small since 1977. Decline in large.
	500+			62.4				60.9	58.8	56.4	55.0				
Netherlands	1-19								12.5	12.7	12.6	12.8	13.0		Increasing small
	500+								N.A.	N.A.	N.A.	N.A.	N.A.		
Japan	1-29	26.5	26.1	26.5	26.9	26.4	27.1	27.9	29.0	29.4	29.3	28.8	28.3	28.2	Small peaks in 1978 and after for small. Declining for large.
	500+	36.2	36.5	36.8	35.8	36.9	35.4	33.9	32.9	32.4	31.7	32.3	32.7	32.9	
Sweden	1-19			9.8	9.9	9.8	10.0	9.7	9.9	9.8	9.5	9.8	9.8	10.2	No change in small or large.
	500+			56.3	55.9	56.4	56.2	56.3	55.7	55.7	56.7	55.8	55.2	54.1	
United Kingdom	1-19	N.A.		N.A.		N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		Continuous decline of large since 1973
	500+	70.3		71.5		70.5	69.9	70.1	69.9	69.6	68.2	66.3			
United States	1-19			4.8				4.9							Little change.
	500+			71.1				71.0							

Whilst there are major problems in undertaking international comparisons of the contribution of different firm sizes to employment it seems that this data is the best available. Analysis of Table 2.1 shows that in the majority of countries there is generally a lower proportion of employment in large enterprises at the end of the period than at the start. For small enterprises matters are reversed, with this size group generally having a higher proportion of employment at the end of the period than at the start.

These developments are also shown in the various country studies which were summarised in Chapter 1 of this report. For example Del Monte in Chapter 4 shows that in Italy between 1951 and 1961 establishments with less than 5 workers experienced a 2.7% decline in employment, whilst those with more than 1000 experienced a 4.2% increase. Similar, but even clearer, differences were apparent during the 1960's when the smallest sector experienced a 6.7% decline and the large sector a 27.7% rise. Matters were reversed in the 1970's where the large sector experienced a 13.1% fall and the small sector a 23.1% rise. Similar results were apparent from the Federal Republic of Germany, where Hull quotes the Bade (1985) results showing that within the manufacturing sector the firm with 20-49 employees has increased its share of employment from 5.6% in 1970 to 7.8% in 1983. On the other hand the firm with more than 1000 employees has experienced a decreased share of employment from 51.6% to 48.9%. The statistical material presented for the other EEC countries, which tends to cover only the late 1970's and early 1980's appears to indicate that similar trends are taking place in these countries and that such developments, if anything, are accelerating.

### 2.3 Why the change?

Currently there is no wholly satisfactory explanation for this change, because in some countries the change is relatively recent, whilst in others such as Japan there has been little real change. The lack of a suitable explanation may also be that the matter has only now become the focus of attention since there was, in some countries, a reluctance to

believe that the recent data was a genuine reversal of thirty year trends. This led to an unwillingness to search for explanations. Nevertheless writing in the mid 1980's it is now clear that a change has taken place in the size structure of employment units within most developed economies, and that this change began in some countries more than a decade ago.

In this section we will review the six explanations which have been presented, not purely with a view to obtaining understanding for its own sake, but rather to inform the policy debate. Presenting each of the explanations separately is designed to assist clarification of the arguments. It does not suggest that only one of them is 'correct' or that only a single explanation is relevant to a particular country, or region within a country.

Each of the following explanations will be considered in turn:

- (a) Technical change.
- (b) Growth of the service sector.
- (c) Growth of third world competition and declining international competitiveness of large firms.
- (d) Rising energy prices and slow down of world growth.
- (e) Political factors; promotion of enterprise culture, anti-government bias.
- (f) Fashion and Changing Tastes.

(a) Technical change : It is argued that the growth in, and applications of, new technology are of benefit to the growth of small firms rather than large firms. Small firms can benefit disproportionately from the availability of computer controlled lathes and machine tools enabling them therefore to compete more effectively with large firms. Furthermore many of the uses of and the writing of software, in particular, can be more satisfactorily undertaken in the type of creative environment which a small firm can provide.

Whilst these explanations seem plausible, and perhaps likely to become of importance in the future, it seems unlikely that it was the current technological revolution which stopped the tendency towards industrial concentration during the 1970's.

(b) Growth of the service sector : It has been argued that the increased interest in small firms is primarily a function of the relative growth of the service sector at the expense of manufacturing. For example many services, where the demand for which is growing rapidly, are provided by small and often new firms. Illustrations of this include the provision of such business services as advertising, market research, public relations, together with more specialist services within conventional sectors such as retailing and wholesaling of goods. Since average firm size in the service sector is generally lower than that in the manufacturing sector, then growth in services will lead to an overall fall in average firm size.

Again whilst there has clearly been a relative growth in services the increased relative importance of small firms has also occurred within the manufacturing sector (see Table 1.2), making it clear that the growth of small firms is not purely a reflection of sectoral shift.

(c) Growth of third world competition : It is broadly true that large firms export a significantly higher proportion of their output than small firms, who are more likely to act as suppliers to the large firms. Hence changes in export competitiveness are likely to have a disproportionate direct effect upon large firms. The growth of competition from Japan in the 1950's and 1960's during relatively buoyant times had a relatively modest effect upon displacing products from the existing developed countries - although their impact in the electrical and motor sectors was considerable. During the 1970's, however, Japan continued to increase its market share at a time when world trade was stagnant or declining. Furthermore Japan was joined by other South East Asian countries notably Taiwan, Hong Kong and South Korea. This led to the displacement of European and North American

products which were provided by large firms. The impact upon the European shipping, motor and electrical sectors was considerable.

We believe this to be an important explanation for the relative growth of small firms, since large firms when faced with this competition either succumbed or responded by imposing additional requirements upon their (mainly small firm) suppliers. The classic example of this strategy is the response of the Fiat motor company in the early 1970's. Fiat reacted to the twin threat of union militancy and external competition by contracting out many activities which previously had been undertaken within their Turin plant. The new subcontracting firms were often former employees who had been encouraged by the promise of orders from Fiat to establish their own business. The response to third world competition is therefore a major force in explaining the relative growth of small firms.

(d) Rising Energy Prices and slow down of world demand : The increase in energy prices in the early 1970's had several effects. The first was the direct effect on price increase upon firms, particularly those heavily dependent upon oil. Storey (1982) argued that, since large firms were more energy dependent than small firms, the effect was to raise the relative prices more for large than for small. However Shutt and Whittington (1984) have pointed out that large firms may be more efficient users of energy and therefore not have experienced as rapid a rate of increase.

The increased energy prices, however, did have a major effect upon the growth rate experienced by the economies of the developed countries. The seventies and eighties have seen a progressive increase in levels of unemployment partly in the face of depressed demand conditions, partly because of new competition referred to above, and partly because of technological change. The effect of this, however, has been at least one decade, for most countries, of rising unemployment and it is this which is presented as an important explanation for the increase and growth of very small enterprises. It is argued that an individual who is unemployed is significantly more likely to consider starting his own

business than the same individual if he or she were in secure paid salaried employment. The growth of very small business is therefore a response to unemployment rather than a cure for it.

The evidence in support of these statements is somewhat mixed. In the UK the work of Binks and Jennings (1986) suggests that the statistical relationship unemployment and business registrations, to their surprise, is negative i.e. business registrations are high when unemployment is low. This contrasts with earlier analyses by Johnson and Darnell (1976) and with Binks's own interviews with entrepreneurs, nearly 50% of whom suggested they had begun their business as a direct alternative to unemployment. The important role of unemployment in inducing the formation of businesses in Belgium is discussed by Donckles and Bert in Chapter 8. They find that unemployment or the threat of unemployment is the third most powerful factor, after a desire for independence, and a need to move out of a large company, influencing Belgium entrepreneurs. Hull also reviews the German evidence that most formations are related to recessionary conditions and suggests that this is an important factor explaining the increased importance of small new firms in that country.

(e) Political factors; promotion of enterprise culture : During the late 1970's and early 1980's a number of governments of the political 'right' were elected in both Europe and North America. Such governments were committed to a programme of reducing the role of the state in the economy, enabling market forces to operate in a less restricted fashion and thus facilitating growth in output and ultimately employment. Under such a scenario it is not surprising that the small businessman became the focus of two forms of policy. The first was to reduce government involvement in the operation of the business and the second was to provide assistance to enable the business to compete 'fairly' with other, but larger, firms.

Clearly the flurry of initiatives designed to assist small businesses which were introduced in Europe and are extensively described, for example, in the Chapters on Holland, Netherlands and the UK, have led to a stronger and numerous small business sector than would otherwise have

been the case. It is also true that the full effect of these initiatives has still and that assessment will have to be left for some years. Nevertheless it is equally clear that since these are measures taken primarily in the 1980's they do not explain why it was that in the 1970's the power of the large firm began to fail.

(f) Fashion and Changing Tastes : It remains broadly true that a sizeable proportion of small firms are direct suppliers to large firms, whilst a small proportion sell their product directly on the open market. In many respects the latter group has particularly benefitted from the growth in incomes which occurred during the 1960's and, to a lesser extent, in the 1970's. Those small firms which provided a specialist product or service which the large firm was unwilling to supply, found that demand continued to be buoyant if the product satisfied a consumer who was prepared to pay a premium for quality in the form of design, presentation, reliability etc. For its part the small firm was expected to be sufficiently flexible to change the product when it became clear that market requirements had changed. The classic example of this type of development was found in the North East/Central areas of Italy where the term 'flexible specialisation' was coined to characterise the growth of small firms in industrial districts producing high quality textiles, clothing, footwear, toys, jewellery, musical instruments etc. These craft-based industries, selling at the top end of the market, were able to prosper at a time when there was a sharp fall in demand for those standardised products generally produced in the large firm sector.

A separate but associated development was the view that large firms provided an unacceptable workplace environment where the work itself was boring, repetitive and lacking in variety. The lack of motivation of workforce meant that workers had to be paid higher wages, they were more likely to be unionised and were less flexible in switching between tasks. This was contrasted with the small firm where job satisfaction was higher, motivation stronger and yet wages lower.

A recognition of these latter factors may, to some degree have influenced firm size, but the evidence on the importance of the flexible specialisation model is more extensive. Even so, whilst it is clear that the model does explain developments in that particular region of Italy, it is less clear that it is of importance either elsewhere within Italy or elsewhere in Europe. Indeed it is possible that the growth of artisan class in these industrial districts more strongly reflects the unique agricultural traditions of the area and so has few applications elsewhere.

#### 2.4 Different interpretations

In the above section several explanations for why small firms become relatively more important, and why large firms become relatively less important were presented. Some, such as the declining competitiveness and Third World competition, refer to the falling importance of large firms, whilst others such as changing tastes and fashion refer primarily to the increased importance of small firms. The remaining explanations refer both to declining large firms and to increasing small firms.

There is a clear need to clarify which explanations, if any, or in what combinations, are valid before public policy can be considered. For example the SME sector, whilst it is anxious to conduct its activities free from government interference, regards the removal of the competitive advantages which large firms are supposed to possess as essential to free trade. The extent to which the SME sector should become the focus of economic policy is clearly related to its role in relation to large businesses.

Some examples will make the point more clearly. If it is shown that the major factors leading to the relative growth of small business are recession, high unemployment and the political complexions of certain governments, then this might not justify a policy to assist smaller firms. On the other hand if the growth of smaller firms were attributable to an increasing technological sophistication and



international competitiveness within new industries, with this being hampered by the defensive competitive practices of large firms this might provide a stronger case for promoting the SME sector.

Perhaps at the most simple of all levels, however, public policy makers need to know in what types of businesses jobs are being created and in what types they are being lost. The relative increase in importance of small firms could occur either because large firms are shedding labour (and moving into the small firm sector) or because small firms are increasing their labour by becoming larger. Unfortunately an examination of employment change over a period of time of establishments or enterprises of a given size will not provide helpful insights into this question. To fully identify the contribution to employment change made by different sizes of firm/establishment it is necessary to have time series employment data on individual units. The data base also has to have data on employment units which are formed over the time series and data on employment units which cease trading. It is then possible to undertake an analysis of employment change within a population of firms. This analysis is known as 'The Job Generation Process'.

## 2.5 Job Generation

The term 'Job Generation' was coined in 1979 in a seminal study by David Birch, then of Massachusetts Institute of Technology. Birch had acquired a computerised data set from the U.S. credit-rating firm of Dun and Bradstreet. The data set covered employment in 5.6 million establishments in the United States private sector economy between 1969 and 1976.

Although initially designed to be a study of urban employment change in the United States, when the Birch study was published interest centred upon the statistic that 66% of the increase in employment in the United States between 1969 and 1976 was found to have occurred in firms with

less than 20 workers. In Birch's terms these small firms were the job generators.

However, to fully examine the contribution to employment change of different sized establishments it is necessary to sub-divide employment change into its major components and these are shown in Figure 2.1.

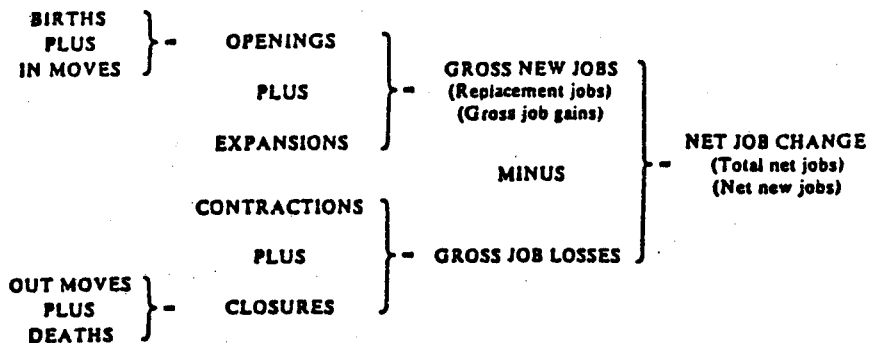


Fig. 2.1. The job generation process

Source: Centre for Environmental Studies paper, Policy Series 11.

Reading from the right the figure shows that net job change comprises new jobs and job losses. It shows that job losses are sub-divided between openings and expansions of existing firms and that job losses can be sub-divided between contractions and closures. In principle therefore it should be possible to determine the extent to which employment amongst a size grouping of firms is attributable to decline or growth.

The effect of the publication of the Birch results for the United States was two fold. The first effect was that public policy makers in several countries, who had been looking for some justification for promoting small firms, eagerly seized upon the results and interpreted them as a justification for small firm policies.

The second reaction was that, because of its importance, Birch's analysis was carefully examined and many questions were asked of it. In particular a study by Armington and Odle (1982), also using Dun and Bradstreet data, for the 1978-80 period found that small firms were only creating jobs in proportion to their importance in the economy i.e. firms with less than 100 workers were creating about 39% of new jobs whilst providing 38% of the labour force. These results were then challenged by Birch and McCracken (1983) who took the same data tapes from Dun and Bradstreet that Armington and Odle had used, and analysed them. They concluded that firms with less than 100 workers created 70% of the new jobs.

Clearly it is unfortunate that, even using the same data tapes, there should be such major differences between groups of researchers on this key issue. The cause of the differences are highly technical [the interested reader is referred to Storey and Johnson (1987)] but broadly they reflect differences in approach between the two groups in either compensating or not compensating for the fact that, although the Dun and Bradstreet data base is huge by conventional standards, it is not a random sample of firms or establishments in the USA.

In our analysis of this debate we concluded that Birch had generally over estimated the contribution of small firms to employment change, whilst Armington and Odle may have slightly under estimated. Hence whilst Armington and Odle were probably closer to being correct, it remained the case that Birch had been the first to demonstrate that small firms were creating jobs somewhat faster than any other size group of firms.

The Birch results, and the debate with Armington and Odle, lead to efforts to replicate the studies both in Europe, elsewhere in North America and even in New Zealand [Bollard and Harper (1986)]. Again, however, the problems arose that either the data base used was Dun and Bradstreet which required substantial and subjective judgement, or that the alternative data bases were incomplete in the sense that they

covered only a single region, or were restricted to manufacturing and so ignored the service sector.

Within Europe, the three countries where job generation studies have developed furthest are the UK, Germany, Ireland and Italy. The main studies are summarised in Table 1.6 in Chapter 1. In the UK the Dun and Bradstreet-based study has been conducted by Gallagher and Stewart (1984,1985) and by Doyle and Gallagher (1986). Both studies have indicated a substantially higher contribution to new employment being made by small firms than any of the local or regional studies which have primarily focussed upon the manufacturing sector. The Gallagher studies, however, have also been criticised on similar grounds to the criticisms levelled at Birch. Nevertheless it is broadly true that, in the UK, within the majority of the studies it appears that the large firm sector is shedding labour and that the small firm sector is generating new jobs.

There have also been a number of job generation studies undertaken in the Federal Republic of Germany, these being extensively reviewed by Hull. He states that, whilst the aggregate data on changes in firm size suggest a decline in the importance of very large firms and a rise in the importance of very small firms, the job generation studies evidence is more ambiguous. Hull argues that studies which have confined themselves to in-situ firms have generally indicated expansions amongst the small and contractions amongst the large. The introduction of births and deaths, however, makes the overall picture less clear because job loss rates from firm closure are particularly high for small firms. Indeed Hull questions whether the results currently being obtained from job generation studies in Germany might not have been obtained if such studies had been undertaken twenty years ago.

In Italy there has only been the single job generation study conducted by Contini et al. (1985) with this being reported by Del Monte. The prime focus of the Contini study was on regional differences and he showed that the Southern Regions of Italy generally had higher firm birth rates than the Northern Regions.

Job generation studies were also reported for Ireland and by Guesnier for France. In both cases, small firms are the main contributors to new jobs, but an analysis of the Poitien-Charentes region of France indicates that large firms also make an important contribution to job growth.

## 2.6 Is there a need for public policy?

Although the evidence is not fully clear, an analysis of both North America and European data suggests that, in contrast to the quarter of a century following the Second War, small firms are becoming increasingly important as a source of new jobs. The key question for public policy is whether, in times of high unemployment, anything can be done to accelerate the creation of new jobs by the small firm sector. The second question, if the answer to the first is yes, is what are the most appropriate initiatives.

There are currently five major objections to small firm policies, many of which are discussed directly within this document. These may be briefly categorised as follows:

- (a) There is no evidence of market failure in the small firms sector and hence no need for government intervention.
- (b) Small firms are, by nature, independent and will not 'respond' to government incentives.
- (c) The relative growth of small firms is only a reflection of recession and will disappear once higher rates of economic growth are restored. Hence there is no point in supporting the sector.
- (d) Job creation in small firms leads to the 'wrong' types of job being created.
- (e) Assisting small firms is regionally divisive.

Each of these arguments against small firm policies will be discussed in turn.

(a) No evidence of market failure : According to some economic theorists there is an a priori case for government intervention only when there is either market failure or on grounds of equity. However, even where there is evidence of market failure, government intervention is only justified by public choice economists where it can be shown that this will lead to an overall reduction in both private and social costs. In these terms it is not sufficient, for example, for evidence of small firms being at a comparative disadvantage to large firms when borrowing from a financial institution. Even if such a disadvantage could be proven (such as small firms having to pay a substantially higher rates of interest which more than cover the additional cost of servicing and investigating a small loan, as well as the risk premium) this does not necessarily justify government intervention to help small firms. It may be that government is judged to be an undesirable entrant into the financial market partly because of its influence, but more particularly because it is not subject to the profit maximising ethic of the marketplace. Government interest subsidies to small firms may lead to 'distortions' with only some firms able to obtain the subsidies. The tax payer has to incur the costs of defaults and may feel that the commitment of the state official is less than would be obtained from the employee of a commercial bank. On the other hand where the banks administer the scheme on behalf of government it may be felt that the former are more willing to gamble with the taxpayers money than with their own.

(b) Small Firms will not respond to schemes : Public schemes designed to assist small firms are likely to be met with considerable suspicion. The small firm entrepreneur in every country is fiercely independent, and emotionally opposed to 'big' government which he views as slow, bureaucratic and spender of 'his' taxes. It, therefore, takes a considerable leap of faith for government to be viewed, by the small firm, as a benefactor.

Despite these deep-rooted suspicions on the part of the small firms there is some evidence, within Europe, of public policies towards small firms being effective. In Belgium, for example, Donckles and Bert report on a wide variety of different initiatives, some of which are designed to promote the start up of new businesses, whilst others are intended to promote the growth of existing small businesses. In an interesting survey Donckles and Bert report that amongst Belgian entrepreneurs the creation of employment was given a high priority as an objective of the business. Perhaps most surprisingly of all they report that, in a survey of new start-up entrepreneurs in Belgium, 22% claimed they had been financially assisted to start up their business, with the most frequent form of assistance being the interest relief subsidy. The 'dead weight' on these subsidies, however, must be considerable since Donckles and Bert say that 'practically all' respondents claimed that they would be started the business without being in receipt of assistance.

A study of employment change in Ireland amongst assisted and non-assisted firms by O'Farrell, reviewed in Chapter 10, suggests that assisted firms grow much more rapidly in employment than do non-assisted firms. However, this study makes no allowance for the dead weight effects of policy and also includes many multinational firms which were assisted by grants from the Irish government to establish new plants. The impact of policy on small indigenous firms is less clear.

It is a curiosity of providing public assistance to small firms that its two general characteristics are firstly the dead weight referred to above, where firms in receipt of assistance, do not respond any differently than if they had not been assisted. The second, and apparently contradicting characteristic, is that there is wide ignorance of the forms of assistance, this also being noted in the Belgium study.

A related criticism of small firm policies concerns the mechanism for the delivery. This has several dimensions. Firstly there is the frustration which the small entrepreneur inevitably experiences in dealings with government bureaucracies which are slow because of the

need to ensure the scheme is properly administered. Second there is the problem that the rules of the scheme are often drawn so tightly so as to prohibit fraud or questionable practices, but in so doing this reduce take-up from the scheme. Examples of this include the Business Start-up Scheme in the UK whereby individuals could obtain tax relief by investing in bona-fide start up businesses. Only when the scheme was extended to include a much wider range of small firms and re-named the Business Expansion Scheme did take-up increase. In Italy the list of unsuccessful schemes to promote the growth of small firms is even longer with particular disappointments having been experienced over efforts to promote technology transfer amongst small firms. For example Act No.374/76 designed to promote consortia amongst SME's was ineffective and the take-up of credit facilities designed to permit technology transfer amongst SME's has also been very slow. A final dimension to problems of policy delivery concern the confusion which entrepreneurs experience in the face of frequent changes in policy. De Jong, reporting on the position in the Netherlands, notes that the number of forms of policy, and the speed with which these change, can be a cause of bewilderment to the entrepreneur. Interestingly he notes that whilst the Dutch government has attempted to structure the forms of assistance available by providing assistance at a local level, but within the national framework, it has also recognised the need for a flexible and 'grass roots' initiative.

In summary, it appears that, whilst small firms will respond to schemes, the objective of public policy has to be to maintain a consistent, yet flexible locally based policy. From the tax payers viewpoint it is imperative that initiatives minimise deadweight whilst at the same time being sufficiently well publicised to enable all potential beneficiaries to take advantage.

(c) Small Firm growth is a reflection of recession : This is a major criticism which argues that, since small firms have only become relatively more important because of recessionary conditions, once economic growth is restored, small firms will no longer be the focus of political attention. Amongst the country studies which appear to



support the view, the United Kingdom, F.R. Germany and Denmark are probably the clearest examples. For example in the United Kingdom it is shown that there has been no absolute growth in manufacturing employment since the mid 1960's in the small firm population. All that has happened is that employment has remained stable, whereas employment in large firms has fallen catastrophically. Hence small firms have become relatively more important because of the decline in employment in large firms, rather than because they exhibited employment growth.

In his review of the German developments Hull emphasises that whilst new and small firms are creating jobs these are not sufficient to compensate for job losses in large firms. He also notes that much of the apparent creation of new firms in Germany may merely reflect the fashionable increase in sub-contracting, management buy-outs etc. which enable a large firm to give itself additional flexibility in times of uncertainty and yet retain control over the quality of its inputs. Hull quotes the work of Bade (1986) who found that the 32 largest German manufacturing firms had over 1000 legally independent subsidiaries and that this number had grown by almost 50% between 1971-83. Hull infers that much of the apparent growth in small firms may therefore have been the result of uncertainty in the product market leading to a greater pressure on the part of large firms to decentralise their operations.

Much the same point is made by Contini and Revelli (1986) who argue that, in contrast to Adam Smith's theorem that the division of labour is determined by the extent of the market, under conditions of uncertainty and shrinking markets that vertical disintegration provides the necessary flexibility to enable the large firm to compete.

Evidence therefore from Britain, Italy and Germany suggests that the relative increase in importance of small firms cannot be considered in isolation either from the declining position of the large or from conditions of recession and uncertainty in the world economy. Indeed the decline of the large is the root cause, in conditions of recession, of the relative growth of the small. Storey and Johnson (1987) have characterised this as the Birmingham (UK) model although examples of it

can be found in North West Italy (Milan, Turin perhaps), or in the Ruhr coalfield region of the Federal Republic of Germany.

On the other hand there are also areas within Europe where there has been a growth in importance of small firms which is clearly independent from either world recession or the poor performance of large companies. Two examples of this are what we have characterised as the Bologna (Italy) model. This is the model of the system of industrial districts in Italy producing high quality product in independent units often tied to agricultural premises. The key to the success of the area lies in its ability to sell high quality products for export and to respond flexibly to changes in consumer preference.

A second model of an area which has seen the massive growth in the small firm sector, independently of any changes in large firms, is the so-called Boston (USA) Model. In less than twenty years the State of Massachusetts has transformed itself from an economy based upon textiles, footwear, clothing etc. to one based on high technology. The primary advantage which the area possessed was the presence in the City of Boston of the largest concentration of educated manpower in the United States, and the presence of key suppliers to the U.S. Defence Administration. This combination transformed the state over a period in which many computer based companies began their operations in the area. Amongst the best-known names were Wang and Appollo but the poliferation of hardware and software producers selling internationally created sufficient wealth in the area to finance a bonanza of tertiary level activities and employment opportunities.

In Europe there are examples of these types of development but on a more modest scale. Within the U.K. there has been a major growth of wealth and employment in the area between Bristol and Cambridge (The M4 Corridor) financed again by a combination of Military and Civil Government Research expenditure. Munich also reflect similar developments in Germany. The observations about the success of these areas has accelerated the growth of Science Parks in which Universities and Institutions of Higher Education combine to provide high quality

premises for (generally small) businesses which are likely to benefit from stronger contacts with academic institutions (Gibb 1985).

To summarise, it is correct that in many circumstances the growth of the small firm is a reflection of recession [the Birmingham Model]. However it would be unwise to ignore the fact that in certain circumstances areas can experience major and significant growth amongst the small firm sector as is illustrated by the Boston and Bologna models.

(d) Small Firms create the wrong types of jobs : It is frequently unclear whether the objective of small firms policy is to improve industrial competitiveness, to create employment or to reduce unemployment. Unfortunately these can be conflicting objectives with some policies affecting one or two of these objectives but not the third.

The types of jobs which are created by small firms is particularly important if consideration is to be given to attempts to reduce unemployment. In the crudest terms if large firms are shedding full time, well paid jobs for males and small firms are creating poorly paid part time jobs for females, even if the number of jobs created is equal to the number of jobs lost this will almost inevitably lead to an increase in registered unemployment. It may also be deemed to be socially undesirable if the types of jobs created tend to be less likely to be covered by health insurance, or tend to be more accident prone and have generally poorer conditions. It is therefore of considerable importance to assess who is filling these jobs and to assess the quality of the jobs.

Evidence from the United States, where these matters have been most fully investigated suggests that, according to almost every criteria, the quality of employment in small firms is lower than that in large firms. The U.S. government reports that females constituted 43% of employment in firms with less than 25 workers, compared with only 36% in those with more than 500 employees. It also shows that 26% of workers in small firms with less than 25 employees were part-time compared with

only 11% of those in firms with more than 500 workers. An analysis by age of workers shows that small firms were also much less likely to employ prime age workers of between 25 and 45 years. Of all the jobs in small firms 43% were for this age range compared with 50% for large firms. The U.S. data also makes it clear that wages in small firms are lower with 59% of workers in firms with less than 100 workers earning less than \$5 per hour in 1979 compared with only 33% in firms with more than 500 workers. Finally, in terms of coverage by pension plans, it is clear that coverage is almost complete at 89% in large firms, whereas it is only 29% in small firms. [U.S. Small Business Administration (1985)].

A recent survey of this issue by OECD (1985) pointed to similar differences. In a review of job quality by size of firm in both Japan and the United States OECD indicated that the provision of benefits was lower in small firms and that the average employee was likely to have been with his current employers twice as long if he/she worked in a small firm than in a large - this result being almost identical in both USA and Japan. It is therefore clear that in both countries, using conventional measures of job quality, small firm employment is poorer than that available in large firms. It is equally clear that job losses in the large firm sector and job gains in the small firm sector cannot easily result in a direct transfer of labour.

These matters are investigated in the current report. De Jong in his review of Dutch material (Chapter 7) refers to the study by Van Ginneken (1985), who shows that smaller firms are likely to have a more poorly educated workforce, have higher turnover rates and to employ skilled workers. He notes that where unskilled male workers are employed they tend either to be the very young or the very old; or alternatively females are employed on a part-time basis. De Jong notes that employment of foreign workers in small firms is relatively low.

The UK study (Chapter 3) also investigates these issues and reaches broadly similar conclusions. It shows that, whilst national statistics on these matters are generally not available local studies have shown

that large firms are more likely to employ unskilled, prime-age, male labour on a full time basis, whereas small firms were more likely to employ skilled labour together with unskilled labour drawn from part time female workers and either very young or very old male workers.

Perhaps the most interesting data, however, are provided for France. Here Guesnier reports the results of a study by Choeffel et al. (1985) on an employment panel of workers. He shows that whilst many of the new jobs being created in France are in small firms they tend to be highly unstable. For example less than two thirds of workers in 1980 were in the same job that they had occupied in 1976. The study also indicates the presence of a dual labour market with one group of employees frequently experiencing changes of job. This group, in fact, constitutes the vast majority of the change which occurs within the labour market; the second group are extremely unlikely to change jobs. This latter group are also likely to be the best paid.

In the present context the most interesting results are that the rate of turnover of labour decreases with increasing size of establishment. SME employment growth in France is clearly less dependent upon the creation of permanent jobs. Guesnier notes the increasing importance of part time jobs, particularly for females, in France with these being particularly characteristic of the small firm sector. The precarious nature of these jobs is also illustrated by the increase in the proportion of recruits employed on a fixed term contract. Over the period 1983-84 there was an increase from 50% to 58% in the number of recruits employed in this way.

The consistency of these results for both EEC and other developed countries is very clear. The jobs created in small firms are not the same as those being shed by large firms, and considerable labour market adjustment, particularly in terms of training and retraining, are necessary to facilitate the smooth transition of labour. It cannot be assumed that the worker who is likely to be laid off from a large firm, who is likely to be male, well paid but perhaps with only modest skills, and of prime age is necessarily likely to find employment in a small

firm. The latter is more likely to employ that workers wife part time at low rates of pay and with few 'fringe' benefits. There is a clear risk of labour market mismatch.

(e) Assisting small firms is Regionally divisive : In a number of the country case studies reference is made to substantial variations at the level of the region, or even the sub-region, in the contribution of SME's to employment and economic development. These differences are particularly clear when an examination is made of variations in new firm formation. The Dutch material covered by De Jong indicates that in the Netherlands the Rimcity regions of Amsterdam, Rotterdam, The Hague and Utrecht are ones where the proportion of new firms is highest. Most importantly De Jong shows that the regions in the Netherlands with a high proportion of new firms are not catching up from a backward position. At a sub-regional level De Jong noted that the suburban areas of large conurbations appear to be a fruitful area for new firm formation. The results for the large urban areas of Amsterdam are disappointing, however because, although the city centres have relatively high formation rates, they have exceptionally high death rates of firms so that the net effect on employment is negative.

The theme of regional differences is also central to the Italian review provided by Del Monte. For example the North and Centre of the country are characterised by employment decline of large enterprises and the proliferation of very small units. On the other hand the South is characterised in recent years by the expansion of the small - medium manufacturing plant. Indeed the very small plants experience massive net decline in the South at a time when they become increasingly important elsewhere in Italy. Reporting the results of Contini et al, however, Del Monte notes that the Southern Regions appear to have, even allowing for sectoral differences, both higher birth rates and higher death dates of firms. The South therefore appears to experience markedly higher rates of 'turbulence' than other regions.

Such differences merely serve to underline the accuracy of the model of the three Italy's presented by Bagnasco (1977); the North West being

dominated by large plant operations, generally in heavy engineering-based operations, the North East-Central area being primarily an area where small firms in craft-based quality products are found. The third Italy is of the under developed South.

The relative growth of SME's in the North East central area of Italy has been attributed to four main factors. First the agricultural background of the metayer meant that a traditional link between personal effort and reward was apparent. Second the role of medium sized firms able to provide important services such as Marketing and Banking Services as well as Machinery Repair Services. Thirdly the small towns where industrial growth occurred were often those which had a tradition of industrial employment, which created the experience of workers and management organising productive activities. Finally the importance of the local education system has to be emphasised, with its reputation for technical quality.

It is, however, in the U.K. that the argument of small firm policies risking Regional divisiveness has been developed furthest. Table 2.2 [taken from Storey (1982)] shows six factors which have been shown to be associated with high levels of entrepreneurship. For example it has been shown that an individual currently working in a small firm is more likely to establish a firm than an individual working in a large firm. Hence areas where there is a higher proportion of employment in small units are more likely to be 'entrepreneurial' than an area dominated by large firms. The first column in Table 2.2 therefore identifies each of the six factors, and in Column 2 their association with high entrepreneurship is identified. Finally in Column 3 an index upon which UK Regions can be ranked is presented.

In this sense therefore it is possible to construct an entrepreneurial 'score' for each of the UK Regions, and this shows that the currently prosperous regions of the South East, East Anglia and South West occupy the top positions. It also shows that the least prosperous regions of Scotland, Wales, Northern England occupy the lowest position. The implication of these findings is that, from this theoretically derived

index, one would expect that policies designed to assist small businesses to have their biggest impact in areas with high scores (i.e. the prosperous regions) and lowest impact in areas with lowest scores (i.e. the depressed regions). If one of the objectives of small firm policy is the creation of employment then these 'results' are clearly undesirable.

Table 2.2, however, is based upon a theoretical analysis, but its key findings have been confirmed in subsequent empirical analysis. For example Whittington (1986) takes the Entrepreneurship index and relates it to UK data on Regional Registrations of new firms. He finds that regions in the UK experiencing high birth rates were those with low rates of unemployment, high levels of home ownership and a high proportion of management workers. He also concludes that

"New Firm policies should be modified so that, rather than discriminating against, as now, they discriminate in favour of those regions with low levels of entrepreneurship".

[Whittington (1986), p.49].

Regional variations in entrepreneurship, however, may not only affect the birth rates of new firms but are likely to influence the performance of the whole of the small firm sector in a region. In particular it is likely that, if policies to promote economic development in the small firm sector are implemented, the major 'take-up' of these policies will be in the prosperous regions and the lowest 'take-up' will be in the least prosperous regions. Recent research by Storey and Johnson (1987) has indicated that this 'take-up' is indeed, regionally divisive.

Using data upon the regional distribution of the four major UK government small firm initiatives viz: Loan Guarantee Schemes (LGS), Enterprise Allowance Scheme (EAS), Business Expansion Scheme (BES) and the Small Engineering Firms Investment Scheme (SEFIS), the authors compare this with the original Storey (1982) index. They show that only BES and EAS are correlated with the index at the 5% significance level, but that when all four measures are aggregated, the correlations are significant at the 1% level [Storey and Johnson (1987)]. Again this



**Table 2.2** Factors associated with high levels of entrepreneurship.

Factors	High Entrepreneurship	Index
(1) size of 'Incubator' firm	small firms	percentage of small firms in the region
(2) occupational experience	managerial experience	percentage of population in managerial groupings
(3) education	high levels	percentage of population with degrees
(4) access to capital	easy access	(a) savings per head of population (b) house-owning population
(5) entry into industry	low entry barriers	percentage of population in low entry barrier industries
(6) markets	wealthy local markets	regional income distribution

emphasises that the distribution of financial assistance to small firms risks being regionally revisive, in a wholly predictable manner.

## 2.7 Public Policy

This review has indicated that over the past twenty years there has been a notable shift in the relative importance of small and large firms. In some countries, such as the UK, these developments have been taking place for most of the last twenty years whereas in other countries these changes are much more recent.

Whilst the evidence on whether these trends are likely to continue is mixed, and whilst it is also unclear whether it is possible to introduce public policies to promote the small business sector, there appears to be increasing pressure for such initiatives. In this section we therefore speculate, on the basis of analysis and policy observation, on the most appropriate forms of public policy to promote small firms.

This speculation must be undertaken in the face of two key uncertainties which are inherent within the contributions from each country. These uncertainties are:

- (a) Uncertainties over the response by the individual small firm to the provision of assistance i.e. how many new jobs will be created as a result of the provision of assistance?
- (b) Uncertainties over the effect of these 'additional' jobs upon the labour market i.e. What is the net effect upon unemployment rates of the change?

Only when it is possible to quantify the extent of these factors will it be possible to fully estimate the effectiveness of various policy options. It is, however, a characteristic of small firms policy that politicians are not prepared to wait for the results of careful research studies before introducing new policies. Indeed the absence of evidence

appears sometimes to be viewed as a positive advantage when promoting policy initiatives in this sector, since it reflects the willingness of politicians and bureaucrats to act with the same type of entrepreneurial flair that is supposed to characterise the small firm sector which they are attempting to assist.

The remainder of this section is based on the assumption that, whilst thorough and comprehensive research results are not available, it is possible to broadly indicate the directions of new policy options which may be considered.

(a) The impact upon the individual firm : From the viewpoint of the small firm itself it is clear that the form of preferred public policy initiatives are those which reduce government involvement in the operation of the business. These include reducing the payment of corporate and personal tax rates, reduced restrictions on employment of labour, reduced planning controls and reduced compliance with regulations, government paper-work etc. From the viewpoint of society as a whole, these may not be judged to be necessarily desirable, although there may be opportunities for streamlining procedures which will benefit both small firms and society as a whole.

A second area for public policy is where small firms are currently at a disadvantage compared with large firms. Here the provision of reduced interest or state - guarantee loans to small firms have been introduced in several European countries such as Ireland, Holland, Italy and the UK. In most countries the schemes are relatively recent and it is not possible to determine their success, but where they have been well publicised and administered with a minimum of bureaucratic involvement they appear popular with the firms. Their impact upon the economy has yet to be proven.

In many countries new initiatives designed to increase the rate at which new businesses are formed have been introduced. Sometimes this involves specific encouragement directed towards unemployed individuals (for

instance, in the UK, Ireland and France) but more often it reflects a belief that it is possible to encourage entrepreneurial spirit within an area. Whilst there has been considerable emphasis placed upon such initiatives there is relatively little evidence that increases in new firm formation rates are attributable to public policy. Where increases have been experienced they are equally likely to reflect increases in unemployment.

Our research on the small manufacturing firm in the United Kingdom indicated that policies which provided public subsidies to the small firm sector were likely to be effective in increasing employment in relatively few firms. The UK subsidies were designed primarily to reduce the operating cost of small firms which, *ceteris paribus*, would be expected to lead to increased trading profit. Our research results suggested, however, that increases in trading profit were only weakly linked to increased employment within the firm. The latter was more strongly linked to increased retained profit suggesting that whilst all small firms would benefit from a subsidy in the sense of having their profitability raised, relatively few would respond to this by increasing employment. In short whilst the subsidy clearly benefits the owners of small companies it may have significantly less effect upon employment [Storey, Keasey, Watson and Wyncarczyk (1987)].

(b) The impact on the labour market : Even if policies to promote small firms do result in an increase in labour employed in firm X the impact which this has upon the economy as a whole is less clear. For example if as a result of the assistance firm X increases its share of the market, at the expense of firm Y and the latter has to reduce employment then total employment in the economy may not change, although it could be argued that this process is beneficial in the long term through the creation of a more competitive economy. Secondly it has been shown that even if the jobs created in firm X do not result in any reduction in firm Y they may not be filled by individuals who are unemployed. There is a real risk of labour market mismatch with workers in small firms tending to be lower paid, female, part time and not of prime age. The jobs being created are not therefore likely to be filled by workers from

the larger firm sector which is shedding labour. The clear need is for labour market intervention in the form of training, employment subsidies etc.

## 2.8 A New Approach

Our critique of public policy in EEC countries towards smaller businesses suggests the need for a major new direction along the lines suggested in the chapters on Germany, Italy and the United Kingdom.

The analysis of trends in these countries reported in Chapter 1 suggests that significant employment creation takes place in relatively few small but fast-growing firms. It also suggests that these fast growing firms are most likely to export and be internationally competitive and that such firms could benefit from a targetting of public assistance towards them in order to overcome some of the barriers to growth which they experience.

The essential nub of the argument is that, out of every 100 new businesses which start less than 50 will be in operation in ten years time. At that time perhaps 4 will provide more than half the jobs in the cohort of firms. If we have a fixed sum of money available fX to spend on promoting the development of the group it can either be spent -

- (1) On attempting to help all 100 start-up businesses.
- (2) On attempting to induce even more new businesses to start.
- (3) On helping only a few businesses.

The problem with policy (1) is that there is no way that the 4 businesses (which will ultimately create 50% of the employment) can be identified at start-up. Equally it is almost impossible to identify as start-up the characteristics of firms which will fail early in life. Hence there is a real risk that perhaps 50% of the public money will have at best a marginal effect since the businesses which it is used to support, will fail within a short period of time. Since the fX is, by definition, a fixed sum it means that if assistance is provided to all

firms then the firms which fail will receive assistance which might otherwise have been provided to firms which created jobs, and which might have grown more rapidly had more assistance been available.

Strategy (2) above suggests that assistance would be provided to all those individuals wishing to start businesses because if there are more businesses started there will be more 'winners'. This will lead to the creation of an enterprise culture, exemplified by a willingness to work hard, take risks and reap the rewards of success. Here again the fallacy of this argument can be demonstrated by reference to the characteristics of the small firm population. In the majority of markets which are entered by new firms there are already a number of firms which are trading, and in most cases the entry of one new firm will merely lead to the displacement of an existing firm. Furthermore increasing the number of start-up business is normally achieved by lowering the entry barriers, but this can have undesirable consequences. For example if it is decided that the number of electrical businesses should be increased this might be achieved by allowing 'untrained' workers to enter the industry. This, in turn, could lead to a reduction of the standards of the service or product supplied - a development which is presumably contrary to the other policy objectives.

The final strategy (3) is to assist only a few businesses but the problem here is to identify which businesses to help and which ones not to help. As we noted earlier there is a strong a priori care for assisting those small businesses which grow rapidly - particularly in their early years. It is these businesses which alone create significant numbers of jobs and they have minimal displacement because they are more likely to be competing on international markets. There are, however, four arguments which are generally advanced against the selective policy.

- The 'winners' will succeed even without public policy.
- The 'winners' will be identified by the private sector and so the public sector does not need to provide assistance.

- Policy should promote small business start-ups since more 'start-ups' lead to more winners.
- It is inequitable and administratively clumsy to implement a selective policy.

Each of these arguments is analysed in detail in Storey and Johnson (1987) and so we will only here discuss them briefly. First since it is the fast growth firms that experience major problems in areas where public assistance is available (premises, finance, information etc.) it is clear that the 'winners', could be enabled to grow even faster if they were the major recipients of public policy. The second argument that assistance should be left exclusively to the private sector (banks, accountants, venture capitalists) fails to recognise that the private sector is interested in the financial performance of the firm (asset growth, profitability growth etc.). The firms growing fast in these terms are not necessarily the same as those growing fast in terms of employment - which is presumably the focus interest of the public sector. There is therefore no guarantee that fast growth firms, in terms of employment would be the focus of attention by private sector financial institutions and may so benefit from public assistance. The third argument that resources would best be devoted to the promotion of 'start-ups', has been discussed above but it is the fourth argument which is the most difficult to counter. Clearly industrial policies in most countries frequently involve an element of discretion on the part of Civil Servants, with some firms being assisted and others excluded. Such policies are, however, not popular with firms since they generally involve considerable form-filling with no certainty that finance will be forthcoming. Civil servants also do not generally like such policies since they require the exercise of judgement on their part which can either be overridden by political masters or be proven to be incorrect over time.

Despite these reservations it is clear that the economic benefits of a selective policy are considerable and, in our judgement, outweigh the lack of equity inherent in the strategy and the administrative problems which they pose. It is clear from this report that the small firms

policies which have been implemented in many member states have been aimed at assisting all small firms through a reduction in administrative burdens, provision of free advice, grants and subsidies etc. A second major strand of small firms policies has been the encouragement of new firm formation, particularly amongst the unemployed. The evidence presented in this report suggests that such policies are likely to have high dead weight and displacement effects, and remove few people from the unemployment register. A selective approach to industrial and small firms policy has recently been introduced in the Republic of Ireland (Chapter 10). This involves the subsidisation of those firms which are likely to export a substantial proportion of their output, to displace imports or to supply exporting firms. This is an interesting attempt to overcome the dead weight and displacement problems discussed above, and deserves to be closely examined.



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CHAPTER 3

**JOB GENERATION IN SMALL AND MEDIUM SIZED ENTERPRISES :  
THE UNITED KINGDOM**

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3. JOB CREATION IN SMALL AND MEDIUM SIZED ENTERPRISES :  
THE UNITED KINGDOM

Introduction

This chapter reviews the results of existing research on job creation in SME's in the United Kingdom. In Section 1 the definitions of small and medium sized firms are discussed and the statistical definitions currently used are presented. In Section 2 a brief examination is made of national census data on small manufacturing firms together with data compiled from an analysis of businesses making VAT payments. In Section 3 the role of small firms in employment creation is more deeply investigated through the use of computerised data bases on individual firms/establishments, with their contribution to employment being tracked over a period of time. Section 4 provides a brief outline of some measures taken at national and local level to promote job creation amongst SME's. This section also includes, where possible, an appraisal of the effectiveness of this form of assistance. Section 5 begins to tackle the question of the types of jobs created and the impact which the creation of these jobs may have upon the labour market. Finally in Section 6 we conclude with some comments on new directions for policy in this complex area.

### 3.1 THE SMALL FIRM : ROLES AND DEFINITIONS

In the 1960's industrial policy in Britain was targetted towards large firms for a variety of reasons. It was felt that such firms could benefit from the scale economies available from mass production and that this would lead to lower unit production costs which would, in turn, enable British goods to become more internationally competitive. Secondly it was argued that Research and Development was central both to technical progress and to the international competitiveness of British firms and that only large firms had access to the scale of resources thought to be needed to conduct effective R & D. Indeed the Bolton Committee was established by Government to investigate the full implications of the perceived decline in the role of small firms.

By the end of the 1970's, however, matters had begun to change. It was clear that many large U.K. businesses, which were the recipient of substantial sums of public money, were becoming less, rather than more internationally competitive. Large firms consequently were shedding rather than recruiting labour and for a variety of reasons a new attitude towards small firms was emerging. The growth of services at the expense of manufacturing and the implications of new technology both offered positive opportunities for small firms, whilst declining British competitiveness and world recession meant that large firms were shedding labour. All these effects led to a relative increase in the importance of small manufacturing firms in the U.K. economy - trends which are discussed in the next section.

Prior to such a discussion, however, it is important to be clear on the definition of 'a small firm'. The Bolton Committee (1971) identified three operational characteristics of a small firm: first that it should have a small share of the market, second that it should be owned and managed by the same individual or small group of individuals and thirdly that it should be legally independent. However a firm which satisfies these general criteria in one industry may be relatively large in another industry. Furthermore the criteria for size may differ from one sector to another so that the number of employees may be an appropriate

measure for manufacturing, whereas size of turnover may be more appropriate elsewhere. This problem is compounded when small firms are defined for different purposes, so that policy initiatives targetted at 'small firms' may define their client group very differently from other policy initiatives also targetted at 'small firms'. In short, the Bolton conceptual definition cannot be measured. For this reason it is 'operationalised' by definitions which are only very rough rules of thumb.

All three points are illustrated in Table 3.1 taken from Cross (1983) - with the original being taken from Beesley and Wilson (1981). It shows that for statistical purposes small firms in the U.K. are defined in terms of employment for the manufacturing, mining and quarrying trades, but that in the former sector a small firm is defined as having less than 200 employees whereas in the remaining sectors a 25 employee maximum is imposed. In three other sectors turnover is used for measuring size but the measurement varies from less than £185,000 p.a. in retailing and in miscellaneous services, to £365,000 in the motor trade to £730,000 in wholesaling. Finally in catering all establishments, except those which are part of multiples and brewery managed public houses, are classified as small.

There are major problems with these types of definition. Firstly during times of inflation it becomes necessary to periodically revise the definition and, by so doing, this makes it difficult to compare the performance of different sized firms over time. Indeed two redefinitions have occurred since the original Beesley and Wilson article was published. Secondly it becomes difficult to compare the performance of small firms in different sectors and thirdly it almost invalidates any international comparisons except for the manufacturing sector.

These problems are underlined in the second half of the table where specific definitions relating to government assistance are presented. The left hand column shows the type of assistance whilst the right hand column provides an upper limit definition of a small firm according to a

variety of different criteria on which small firms are defined: viz employees, turnover, profits, exports, size of premises etc. It also shows that even when the criteria is the same the actual definitions vary considerably.

Because of these problems the remainder of this chapter will concentrate upon employment as the criteria of size, even though it is not used for government-based definitions of small firms in all sectors. Furthermore rather than identifying a single definition of small firms, in terms of employment, the performance of different sized employment units will be compared. In the vast majority of cases the performance of different sized employment units will be restricted to those in the manufacturing sector.



Table 3.1

## Definitions of Small Firms in the UK

<b>(i) Statistical definitions of small business</b>	
<i>Industry</i>	<i>Definition (upper limits)</i>
Manufacturing	200 employees
Retailing	£185,000 p.a. turnover
Wholesale trade	£730,000 p.a. turnover
Construction	25 employees
Mining and Quarrying	25 employees
Motor trade	£365,000 p.a. turnover
Miscellaneous services	£185,000 p.a. turnover
Road transport	5 vehicles
Catering	All except multiples and brewery managed public houses
<b>(ii) Specific definitions relating to government assistance</b>	
<i>Type of assistance</i>	<i>Definition (upper limits)</i>
European Investment Bank Loans	500 employees
Proprietary Company (proposed)	50 employees
Employment Act Exemptions	20 employees
Council for Small Industries in Rural Areas (CoSIRA) aid	20 employees (skilled)
Export award	200 employees
Export visits	200 employees
Employment subsidy	200 employees
Computer aided production management	500 employees
Industrial Liaison Service	500 employees
Consultancy Scheme	500 employees (min. 25)
Collaborative Arrangements (manufacturing)	200 employees
Manufacturing Advisory Service	1,000 employees (min. 100)
Companies Act disclosure exemption	£1 million p.a. turnover
Proprietary Company (proposed)	£1.3 million p.a. turnover
Value Added Tax registration	£15,000 p.a. turnover
Price code exemptions	£1 million (manufacturing) p.a. turnover
	£250,000 (distribution, services) p.a. turnover
	£100,000 (professions) p.a. turnover
Competition Act exemptions	£5 million p.a. turnover
European Investment Bank Loans	£20 million (fixed assets)
Industrial Development Certificates (exemption)	50,000 square feet
Office Development Permits (exemption)	30,000 square feet
Proprietary Company (proposed)	£650,000 (bal. sht. total)
Small Exporter Policy	£100,000 (export value)
Corporation Tax reduced rate	£80,000 (profits)

Source: M.E. Beesley and P.E. Wilson (1981), *Government Aid to Small Firms in Britain*, UKSBMTA Conference Paper, London.

### 3.2 U.K. NATIONAL DATA

The three major sources of data upon businesses in the U.K. are the Census of Production, which covers primarily the manufacturing sector, the Census of Employment, which includes employment units in all sectors. Thirdly data on businesses paying Value Added Tax (VAT) is also presented by government.

The results of analysing the Census of production data is shown in Figure 3.1 and Figure 3.2. Figure 3.1 shows that since 1971 small manufacturing firms, defined as having less than 100 employees, have provided an increasing proportion of all manufacturing employment with this share having risen from 15% in 1971 to 21% in 1982. By definition there has been a fall in the share of employment in large firms. Figure 3.2 however makes it clear that this increase in the proportion of total employment in small firms has only taken place because of massive job shedding by large firms at a time when employment in small firms has remained relatively constant. Changes in the relative shares of different sized firms over a period of time, however, offer no clear indication of the contribution of such firms to job creation. This can only be estimated by tracking employment changes within individual firms.

Table 3.2 shows that the stock of businesses paying VAT in the U.K. has risen from 1.30m at the end of 1979 to 1.44m at the end of 1983. Although not all businesses pay VAT [Ganguly (1985)] the data provides a good indication of the U.K. Business population throughout all sectors. The data shows that the U.K. has experienced an almost continuous increase in the birth rates of firms (starts) over the period, whilst deaths of firms (stops) were fairly constant over the 1980-83 period. In both 1984 and 1985 (stops) rose but even in these years they were exceeded by starts.

FIGURE 3.1

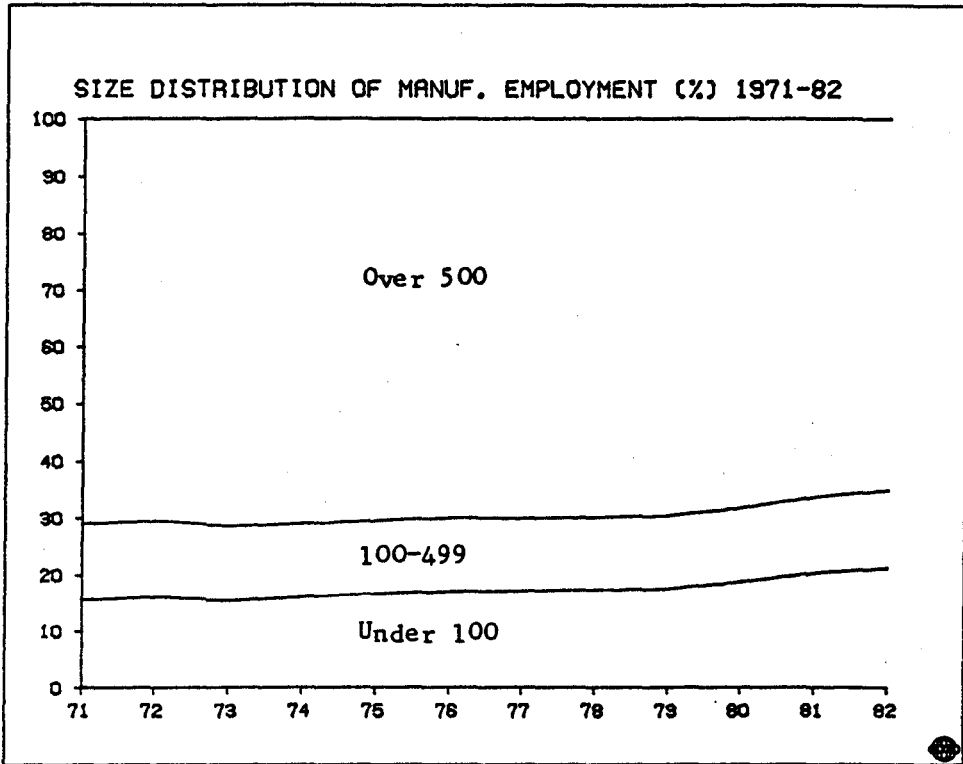


FIGURE 3.2

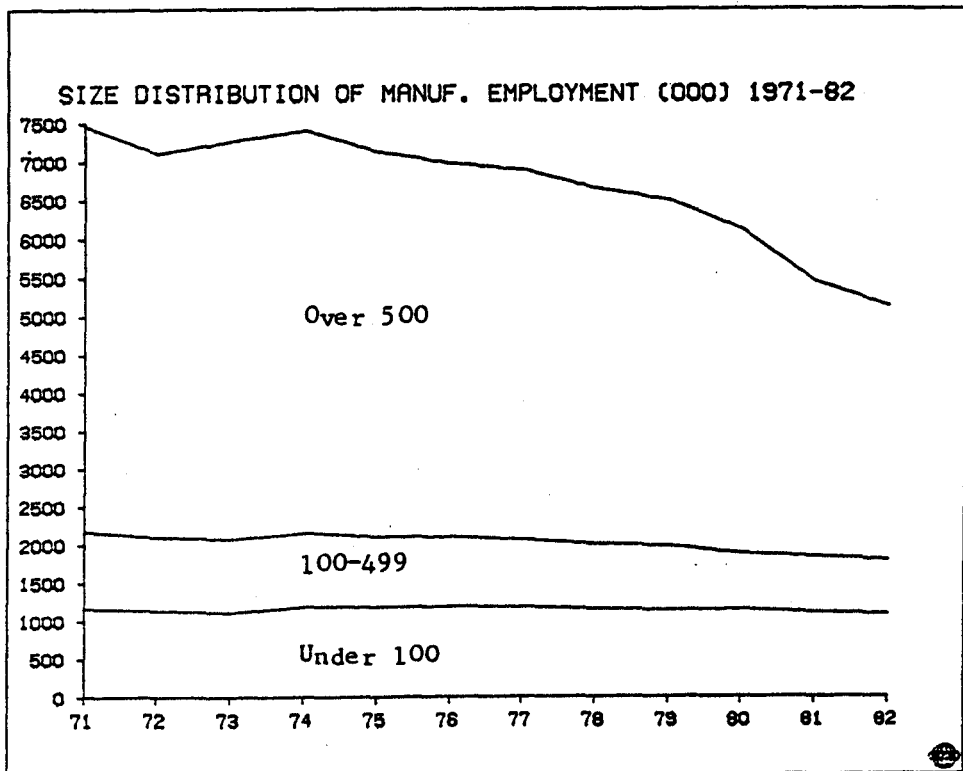


Table 3.2

Stock of U.K. VAT-registered businesses end-1979 with  
end-1985 with registrations and deregistrations 1980-85

Year	Thousand				
	Stock	Starts	Stops	Net Change	% Change
1980	1,288.3	158.2	142.3	+ 15.9	+ 1.3
1981 *	1,304.2	152.0	120.5	+ 31.5	+ 1.3
1982	1,336.0	166.0	146.0	+ 20.0	+ 1.4
1983	1,356.0	180.0	146.0	+ 34.0	+ 1.4
1984	1,390.0	182.0	153.0	+ 29.0	+ 1.4
1985	1,419.0	182.0	163.0	+ 20.0	+ 1.4
1980-83	1,288.3	1,021.0	871.0	+159.0	+ 1.4

Source : British Business 19th September 1986 pp.6-7

\* Note figures for this year are distorted because of a lengthy industrial dispute in the Civil Service.

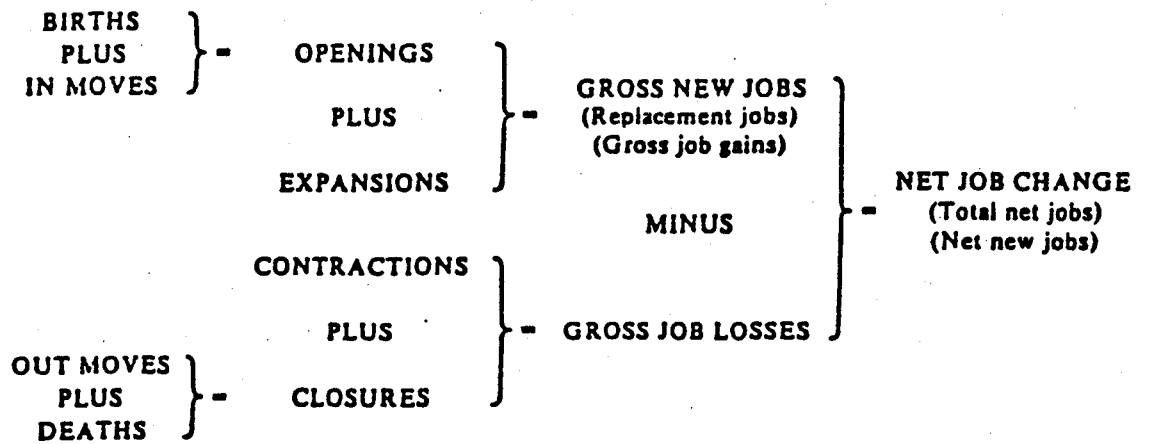
### 3.3 JOB GENERATION

The fact that small firms have become relatively more important in terms of employment may be due to a variety of different factors. It may be due to more firms being born, or because large firms either cease to trade or decline to become small firms. It may also either be because small firms fail to grow or because they grow extremely rapidly.

To determine which of these factors, and in what combinations, are at work in the U.K. economy it is necessary to undertake what are known as Job Generation Studies.

Many studies have been undertaken on employment change in the U.K. Some have examined aggregate employment change, some have examined sectoral variations in these patterns and others have examined local or regional variations. However, only a small proportion of these studies can be described as 'job generation' since the latter can only be undertaken where data on employment change are available at two points in time for individual employment units (either enterprises or establishments) and where the employment units included in the study are either close to a full representation of all employment units, or can be scaled up to provide full representation.

When data on individual employment units are available it becomes possible to decompose net employment change into its component or 'gross' elements. This is variously referred to as 'Job Generation' 'Job Accounts' or 'Components of Employment Change'. These Accounts or Components are shown in Figure 3.3. Reading from the right to the left it shows that Net Employment Change, which can either be positive or negative, is an amalgam of influences. At its simplest it represents the net effect of the summation of gross new jobs created less gross job lost. Figure 3.3 shows that gross new jobs may in turn be subdivided between the opening of new establishments and the expansion of existing firms, with gross job losses being defined as a combination of contractions and closures. In this chapter openings are also subdivided

Fig. 33

### The job generation process

Source: Centre for Environmental Studies paper, Policy Series 11.

TABLE 3.3  
MAJOR U.K. JOB GENERATION STUDIES

	Geographical Coverage	Sectoral Coverage	Time Period	Prime Data Source	Coverage	Cut Offs	All Employees	Base year Employment
<b>U.K. STUDIES</b>								
1. Gallagher & Stewart	U.K.	All	1971-81	Dun and Bradstreet	Unclear	None specified	All	Not given
2. Macey	U.K.	Manufacturing	1972-5	ROC	88% of ACE	< 10 employees	All	6,488,000
<b>REGIONAL U.K. STUDIES</b>								
3. Cross	Scotland	Manufacturing	1968-77	Scottish Council data	90% of ACE	< 10 employees	All	587,270
4. Fira & Swales	Birmingham Clydeside	Manufacturing Manufacturing	1963-72	Questionnaire and ED 871	Survivors only All	< 5 employees < 5 employees	All	Not given
5. Fothergill & Gudgin	East Midlands	Manufacturing	1968-75	Factory Inspectorate	Good	None specified	Blue Collar Only	576,000
6. Hamilton, Moar & Orton	Scotland	Manufacturing	1954-74		Only post 1954 estabs.	None specified	All	Zero
7. Healey & Clark	Coventry	Manufacturing	1974-82	Quest.	Survivors only	None specified	All	115,317
8. Howick & Key	Inner London (Tower Hamlets)	Manufacturing	1973-76	ACE	Good	None	All	27,324
9. Hubbard & Nutter	Merseyside	Services	1971-75	ACE	Good	None	All	250,520
10. Lloyd & Dicken	Merseyside Manchester	Manufacturing	1966-75	Factory Inspectorate	Good	None specified	Blue collar only	76,087 91,523
11. Storey	North East England	Manufacturing	1965-81	ACE	Good	None	All	393,000
12. DED	Northern	Manufacturing	1971-78	ACE	Good	None	All	172,000

between births of wholly new firms and the creation of new establishments by enterprises with headquarters located outside the area (in-moves). Closures may be subdivided between deaths, where an establishment ceases to trade, and its movement to a new location outside the area (out-moves). Finally the term in-situ change is used, which is defined to be expansions less contractions can therefore be either positive or negative.

Whilst it is possible to identify the components in Figure 3.3 it may also be possible to examine these components according to criteria such as size of employment unit, sectoral variations, regional or local variations or according to the ownership of the employment unit.

### 3.3.1 A Review of U.K. Job Generation Studies

Table 3.3 shows that eleven major job generation studies have been undertaken in the U.K. i.e. where data on individual employment units is available for two points in time and where these units are either a complete enumeration of all employment units or may be easily scaled-up to provide full enumeration.

Only two studies covering the whole of the United Kingdom have been undertaken. These are Gallagher and Stewart (1984) and Macey (1982), with only the former covering businesses in both the service and the manufacturing sector. All other studies shown in the table include only establishments in the manufacturing sector alone, except for that by Hubbard and Nutter (1982) which includes services only. With the exception of Gallagher & Stewart, and Macey all other studies include only regions or sub-regions of the United Kingdom. In total they provide a fairly extensive picture so that the only areas without major job generation studies is Wales.

Whilst the geographical coverage of the studies is adequate the results of the studies cannot be compared directly for a variety of reasons outlined in the remainder of Table 3.3. For example the duration of the



study periods vary considerably; the Macey study of U.K. manufacturing covers only a three year period, whereas the Hamilton, Moar and Orton study of Scotland covers twenty years.

Several of the studies, however, cover a period of approximately one decade [Lloyd and Mason, Cross, Gallagher and Stewart] but even here comparability is difficult since any study which includes the recessionary years from 1976 onwards is likely to produce very different results from those in the more prosperous 1950's and 1960's.

A further source of difficulty in making comparisons is the various data sources used. Fothergill and Gudgin, Lloyd and Mason, Healey and Clark derive either their lists of establishments and/or the employment in those establishments, from the Factory Inspectorate (FI). Whilst coverage of manufacturing establishments by the Inspectorate is likely to be close to comprehensive the employment identified covers 'blue-collar' workers only. It does not include managers and 'white-collar' workers. A second problem with such data is that the frequency of update depends upon the frequency of visits by the Inspector which, in turn, are likely to be more frequent for large establishments than for small. The records collected for some smaller establishments are therefore likely to be somewhat out of date.

It also has to be recognised that there are, at the margin, considerable opportunities for differences in interpretation of these classifications. An example illustrates this point. Take the case of an establishment A ceasing to trade, changing its name to B and moving to alternative premises within the same town. It is possible to classify this as a closure, followed by an opening. It is equally possible to regard it simply as a transfer. There is no clear 'correct' definition. Furthermore those undertaking such studies might, from public records, be unaware of the connections between A and B, so that the 'closure' and 'opening' combination is probably the most likely, if not necessarily the best informed classification. However if no name change occurred establishment A is most likely to be classified as a transfer and thus a continuing business. To this extent classification,

even with perfect information, may be arbitrary. Particular problems also occur with establishments which move outside a given geographical area of study. In some cases they are classified as closures, whereas, as far as the national economy is concerned, they are merely transfers.

It should be emphasized that these ownership classification problems are not unique to the use of Factory Inspectorate data. Similar problems occur where the basic data is Census of Employment (ACE) such as used by Storey or Hubbard and Nutter, or other employment data such as that used by Firn and Swales. Since each of these data bases has been constructed from raw employment data provided to the individual researchers the classification accuracy depends upon the care and effort devoted to an examination of ownership change. For example in some cases it is clear that ownership is classified according to presence or absence in Directories such as 'Who Owns Whom', whereas in other cases this is supplemented either by telephone calls, interviews or obtaining records from Companies House. It is broadly true that those data bases which use only Directory sources to classify establishments into ownership types generally underestimate (sometimes quite significantly) the extent of multiple ownership of business establishments. Conversely they inflate the importance of independent establishments. For a full review of these problems see Healey (1984).

These problems do not arise with the Dun and Bradstreet data used by Gallagher & Stewart. Dun and Bradstreet, are a credit-rating Agency with their headquarters in New York, USA, but which have constructed a data base of U.K. businesses. To provide credit ratings Dun and Bradstreet make regular contact with firms to collect information on the latter's ownership, employment, location, sales etc., and they have made the data base available for research purposes, provided that confidentiality controls are strictly observed. Colin Gallagher and Henry Stewart were therefore provided with two 'complete' data bases for 1971 and 1981 and their research has involved the combining of these data bases and the analysis of employment changes during that decade. Unfortunately this creates a set of rather different problems. First the employment data provided by Dun and Bradstreet was in the form of

ranges, rather than actual employment. Second, coverage in 1971 was incomplete and so it was often unclear whether an establishment which appeared in 1981 was a genuinely new establishment or whether it had simply been 'missed' in 1971. Thirdly, coverage of new and small firms was weak, because relatively few required credit ratings. Fourthly, some of the employment data was several years out of date because during that period Dun and Bradstreet had not been required to undertake a new credit rating. Some establishments could even have ceased trading. Fifthly it was unclear from individual records whether the employment at an individual establishment referred to employment at that establishment or total employment in the enterprise of which it was part. Hence whilst the Dun and Bradstreet data had the considerable advantage of including both the manufacturing and service sectors throughout the whole of the United Kingdom, considerable extra 'cleaning' of the data was needed before it could provide an adequate picture of employment change in the U.K. In particular it is likely that those businesses which were included in the data base in 1971 were not necessarily representative of the population of U.K. businesses in existence at that time. Furthermore those which subsequently appeared in the data base are more likely to be faster growth businesses (seeking credit ratings) than in the population as a whole. There is some debate on whether Gallagher and Stewart adequately took account of these inherent biases in 'scaling-up' their results [Storey and Johnson (1986), Gallagher and Doyle (1986)].

Of the prime data sources available the most reliable and extensive are the Annual Census of Employment (ACE) and the Annual Census of Production (ACOP). Whilst their coverage is thought to be superior to the Dun and Bradstreet they also have key disadvantages. First the ACE only began in 1971, so that data bases covering prior years have to use other data sources such as Principal Employers Lists. Second, ACE was conducted annually only for the years 1971-78. A further census was conducted in 1981 but in 1984 it became a sample, although data for this year has yet to be released. Thirdly and most importantly, there are severe restrictions imposed upon those allowed access to both ACOP and ACE data. Only government officials have been allowed to use ACOP

whilst only those working directly with or within Local Authorities have been allowed access to ACE.

Table 3.3 also provides a qualitative assessment of coverage of establishments i.e. the extent to which the establishments in the data base are coincident with those actually present in the area under study. Clearly no establishment data base can hope to be a complete enumeration but it is clear that some data bases are much better than others. It is broadly true that coverage is best in the two government data bases of ACOP and ACE, whilst the Factory Inspectorate Data is also thought to be adequate. The studies by Healey and Clark and by Fim and Swales for the West Midlands are incomplete because they include only surviving businesses, whilst we have noted above the limitations of the Dun and Bradstreet data in this context. The study of Hamilton, Moar and Orton examines only businesses which started to trade in Scotland after 1954 and so it is also an incomplete enumeration of all plants.

Many of the data bases also exclude the smallest sized establishments, whilst those based on Factory Inspectorate data include only employment amongst blue collar workers. Finally in Table 3.3 we provide an estimate of the size of these data bases in terms of employment in establishments in the base year. Clearly the largest, according to this criteria, should be the Gallagher and Stewart study but they do not provide this information for 1971. The study by Macey uses the largest known data base of approximately 6½ million manufacturing employees.

Amongst the regional data bases the largest are those for Scotland, East Midlands and North East England, with the remaining study area data bases being considerably smaller.

### 3.3.2 A Comparison of results obtained

Virtually all of the studies in Table 3.3 have provided full or partial components of employment change or job accounts data. Some have provided all the components identified in Figure 3.3, whilst others have

**TABLE 3.4**  
**MANUFACTURING JOB ACCOUNTS : TYNE & WEAR COUNTY**

Years	% of Base year Manufacturing Employment					Annualised % Gross New Jobs	Gross New Jobs		Annualised % Gross Job Losses	Gross Job Losses	
	Net Change	Openings	Closures	Expansions	Contractions		Openings %	Expansions %		Closures %	Contractions %
1965-1969	-1.0	+ 3.5	- 2.9	+ 10.7	-12.3	3.55	25	75	3.8	19	81
1969-1974	-6.9	+ 4.6	- 6.4	+ 9.7	-14.8	2.86	32	68	4.2	30	70
1974-1978	-10.4	+ 4.0	- 5.9	+ 8.1	-16.6	3.02	33	67	5.6	26	74
1976-1981	-26.5	+ 2.6	- 15.2	+ 6.3	-20.4	1.78	30	70	7.1	43	57

only provided part of that information. In addition some studies have provided an analysis of each component according to criteria such as size of establishment, location, sector, or ownership type.

Despite the similarities of method it remains extremely difficult to make direct comparisons between the studies, partly because of the lack of comparability of the sources of raw data, partly because of the differing duration of each study and partly because of the different time periods concerned. As Macey (1981) observed:

"The longer the time period over which the components are analysed the greater will be:

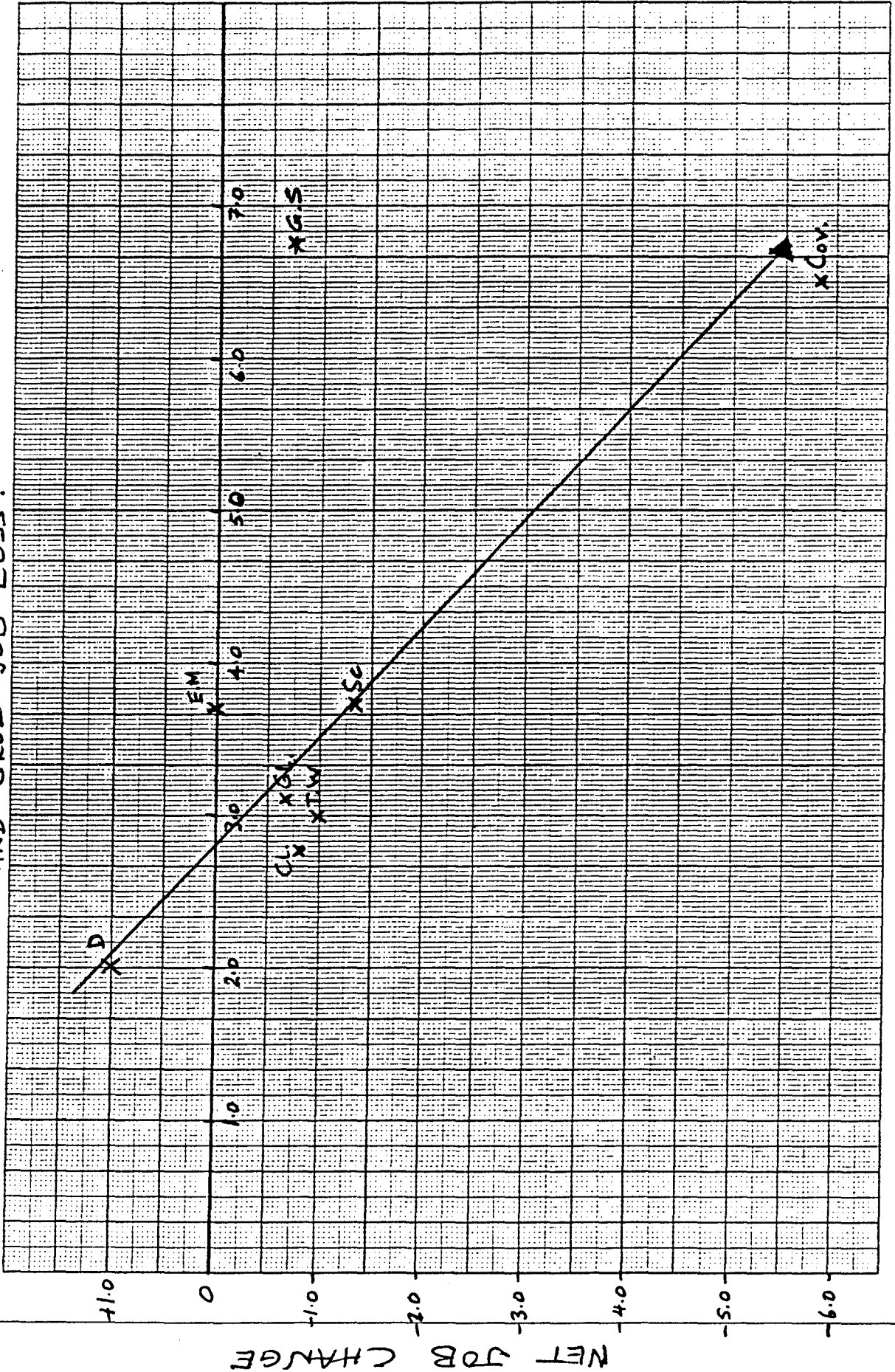
- (i) the significance of openings relative to expansions in gross employment increase.
- (ii) the significance of closures relative to contractions in gross employment decrease".

To make satisfactory comparisons between studies it is therefore necessary to ensure that the time periods are preferably identical or, if this is not possible, ensure they are of similar duration.

To demonstrate the nature of changes in the Components of Manufacturing Employment Change over the last twenty years in a highly industrialised area experiencing accelerating manufacturing decline Table 3.4 presents data for Tyne and Wear in Northern England. The table shows the components of employment change for a variety of either four or five year periods since 1965, with the most recent period covering the years 1976-81. Several important points emerge. The most important is that the accelerating rate of net employment decline from 1% in the 1965-69 period to 26.5% in the 1976-81 period is reflected in a changing structure of some components of employment change, but a striking stability in others. For example Column 5 shows the annualised rates of gross new jobs and it can be seen that job creation rates were approximately twice as high in the 1965-69 period as in the 1976-81

ANNUALISED NET JOB CHANGE FIG.3.4(a)

AND GROSS JOB LOSS.



GROSS JOB LOSS





TABLE 3.5

U.K. JOB GENERATION : SHORT PERIOD STUDIES

	Time Period	Net Change	Openings	Closures	Expansions	Contractions	Gross New Jobs	Gross Job Losses
United Kingdom (Macey)	1972-75	- 4.8	+ 1.3	- 4.4	+ 8.5	- 10.3	+ 9.9	- 14.7
Tower Hamlets (Howick & Key)	1973-76	- 23.4	+ 10.2	- 26.4	+ 9.0	- 16.3	+ 19.2	- 42.6
Durham County (Storey)	1974-78	- 8.3	+ 5.9	- 6.6	+ 6.6	- 14.3	+ 12.6	- 20.9
Tyne & Wear County (Storey)	1974-78	- 8.4	+ 4.0	- 5.9	+ 8.1	- 16.6	+ 12.1	- 21.5
Merseyside (Hubbard and Nutter)	1971-75	- 2.4	+ 7.9	- 9.4	+ 10.9	- 11.8	+ 18.8	- 21.2

NOTE : All figures show % change in base year employment.

period. Column 8 shows annualised gross job loss rates indicating that these were twice as high in the 1976-81 period as in the 1965-69 period. Hence job loss rates doubled and job creation rates halved over the period.

This symmetry, however, is less apparent from an examination of the individual components. Columns 6 and 7 show the constituent parts of Gross New Jobs and again here it is broadly true that despite the declining rate of new job creation openings continued to provide approximately 25-30% of new jobs and expansions the remainder over each four to five year period. The gross job loss figures, however, show a major change in the composition with closures providing only 19% of gross job losses in the prosperous 1965-69 period compared with 43% of a higher number of job losses in the 1976-81 period.

It is therefore clear that if comparisons are to be undertaken between the results of studies they should ideally compare over the same period. Failing that, comparisons should be made over the same number of years, whilst recognising that the form of components may change in the face of the accelerating rate of manufacturing employment decline experienced by much of the British economy since the mid 1960's.

### 3.3.3 A comparison between short term studies covering 3-4 years

There are five major job generation studies which analyse changes in employment over a three or four year period. Two refer to counties in North East England and are part of the studies by Storey referred to in Table 3.3. The others are the U.K. study by Macey the study of the Inner London Borough of Tower Hamlets by Howick & Key and the study by Hubbard & Nutter of the service sector in Merseyside.

The key summary results are shown in Table 3.5, from which it can be seen that all five studies cover the broadly similar period of the 1970's. All the studies are of areas experiencing a net decline in

TABLE 3.6

## COMPONENTS OF EMPLOYMENT CHANGE BY REGION 1972-75 (% OF 1972 EMPLOYMENT)

Region	Closure %	In-situ Contraction %	Gross Job Loss %	Ranking	In-situ Expansion %	Openings %	Gross Job Gains %	Ranking	Net Change %	Ranking
South East	5.6	11.4	16.9	10	7.2	1.5	8.7	9	- 8.2	10
East Anglia	3.5	10.9	14.4	7	10.5	3.8	14.2	1	- 0.2	2
South West	3.7	10.5	14.2	5	8.2	2.0	10.2	5	- 4.0	6
West Midlands	3.9	11.9	15.7	9	9.2	0.2	9.4	8	- 6.4	9
East Midlands	3.6	11.1	14.7	8	7.8	2.1	9.9	6 =	- 4.8	7
Yorkshire & Humberside	4.2	8.4	12.6	3	8.8	1.1	9.9	6 =	- 2.7	5
North West	4.1	9.7	13.8	4	7.8	0.7	8.5	10	- 5.3	8
North	2.5	9.9	12.5	1 =	10.0	1.2	11.1	4	- 1.3	3
Wales	3.4	9.1	12.5	1 =	9.6	3.5	13.1	2	+ 0.6	1
Scotland	6.1	8.1	14.3	6	10.3	1.8	12.1	3	- 2.1	4
Regional Average	4.1	10.1	14.2	-	8.9	1.8	10.7	-	- 3.4	-

Source : Macey (1981)

employment, with a massive decline of 23% in Tower Hamlets, compared with only 2.4% decline for the service sector in Merseyside. Perhaps the most striking feature of the table is that Tower Hamlets, which experiences the largest net decline also has the highest rate of job creation. From this there would appear to be no association between gross new job creation and net job change.

This statement, however, is not supported by the regional results produced by Macey, reported and amended in Table 3.6. This shows that the regional variation in gross job loss was very small compared with the variation in gross job gains. The Regional Average for Gross Job Loss was 14.2% with only the South East being outside the  $\pm 2\%$  range, compared with three Regions outside this range for the Gross Job Gains category. Furthermore the ranking of Regions for Gross Job Gains corresponds much more closely with the rankings for Net Job Change than Gross Job Losses. It suggests that Regions which created the fewest jobs performed poorly in terms of net job change. Conversely it suggests that job losses are less important, and less spatially variable, than new job creation in influencing net employment change.

#### 3.3.4 Comparisons between longer period studies

A number of studies have examined the components of employment change over a longer period, ranging from seven years for the East Midlands to thirteen years for the three Counties of North East England. The results are shown in Table 3.7 but again it has to be stressed that these studies used somewhat different definitions and different sources of data. Furthermore the broad uniformity of time period which characterised the short period studies is not found in this table, with the earliest study by Firn of Glasgow covering the 1958-68 period whereas the Healey and Clark study of Coventry covers the 1974-82 period.

Only one study - that for County Durham - is of an area experiencing an increase in manufacturing employment. All the remaining nine studies

TABLE 3.7

U.K. JOB GENERATION : LONG PERIOD STUDIES

	Time Period	Net Change	Openings	Closures	Expansions	Contractions	Gross New Jobs	Gross Job Losses
U.K. (Gallagher & Stewart)	1971-81	- 7.3	+43.8	- 51.4	+ 22.2	- 21.9	+ 66.0 (6.6)	- 73.3 (6.7)
Glasgow (Firn)	1958-68	- 6.6	+ 9.8	- 14.5	+ 14.5	- 16.4	+ 24.3 (2.4)	- 30.9 (3.1)
Merseyside (Lloyd & Mason)	1966-75	- 24.0	+10.5	- 22.5	-----	- 12.0 -----	n.a.	n.a.
Inner Manchester (Lloyd & Mason)	1966-75	- 43.5	+12.9	- 50.3	-----	- 6.1 -----	n.a.	n.a.
Scotland (Cross)	1968-77	- 11.5	+ 9.2	- 14.1	+ 12.7	- 19.3	+ 21.9 (2.4)	- 33.4 (3.7)
East Midlands (Fothergill & Gudgin)	1968-75	- 1.5	+ 9.8	- 12.0	+ 14.9	- 14.2	+ 24.7 (3.5)	- 26.2 (3.7)
Cleveland (Storey)	1965-78	- 10.2	+13.4	- 8.7	+ 6.8	- 21.7	+ 20.2 (1.8)	- 30.4 (2.7)
Coventry (Healey, Clark)	1974-82	- 45.9	+ 2.7	- 12.1	+ 3.2	- 39.7	+ 6.0 (0.7)	- 51.8 (6.5)
Durham (Storey)	1965-78	+ 13.2	+23.6	- 16.1	+ 21.8	- 16.1	+ 45.5 (4.1)	- 32.2 (2.9)
Tyne and Wear (Storey)	1965-78	- 13.7	+10.2	- 12.2	+ 10.6	- 22.3	+ 20.8 (1.9)	- 34.5 (3.1)
Northern Ireland (DED)	1971-78	-18.3	+ 7.6	- 14.0	+ 15.5	- 27.3	(23.1) (3.3)	- 41.3 (5.9)

NOTE : All figures show % change on base year employment.  
 Figures in parenthesis show annualised rates of gross new jobs  
 and gross job losses.  
 n.a. = not available.

are of areas experiencing a decline in net employment over the period with the reduction varying between 1.5% in the East Midlands and 45.9% in Coventry. The components of employment change, however, vary markedly from one area to another. Taking for example the two areas of most rapid net decline - Inner Manchester and Coventry - there is a net decline in excess of 40%. In Manchester, however, closures constitute 50.3% of all jobs in the base year of 1966 whereas in Coventry closures constitute only a loss of 12.1%.

Nevertheless there are also some similarities. For example Glasgow in the 1958-68 period and the East Midlands in the 1968-75 period experienced net declines of 6.6% and 1.5% respectively. The components of this employment decline are also broadly similar with expansions being a significantly more important source of job gains than openings whereas closures and contractions contributing equally to gross job losses. There are also similarities in the performance of Tyne and Wear 1965-76 and Scotland 1968-77. Here net employment decline is 13.7% and 11.5% respectively. Gross Job Gains and Gross Job Losses in the two economies are very similar although the constituent components do vary slightly.

From Table 3.7 it is clear that those areas which experience the largest net job losses are those which experience both low rates of gross new jobs and high rates of gross job losses. Nevertheless the relationship between net change and annualised rates of new jobs is somewhat stronger than between net change and annualised rates of job losses. This is illustrated in Figure 3.4 (a) and Figure 3.4 (b), which plots the annualised rates shown in the final two columns of Table 3.7. The former shows that, with the exception of the Gallagher and Stewart study of the U.K., which includes the service sector, there is broad evidence that gross job losses and annual rates net job change are negatively related. However this relationship is much weaker than that shown in Figure 3.4 (b) where there is a clear linear relationship, again with the exception of the Gallagher & Stewart study, between net employment change and annualised rates of new job creation. The clear message is that, over the longer term, those areas which experienced the lowest net

TABLE 3.8

## GROSS JOB GAINS IN THE U.K.

	Author	Period	Openings				Expansions		Gross Job Gains	
			Births Emp.	%	In-Moves Emp.	%	Emp.	%	Emp.	%
<u>U.K. Studies</u>										
U.K.	Gallagher & Stewart	1971-81	5,770,000	66	*	*	2,910,000	34	8,690,000	100
U.K.	Macey	1972-75	22,000	4	57,000	9	540,000	87	619,000	100
<u>Regional Studies</u>										
Inner Manchester	Lloyd & Mason	1966-72	6,514	53	603	5	5,158	42	12,275	100
Clydeside	Firn	1958-68	6,039	7	27,413	33	49,258	60	82,710	100
Clydeside	Firn & Swales	1963-72	5,128	-	29,328	-	n.a.	-	n.a.	-
West Midlands	Firn & Swales	1963-72	7,295	-	6,337	-	n.a.	-	n.a.	-
Durham	Storey	1965-76	3,172	11	12,522	41	14,489	48	30,183	100
Durham	Storey	1976-81	1,495	15	3,166	31	5,595	54	10,256	100
Tyne & Wear	Storey	1965-76	5,912	14	15,071	35	21,524	51	42,507	100
Tyne & Wear	Storey	1976-81	2,817	18	1,708	11	10,913	71	15,438	100
Cleveland	Storey	1965-76	2,193	9	13,154	56	8,067	34	23,414	100
Cleveland	Storey	1976-81	2,196	27	1,867	23	4,154	50	8,217	100
Scotland	Cross	1968-77	12,194	9	41,944	33	74,853	58	128,991	100
East Midlands	Fothergill & Gudgin	1968-75	23,200	16	32,400	23	84,600	60	140,200	100
Coventry	Healey & Clark	1974-82	2,163	32	979	14	3,720	54	6,862	100
Northern Ireland	DED	1971-78	12,982	33	*	*	26,596	67	39,578	100

\* NOTE : Gallagher & Stewart (1985) and DED (1982) do not distinguish between births and in-moves.

decline in employment were those which were most successful in terms of new job creation. It is less true that they were the areas which lost fewest jobs.

### 3.3.5 The Creation of New Jobs

Since the creation of new jobs is clearly central to the performance of a local economy we now examine those studies which have attempted to quantify local rates of job creation. Table 3.7 showed that in four studies expansions were more important than openings, in two others matters were reversed and in two studies they were of similar importance. This is developed in Table 3.8 which shows the subdivision of gross job gains between expansions, births and in-moves, and it broadly suggests that the expansions of existing firms are of somewhat greater importance, over the longer period, than openings. Two major exceptions to this are the studies by Gallagher & Stewart of the U.K. and by Storey of Cleveland (1965-1976) where expansions constitute only one third of Gross Job Gains. Again it is unclear whether this 'exceptional' result occurs because of the characteristics of businesses included in the Dun and Bradstreet data base and the methods used in the analysis or whether it is simply attributable to the presence of the service sector and the fact that the study covers the whole, rather than parts, of the U.K. Nevertheless it is perplexing that the two studies with similar proportions of new jobs created in openings and expansions should be the major national study including both services and manufacturing (Gallagher & Stewart) and the County of Cleveland which has always been viewed as 'atypical' because of massive manufacturing decline in an economy dominated by large enterprises.



**TABLE 3.9**  
**NATIONAL COMPARISON OF NEW MANUFACTURING FIRM FORMATION IN THE U.K.**

	Author	Time Period	% Actual* Employment	% Standardised+ Employment
<u>U.K. Studies</u>				
U.K.	Gallagher & Stewart	1971-81	n.a.	n.a.
U.K.	Macey	1972-75	0.4	1.3
<u>Regional Studies</u>				
Central Clydeside	Firn	1958-68	1.9	1.9
Birmingham	Firn & Swales	1963-72	1.1	1.2
East Midlands	Fothergill & Gudgin	1968-75	4.2	5.9
Cleveland	Storey	1965-78	2.8	2.2
Durham	Storey	1965-78	4.4	3.4
Tyne & Wear	Storey	1965-78	3.6	2.8
Scotland	Cross	1968-77	2.2	2.6
Manchester	Lloyd & Mason	1966-75	3.8	4.2
Merseyside	Lloyd & Dicken	1966-75	3.7	4.1
South Hampshire	Mason	1971-79	3.5	4.4
Coventry	Healey & Clark	1974-82	1.9	2.3
Cambridgeshire	Gould & Keeble	1971-81	5.2	5.2
Norfolk	Gould & Keeble	1971-81	3.5	3.5
Suffolk	Gould & Keeble	1971-81	3.1	3.1
Durham	Storey	1976-81	3.4	6.8
Cleveland	Storey	1976-81	2.4	4.8
Tyne & Wear	Storey	1976-81	2.2	4.4
Merseyside	Hubbard & Nutter	1971-75	3.3	8.3

**NOTE** \* % Actual Employment =  $\frac{\text{Total Employment in New Firms in final year}}{\text{Total Employment in base year}}$

+ Standardised Employment relates to a ten year period; a single ratio was used

### 3.3.6 The Importance of New Businesses

The focus of attention of much public policy in both Britain and other community countries is encouragement to new businesses. These are generally defined to be businesses established by individuals which are not owned by an existing enterprise. As has been frequently noted throughout this review the precise definitions used in each of the studies varies somewhat from one study to another. For example it is sometimes suggested that several of the studies have included businesses as independent when in fact they are owned by existing businesses (Gould & Keeble, 1984).

Despite these problems over definition it appears to be broadly true from Table 3.9 that the contribution of new businesses to manufacturing employment is very modest over a ten year period. Since the time period for each of the studies varies somewhat, and because total employment in each data set varies substantially, the penultimate column of the table shows total employment in new firms expressed as a percentage of base year employment. The final column, however, takes into account differences in the number of years and is most relevant for comparative purposes.

The final column shows that out of every 100 workers employed in the manufacturing sector the number employed in an independent business established in the last ten years varied from less than 2 in Clydeside and Birmingham to a maximum of 8.3 in Merseyside. Since the latter study included the fast growing service sector, the manufacturing maximum was 6.8 in Durham, with the majority of studies yielding figures of between 3 and 5.

Several points emerge from this table. Firstly it appears broadly true that the standardised employment contribution from new firms is higher in studies covering the more recent periods of the late 1970's and early 1980's than those covering the earlier 1960's. For example low rates are found for the studies by Firn and by Firn and Swales. This is also illustrated by the growth in importance of new firms in the counties of

Durham, Cleveland and Tyne & Wear, where the standardised rates are virtually twice as high in the 1976-81 period as in the 1965-76 period. Nevertheless it remains true that some of this increase could merely reflect the rapid decline in manufacturing employment experienced in these areas noted earlier.

Secondly it also appears to be broadly true that the contribution to employment of new and small businesses is greater in the more prosperous areas than in the less prosperous areas. For example the areas of South Hampshire, East Midlands and East Englia (Cambridgeshire, Suffolk & Norfolk) appear to have higher contributions than the less prosperous areas of Scotland and Northern England. Perhaps the major exception also appears to be Manchester/Merseyside where the contribution to employment appears to be relatively high but this we attribute to an overestimate of the actual importance of new firms in these studies [Gould & Keeble (1985)].

### 3.3.7 Employment Change by size of firm : The Manufacturing Sector

It will be recalled that the major result of the study by Birch (1979) was that 2/3 of the increase in employment in the United States was in businesses employing less than 20 workers.

Despite the interest which the result generated, and the availability of regional and national micro-data bases, relatively few researchers have presented their analyses in a way which enables a direct comparison to be made with the Birch results. In the case of Gallagher and Stewart their data is presented in the form of gross employment change by size of business since, in the context of a net decline in employment, this statistic is more meaningful.

The pioneering comparison between the Birch results and those for the U.K. was undertaken by Fothergill and Gudgin. Even here, however, comparison was incomplete since only manufacturing employment was compared in the two studies. Subsequently net manufacturing employment

change by size of firm was also examined by Macey for the U.K. as a whole and for Northern England by Storey. The results of these studies are presented in Table 3.10.

The reader has already been alerted to the problems of making comparisons between the U.K. Job Generation studies but it is worthwhile re-emphasising the points made by Hull (1985) in his attempt to compare these results with his own for West Germany. First, as noted in Table 3.10, the size categories used differ slightly from one study to another. Secondly the duration of the studies varies markedly. Thirdly the macro-economic conditions were very different in the U.K. from 1976 - 81 from those in the 1968 - 75 period.

There are also a set of more subtle distinctions between the studies. First the East Midlands and Northern England studies classified new firms according to their size category in the final year of the study. Birch, however, places all new firms in the 0-20 category, whereas the U.K. (Macey) study excludes such firms completely. Secondly there are also differences in calculating rates of change, with Macey taking employment change in each size category as a % of total employment in that category in the base year, whereas all the other studies examine employment change in each size category as a % of total employment in all size categories.

Despite all these problems it remains broadly true that in all the studies, and over the variety of time periods concerned, Table 3.10 shows that positive rates of job creation occur in the smallest size groups of less than 20 employees, and to a lesser extent in firms with between 21 and 50 employees. It is also true that in all the studies that the largest net job losses are in the largest size of firm, and that the larger the firm size group the greater the net job loss. There can be no doubt that net job gains are found amongst small firms and that net job losses increase with firm size.

The first row of each entry of the table shows the total % change in employment in each size group. Because of the difficulties in making

comparisons between studies of varying duration the second row, with data in parenthesis, shows these changes on an annualised basis.

For the first three studies the annual results are remarkably similar but the differences which do occur are in the expected directions. As noted above, in all studies positive rates of growth in employment are found in the smallest size firms (establishments) and the highest rates of net job shedding are found in the largest. Furthermore the decline is clear across all size bands. It is also clear that annualised rates of net job change in both the East Midlands and Northern England 1965 - 76 are very similar - but with small firms contributing rather more new jobs in the former region than in the latter. Annualised new job losses for those establishments with more than 500 workers are very similar - 0.99% in the East Midlands and - 1.0% in the North. Annualised job loss rates in U.S. firms with 500 or more workers were approximately half this figure.

The first three studies in Table 3.10 cover a broadly similar period of modest prosperity but the Northern England study of 1976 - 81 encompasses massive decline in manufacturing employment. The results for this study in the fourth row of the Table shows that, when annualised, employment growth in the smallest size of establishments was broadly similar to that in the prosperous period i.e. + 0.2% per annum. However the major change is that in the later period the annualised rate of net job loss amongst large establishments rises from 1.0% to 3.8%. This supports existing research results which suggest that in upswings and downswings of the trade cycle the contribution to employment change made by small firms remains unchanged. The downswings in employment are attributable to large firms shedding labour at faster rates.

The national results from Macey also indicate that job losses exceed job gains in the 1972-5 period for larger firms but the short duration of the period studied means comparisons with the other studies are not wholly valid.<sup>1</sup>

TABLE 3.10

MANUFACTURING EMPLOYMENT CHANGE BY FIRM SIZE IN BRITAIN AND THE U.S.A. : TOTAL  
AND ANNUALISED PERCENTAGE OF TOTAL MANUFACTURING EMPLOYMENT CHANGE IN THE  
BASE YEAR

Location	Period		Size of Firm				
			0-20	21-50	51-100	101-499	500+
U.S.A.	1969-1976	Total %	+3.2	+0.5	-0.2	-1.5	-2.9
		Annualised %	(+0.5)	(+0.1)	(0.0)	(-0.2)	(-0.4)
East Midlands	1968-1975	Total %	+2.7	+2.3	+1.5	-2.2	-5.9
		Annualised %	(+0.4)	(+0.3)	(+0.2)	(-0.3)	(-0.9)
Northern England	1965-1976	Total %	+2.0	+0.8	+0.2	-0.8	-10.8
		Annualised %	(+0.2)	(+0.1)	(0.0)	(-0.1)	(-1.0)
Northern England	1976-1981	Total %	+1.0	-0.1	-1.1	-7.8	-18.7
		Annualised %	(+0.2)	(0.0)	(-0.2)	(-1.6)	(-3.8)
U.K.	1972-1975	Total %	0.0	0.0	-0.1	-0.1	-0.3
		Annualised %	(0.0)	(0.0)	(0.0)	(0.0)	(-0.1)

NOTES : Northern England size categories are 0-24, 25-49, 59-99, 100-499, 500+  
U.K. size categories are 11-20, 21-50, 51-200, 201-500, 500+

### 3.3.7 Employment Change by Size of Firm : All Sectors

The study by Birch covered all sectors of the U.S. economy but in the U.K. only one study by Gallagher and Stewart has been able to cover both the manufacturing and service sectors. Unfortunately the main study, covering the 1971-81 period does not distinguish between manufacturing and services and does not disaggregate its results on a regional basis. Nevertheless its most quoted statistic was that firms with less than 20 workers accounted for 13% of all employment in 1971 but 31% of job creation in the U.K. economy between 1971 and 1981. This is shown in Table 3.11 (a).

Here it can be seen that, in terms of gross job creation, large firms have a fertility rate of below unity and small firms have a rate above unity indicating that these latter types of firms were more fertile in employment creation.

Although both Birch and Gallagher and Stewart use the Dun and Bradstreet data base it is not possible to compare their results since Birch used data on net employment change by size of firm whereas Gallagher and Stewart only provide data for gross new jobs by size of firms. This is because there are net job losses by large firms in the UK and so it is not possible to obtain a direct comparison with the USA data where all sizes of firm experienced positive net job creation. This is shown in Table 3.11 (b), which demonstrates that only firms with less than 20 workers in the UK experienced a net increase in employment over the 1971-81 period. All other size groups experienced a net reduction in employment but the pattern was much less uniform than appears from the regionally-based manufacturing studies. It was broadly true that these showed the fastest rate of net job loss being in the largest establishments, and the fastest rates of net job gain in the smallest establishments.

The same clarity does not appear in Table 3.11 (b) which, whilst it shows that net job gain is positive amongst the smallest size of firm, shows a much greater diversity of firm performance. For example, unlike

TABLE 3.11 (a)EMPLOYMENT CREATION BY DIFFERENT SIZE FIRMS UK

Employment size	% of Employment in sample (a)	% of Job Creation in sample (b)	Fertility ratio (b) / (a)
1 - 19	13%	31%	2.4
20 - 49	8%	11%	1.4
50 - 99	8%	10%	1.2
100 - 499	23%	21%	0.9
500 - 999	12%	10%	0.8
1000+	36%	17%	0.5

Source : Gallagher and Stewart (1984)



the manufacturing studies, the largest firms with more than 1000 employees experience a net 20% decline in employment, compared with 10% decline in those with between 500 and 999 employees. Furthermore there appear to be little difference in terms of net employment change between those with more than 20 employees, except for those in the 500 - 999 class.

We have expressed elsewhere [Storey and Johnson (1986)] our reservations about the methods used to analyse the Dun and Bradstreet data in this context and so it is appropriate here only to briefly note that coverage of small firms in 1971 is incomplete and even by 1981 is somewhat patchy. There is a major risk that, because Dun and Bradstreet are a credit-rating agency and only those small firms requiring credit seeking information on other firms with which they trade are included, then included firms are more likely to be growth orientated than the population as a whole. To then scale-up the firms in the data base by a factor equivalent to the proportion which the included firms constitute of the known population therefore risks inflating the 'performance' of the small firm sector.

### 3.3.8 Employment Change by Size of Firm : Synthesis

It appears broadly true that, according to most criteria, small firms have been creating jobs in the UK as a time when job losses have occurred in the large firm sector. In part this is because the methods used to estimate job creation favour small firms but it also reflects genuine differences in the performance of the two sectors.

Table 3.11 (b)

Employment Change by Size of Firm, 1971-1981 (millions of jobs)

Size of Firm	Total Employment in 1971	Expansions	Contractions	Births	Deaths	Net Change	Percentage of Total 1971 Employment
1-19	1.17	.74	.00	1.46	- 1.09	1.11	8.4
20-49	.99	.20	- .13	.20	- .39	- .11	- 0.8
50-99	1.00	.21	- .14	.28	- .36	- .02	- 0.2
100-499	3.08	.89	- .70	1.32	- 1.63	- .11	- 0.8
500-999	1.58	.38	- .44	.60	- .70	- .17	- 1.3
1000+	4.76	.50	-1.47	1.91	- 2.59	-1.65	-12.5
TOTAL	13.16	2.92	-2.88	5.77	- 6.76	-0.95	- 7.2

Source : Gallagher and Stewart (1985)

### 3.4 PUBLIC POLICY TO ASSIST SMALL FIRMS

During the 1960's and early 1970's the main thrust of public industrial policy in Britain was to offer financial and other assistance to large companies. Small businesses were not an explicit focus of policy.

However during the latter 1960's fears were expressed that the increasing levels of business concentration in Britain could have undesirable consequences. It was argued that a shrinking small firm sector meant large companies were less subject to competition, and so were able to raise prices and/or exhibit X-inefficiency. The large firms, for their part, argued that size provided the twin benefits of scale economies at the plant level and the opportunity to invest in increasingly expensive research and development [Pratten (1986)].

This debate upon the role of different sized firms led to the establishment of the Bolton Committee which reported in 1971. In many respects this was a landmark study. For the first time it highlighted the declining share of manufacturing output and employment in small firms. It also suggested that this process of industrial concentration had gone further in the U.K. than in most other advanced countries. Finally it warned that further deterioration in the share of output and employment provided by small firms could have long term dangers to the U.K. economy as a whole.

Nowadays the Bolton Committee policy recommendations appear very mild. Bolton did not suggest positive discrimination in favour of small firms but only that 'artificial' barriers to small firm formation and development, particularly in the area of finance, were lowered or removed. The significance of Bolton is that it focussed attention, almost for the first time, upon what was then an unfashionable sector of the U.K. economy. It indicated that the existing market structures did not necessarily generate an optimal number of small firms and it recommended the introduction of, for example, information and advice centres for small firms because the information barriers facing small

businesses were either relatively higher than those facing larger businesses or were higher than was beneficial to the economy as a whole.

Whilst the Bolton Committee report was clearly influential in changing attitudes towards smaller businesses there were only minor changes in public policy towards smaller firms until 1979 when a Conservative administration was elected under the premiership of Mrs. Margaret Thatcher. This administration was committed to improving the competitiveness of the British economy through the application of free-market principles within a strict monetarist macro-economic framework. In particular the example of the rapid rate of job creation in the U.S. was highlighted as an appropriate model for the U.K. Hence when the results of the Birch study (1979) purporting to show that 2/3 of the increase in employment in the U.S.A. between 1969 and 1976 had been in firms with less than 20 workers, it became clear that small firms would be a major policy target group during a period of rapidly rising unemployment.

Since 1979 there has been a major upsurge of interest in small firms as a source of new employment. This interest has taken the form of more than 100 measures introduced by the Conservative Central Government but numerous new initiatives, many of which are targetted at small firms, have also been undertaken by both local government of all political complexions. Furthermore many large companies have also become increasingly involved with assisting small business directly or indirectly. Finally there has been a growth in 'third sector' type businesses.

#### 3.4.1 Central Government Small Firms policies in the U.K.

In the United Kingdom there is no single statement of the role which central government public policy towards small firms is expected to perform. In some cases the objective of policy appears to be direct employment creation within the small firm sector, whereas on other occasions emphasis is placed upon more small firms leading to increased

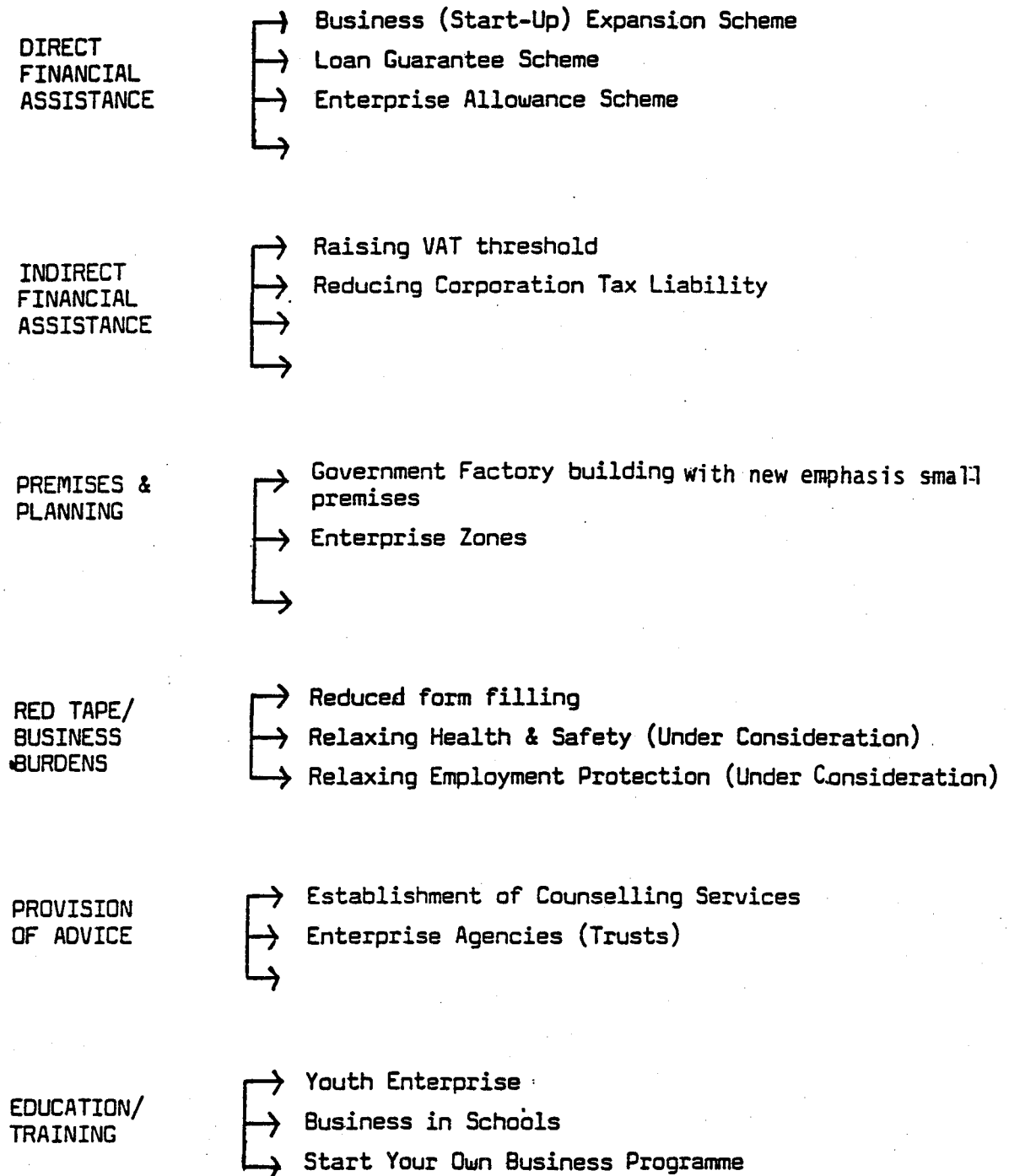
competition, lower prices and wages which in turn leads (indirectly) to additional employment. In other statements the emphasis is placed upon small firms providing a wider consumer choice, and in others almost as an objective in itself. The government critics, on the other hand, attribute enthusiasm for small firms to the low levels of unionisation in such businesses, so that policies to promote small firms are seen as part of a strategy to reduce the power of organised labour. Given this profusion of objectives, specified and unspecified, it is difficult to undertake an adequate appraisal of the effectiveness of policies.

For our purposes, however, we shall regard the implied objectives set out in the document 'Burdens on Business' as reflecting both the objectives of policy and the mechanisms by which that policy would become effective. This reports the results of an attitude survey of small businessmen on the impact of Government regulations ('red tape') on their activities. Even though small firms did not feel that these burdens were as important as problems over sales, finance, etc., Government says 'We believe that the total impact of a determined drive to contain regulatory burdens would be substantially greater than the perspective of the individual small firm suggests' (authors emphasis).

The report then goes on to say that a reduction would yield benefits for jobs in the following way '... reductions in compliance costs would be likely to feed through into profits and prices; the end result being a higher level of employment in the whole economy' para 2.5.3.

It appears that Government has similar views on the mechanism for other aspects of small firm policy since it views the reduction in business burdens for small firms as 'one element in the Government's wider strategy for enterprise and employment'.

Figure 3.5 shows that in the United Kingdom six broad groups of initiatives designed to promote the growth of the small firms sector have been implemented. Some are clearly designed to raise the rates at which new businesses are formed, such as the Enterprise Allowance Scheme. Under this scheme unemployed workers who start their own

FIGURE 3.5SMALL BUSINESS ASSISTANCE IN BRITAIN

businesses no longer have to forgo their unemployment pay, but instead are paid a fixed sum of £40 per week for a period of 12 months whilst the business is being established. The Government also gives enthusiastic support to Enterprise Agencies (Trusts in Scotland) which are a partnership between the public and private sector in which information and advice is locally provided to new and small businesses. The Manpower Services Commission also finances Educational Institutes to provide training courses for individuals wishing to start their own business and, in the longer run, the Government is keen to promote a greater knowledge of businesses and self employment amongst schoolchildren. It gives a high priority to including business awareness and understanding directly within the school curriculum.

The remainder of the initiatives identified in Figure 3.5 are targeted primarily at existing small businesses. The Business Expansion Scheme provides tax relief to individuals investing directly in bona fide small businesses. When the Scheme began, it was called the Business Start-Up Scheme. At that time only new businesses were eligible for support but the risk of investing in start-ups was judged to be unacceptably high and so little investment funding was forthcoming. However, the Scheme was widened to include established small businesses, and the name changed. Under the Loan Guarantee Scheme the Government guarantees 70% (originally 80%) of a loan issued by an eligible bank to a small firm, where the loan would not have been made under normal banking criteria. In return the borrower has to pay an interest premium on the loan and the Scheme itself is supposed to be self-financing.

The direct and indirect financial assistance programmes were a feature of the first phase of small firms policy in Britain between 1979-1982. Since then no major new financial initiatives have been introduced, although modifications to existing schemes have taken place. Policy now seems to have been increasingly directed towards relaxing and removing the 'constraints' on new and small firms. Active consideration is being given to relaxing health and safety legislation so that very small firms would not have to provide the same standards of safety for their workers as large firms. Similar exemptions are being considered for aspects of

the Employment Protection Legislation dealing with unfair dismissal and maternity leave.

As noted earlier, there is no clear and coherent statement of the objectives of central government small firms policy and the criteria on which it may be judged. Instead, it appears to exhibit the same sort of 'ad hocery' that is supposed to characterise many small firms.

Whilst the items identified in Figure 3.5 are the explicit focus of central government small firm initiatives, many other economic initiatives have small firms as an explicit target group. For example the Department of the Environment (DoE) Urban Programme has, as its target.

"to improve employment prospects in the inner cities by increasing both job opportunities and the ability of those who live there to compete for them", (DoE 1985).

In practice this means that DoE finances, in partnership with the local authorities, a variety of schemes designed to promote economic development. Because of this partnership arrangement it is not possible to distinguish between DoE Urban Programme assistance and those provided by the Local Authorities themselves but Table 3.12 shows, in the Newcastle Metropolitan area, that the prime focus of financial assistance is the small firm. There is every reason to believe these results reflect more general trends throughout the urban areas within the U.K.

Broadly the table shows that 58% of establishments assisted by a combination of local authority and Department of Environment assistance had ten workers or less. It is not possible to relate this to the total size distribution of establishments in the area since such data are not readily available, but it is likely that this does reflect a bias in favour of small establishments, and probably small firms.



### 3.4.2 Local Authority Initiatives

To some degree Local Authority initiatives are financed by central government and therefore reflect the preferences of central government, but in the U.K. there has been an increasing willingness on the part of certain local authorities to experiment with different approaches to economic development. The innovative approaches have occurred primarily in the major urban areas and in other areas experiencing persistently high levels of unemployment.

Within a few pages it is difficult to satisfactorily cover all the forms of economic development which, with some significant exceptions, are directed towards smaller businesses. For example during the 1960's and 1970's those local authorities actively concerned with economic development devoted their limited budgets mainly to advertising the merits of their area in the hope of stimulating the location of large branch plants. The remainder of their budgets were devoted to land reclamation and factory unit provision - again for relatively large enterprises.

**TABLE 3.12**  
**EMPLOYMENT SIZE OF FINANCIALLY ASSISTED ESTABLISHMENTS**  
**IN NEWCASTLE METROPOLITAN AREA 1974-84**  
**(NUMBER OF ESTABLISHMENTS)**

	ESTABLISHMENT SIZE					TOTAL
	1-5	6-10	11-25	25-50	50+	
All Local Authorities	348	215	193	103	98	957
of which:	(36)	(22)	(20)	(11)	(10)	(100)
District Councils	311	161	143	63	49	727
	(43)	(22)	(20)	(9)	(7)	(100)
County Councils	37	54	50	40	49	230
	(16)	(23)	(22)	(17)	(21)	(100)

NOTE : Figures in parenthesis show % contribution.

By the late 1970's and early 1980's matters began to change primarily because in difficult macro-economic conditions it became clear that movements of relatively large plants had effectively ceased, that closure and job shedding by existing large plants was occurring on an unprecedented scale, and that individuals previously in employment and with little future employment prospects were increasingly looking to self-employment as a way of obtaining a family income. This upsurge in demand for self employment imposed a number of requirements upon local authorities. There was a clear shortage of small premises in which individuals could start their business and so factory provision was restructured partly towards the construction of purpose-built small units and partly towards altering existing premises [Coopers & Lybrand (1980)]. Many individuals had no previous business experience and were relatively ignorant of the demands of starting a business in terms of marketing, raising finance, etc. Many local authorities responded to this problem by providing advice centres themselves or by participating in the establishment of Enterprise Agencies which are discussed below [Deloitte, Haskins and Sells (1983), Centre for Employment Initiatives (1985)].

A variety of forms of financial assistance were also provided by local authorities. Some such as Cleveland County Council or Northumberland County Council provided £1000 grants to individuals starting a new business. Others provided rent free or even rate-free 'holidays' in their own premises, while others provided low interest loans.

A somewhat more innovatory approach was adopted by some local authorities which were in a position to capitalise upon particular benefits of their area. For example Bradford was particularly successful in promoting tourism through its emphasis upon the Bronte countryside, [OECD (1985)] whilst Merseyside was able to obtain considerable income from hosting the Garden Centre Festival. The current efforts being made by the City of Birmingham in its efforts to be chosen as the host to the Olympic Games in 1992 also indicate the importance attached to tourism related initiatives, the prime beneficiaries of which are expected to be smaller firms.

The most important and innovatory local initiatives however, have occurred in those major Labour controlled councils in urban areas which have established Enterprise Boards [Mawson and Miller (1986)]. Currently such Boards exist in London, Lancashire, West Midlands, Merseyside and in West Yorkshire. Whilst there are many differences in operating style, client groups and emphasis, all these Boards were established after 1982 with a view to investing directly in local industry. The form of that investment varies but will often include the provision of both loan and equity capital in businesses with between 25 and 500 workers. In return for this financing the business is expected to implement certain social objectives such as Trade Union recognition, elimination of discrimination, maintenance of health and safety agreements etc. The local government reorganisation in several U.K. metropolitan locations placed in jeopardy all the Enterprise Boards with the exception of Lancashire, but it now seems likely that they will continue often on a more restricted scale with funding from District Local Authorities.

### 3.4.3 Third Sector or Community Initiatives

The growth in unemployment in the U.K. has served to increase both the rate of formation of new private sector businesses and the number of community-based non-profit businesses. Very broadly these latter businesses may be classified as third sector businesses and they include Co-operatives, Community Businesses and Voluntary projects [Nabarro et al (1986)].

Common to all these cases is the attempt to provide an income to those working on the projects but there are also significant differences. For example the basic aim of Community Businesses, whilst they may obtain a trading surplus, is to improve the community, with any trading profits generally being ploughed back into the community. On the other hand Co-operatives can operate in conventional private markets but the benefits of the co-operative accrue to those working in them.

Furthermore the third sector projects generally attempt to create jobs for local people and maintain control of the venture locally.

The growth of these businesses has been phenomenal in recent years. For example in 1980 there were 90 Co-operatives in Britain whereas in 1985 there were more than 1000. Community businesses have also been growing rapidly and exhibit remarkable diversity. For example Stares (1983) shows that community businesses include self assembly furniture in Skelmersdale, home produced crafts in Port Glasgow and the marketing and processing of fish off the Welsh coast.

The development of the third sector in Northern England has been chronicled by Murgatroyd and Smith (1984). Perhaps one of their most interesting examples is the Pallion Residents Enterprise. Pallion is an area of Sunderland where male unemployment rates are at least 50%. In 1981 a clothing factory which employed 2000 workers closed and by 1982 the factory was being vandalised. The residents of the area decided to buy the factory and convert it for use as workshop space and as a place to provide sports and leisure facilities. The project subsequently attracted nearly £500,000 from other organisations in the area and is now a showpiece example of the power of community action.

#### 3.4.4 Initiatives of Employer Organisations

There has been an increasing involvement by the private sector in promoting economic development at a local level. This is reflected in the establishment of a large number of Enterprise Agencies (Trusts in Scotland) primarily using private funds, funded by the umbrella business organisation "Business in the Community" (BIC). In addition a number of major employer organisations have themselves been concerned directly with the creation of employment opportunities in areas in which they have shed jobs.

Enterprise Agencies are local organisations set up by companies, Local Authorities, Chambers of Commerce and Trade Unions. Their function is similar to that of the 'contiques de gestion' in France except that the information and advice services which they offer to new and small businesses are free. The number of Enterprise Agencies has increased massively from about 20 in 1981 to more than 300 to date. Funding for Enterprise Agencies comes mainly from the private sector, frequently in the form of staff from major private sector clients being seconded from the company to work for the Agency.

The motivating force behind these developments is the perception that the private sector cannot work effectively if it is isolated from the community in which it draws its workers. In some cases the motivation is purely altruistic, whereas in others it is recognised that greater community involvement can lead to a better social climate enabling improved recruitment, better morale and presumably higher profits.

As with many relatively new organisations there is a tendency when reporting their progress to somewhat overstate their effectiveness. For example a review of the effectiveness of Enterprise Agencies has recently suggested that the Agencies had made a significant contribution to the creation/growth/survival and the employment level of the businesses which they had assisted. BIC themselves estimate that 30,000 new jobs have been created in start-up businesses aided by Enterprise Agencies which, given the level of funding provided by Agencies represents a cost per job of less than £500 or 12% of the per-capita cost of providing state benefits for the unemployed. According to that form of accounting Enterprise Agencies look to be a highly cost effective way of creating new jobs [CEI (1985)].

Probably the most important single job creation initiative by a major employer in the U.K. has been that undertaken by a public sector company, the British Steel Corporation. As with all steel producers in Europe the British Steel Corporation has been shedding jobs on a major scale.

In 1967 the Corporation employed approximately 250,000 workers and in 1975 it employed 225,000 workers. Knowing that substantial job shedding was to take place, and knowing that the Corporation was generally the major employer in towns located in the less prosperous regions of Britain, it established in 1975 a subsidiary company B.S.C. (Industry) Ltd, the function of which was to create employment opportunities in the steel closure areas. By 1984 the Corporation employed less than 75,000 workers which meant that approximately 150,000 jobs were lost over the 1975 - 1984 period.

BSC (Industry) Ltd undertook several major initiatives. It provided business consultancy and advice to many firms. Initially it provided grants to firms wishing to move into or expand in a steel closure area, but switched later to providing only low interest loans. It converted some of its own property into workshop units and seconded a manager to provide advice and assistance to clients. In some cases it built its own factory premises and in others negotiated training grants. In short it provided all the services subsequently provided by Local Enterprise Agencies as well as having resources of its own. Indeed the BSC (Industry) model has been used as the basis for the newly established NCB Enterprises which is designed to create jobs in areas affected by coal industry closures.

#### 3.4.5 An Assessment of the Effectiveness of Small Firm Policy

It should be clear that policies and initiatives to assist small firms have mushroomed over recent years and no overall appraisal of the aggregate impact of all forms of assistance from both central and local government, and from other agencies, has been undertaken.

In practice only a piecemeal approach to appraisal has been undertaken partly because of the different objectives of policies and partly because of the difficulties of undertaking a complete evaluation. It is not therefore possible to provide an overall view of policy initiatives to assist small firms. Instead we shall report on four projects where

some appraisal has been undertaken. These are designed to be illustrative of the small firm initiatives and include:-

- The Loan Guarantee Scheme
- The Enterprise Allowance Scheme
- The Business Expansion Scheme
- British Steel Corporation (Industry) Ltd.

The first three schemes are initiatives and operated by the U.K. Central Government. Finally BSC (Industry) Ltd. is an example of an initiative by a major employer. The objective of the current review is to assess the impact upon the unemployed in terms of cost per job created. In so doing an estimate must be made of what would have been happened in the absence of the particular initiative.

(i) The Loan Guarantee Scheme

The objective of the scheme was to encourage banks to lend to a small business when such lending would normally fall outside normal lending criteria i.e. where the borrower was unable to provide adequate personal security or where an inadequate track record was available. LGS was therefore to be a scheme of last resort.

The borrower was charged a risk premium of 2% over base rate but, in the early stage, the bank was insured against default by customers to the extent of 80%. The scheme was designed to be self-financing in the sense that the additional premium charged was meant to finance defaults.

The objective of the scheme was to induce additional lending which would lead to additional activity and presumably more jobs.

An appraisal of the Loan Guarantee Scheme was undertaken by Robson Rhodes (1983,1984). Their prime concern was with the operations of the scheme. They were concerned with the factors underlying business failure, with whether the banks were undertaking new lending and whether

adequate appraisals were undertaken by the banks. Nevertheless Robson Rhodes did provide an indication of the effectiveness of the Loan Guarantee Scheme in job creation.

Robson Rhodes studied 94 (42 start-ups and 52 existing) surviving businesses in which total employment, since being in receipt of assistance had risen from 525 to 1265 i.e. an increase of 740 jobs. Assuming that there was a failure rate of 1 : 3 then originally a further 47 businesses would have existed and if the average default claim was £26,100, then a total default loss of £1.2m would have been incurred. However since premium income would have been generated during the business life then perhaps an overall firm loss is more accurate. Total cost per job is therefore perhaps £1,350.

However this assumes :

- All additional jobs were additional.
- No displacement.
- All these jobs were full time jobs.
- No 'other' factors are involved.

It is only possible to obtain a crude estimate of the importance of these factors; but we may perhaps speculate on such matters.

- (a) Robson Rhodes (1983, p4) say in their telephone interview study that only 1/3 of firms studied claimed it would have been impossible for them to have obtained finance elsewhere.
- (b) Since 60% of Loan Guarantee Scheme clients are new start-ups and since employment growth in business is fastest in their first three years of life it is not surprising that there is an increase in employment amongst surviving firms. An appraisal has to eliminate these 'expected' numbers of jobs from the gross gains of 740.
- (c) No estimate is provided of the number of full and part time jobs in terms of full time equivalent.



- (d) The net contribution to the economy has to take into account the net, i.e. after displacement - impact.

We may therefore make crude estimates of these factors. Firstly a group of 42 surviving start-up firms would be expected to have a mean employment of at least 8 workers within two years i.e. a total of 336. Even if the 52 existing firms showed no employment growth then only  $(740 - 336) = 404$  additional jobs are created. Secondly only 1/3 of these jobs are attributable to the policy instrument involved i.e. 135 jobs. We also know that new businesses tend to employ a significant number of part time workers so that perhaps only 80 of these jobs are full time equivalents. We also know that a high proportion of the jobs created are for females who were not registered as unemployed so that perhaps only 50 workers are removed from the unemployment register. Finally these firms may easily 'displace' a proportion of workers in other existing firms.

The stages in this appraisal are set out below and it is appropriate to note the stages which are particularly uncertain. For example in Line (v) it is assumed that the 42 new start up firms would all have begun business without the LGS but that the effect of the scheme is to enable them to grow faster than would otherwise have been the case. In this case the effect of the scheme is an increase in the number of jobs. However if the LGS results in new firms starting, which would otherwise not have started, then it is appropriate to count the total number of jobs in the firms as an indication of the gross effects of the scheme. By taking only the increase in employment over and above that which would be expected in newly established firms, we have clearly underestimated the gross employment effects.

To our knowledge, however, respondents were not asked whether the LGS was a major factor in encouraging them to start their business. We therefore do not know the magnitude of this effect, but we recognise that our procedure leads to an overestimate in terms of cost per job since some businesses will only have started because of the existence of the LGS.

Secondly we have assumed that existing firms which are very young (more than half are less than 3 years old) would not, without the LGS, have increased employment. However it is well documented that this is the age when firms grow most rapidly and therefore it is reasonable to expect a group of surviving firms of this age to have increased their employment. By omitting this 'expected' employment growth we have been over generous to the LGS, and possibly more than compensated for the under estimate amongst start up firms. There appears to be less uncertainty over the other elements in the table since these draw upon the Robson Rhodes analysis or upon documentation about the characteristics of the labour force of small firms.

			Line No.
Total No. of Firms	147		(i)
Surviving Firms	94		(ii)
Jobs per firm	7.9		(iii)
Jobs in surviving firms		740	(iv)
of which:-			
Jobs in new firms		336	(v)
Deadweight		269	(vi)
Part-time jobs		55	(vii)
Female employment		30	(viii)
Displacement		10	(ix)
Reduction in unemployment		40	(x)
		— —	
		740 740	
		— —	

If these are reasonable assumptions then the effect of the LGS is rather different from that quoted by Robson Rhodes. We are aware that Department of Employment is to undertake a further review of the LGS and hope these matters will be fully investigated. Currently all that can be agreed is that the results, in terms of cost per job, are extremely

sensitive to, as yet untested, assumptions about what the performance of KGS-assisted firms would have been in the absence of the scheme.

(ii) The Enterprise Allowance Scheme (EAS)

The EAS is designed to help unemployed workers wishing to start a business. Under the scheme £40 per week is paid for the first 12 months to those starting a full-time business, and opening a business bank account and depositing at least £1000.

There have been three published studies of the Enterprise Allowance Scheme. The pilot scheme, which operated in five areas of the UK, was evaluated in a study published in the Employment Gazette (August 1984). The national EAS scheme was launched in August 1983, and has been monitored by Manpower Services Commission researchers David Allen and Amanda Hunn [Allen and Hunn (1985)]. Finally, the Small Business Research Trust (SBRT) commissioned a report from Colin Gray and John Stanworth of the Polytechnic of Central London [Gray and Stanworth (1986)].

Allen and Hunn (1985) conducted surveys of 1300 randomly selected EAS participants who had completed six months of the EAS scheme, and 1300 individuals who had completed one year in the scheme and survived to 15 months. Their findings can be summarised as follows:

- For every 100 businesses set up, 6 months later 45 jobs were subsequently created, half of which are full and half of which are part-time.
- 15 months after start up 86% of firms were still trading and 68 new jobs per surviving firm.
- Deadweight is about 50% i.e. approximately half of the firms would have started in business in the absence of an EAS grant.
- The job creation rate is higher for 'deadweight' than for 'non-deadweight' firms.

- For every 100 entrants to the scheme the numbers unemployed fall by 32.5.
- Displacement is approximately 50%.
- Cost of taking an individual off the unemployment register is £2,690.

The effect of these calculations are shown in Table 3.13.

Table 3.13

1 Year Effects of the EAS

GRAY - STANWORTH (SBRT)

<u>Stage</u>	<u>Absolutes</u>	<u>per 100 survivors</u>	<u>Proprietors</u>	<u>Total Jobs</u>
Start	151 Businesses	-	-	
After 1 year	122 Businesses	-	-	
After 1 year	78 Jobs	63 jobs	81	144
Allowing for Deadweight (38% corporate deadweight)		24 jobs	50	74
Allowing for Displacement (50% corporate		17 jobs [4 FT [13 PT	25 25 0	42 [29 FT [13 PT
Impact upon Registered Unemployment				30 [27 FT [ 3 PT

Gray and Stanworth (1986) surveyed 155 EAS participants who had completed the 12-month grant-aided period. This survey was supplemented with in-depth interviews with 27 respondents. The results are broadly similar to those achieved in the MSC appraisal:

- Gray and Stanworth estimate that after 12 months 81% of businesses which start the scheme continue to survive.

- In terms of jobs 63 are created per 100 surviving business, with one quarter of the firms being responsible for all of these extra jobs.
- 75% of all extra jobs created are part time.
- Although deadweight is only 38% in terms of numbers of businesses the impact in terms of job creation is much higher. Allowing for deadweight only 24 jobs per 100 firms are attributable to policy.
- When displacement is allowed for the net effect of the EAS is the creation of only 17 extra jobs per 100 firms (4 PT, 13 FT). Corporate displacement is assumed to be 50%.

We estimate that, including the proprietors the net impact, in terms of registered unemployed of every 100 surviving business is perhaps a reduction of 23. The job creation of all businesses which start (i.e. including failures) is therefore likely to be around 18 extra jobs in the first year.

Over time it seems likely that whilst the numbers employed in the EAS businesses will rise death rates and the displacement effect will also rise. The lack of data on these effects leads us to conclude that the total impact, in terms of 18 jobs will remain similar over the three year period.

The cost to the exchequer are the allowances paid to those starting the business, which because of those leaving the scheme is less than the available £2,080 (i.e. £40. x 52 weeks). From the gross costs of the scheme are deducted flow backs to the Exchequer in the form of National Insurance, Direct and Indirect taxes plus national savings in state benefits.

MSC claim that, by the end of Year 2, the whole cost of allowance payments have been recouped in terms of additional tax receipts and savings in payments of state benefits.

Gray and Stanworth (p.10) are sceptical of these results. They say that if deadweight firms constitute at least 50% of those on EAS then this additional exchequer costs for individuals has to be added in. They

also note that no costs of administering EAS are included and presumably these costs will rise now that counselling is to be encouraged.

We must therefore conclude that the cost per job created by EAS is considerably higher than the £2,690 quoted in the MSC report, and that the impact of the scheme upon registered unemployment is relatively small, once deadweight and displacement effects are taken into account.

It is our view that whilst the EAS is certainly not an expensive method of job creation it is no cheaper than the much decried methods of job creation through public sector spending on hospitals etc, and is somewhat more expensive than maintaining workers on state benefits.

(iii) The Business Expansion Scheme (BES)

The Business Expansion Scheme provides tax relief for individuals investing in qualifying unquoted companies with which they are not connected. Tax relief is granted at the investors highest tax rate up to a maximum annual sum of £40,000 per year. The investment has to be held for five years and may be made directly or through a BES Fund. The scheme is designed to overcome a perceived equity gap which small companies experience. The average amount raised under BES was approximately £230,000.

A helpful review of the operations of BES has recently been produced [Peat Marwick (1986)]. This takes a sample of 1 in 7 companies in receipt of BES and then attempts to estimate firstly the cost, in terms of tax relief, of the BES finance received. Secondly it attempts to estimate, for each company, what would have happened to that company in the absence of BES funding. It therefore makes a direct estimate of crude cost per job, where deadweight is included.

Peat Marwick acknowledge that this is an extremely difficult concept, particularly since these companies have traditionally been highly optimistic in their previous projections (p.101). Nevertheless an

TABLE 3.14

COST PER JOB ESTIMATES : BUSINESS EXPANSION SCHEME

	Actual/ Estimated Employment	Estimated Employment Without BES	BES Employment Effect	Revenue Cost fm	Revenue Cost per Job Created f
Base Year	2,998	2,998	0		
Base Year + 1	3,689	2,820	869	13.5	15,000
Projected Year	4,723	3,550	1,173	13.5	13,400

estimate is made, for each company, about whether and to what extent the BES finance is additional and what would have happened in the absence of this finance.

The results of this analysis are shown in Table 3.14. The first three columns show employment data, with actual employment in the base year (normally 1984) in surveyed companies totalling 2998. Peat Marwick then found that one year after receiving BES assistance (Base year + 1) the collection of businesses had increased their employment to 3689, whereas Peat Marwick would have expected employment to have dropped to 2820 in the absence of BES. A net gain of 869 jobs, mainly from averting closures, occurred.

Unfortunately only a single year of employment data are available and so the row on projected year refers to the extent to which changes are expected to occur. It shows that employment is expected to rise to 4723 now that the firms have received BES finance. If such finance had not been available employment would only have been 3550 and so a total of 1173 net new jobs have been created.

It must be stressed that this table is constructed on the basis of informed guesses. Only the base year employment and the actual base year + 1 figures are known for certain and, as Peat Marwick themselves acknowledge, these companies are notoriously optimistic. Nevertheless it is hoped that the consultants felt able to scale-down such optimism.

Column 4 shows the cost to the Inland Revenue of the tax relief on this BES finance is approximately £13.5m which, in terms of jobs created, is about £15,000 in the base year and about £13,400 in the projected year.

In their conclusions, however, Peat Marwick indicate that their sample was biased towards the larger BES payments which have substantially higher rate of cost per job than the smaller payments. Hence they believe that a more appropriate range for the cost per job figures are £8,000 to £13,000.



It should be noted that whilst the Peat Marwick study is scrupulous in its attempt to estimate a cost per job which includes a deadweight component it does not explicitly address the question of displacement. Unlike most other studies it also identifies Full time equivalent jobs rather than simply total jobs but it does not estimate the effect which such jobs have upon registered unemployment.

(iv) British Steel Industry Ltd

As noted earlier BSC (Industry) Ltd. is the major initiative launched by a U.K. employer to provide employment opportunities in areas where it was either ceasing operations or contracting its labour force.

During the period 1979-83 BSC (I) claimed to have assisted 1547 establishments which were located in the designated areas. Approximately two thirds of them were financially assisted and one third were non-financially assisted i.e. provided with information, advice etc.

By 1983 a total of 19,191 jobs existed in these firms and this was projected to have risen by more than 33,000 by 1986. In terms of direct financial assistance per actual job created by B.S.C. (Industry) Ltd is £1179. If firms achieve their projected employment level cost per job falls to under £600. These calculations refer only to the direct financial assistance paid to businesses. It omits the 'fixed' costs of operating the BSC Industry organisation.

It is important to emphasize, however, that these figures are in no way comparable even to those presented on the Enterprise Allowance Scheme. For example no attempt is made to assess whether these jobs would have been created without the assistance from B.S.C. (deadweight). No attempt is made to estimate the displacement effect and no attempt is made to assess whether the assisted businesses received financial assistance from other public bodies which may also be 'claiming the same jobs. Finally these figures do not refer to numbers removed from the

unemployment register, but only to jobs created. No breakdown is even available on male and female or full and part-time employment.

It may be possible to speculate on these matters in a way to make comparisons with EAS, where it will be recalled that 50% displacement and 50% deadweight figures were used. If we assume that the BSC Industry cost per job is £1000 then this means a net cost per job of £4,000. If we then assume that, as with the Department of Employment study for every 3 jobs created one individual is removed from the unemployment register this means it costs £12,000 per removal. In addition it may also be thought that since many businesses assisted by BSC (I) were also assisted by other agencies, and that only a proportion of the total cost of operating BSC (I) are included in the calculation, that this should clearly constitute a minimum figure.

#### 3.4.6 Some Comments on Appraisals

In principle it is desirable, when making policy appraisals to directly compare the effectiveness of one policy influence with another. It is desirable to have a single objective which might be social improvement, employment creation or the annual PSBR cost of removing a person from the unemployment register. Unfortunately in dealing with small firm policy some instruments appear to be targetted towards one objective, whilst others have different objectives. The diversity of criteria on which initiatives are appraised in this section reflects the diversity of objectives of U.K. government small firm policy.

These problems are highlighted by the time dependency of the appraisal techniques, and by the fact that the time profile of the benefits from initiatives vary markedly. For example in the long term the prime benefit of small firm policy is presumed to be an improvement in the supply performance of the economy i.e. offering a wider choice to customers or improvements in the capital stock. In the short or medium term, however, the familiar issues of displacement and deadweight are of greater concern.

### 3.5 The Type of Jobs Created by Small Firms

Any discussion of the labour market impact of job creation by small firms would be incomplete without an analysis of the type of jobs which are being created. The impact of small firm job generation on levels of unemployment will depend to a large extent upon whether the jobs are full or part-time, what types of skills and occupations are involved, whether the jobs are primarily taken up by male or female workers, which age groups are most affected, whether there is any spatial variation in job creation rates and finally upon what type of wages and conditions of employment are offered.

Unfortunately there are no national statistics for the UK with respect to employment type by firm size. However there have been several studies undertaken which give some indication of the type of jobs created by small firms. Each relevant study will be discussed in turn.

#### 3.5.1 New Firms in the Cleveland economy

Storey (1982) surveyed 301 firms which were new to the Cleveland area between 1971 and 1977. Many of these firms were subsidiaries of larger firms or parents of multi-plant organisations. Of the total sample, 159 firms (53 per cent) were defined to be wholly new independent single-plant firms.

The survey showed that the 300 firms new to Cleveland (i.e. including parents, branches and subsidiaries) created 7,445 new jobs, over 75 per cent of which were for full-time male workers (Table 3.15). The 63 manufacturing firms in the sample created 3,572 jobs, almost half of all the jobs created. However, over 2,600 of these jobs were created in subsidiary plants as opposed to independent single-plant firms, the group upon which the present study is focussed. The latter group of firms provided only 22 per cent of the new jobs, despite making up over 50 per cent of the population of firms new to Cleveland.

Storey analyses the type of jobs created by the new firms in terms of their gender and full/part time composition and the distribution of skills. His findings are reproduced in Tables 3.15 to 3.17.

Table 3.15 shows that the vast majority of new jobs created by the 300 firms were in the category "Full Time Male" (76 per cent) with 2 per cent being part-time male, 18 per cent full time jobs for women and only four per cent were part time female jobs.

The skill composition of the new jobs is given in Tables 3.16 and 3.17, Table 3.16 shows that 35 per cent of jobs were in the skilled manual category. An interesting point to note is that this percentage increases to 40 per cent for independent firms and 59 per cent in the parent firms. Conversely, the larger subsidiary firms tend to employ a higher proportion of unskilled manual workers than do the smaller independent firms. There is little variation by firm type in the employment of semi-skilled manual workers and clerical workers, apart from the fact that parents appear to employ few semi-skilled workers.\* Independent firms employ a higher proportion of professional and managerial staff than do branches and subsidiaries.

Table 3.17 shows the skill composition of employment by industrial group. This reveals clear industrial variations in the structure of employment. Over three-quarters of manufacturing employees are manual workers, whereas less than half of the workers in the professional service firms can be described as such (with the vast majority being in the 'skilled' category). Skilled manual workers also dominate the Construction and 'Other' sectors, whereas managerial professional and clerical workers are important in the Professional Service and Distribution Sectors.

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\* Note, however that there were only three parent firms in the sample.

Employment Structure of New Firms in Cleveland

	MALES		FEMALES		TOTAL		Total
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time	
Mean	18.8	0.5	4.5	1.1	23.2	1.6	24.8
Total	5,627	155	1,345	318	6,972	473	7,445

Note: Figures are based upon 300 responses. One firm did not know its employment level

Source: Storey (1982).

Table 3.16

Skill Structure of Employment in New Firms in Cleveland

	Skilled	Semi-skilled	Unskilled	Professional/Managerial	Clerical	Others	Total
Independent	2.9 (40)	0.8 (11)	1.1 (15)	1.4 (19)	0.9 (12)	0.2 (3)	7.3 (100)
Parent	16.1 (59)	0.4 (2)	0.9 (3)	5.6 (20)	4.1 (15)	0.4 (1)	27.5 (100)
Branch	3.9 (35)	2.1 (18)	1.3 (11)	1.7 (15)	1.9 (17)	0.5 (4)	11.4 (100)
Subsidiary	13.0 (30)	4.9 (11)	14.1 (33)	4.7 (11)	5.7 (13)	0.8 (2)	43.2 (100)
Number of jobs	1,359 (35)	592 (11)	1,327 (25)	744 (14)	708 (13)	118 (2)	5,348 (100)

Note: Percentages in parentheses.

Source: Storey (1982)

Table 3.17- Skill Structure by Industry - New Firms in Cleveland

	Skilled	Semi-skilled	Unskilled	Professional/Managerial	Clerical	Other	Total
Manufacturing	14.8 (31)	5.1 (11)	16.5 (34)	5.0 (10)	5.7 (12)	0.8 (2)	47.9 (100)
Construction	5.8 (47)	1.9 (16)	0.6 (5)	2.1 (17)	1.6 (13)	0.3 (2)	12.3 (100)
Professional services	3.1 (39)	0.5 (6)	0.2 (3)	2.0 (25)	1.8 (22)	0.4 (5)	8.0 (100)
Distribution	2.7 (24)	1.4 (13)	2.6 (23)	2.3 (21)	1.7 (15)	0.4 (4)	11.1 (100)
Other	3.7 (45)	0.9 (11)	1.6 (19)	1.1 (13)	0.9 (11)	0.1 (1)	8.3 (100)
Number of jobs	1,889 (35)	592 (11)	1,327 (25)	744 (14)	708 (13)	118 (2)	5,348 (100)

Source: Storey (1982)

The Cleveland results reveal clear variations in the structure and skill composition of employment in new firms by type of firm and by industry. Broadly speaking, large manufacturing firms tend to employ high proportions of unskilled manual workers, construction firms a high proportion of skilled manual workers, and service firms employ relatively large numbers of professional managerial and clerical staff.

### 3.5.2 New and Small Manufacturing Firms in Belfast

A survey of 262 new and small (under 50 employees) manufacturing firms in the Belfast Urban Area (BUA) was carried out by Hart (1985). Just over half (133) of the surveyed firms were new to the BUA between 1970 and 1980, and 82.1 per cent of all respondents were classified as wholly independent single plant firms. The surveyed firms employed a total of 5,379 workers, with a mean size of 20.6. Table 1.18 shows the breakdown of these jobs by gender and by full time/part time composition. It shows that 64 per cent of workers were full time males and 27 per cent full time female. Only 7.5 per cent of workers were part time females. These results are remarkably similar to the Cleveland results, given that the Cleveland survey covered construction and service as well as manufacturing firms and included several large plants.

Table 3.18

#### Employment Structure in Belfast Small Firms

EMPLOYMENT BY THE SMALL FIRMS AT THE TIME OF SURVEY

	MALES		FEMALES		TOTAL		TOTAL
	FULL-TIME	PART-TIME	FULL-TIME	PART-TIME	FULL-TIME	PART-TIME	
TOTAL	3,460	83	1,432	404	4,892	487	5,379
MEAN	11.5	0.3	7.0	1.5	18.7	1.9	20.6

Note: Figures are based upon 262 responses.

Source: Hart (1985).

Hart shows that the new and small firms employ a slightly lower proportion of full-time males and a slightly higher proportion of part-time females than do manufacturing firms generally in the Belfast Urban Area. He also compares the employment structure of new firms with those of the sample as a whole. This is shown in Tables 3.19 and 3.20.

The newer manufacturing firms in Hart's sample employ a greater proportion of full-time females than do the longer established firms, and a lower proportion of full time males. A partial explanation for this is given in Table 3.20 which shows that the new firms appear to be employing more managerial professional and clerical staff, at the expense of unskilled manual workers who comprise only 16 per cent of the workforce in new firms as opposed to 21 per cent in the longer established firms.

It may thus be possible to discern from the Belfast survey a slight trend away from the employment of full time unskilled male manual workers towards full time clerical and professional female workers, at least within the manufacturing sector.

### 3.5.3 Employment Change in the Northern Region

Table 3.21 indicates that amongst Northern manufacturing establishments there is considerable variation in employment structure between plants of different sizes. Small plants tend to employ a larger proportion of part time staff (males and females) than large plants. Conversely, employment in the largest plants is dominated by full time males. Table 3.22 traces the life cycle of the firm in terms of its employment structure. No clear overall pattern emerges, but it appears that, in the first five years of life, there is a disproportionately large expansion of part time female employment. Finally, Table 3.23 compares the employment structure of surviving, failed and new firms over the 1971 to 1981 period. This shows that surviving firms shifted away from full time males towards the other three categories, and that the new firms tended to employ a relatively high proportion of part time staff.

Table 3.19Employment Structure in New Firms - Belfast Survey

	MALES		FEMALES		TOTAL		TOTAL
	FULL-TIME	PART-TIME	FULL-TIME	PART-TIME	FULL-TIME	PART-TIME	
Total	1,377	46	707	168	2,084	216	2,300
Mean	10.3	0.3	5.3	5.3	15.7	1.6	17.3
s	59.9	2.0	33.7	7.3	-	-	-

Note: figures are based on 133 responses.

Source: Hart (1985)

Table 3.20Occupational Structure in New Firms - Belfast Survey

TYPE	NUMBER	s	MEAN
Skilled Manual	1,308	50.9	9.8
Unskilled Manual	377	10.4	2.6
Clerical	498	21.0	3.7
Professional/ Managerial	117	5.1	0.9
TOTAL	2,300	100.0	17.3

Source: Hart (1985)



The net result of these shifts has been an overall increase in the proportion of part time and female staff employed, and a reduction in full time male employment.

#### 3.5.4 The IMS Small Firm Survey

A survey of 300 small independent firms across six regions and all sectors of the U.K. economy was carried out in 1985 by Johnson and Storey (1986 b) on behalf of the Institute of Manpower Studies (IMS). The results of this survey are summarised in Tables 3.24 and 3.25. These show that there are considerable variations in the employment and occupational structure of small firms, according to industry group. Small firms in manufacturing and traditional services (construction, motor trades etc.) employ a high proportion of full time male workers, whereas service sector and retail firms have high proportions of female and full time workers. A high proportion of workers in all small firms are classed as managerial and professional, with this grouping containing the owner of the firm. It should be noted that professional and personal service sector firms employ relatively few craftsmen and operatives, but a large number of support service and personal service workers.

The IMS study also examined trends over the past five years and projections of the level and structure of employment in small firms in 1990 were made. It was found that, since 1980, most firms had been expanding their employment of part time females much more rapidly than that of full time males. Firms born since 1980 also tended to employ relatively high proportions of female and part time workers. On the basis of the survey results, and past trends in births and deaths by sector, it was predicted that small firm employment in the U.K. will grow by 670,000 by 1990, with 45 per cent of new jobs being part time (in 1980 only 25 per cent of jobs were part time).

The surveyed firms were asked to predict the likely level of their employment in 1990, and they were more optimistic about the level of

employment and the percentage of jobs which will be full time, than past trends suggest. On the basis of the firms' predictions, small firms in the UK will create 1.1 million jobs by 1990, with 30 per cent being part-time jobs.

The IMS study reveals a considerable degree of uncertainty about the extent of employment growth in small firms, and suggests that, on the basis of past trends, full time male employment will grow less rapidly than will part time female employment. This reflects a change in the structure of new as opposed to established firms, and a change in the industrial composition of small firm employment. It is calibrated on the assumption that the decline of large firms continues until 1990 at the historically unprecedentedly high levels which existed in the 1980-85 period.

#### 3.5.5 Types of Jobs : Synthesis

Evidence from a number of studies in the UK has suggested that there are considerable variations by firm size and by sector in the type of jobs created. In general, it seems that small firms, particularly in the service sector employ a relatively high proportion of female and part time workers. Small manufacturing firms employ largely skilled manual workers. There is also considerable evidence to suggest that small firms employment creation is concentrated in the already prosperous regions of the UK and that in many cases the duration of employment in small firms is fairly short. Small Firms also tend to pay lower wages and to have lower levels of union organisation [Rainnie (1985)]. All of these issues must be seriously considered in an examination of policies which are designed to reduce unemployment through the stimulation of the new and small firm sector.

Table 3.21

Employment Structure in Manufacturing Plants in the North East of England, by Size of Plant, 1981

Size of Plant (No. of employees)		FULL TIME MALE	PART TIME MALE	FULL TIME FEMALE	PART TIME FEMALE	TOTAL EMPLOYMENT	No. of Firms
1 - 4	No.	1338	63	247	393	2041	(909)
	%	65.6	3.1	12.1	19.3	100.0	
5 - 9	No.	2823	115	566	457	3974	(581)
	%	71.3	2.9	14.3	11.5	100.0	
10 - 24	No.	7248	191	1703	834	9976	(636)
	%	72.7	1.9	17.0	8.4	100.0	
25 - 49	No.	8390	204	2490	637	11721	(333)
	%	71.6	1.7	21.2	5.4	100.0	
50 - 99	No.	9782	147	3843	670	14442	(207)
	%	67.7	1.0	26.6	4.6	100.0	
100+	No.	151234	324	39540	6855	197953	(400)
	%	76.4	0.2	20.0	3.5	100.0	
All FIRMS	No.	180815	1044	48389	9846	240094	(3066)
	%	75.3	0.4	20.1	4.1	(100.0)	

SOURCE: Annual Centres of Employment

Table 3.22

Employment Structure in Survivors, Failures and New Firms : Northern Region Single Plant Manufacturing Firms, 1971-1981

	<u>No. of Firms</u>	<u>Full Time Male</u>	<u>Part Time Male</u>	<u>Full Time Female</u>	<u>Part Time Female</u>	<u>Total Employment</u>
<u>All Firms in 1971</u>						
No.	471	13673	111	3965	893	18642
%	-	(73.3)	(0.6)	(21.3)	(4.8)	(100.0)
<u>Failures<sup>1</sup> - 1971 Employment</u>						
No.	165	4909	21	1449	333	6712
%	-	(73.1)	(0.3)	(21.6)	(5.0)	(100.0)
<u>Survivors<sup>2</sup> - 1981 Employment</u>						
No.	281	7249	115	2402	626	10391
%	-	(69.8)	(1.1)	(23.1)	(6.0)	(100.0)
<u>New Firms<sup>3</sup> - 1981 Employment</u>						
No.	649	5149	173	1665	683	7552
%	-	(68.1)	(2.3)	(22.0)	(9.0)	(100.0)
<u>All Firms in 1981</u>						
No.	952	12798	311	4177	1350	18517
%	-	(69.1)	(1.7)	(22.6)	(7.3)	(100.0)

1 : Firms in existence in 1971, but failed before 1981

2 : Firms in existence in both 1971 and 1981

3 : Firms starting in business between 1971 and 1981, and surviving to 1981

Source : CURDS Northern Region Database

Table 3.23

Employment Structure by Industry, 1985  
Percentage of Workforce

<u>Employment Type</u>	<u>Manufacturing</u>	<u>Professional</u>	<u>Traditional</u>	<u>Retail</u>
		<u>and</u>		<u>and</u>
		<u>Personal</u>	<u>Services</u>	<u>Wholesale</u>
MALE Full Time	66.7	27.5	81.3	35.2
Part Time	2.8	6.0	1.9	6.4
FEMALE Full Time	16.3	29.8	7.2	21.5
Part Time	11.5	31.6	2.8	23.6
Indirect Workers	2.8	5.1	6.7	13.3
<hr/>				
Total Employment	618	604	359	488
<hr/>				
No. of Firms	(53)	(89)	(50)	(106)

Table 3.24Occupational Structure by Industry, 1985Percentage of Workforce

<u>Occupation</u>	<u>Manufacturing</u>	<u>Professional and Personal Services</u>	<u>Traditional Services</u>	<u>Retail and Wholesale</u>
Managerial/Professional etc.	22.7	31.6	32.3	36.3
Craftsmen	37.1	1.3	41.4	5.5
Operatives	31.5	11.7	19.4	32.9
Support/Personal Services	4.6	49.6	4.3	19.7
Others	4.1	5.7	2.6	5.8
	_____	_____	_____	_____
Total Employment	410	383	232	325
	_____	_____	_____	_____
No. of Firms	(36)	(64)	(42)	(82)

### 3.6 OVERALL POLICY DIRECTIONS

The last twenty years have seen a major change in the importance of small firms and of government attitudes. In the U.K. context, however, we would urge considerable caution in proceeding with policies designed to promote the formation of growth and small firms for several reasons. Firstly it appears that the relative growth of small firms in the U.K. is more strongly associated with the decline in international competitiveness of large U.K. firms, rather than because of the growth of small firms per se. Secondly, much of the relative growth in small firms may be a function of world recession and hence be a temporary rather than permanent feature of economic growth. Thirdly it is far from clear whether government policies to assist small firms are effective in creating additional wealth and employment - and it is highly uncertain which policies are most effective. Fourthly it appears that even where policies lead to job creation in small firms the impact which such jobs have on the registered unemployed are much less than may be the case with more direct targetting. Frequently the jobs created do not lead to individuals being eliminated from the unemployment register. Fifthly the jobs tend to be created in the 'wrong' regions, for the 'wrong' groups.

In our view a more targetted and focussed approach is necessary in order to overcome at least some of these problems. First it has to be recognised that the fundamental problem with the U.K. economy is a shortage of highly internationally competitive firms. Policy therefore has to be directed to increasing that number, and this policy has to be pursued with large or small firm policies.

If the provision of assistance to small firms is thought appropriate within an economic framework it should be targetted at firms which have shown an ability to sell nationally and internationally. It should not be dissipated upon encouraging and promoting unsuitable individuals to risk their life savings in the hope of starting in business. The less prosperous regions of the U.K. need a handful of success stories of

firms that grow rapidly and create 'proper' jobs. The operational methods for the implementation of a selective policy are described in Storey and Johnson (1987).

Clearly, there are communities and situations in which it is appropriate for essentially social reasons to promote a set of third sector initiatives such as community business, co-operatives etc. However the essentially different objectives of these types of initiatives should not be confused with the essentially long term economic objective of overcoming a lack of competitiveness amongst British firms.



Footnotes

1. Hull (1985) correctly points out that the Storey (1983) paper which originally compared these studies took the Macey Table 2.6 which divides net employment change in each size category by employment within that category in the base year. The present table corrects that error, by taking data from Tables 2.4, 2.5 and Table 2.10 of Macey and obtaining net employment change (including openings), divided by total employment in the base year.

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CHAPTER 4

JOB GENERATION IN SMALL AND MEDIUM SIZED  
ENTERPRISES: ITALY

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July 1986

## Introduction

This study analyses both the role of small firms in job creation in Italy and the factors which have contributed in making this more significant in Italy than in many other countries.

Section 4.1 provides a brief outline of employment in Italy and focusses on the different trends observed for employees and self-employed workers since 1970. Then national census data are examined in order to assess changes over time and the spatial and sectoral distribution of plants according to size classes.

Section 4.2 examines different small firm models and analyses the available data on births and deaths of firms by industry and region.

Section 4.3 analyses the social factors which account for regional differences in small firm employment change and new firm formation.

Section 4.4 contains a description of the main provisions of industrial policy to support small firms and a brief appraisal of their effectiveness, and finally Section 4.5 summarises the main conclusions of this chapter.

#### 4.1 Employment Trends in Italy since 1970

##### 4.1.1 Employment in Italy in the Seventies

Throughout the Seventies Italy was, among EEC countries, the one showing the most conspicuous growth in labour demand. Yet this excellent performance did not result in a lower unemployment rate because of more rapid increase in labour supply.

In these past fifteen years the average yearly employment growth rate was equal to 0.47%, whilst the labour force increased at almost twice that rate (0.86%). This resulted in a 5.5% yearly increase in total unemployment and in a 7% rise in the number of young people in search of first jobs (see Table 4.1).

The adverse effects of the discrepancy between a growth in demand and a growth in supply were felt mainly by the young and by women, whose specific unemployment rates are the highest in major industrialized countries. The imbalance became more and more acute in recent years in all territorial divisions and in particular in Southern Italy.

Table 4.1

Population and Labour Force:  
average yearly growth rates (1970-1984).

	<u>males</u>	<u>females</u>	<u>total</u>
Employment	-0.02	1.63	0.47
People in search of jobs	4.54	6.54	5.62
Young people in search of first jobs	6.69	7.41	7.06
Labour force	0.21	2.26	0.86
Population	0.46	0.47	0.47

Source : calculated from ISTAT data.

The national accounting data for the period 1970-83 shows that both the public and private services sectors played a decisive role in generating new jobs. In central and northern Italy employment declined in agriculture and, though to a slightly lesser extent, in industry. Here losses were sustained in the building sector, whereas the manufacturing sector experienced a decline lower than that of industry as a whole. Hence in the Central/North Region the modest positive growth in total employment, resulted entirely from the expansion of the services sector, within which Public Administration grew slightly faster than the private service sector.

Southern Italy differs in several respects; firstly job loss in agriculture was slower than in northern and central Italy (-24.7% as against -36.3% respectively in the period 1970-83; Table 4.2). Employment was more stable in industry, which was characterized by an expansion of the manufacturing sector, whilst employment growth in Public Administration and private services were higher than in the central and northern regions. Here growth in the credit and insurance sectors was of major importance.

In general the slower decline of the agricultural sector, the stability of industry, and the more rapid expansion of services all contributed to more rapid employment growth in the South than in the rest of the country (7.8% as against 5.1%) for the period 1970-83.

Employment trends observed in Italy in this period partly reflected processes similar to those elsewhere and in part different from those observed in the other industrialized countries: a reduced ability of industry to create new employment and a marked increase in new jobs in the tertiary sector.

In Italy, however, the former phenomenon was less marked, partly as a result of a discrepancy in industrial output growth rates and partly as a consequence of the particularly lively performance of Italian small firms.



Table 4.2

Employment change by industry and regions (1970-83) - thousands.

REGIONS	AGRICULTURE, FORESTRY, FISHING		MINING, MANUFACTURING, UTILITIES		MANUFACTURING		CONSTRUCTION		TOTAL INDUSTRY		SERVICES		PUBLIC ADMINISTRATION		TOTAL	
	I	2	I	2	I	2	I	2	I	2	I	2	I	2	I	2
EMPLOYEE																
SOUTHERN ITALY	- 124,5	-.15	127,5	17.0	117,5	16.8	-106,4	-15.0	21,10	- 1,4	307,0	47.6	366,7	44,3	570,4	15.1
CENTRAL-NORTHERN ITALY	- 110,4	-29,6	-217,8	-5.3	-227,5	-5.7	-245,6	-23.6	-463,4	- 9.0	825,9	36,0	644,8	36.3	896,9	9.4
ITALY	- 234,9	-19.5	-90,3	-1.9	-110,0	-2.4	-352,0	- 2.0	-442,3	- 6.7	1132,9	38.5	1011,5	38.9	1467,3	11.0
SELF-EMPLOYED																
SOUTHERN ITALY	- 317,0	-33.1	-30,5	-13.3	-30,5	-13.4	9,4	9,8	- 21,1	- 6.50	223,7	27.0	-	-	-114,4	-5.4
CENTRAL-NORTHERN ITALY	- 549,1	-38.1	-42,9	- 7.1	-42,8	-7.1	35,3	20,2	- 7,6	- 1.04	356,8	18.4	-	-	-199,9	-4.8
ITALY	- 866,1	-36.1	-73,4	- 8.8	-73,3	-8.9	44,7	16,5	- 28,7	- 2.10	580,5	21.0	-	-	-314,3	-5.0
TOTAL																
SOUTHERN ITALY	- 441,5	-24.7	97,0	10.0	87,0	9.4	-97,0	-11.9	-	-	530,8	36.1	366,7	44.3	455,4	7.8
CENTRAL-NORTHERN ITALY	- 659,5	-36.3	-260,70	-5.6	-270,30	-5.9	-210,30	-17.3	-471,0	- 8.0	1182,7	27.9	644,8	36.3	697,0	5.1
ITALY	-1101,0	-30.5	-163,70	-2.9	-183,30	-3.3	-307,30	-15.1	-471,0	- 6.1	1713,5	30.0	1011,5	38.9	1152,4	5.9

I = ABSOLUTE CHANGE  
2 = % CHANGE

Source : SVIMEZ - "La formazione e l'impiego delle risorse e l'occupazione del Mezzogiorno e del Centro-Nord dal 1951 al 1983 - Studi SVIMEZ - Extract No.26 - New Series - Year XXXVIII - No.1, January-March

In EEC countries industrial output increased at an average of 2% a year between 1970 and 1981 whereas employees in manufacturing industry declined in number by over 4 million (about 14%); in Italy the average annual growth rate was 3% and this led to the creation of 150 thousand new jobs - a 3% increase as compared to 1970. Consequently the ratio of employment in the industrial sector to total employment declined in Italy (from 34.6% in 1970 to 32.7% in 1980) to a lesser extent than in the remaining European countries (from 33.5% to 30.5%). Within this process the small firms of the manufacturing sector played a particularly significant role. While a very strong contraction in employment was observed in large-size manufacturing firms, the smaller firms remained substantially stable.

The fact that the new jobs created by new firms exceeded in number those lost as a consequence of small firm deaths is mainly due to the contribution made by very small firms with less than five employees. The net contribution to employment made by firms with between 6 and 20 employees is virtually zero and even becomes negative as firm size increases.

As far as the role of services is concerned, also in Italy it is possible to detect a process of tertiarization similar to that which is under way in more industrialized nations, with an average 2% annual rise in the period under review.

In Italy this process shows peculiarities of its own concerning the part played by the Public Administration, the share of employees, and the different degree of integration of the services into the production system.

The analysis of census data will illustrate more fully the role played by small and medium sized firms with reference to the processes mentioned above.

#### 4.1.2 The share of current employment in small firms

In Italy the official data sources available for analysing the performances of small firms are the General Industry and Trade Censuses (which are undertaken every ten years and provide information concerning the number of business units and the personnel employed) and the ISTAT survey on value added in manufacturing industry. ISTAT surveys provide information on gross output, total sales, number of employees according to size; but we have not used them in this study because they exclude firms with less than twenty employees, which make up a significant proportion of small enterprises in Italy.

Census data provide information about the size distribution of plants but not of firms. Some plants with less than 100 employees could belong to multi plant enterprises with a total employment of more than 100 employees and so establishment employment data is increased to take this into account. This problem is thought to be negligible in the manufacturing sector but very significant in the tertiary sector, where a territorial distribution of plants and offices is much more frequent.

We shall now examine the share of employment in plants with less than 100 employees in 1981 in the manufacturing sectors and in each Italian region.

Plants with less than 100 workers account for over 90% of employment in the services and industrial sectors and for little under 50% in the manufacturing industry (Table 4.3).

There are, however, clear differences between the regions. Within manufacturing for example the older industrialized regions of Piemonte, Lombardia and Liguria have a below average level of employment in small firms with less than 100 employees. Conversely the newly industrialized regions of central and north-eastern Italy (Trentino, Veneto, Friuli, Emilia-Romagna, Toscana, Marche) which experienced substantial industrial development in the Seventies, are more dependant on small firms.

TABLE 4.3 - SHARE OF EMPLOYMENT IN PLANTS WITH LESS THAN 100 EMPLOYEES  
(PERCENTAGE) 1981 SECTORS

REGIONS	1	2	3	4	5	6	7	8
ITALY	0.44	0.43	0.49	0.72	0.93	0.97	0.52	0.76
PIEMONTE	0.46	0.41	0.35	0.56	0.98	0.97	0.56	0.76
VALLE D'AOSTA	0.82	0.08	0.89	0.59	1.00	0.99	0.82	1.00
LOMBARDIA	0.44	0.38	0.53	0.68	0.94	0.94	0.55	0.71
LIGURIA	0.41	0.26	0.36	0.81	0.93	0.98	0.40	0.79
TRENTINO-								
ALTO ADIGE	0.63	0.48	0.52	0.75	0.97	0.99	0.69	0.90
VENETO	0.43	0.59	0.61	0.71	0.97	0.97	0.58	0.81
FRIULI-								
VENEZIA GIULIA	0.48	0.53	0.41	0.69	0.98	0.99	0.49	0.84
EMILIA-ROMAGNA	0.59	0.46	0.62	0.76	0.89	0.98	0.66	0.80
TOSCANA	0.47	0.49	0.58	0.85	0.95	0.98	0.58	0.82
UMBRIA	0.63	0.36	0.57	0.72	0.97	1.00	0.96	0.90
MARCHE	0.82	0.68	0.67	0.80	0.98	0.99	0.76	0.90
LAZIO	0.53	0.41	0.41	0.65	0.83	0.92	0.28	0.59
ABRUZZI	0.78	0.51	0.42	0.78	0.97	0.99	0.62	0.94
MOLISE	1.00	0.80	0.32	0.83	0.97	1.00	0.75	0.81
CAMPANIA	0.33	0.51	0.29	0.74	0.77	0.98	0.42	0.73
PUGLIA	0.45	0.32	0.45	0.79	0.93	0.99	0.53	0.84
BASILICATA	0.43	0.34	0.58	0.80	0.97	1.00	0.77	0.98
CALABRIA	0.48	0.65	0.76	0.86	0.92	0.99	0.56	0.89
SICILIA	0.30	0.56	0.56	0.87	0.88	0.98	0.33	0.83
SARDEGNA	0.38	0.30	0.70	0.85	0.94	0.98	0.61	0.80

SOURCE: ISTAT, General Census of Industry and Trade.

1 - public utilities; 2 - mining - chemicals + metal manufacture + bricks + pottery + glass; 3 - engineering; 4 - other manufacturing; 5 - construction; 6 - wholesale - retail trade; 7 - transportation, communication; 8 - finance insurance.

The central and southern regions of Italy, (Lazio, Campania, Puglia, Abruzzi), have an above average concentration of large employment units primarily through the location of non locally-owned branch plants.

In the remaining southern regions (Sicily, Sardinia, Calabria, Basilicata), where the role played by non locally owned enterprises was less conspicuous and where handicraft activities are still widespread, the share of current employment in firms with less than 100 employees is greater than the national average.

Smaller regional differences are observed in the services sector, because such firms are established to serve primarily local markets. The regions with values below the national average (Lazio, Campania, Lombardia) are those with the largest metropolitan concentrations: metropolitan area of Naples, metropolitan area of Rome, metropolitan area of Milan.

#### 4.1.3 The role of self-employment in manufacturing and services

A particularly significant role is played by self-employed workers within business units with less than 100 employees. We have thus deemed it convenient to analyse the relative trends for both employees and self-employed workers over the period 1970-83.

The figures in Table 4.2 point to a slower positive trend of self-employed workers in the service sector and a greater percent decline in the manufacturing sector as compared to employees in the respective sectors.

In the period 1970-83 self-employment diminishes both in the manufacturing industry and in the trade, hotel, catering, etc. sectors. As far as the manufacturing industry is concerned, this trend results from two tendencies; the first relative to the period 1970-74, when employment reached peak values and self-employment fell to minimum values, and the second relative to the period 1975-83, when a fall in

employment (even more marked in the years 1978-83) and a boost in self-employment were observed.

These trends are shown for central and northern Italy and southern Italy in Figs.4.1 and 4.2. Fig.4.3 shows that in trade, which is the main service sector, self-employment decreases in the period when the increase of employees is fastest and then soars up again after 1973, when the increase in the number of employees is slower in these sectors.

The above trends seem to suggest that within the service sector and manufacturing industry self-employment is dependent both on the restructuring processes underway in the Italian economy in the Seventies and on an inadequate labour demand at the macroeconomic level.

The positive performances of this sector are also a side-effect of the less positive performances of the growth rate in the number of employees. This interpretation awaits confirmation from an analysis of census data and, in particular, those concerning industry, where production and restructuring processes were more marked than elsewhere.

#### 4.1.4 An examination of the national census of employment in the manufacturing sector

Census data suggests that in Italy over the decade 1971-81 there was a greater dynamism of small and medium sized enterprises, a non-negligible flowering of new entrepreneurial initiatives and a tendency of firms to diminish in size.

For the industry sector, the most surprising aggregate figure is undoubtedly the marked increase in the number of local manufacturing units: + 107,727. The magnitude of this change can be best understood by comparing the figure with the increase of only 2,031 during the previous decade (Table 4.4).

Figure 4.1



Figure 4.2





Figure 4.3

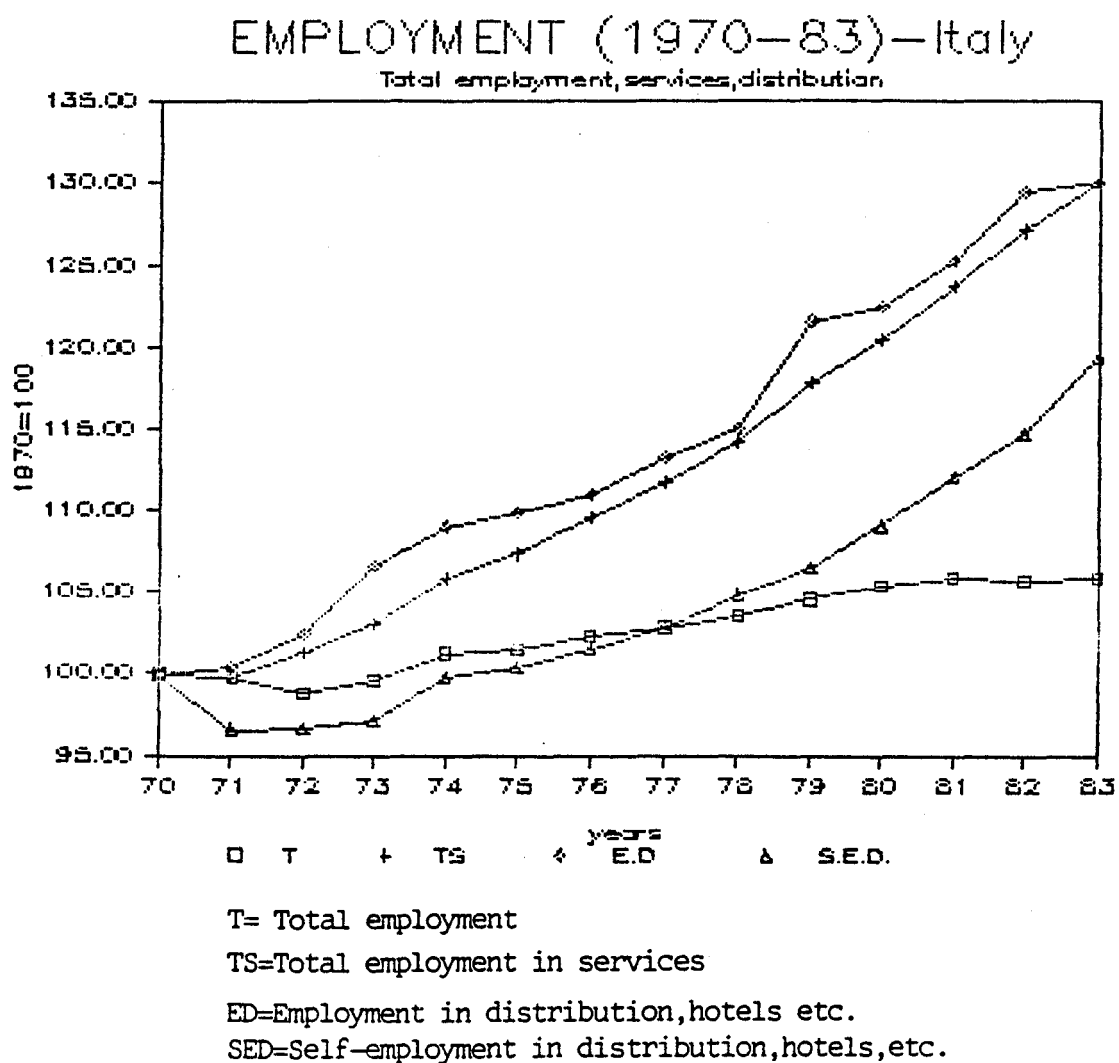


Table 4.4 - Change in the number of plants and employees by firm size in manufacturing industry (1951-61, 1961-71, 1971-81).

CLASSES	1951-61		1961-71		1971-81	
	Local units	Employees	Local units	Employees	Local units	Employees
absolute changes						
Up to 2	-93,322	-101,586	-7,302	-21,458	42,767	54,109
3-5	18,901	75,645	8,421	-28,107	22,256	87,367
6-9	16,678	125,021	-1,087	-17,692	17,964	131,607
10-49	16,611	360,010	16,124	261,568	24,088	371,730
50-99	2,562	176,507	1,446	94,477	361	21,737
100-499	1,417	263,587	1,152	207,914	300	28,269
500-999	51	36,282	67	42,533	8	-2,096
1000 and over	-4	41,240	52	206,160	-17	-80,061
Total	-37,106	976,706	2,031	745,395	107,727	612,662
percentage changes						
Up-to 2	-22.7	-19.4	-2.3	-5.1	13.8	13.5
3-5	22.9	25.4	-8.3	-7.5	23.9	25.3
6-9	68.0	68.6	-2.6	-5.8	44.8	45.4
10-49	73.0	72.2	40.9	30.5	43.4	33.2
50-99	64.0	62.5	22.0	20.6	4.5	3.9
100-499	41.0	36.7	23.6	21.2	5.0	2.4
500-999	11.3	11.6	13.4	12.1	1.4	-0.5
1000 and over	-1.4	7.1	19.0	33.2	-5.2	-9.7
Total	-6.8	23.8	0.4	17.0	21.0	12.0
distribution of changes						
Up-to 2	-10.4		-2.9		8.3	
3-5	7.7		-3.8		14.3	
6-9	12.8		-2.4		21.5	
10-49	36.9		35.1		60.7	
50-99	18.1		12.7		3.5	
100-499	27.0		27.9		4.6	
500-999	3.7		5.7		-0.3	
1000 and over	4.2		27.7		-13.1	
Total	100.0		100.0		100.0	

Source: Istat 1971 and 1981 industrial censuses.

In part this reflects the improved coverage of the 1981 census. Hence a substantial share of this increase was registered among very small firms (with 1 to 5 employees), which are likely to constitute the group where the 1971 census had been particularly inaccurate. However the increase in the 10 to 49 employees class was also fairly high both in terms of local units and in terms of the number of employees, suggesting a real increase in such units.

As a percentage share of the total, units with one or two employees decreased (Table 4.5), whereas their share of employees remained substantially unaltered. Local units in the 3 to 5 employees class increased marginally as a proportion of stock, but the most extensive changes were in units with 10 - 49 employees, whose incidence increased by about four percent points (Table 4.5), contributing over 60% to the overall increase in employment in manufacturing industry (Table 4.4). Units with between 100 and 499 employees fell as a proportion of stock. A net decrease in employment was noted in the class of units with over 500 employees.

In the Fifties (Table 4.4) growth in industrial employment was generated by small, medium, and medium/large sized local units. Very small units however, experienced reduction in employment and those with over 500 employees only very modest growth. In the following decade it was the small units which experienced employment decline whereas large units with over 1,000 employees contributed about a quarter of the total increase in employment.

In the 1970's units with between 10 and 49 employees continue to the growth which they have exhibited over the past thirty years whilst the handicraft section has continued to decline. However the 1970's sees an increase in the number of plants in between handicraft and industry proper and, a declining importance of large and very large local units.

A highly significant element in understanding the growth in industrial employment which marked the Italian economy in the Seventies is the increased employment elasticity of output, as shown in Table 4.6.

Table 4.5

Distribution of local units and employees by firm size  
in the manufacturing industry.

CLASSES	Up to 2		3-5		6-9		10-49		50-99		100-499		500-999		1000+	
	Local units	Empl.	Local units	Empl.	Local units	Empl.	Local units	Empl.	Local units	Empl.	Local units	Empl.	Local units	Empl.	Local units	Empl.
I95I	74.8	15.5	15.0	8.8	4.5	5.4	4.2	14.7	0.7	8.3	0.6	21.1	0.08	9.2	0.05	17.0
I96I	62.0	9.7	19.8	8.5	8.0	7.0	7.7	19.6	1.3	10.5	0.9	22.4	0.1	8.1	0.05	14.7
I97I	60.4	7.9	18.1	6.8	7.8	5.7	10.8	21.9	1.6	10.8	1.2	23.2	0.1	7.7	0.06	16.1
I98I	56.8	8.0	18.6	7.6	9.4	7.4	12.8	26.0	1.4	10.0	1.0	21.3	0.09	6.8	0.05	13.0

Note : Except for the firsts two, the size categories of I95I and I96I were slightly different from those of I97I and I98I (6-10, 11-50, 51-100, 101-500, 501-100, 1001 and over).

Source : Istat, industry censuses, several years

Table 4.6

Percentage changes in output and numbers of local units and employees in the decades 1951-61, 1961-71, 1971-81

	<u>1951-61</u>	<u>1961-71</u>	<u>1971-81</u>
Output	138.1	97.4	40.9
Local units		3.4	20.9
Employees	26.6	17.1	14.0
Employment elasticity of output	.19	.18	.34

Two elements underly this increase. One is the more dynamic behaviour of small firms, which are characterized, on average, by lower productivity than large enterprises. The other is the obstacles that up to the end of the Seventies, large enterprises had to overcome in order to reduce their workforce. These two elements contributed to boost employment to the detriment of productivity. This does not mean that the model based on small firms was not viable as an instrument to boost employment in the Seventies; what is implied is that it should not have been adopted at the cost of efficiency.

#### 4.1.5 Distribution of small firms employment by region

The above employment change in small manufacturing firms varies greatly over space. For example the relative decline of large enterprises and the proliferation of very small manufacturing units (with up to 9 employees) is not characteristic of the southern regions, where the expansion of the small sized manufacturing plant (with (10-99 employees) is important.

The South in particular shows the most conspicuous differences with respect to other territorial divisions.

A comparison of census data for the period 1971-81 shows a relatively high rate of growth of employment in local manufacturing industries in Southern Italy: 25.76%, as against an overall national rate of increase of only 11.63% and an increase of 25.67% for the most dynamic of the northern, eastern, and central regions (NEC). A characteristic feature of the development of Southern manufacturing industries during this period was the absolute decline in the number of plants, a decline that affected exclusively the firms belonging to the smallest size classes (at this size level, 'plant' is synonymous with 'firm'). In contrast, in Italy as a whole and especially in the NEC regions, the smallest-sized firms showed the greatest increase in the number of plants and employees, both in terms of their rate of growth and in terms of their relative share. For the NEC regions, the growth of plants with less than 10 employees accounts for 81% of the total increase in numbers of plants and more than 33% of the total increase in employment. The gains made by firms with 10 to 19 employees account for another 15% of the total increase in plants and 30% of the total increase in employment. At the national level, the trend is the same (see Table 4.7). Here firms with 10 to 19 employees have a greater share of the total increase than those with 1 to 9 employees, a phenomenon which is actually determined by the distinctive contribution of firms in the southern regions.

In the South the decline in numbers of plants (- 8%) was entirely attributable to the falling numbers of plants with less than 10 employees. For firms of this size, the decline in the number of plants (- 12%) was accompanied by a corresponding decline in the number of employees (- 3%). There was an increase in the number of plants with 10 to 19 employees (see again Table 4.7), but in spite of this increase the growth in employment experienced by the firms belonging to this group accounts for only 24% of the total growth in employment in the South. At the national level, they account for 50% of the total increase and in

Table 4.7

Percentage change in the number of plants and employees by firm size  
in manufacturing industry (1971-81).

Size	Southern Plants	Italy Employees	%	North Plants	East, Centre Employees	%	Plants	Italy Employees	%
I - 9	-12.23	-3.10	-4.58	32.23	35.79	33.35	15.10	6.12	10.74
10 - 19	86.79	82.36	23.84	67.72	66.57	30.32	62.37	77.47	51.39
20 - 49	40.57	37.66	15.65	30.73	26.98	16.83	19.52	17.33	19.57
50 - 99	16.01	14.83	4.67	14.01	14.11	6.78	4.82	4.82	4.44
100 - 199	3.35	-10.43	-4.06	-4.17	-10.38	-5.81	-9.39	-18.16	-21.54
200 - 499	83.47	70.44	18.94	75.89	51.44	15.72	53.02	33.78	27.14
500 - 999	37.31	36.64	10.19	24.16	18.03	3.94	1.24	-.74	-.49
> 1000	45.71	45.84	25.10	-11.47	-6.72	-2.16	-10.49	-14.09	-20.65
Total	-8.29	25.76	100	34.04	25.67	100	17.92	11.63	100
A	22.02	30.98		12.55	9.68		4.72	-2.21	
B				80.58	33.35		73.10	10.74	
C		35.29		.03	1.78				

A = Rate of growth of plants with more than 50 employees

B = Growth of plants and employees with less than 10 employees as % of total growth

C = Growth of plants and employees with more than 500 employees as % of total growth

%E = Percentage change in number of employees by firm size/total percentage change in number of employees x 100

Source : ISTAT; Census of manufacturing 1971, 1981

the NEC regions for 30% of it. Taking all plants with less than 50 employees we find that they were the 'dominant' classes in the rest of Italy they were far from being so in the South. Here, the number of firms with less than 20 employees actually declined. Moreover, they account for less than 20% of the new employees registered by ISTAT in these regions, as against 62% in Italy as a whole and 64% in the NEC regions.

An examination of very large firms shows that over 35% of all new employment in the South has been concentrated in plants with more than 500 employees. In the NEC regions the increase in this class was only 1% of the total and at the national level there was a decrease of employees in plants of this size.

For medium sized firms, the trends in the South, in Italy as a whole and in the NEC regions were broadly similar, except that plants with 200 to 499 employees had a much higher rate of growth in the South. This further reinforces the conclusion that during the Seventies the 'dominant' features of industrial development in the South were different from those in the rest of the country.

#### 4.1.6 Distribution of small firm employment by sectors

The growth of plants with between 10 and 19 employees was uniform in all sectors and is the one contributing most to the overall growth in employment (it should be noted that the two classes with 6 to 9 and 10 to 19 employees jointly account for over 60% of the entire change in employment). The declining employment in large enterprises is concentrated in the mining industry, in basic industry, and in traditional consumer goods (food, textiles, clothing, leather, etc.). It is confined to just a few sectors within the mechanical engineering industry.

The rise of 197,000 employees in the traditional consumer goods sector comprises an increase of over 333,000 employees in local units (Table



Table 4.8Absolute changes in local units employment (1971-81).

sectors	Up to 9	10-99	100-499	500+	total
local units					
Energy, gas, water	-696	156	26	9	-505
Mining, ore processing and manufacturing, chemical industries	5,585	804	31	-13	6,407
Metal-working and proces sing, mechanical precision industries	45,881	10,166	404	75	56,526
Food, textiles, leather, clothing, wood manufacturing industries	31,521	13,479	-135	-71	44,794
Total	82,291	24,605	326	0	107,222
employees					
Energy, gas, water	-2,047	8,735	9,552	7,394	23,634
Mining, ore processing and manufacturing, chemical industries	11,983	5,521	-1,756	-54,438	-38,690
Metal-working and proces sing, mechanical precision industries	128,829	186,869	80,829	57,164	453,691
Food, textiles, leather, clothing, wood manufacturing industries	132,271	201,077	-50,804	-84,883	197,661
Total	271,036	402,202	37,821	-74,763	636,296

Source: Industrial Censuses 1971, 1984

4.8), over one-third of which attributable to the footwear, clothing, and leather industries - and a 135,000 decrease in employment in local units with 100 employees and over. The latter decrease mostly affected the large enterprises of the textile industry (- 91,000) and footwear, clothing, and leather sectors (- 35,000). No such differences were observed in the branch 3 industries, where an increase in small and medium sized firms was accompanied by virtually zero growth in medium and large sized local units.

For Italy as a whole the 1970's saw the metal processing and mechanical sectors providing a relative increase in employment within the manufacturing industry as a whole.

A significant role was played, in this development by small and very small firms, which were found to expand in those sectors where small firms had always had a comparative advantage. In the mechanical sector, the major increase was in the metal product and machine construction and installation sectors, where small and very small firms have traditionally been numerous; the same applies to branch 4 industries (Tables 4.8 and 4.10).

Employment growth therefore reflects the strong growth of the consumer goods section. In fact, if we reaggregate the 128 sub-classes of industry proper in accordance with the end purposes of the goods manufactured, the picture that emerges is quite significant (Table 4.10). It shows that structural change, although less marked, occurred in a similar manner to that of the Sixties, which experienced a strongly growing relative incidence of the sectors producing investment goods and a declining incidence of those producing consumer goods. The weight of the latter remained essentially unaltered (around 40% of those employed in industry proper) between 1971 and 1981 and the approximately 2% increase in the share of sectors producing investment goods (from 15.2 to 17.3%) was lost by the sectors producing intermediate goods.

More marked changes are observed when examining size of plant. In the first place it is quite evident that the aggregate performance of all

Table 4.9Employees:sectorial specialization quotient according to firm size.

Sectors	Up to 9		10-99		100-499		500+		total	
	1971	1981	1971	1981	1971	1981	1971	1981	1971	1981
Energy, gas, water	0.6	0.4	1.1	1.0	1.4	1.6	0.8	1.1	1.0	1.0
Mining, ore processing and manufacturing, chemical industries	0.5	0.5	0.9	0.9	1.0	1.2	1.5	1.6	1.0	1.0
Metal-working and processing, mechanical pre- cision industries	0.8	0.8	0.9	0.9	0.9	1.0	1.5	1.5	1.0	1.0
Food, textiles, wood manufactur- ing, industries	1.4	1.4	1.1	1.2	1.0	0.9	0.5	0.4	1.0	1.0
Total	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Source : ISTAT, Industrial Censuses, 1971-81

Table 4.10

Distribution and % change of employment, average local unit sizes in the single manufacturing sectors, grouped according to the economic end uses of products.

CLASSES	final consumer goods		intermediate investment goods		intermediate consumer goods		intermediate mixed goods		investment goods		total	
	197I	198I	197I	198I	197I	198I	197I	198I	197I	198I	197I	198I
% distribution by product purpose												
Up to 9	47,8	45,7	24,3	21,3	5,6	5,9	13,6	14,6	8,7	12,5	100,0	100,0
10-99	40,2	40,8	14,2	12,2	10,2	8,9	21,1	21,3	14,3	16,8	100,0	100,0
100-499	36,4	35,5	9,2	9,1	15,1	12,1	22,5	24,6	16,7	18,7	100,0	100,0
500 and over	35,8	36,7	3,0	4,2	10,7	6,0	30,2	30,7	20,3	22,4	100,0	100,0
Total	39,8	40,0	12,4	12,0	10,5	8,3	22,1	22,3	15,2	17,3	100,0	100,0
% distribution by class												
Up to 9	24,3	26,1	39,7	40,5	10,7	16,2	12,4	14,9	11,7	16,5	20,3	22,9
10-99	33,0	36,8	37,4	36,5	31,6	38,6	31,2	34,4	30,8	35,0	32,6	36,0
100-499	21,2	18,9	17,1	16,1	33,4	30,9	23,7	23,4	25,6	22,9	23,2	21,3
500 and over	21,4	18,2	5,8	6,9	24,3	14,3	32,6	27,2	31,9	25,6	23,4	19,8
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
% change 197I-198I												
Up to 9		20,8		10,6		34,6		35,6		81,1		26,3
10-99		25,3		5,8		8,3		24,7		45,3		23,5
100-499		-0,2		1,4		-17,9		11,8		14,2		2,4
500 and over		-4,3		29,3		-47,7		-5,3		3,1		-6,7
Total		12,4		8,3		-11,2		13,2		28,0		12,0
average size												
Italy	59,0	46,3	17,9	17,5	112,9	61,0	143,2	98,4	138,4	84,3	75,0	55,1

Source : ISTAT, Industrial Censuses, 197I-198I

the sectors connected with the manufacture of final consumer goods was heavily affected by restructuring processes (Table 4.10), whereas producer goods sector experienced, in addition to a remarkable dynamism of small firms, also a lasting role of large sized enterprises. Moreover, the fact that the changes in sectoral composition are found to be much more striking in the first two size classes (up to 9 and 10 to 99 employees) than at the aggregate level, confirms that the expansion of small industrial firms was not limited only to small firms in the traditional sectors.

#### 4.1.7 Technical progress and the growth of the 'flexible organization model' in Italy

The high birth rate monitored for small firms and their growing role in the generation of jobs as well as the lesser part played by larger enterprises are the main elements of the 'flexible organization model' which prevailed in Italian industry in the Seventies. The constituents of this model are both social and technological in nature.

The 1970's was marked by market saturation for those products which had accompanied and/or supported the rapid growth in the two decades since 1945. During this latter period economies of scale in production were of paramount importance and could be achieved by accelerating process standardization. Increases in demand then had a direct impact upon productivity and the latter led to increased output so triggering a non-inflationary growth spiral.

The characteristics of the 1970's, on the other hand, were unstable growth rates and increasing product differentiation, as required both by domestic and foreign consumers.

A departure from the previous development path was observed also with reference to forms of innovation; the need to pursue specialization and to handle factors of production no longer in an extensive manner but rather in an intensive one, placed a premium on process flexibility. At first this occurred as a response to the rigidity imposed by the

post-1969 labour market and took the form of a 'simple' but increasing rapid replacement of labour with capital. This development, however, generated additional contradictions in the management of factors of production since only in the event of continuous production increases would the capital/labour ratio have remained unchanged. The spreading of technological innovation instead enabled firms to restructure individual work cycles from within and to change their interdependence.

New technologies - this general definition is made to embrace all those technologies in which electronics is an integral part of the means of production (for instance numeric control machines) and not 'simply' an instrument for optimizing and controlling the work cycle (for instance the management of the semiprocessed goods store) - tend in fact to guarantee full flexibility, i.e. the possibility of using the same machine for more than one production segment. This results in thoroughly altering organizational structures with the technological 'cycle' encouraging the replacement of labour with capital.

This, in turn, leads to changes in optimal plant size. Moving from a situation where economies of scale are exclusively pursued, to one where economies of flexible specialization are achieved, and where modularising of the production process becomes the vehicle for diffusing innovation, means that production/sales links become more complex. It leads to an increased importance of firms which assemble products and within such firms the assembling and collating of material flows requires greater skills since it becomes a central function.

This trend of having more activities undertaken outside the firm was observed both in the manufacturing sector and in producer services (consultancy, research & development, advertising, etc.). Producer service firms therefore increased in number but then once independent, began to diversify the range of services which they provided.

Consequently the proliferation of small firms providing specific services to enterprises which undertake manufacturing is in part generated by the 'disintegration' of large concerns. The primary

feature of the new organizational model is the pursuit of greater flexibility within a context of high specialization. Vertical disintegration also occurs as a response to rigidities in factors of production. It is particularly important for multi product firms where there is scope for modularising productive and service activities. Greater flexibility is also the objective of establishments specializing in the production of a limited range of products, for example consumer goods, which witnessed a considerable boost in demand precisely in the Seventies as a result of demand differentiation.

The breakdown of manufacturing phases into smaller units, however, is not to be understood merely as a 'reaction' to these developments. As noted above, it reflects new developments. In the first place decentralization is accelerated because new enterprises supplying components produce a product which is superior in terms of technology, price, quality, etc. Moreover, the output of the suppliers are not determined by the orders of a single firm but by their ability to sell to a wider range of business and products. The larger the range of products produced the greater the chance that the production of 'spares' can be turned profitably into a market of their own. For some firms such developments are even more direct: intermediate products of specific work cycles are turned into goods which generate an entirely new market.

The arrangement of production stages in this way leads to more effective finished goods inventory management and greater flexibility in the use of plants; the co-ordination of the succession of different stages becomes crucial to the smooth flow of the manufacturing cycle.

Decentralization is not the only determinant sparking off the proliferation of small firms, for not all sectors are equally subject to this fractioning of the manufacturing processes. In fact the fractioning is more marked in consumer rather than producer goods sections. Within the former sector the growth of small local units is facilitated by low technological barriers to entry and the opportunities for product differentiation are less. Hence large firms are much less

important in such sectors. Here the new entrant quickly reaches the minimum efficient scale at which it can survive.

The development of local units in producer goods industries seems to result more directly from the fractioning process examined above and from the strengthening of technical and marketing assistance networks. This is shown by the rapid growth of local units with up to 5 employees in all branches of mechanical industry. Repair shops, which might be thought of as an alternative explanation of the growth in the number of plants in this size group, are however within the office machine construction sector. Here, on the contrary, plants with up to 5 employees are found to be on the decline. The growing importance, of non-price factors in determining a firm/sector's competitive position particularly in the most technologically sophisticated sector suggests the improvement of assistance services is an important element in a firm's strategy.

The creation of a network of small plants within the technologically most advanced sectors might indeed be a 'new' structural feature of the Italian productive sector; it should not be overlooked, however, that on the one hand this outcome resulted from the 'defensive' position taken up by the firms after they had been heavily affected by the recurrent crises of the Seventies, and, on the other, that at the beginning of that decade firms were feeling the adverse repercussions of low investment - an attitude which was found to last throughout the Sixties in spite of high self-financing levels - which had undermined their ability to absorb future shocks.

It is also impossible to maintain that the investment surge in 1973-74, in which small firms manufacturing consumer goods were especially prominent, was a response 'anticipating' changes needed in future to cope with fresh competition within an inflationary context: the strict cyclic adherence of productivity bears proof of this. Output increases are therefore achieved more through increases in employment than by genuine new investment. The investments made by both large and small enterprises in 1979/80 should be viewed less as actions to boost



productive potential and more as an attempt to bring capital stock 'into line' with the standards prevailing in partner countries.

In some sectors highly innovative impulses (industrial robots in the car industry, agricultural and packing machinery) therefore resulted in the creation of 'new organizational models'. Elsewhere, however, other factors meant that small firms continued to be primarily suppliers to larger firms with little opportunity for them to act as effective competitors; their presence, however, enabled large firms to obtain greater flexibility and improved organizational method.

## 4.2 Factors Accounting for Small Firm Employment Change

### 4.2.1 Different small firm models

The above paragraphs have focussed on the contribution of small firms to the generation of new jobs.

It was noted that the contribution of small firms to job creation varies regionally and that the differences primarily reflect differences in the types of small firms in each area.

Five small-firm models prevailing in Italy may be described as follows:

- A) small firms born out of industrial decline;
- B) the traditional artisan;
- C) the dependent-subcontractor;
- D) the small firm of the industrial district;
- E) the new firm in high-technology industry.

#### A. Small firms which arise in a situation of industrial crisis or economic backwardness

The first model is the one which Storey, Johnson, Amin (1986) termed, with reference to the U.K., the 'Birmingham model'.

The contraction of employment levels in large concerns involved, and is still involving today, restructuring processes which in practice led, or may lead, to new entrepreneurial forms. Restructuring processes within large concerns hence lead to the creation of a group of 'forced entrepreneurs'.

The numerically largest proportion of this group is made up of skilled and semi-skilled workers, i.e. workers at the lowest levels of firm hierarchy.

These workers are faced with the following alternative options:

- a) to remain unemployed;
- b) to seek employment in the small firms sector, often at wages lower than those they used to earn previously and under working conditions worse than before;
- c) to become entrepreneurs;
- d) to enter the so-called 'black economy' (it is common event for an Italian worker receiving lay-off pay to work illegally for a small firm).

This type of unemployment makes available to small firms highly flexible, skilled labour at a comparatively low cost and is consequently a factor which works towards strengthening the position of small firms.

The type of firm that unskilled or semi-skilled workers establish is not necessarily in the same sector as the worker was formerly employed in. This is because some of the sectors which are shedding labour also have very high firm barriers to entry. Unskilled workers are more likely to enter as entrepreneurs those sectors with very low barriers to entry such as trade, repair shops, etc. Unfortunately these have saturated local markets and so the newly established firms either fail or drive existing firms out of the market. These developments lead simultaneously to an increase in the birth and death rates of small firms but the impact on the stock of firms is near to zero.

'White collar' and technical workers have not experienced any loss of employment in Italy and so the number of 'forced' entrepreneurs from this sector is negligible. This is primarily because of the difficulty which a large concern has in dismissing any employees in Italy and the existence of 'parking places' for disposing of excess workforces such as the so-called 'Cassa Integrazione' (providing lay-off pay).

### The traditional artisan

The market of the traditional artisan is local and exists not because of specialist skills but because of backwardness.

The tools used by the traditional artisan are, in general, simple and multi-purpose. These tools can be used to produce many different items but not where close tolerances are required. The skill of the artisan lies in being able to work with new tools, and often with unsuitable material. The artisan acquires his skill after years of apprenticeship, but with very little formal schooling.

The relations between these firms are described by the model of imperfect competition. The relationship between customers and artisan is based, above all, on trust and on reciprocal knowledge, and only secondarily on price.

This type of firm is widespread in Southern Italy and is responsible for the job losses registered in the South in very small business units.

Finally it should be emphasized that it is not the number of employees that differentiates traditional artisan firms from other types of small firms. In fact there are very small firms working as subcontractors and having high specialization levels but which are not artisan businesses. Similarly some businesses conducting a single function (for instance planning) and having all other functions discharged by outsiders may often be similarly small in size yet also not be artisan firms.

B. Firms rising from a process of industrialization or re-industrialization

The subcontractor

An element favouring the birth of new firms is the process by which a large enterprise decentralizes a set of functions, whether in the manufacturing or tertiary sector, to outsiders. These functions may often be undertaken by individuals who were formerly employees of the enterprise itself and who now either join to form a co-operative or become employees of a small firm. When applied to large enterprises which contract-out a single discrete function or product, the small firm model is the one which Brusco (1986) terms the dependent-subcontractor. The dependent-subcontractor manufactures components and provides a complete service on behalf of a large enterprise. In Italy the dependent-subcontractor very often adopts machinery of the same type as that used by the large enterprise. Regardless of the complexity of these operations, the large enterprise enjoys effectively the position of a monopsonist with respect to the small firm. The small firm on the other hand is in a position of perfect competition.

This type of restructuring results, on the one hand, in:

- a) a growth of small firms;
- b) an increase in the number of existing small firms;
- c) an increasing importance of the small firm as compared to that of the large enterprise.

What it does not result in is a growth of net new jobs, unless the small firm, as sometimes happens, adopts more labour-intensive methods.

### The small firm in the industrial district

One of the most successful models produced by the birth of new firms is the model termed 'industrial district firm' or, more recently, 'the flexible-specialization model'. The main feature of this model is the high degree of small firm specialization. Many small firms of this type manufacture for the domestic and/or world markets even though they have few employees. These firms perform very few tasks and purchase the rest from outside. Here there is a market for each stage of the manufacturing cycle, so that subcontractors may have a wide range of customers and are not dependent on a single large enterprise. On the other hand the purchaser is also able to contact a wide range of subcontractors. The machinery in use in such firms is often highly sophisticated and the work undertaken by the subcontractor is of the highest quality. A distinctive feature of subcontractors is often their ability to find new, original solutions to problems provided by the customer. In the industrial district the birth of new firms is closely linked to a process of division of labour of this kind, to the ability to detect market niches and consequently to boost output. In such conditions the firm birth rate is found to proceed at the same pace as growth in employment.

### The innovative enterprise

An often quoted example of small firm able to generate employment is the high technology firm. A concentration of laboratories or public and/or private research centres is a necessary condition for the development of technology-intensive firms.

In Italy the regions where these firms have mostly developed are those with a high concentration of research centres and those where large enterprises used to have laboratories, i.e. Piemonte and Lombardia.

Research on the electronics sector by Bianco-Luciano 1982, emphasizes that many new firms were the product of a conflict between the objective of a researcher in a large organisation and the objectives of the organisation itself. The latter were interested in obtaining economic results within a fixed time period, whereas the researcher was more interested in the scientific merit of the findings.

An equally interesting study is Camagni-Pettorazzi (1984), which is concerned with robot technology. The writers maintain that fundamental to the birth of the industrial robot sector in the Seventies was the conversion of a number of technicians into entrepreneurs. The finding of Camagni-Pettorazzi's study is that these firms arise from two sources; firstly from a process of mobility, whereby technicians (graduates from both secondary school and university) leave the large mechanical and electronic companies in whose research and development laboratories and planning departments they have gained training and experience. The second source is from the endeavours of pre-existing small firms operating in the closely allied sectors of machine tools and industrial automation to achieve product differentiation.

22% of this sector comprises new firms established by entrepreneurs who had previously worked in the automation sector (17%) or in related sectors (5%); the remaining 78% comprise firms arising from pre-existing enterprises which have resolved to pursue policies of product differentiation or to switch to different lines of production (61% and 17% respectively).

One-third of these firms are located in the province of Turin, 55% in Lombardia, and 11% (two establishments) in Emilia and Romagna.

This geographical concentration is a reflection of the location of the entrepreneurs or of the availability of suitable premises (53%). In the remaining cases it reflects the supply of specific factors such as the availability of skilled personnel and proximity to the parent company or to research centres.

These processes leading to a growth of high technology enterprises are not observable in Southern Italy, where large plants conduct primarily manufacturing and assembling. Consequently the region has few skilled technicians and so the number of potential entrepreneurs of this kind is necessarily small.

In fact in Southern Italy the prevailing trend is the opposite of the one observed elsewhere with migration being from small to large enterprises of both researchers and experienced technicians. This reflects the structural weakness of small firms in the high technology sector and the absence of sound prospects and guarantees of expansion. As a consequence, technicians are encouraged to migrate to those larger enterprises likely to provide greater incentives, financial security, and professional prospects.

We shall now examine the ways in which the several firm models are distributed throughout Italy, where they have generated strongly diverging affects both in terms of the birth of new firms and in terms of levels of employment.

#### 4.2.2 Demographic features of firms and an analysis of changes in employment levels in the manufacturing industry

Whilst census data enables us to calculate the net employment changes by plant size it cannot identify the separate components of job generation.

The above compopnents were derived by Contini, (1985) on a sample of longitudinal data supplied by the Archives of INPS (the National Institute of Social Insurance). Tables 4.11 and 4.12 show the estimated birth and death rates both by industrial sector and by individual area in the period 1978-81.

Births are most frequent in the size group with less than six employees; firms with more that 6 employees make up less than 20% of total



openings. Also the majority of deaths are in the small firms category, but the proportion amongst large establishments is not negligible.

Annual birth and death rates vary greatly between industrial sectors and between geographic areas, broadly increasing from northern to southern Italy. In particular, birth rates are higher in Area B than in area A, although for death rates, the difference is less clear. Even higher birth and death rates seem to prevail in areas C and D.

Areas C and D are therefore exhibiting high 'turbulence' - high opening rates, high closure rates leading to a high net change in the number of firms. As will be seen below, this in turn affects both the death rate in the first years and operation and the average lifespan of firms.

Table 4.13 shows estimated death rates in the first years of operation: the probability that death ensues within the first year of life is generally around 15%; in many sectors the probability that death occurs within the second year of operation exceeds 25%. On the basis of the above estimates Contini has calculated the net change in the number of firms as the difference between new jobs created by newly-opened firms and jobs lost as a result of closures.

Table 4.14 shows the estimated changes (job gains - job losses) registered as a consequence of births and deaths of firms for the four branches of the manufacturing industry in the four-year period 1978-81 (referred to a sample of provinces for each geographic division).

Although birth rates are higher than death rates in almost all the sectors (Table 4.11), births are almost exclusively registered in the size class of 1 to 5 employees, whereas deaths also occur in larger enterprises. This implies that the differences between job gains and job losses are positive but smaller than the mere examination of average rates would have suggested. Moreover, whereas the net change in the class with five or less employees is always positive, those with more than five employees are negative. Total net employment change in

Table 4.11

Percentages of firms with < 6 employees in total births and deaths,  
by geographic area and by sector, 1968-81.

	% ENTERPRISES < 6 EMPLOYEES (BIRTHS)				% ENTERPRISES < 6 EMPLOYEES (DEATHS)				% ENTERPRISES < 6 EMPLOYEES (BIRTHS - DEATHS)			
	A	B	C	D	A	B	C	D	A	B	C	D
24	0.86	0.85	0.89	0.96	0.75	0.73	0.79	0.88	0.11	0.12	0.10	0.08
25	0.83	0.85	0.91	0.89	0.82	0.77	0.78	0.76	0.01	0.08	0.13	0.13
31	0.91	0.87	0.88	0.83	0.83	0.74	0.74	0.77	0.08	0.13	0.14	0.07
32	0.81	0.82	0.84	0.87	0.77	0.62	0.70	0.79	0.05	0.19	0.14	0.08
34	0.88	0.89	0.91	0.93	0.74	0.71	0.77	0.96	0.14	0.18	0.14	-0.03
41	0.93	0.94	0.90	0.95	0.88	0.90	0.90	0.94	0.05	0.04	0.00	0.02
42	0.83	0.83	0.91	0.89	0.74	0.84	0.91	0.86	0.09	-0.01	0.00	0.03
43	0.87	0.91	0.88	0.88	0.73	0.79	0.74	0.73	0.14	0.13	0.15	0.16
45	0.88	0.84	0.89	0.91	0.75	0.70	0.72	0.86	0.13	0.14	0.17	0.04
46	0.96	0.91	0.94	0.97	0.90	0.84	0.87	0.92	0.06	0.07	0.06	0.05
47	0.92	0.87	0.95	0.93	0.69	0.73	0.88	0.88	0.24	0.14	0.07	0.05
48	0.86	0.87	0.94	0.99	0.76	0.79	0.90	0.88	0.10	0.08	0.04	0.12
67	0.97	0.96	0.99	0.99	0.93	0.86	0.92	0.93	0.04	0.09	0.07	0.06
36	0.84	0.71	0.94	0.93	0.82	0.59	1.00	0.91	0.02	0.12	-0.06	0.02
37	0.96	0.90	0.93	1.00	0.87	0.72	0.88	0.91	0.09	0.17	0.06	0.09
44	0.90	0.87	0.90	0.91	0.87	0.74	0.69	0.92	0.03	0.13	0.21	-0.01

Source : CER Report, year V, no. I/1986

Table 4.12

Birth and death rates, net growth rates, by geographic area and by sector, 1968-81.

	SN BIRTH RATES				SM DEATH RATES				SN-SM NET RATE			
	A	B	C	D	A	B	C	D	A	B	C	D
24	0.094	0.096	0.092	0.122	0.073	0.080	0.072	0.091	0.021	0.016	0.020	0.031
25	0.079	0.108	0.114	0.131	0.067	0.071	0.076	0.117	0.012	0.037	0.038	0.014
31	0.120	0.150	0.175	0.241	0.083	0.078	0.096	0.131	0.037	0.072	0.079	0.110
32	0.090	0.127	0.150	0.146	0.061	0.070	0.072	0.076	0.029	0.057	0.078	0.070
34	0.159	0.162	0.195	0.181	0.087	0.086	0.106	0.113	0.072	0.076	0.089	0.068
41	0.110	0.100	0.111	0.130	0.078	0.082	0.101	0.096	0.032	0.018	0.010	0.034
42	0.079	0.091	0.093	0.075	0.068	0.091	0.094	0.118	0.011	0.000	-0.001	-0.043
43	0.111	0.171	0.157	0.157	0.079	0.098	0.101	0.086	0.032	0.073	0.056	0.071
45	0.166	0.169	0.190	0.136	0.113	0.112	0.101	0.123	0.053	0.057	0.089	0.013
46	0.094	0.124	0.117	0.145	0.071	0.086	0.094	0.112	0.023	0.038	0.023	0.033
47	0.077	0.102	0.133	0.105	0.063	0.061	0.079	0.088	0.014	0.041	0.054	0.017
48	0.147	0.120	0.157	0.156	0.079	0.076	0.075	0.072	0.068	0.044	0.082	0.084
67	0.143	0.142	0.200	0.200	0.080	0.073	0.095	0.103	0.063	0.069	0.105	0.097
36	0.118	0.118	0.095	0.150	0.107	0.101	0.023	0.110	0.011	0.017	0.072	0.040
37	0.150	0.131	0.235	0.177	0.075	0.065	0.085	0.059	0.075	0.066	0.150	0.118
44	0.142	0.141	0.107	0.190	0.119	0.099	0.137	0.108	0.023	0.042	-0.030	0.082

Source : CER Report, year V, no. I/1986

Legend to Tables 4.11 and 4.12

- A = north-western area  
B = north-eastern and western area  
C = central-southern area  
D = southern area and islands

Sectors

- 24 : non-metal mining industry  
25 : chemical industry  
31 : metal objects construction  
32 : machine construction  
34 : electric and electronic construction  
41 : food industry  
42 : sugar, beverages, and tobacco  
43 : textile industry  
45 : clothing  
46 : timber and wooden furniture industry  
47 : paper and cardboard industry  
48 : Rubber and plastic material processing  
67 : repairs: consumer goods and vehicles  
36 : construction of other means of transport  
37 : optical precision instruments  
44 : leather industry

manufacturing, increases from the north to the south of Italy (2.6% in area A, 5.4% in Areas D).

Table 4.15 shows Contini's estimates of the net job gain resulting from a comparison between births and deaths on the one hand and of the net new jobs arising from dimensional changes in existing business units on the other. This study reveals that as one proceeds from the northern (A) to the north-eastern and central regions (B) and then to the central-southern area (C) and eventually to the south proper and the islands (D) birth rates gradually come to exceed death rates. The highest birth and death rates are those of the southern regions (C and D) primarily amongst small firms with less than 6 employees.

Interpreting these spatial variations is not easy. The sample includes both local and non-local plants and some of the new enterprises have arisen in respect to the high unemployment levels - a fact suggested by the very high birth rate (20%) observed in areas C and D as compares to areas A and B in the sector repairs of consumer goods and vehicles. In North and Central Italy SME births are a function of factors such as the 'decentralization of enterprises' and the rise of 'firms in the industrial districts' and of 'innovative enterprises'. In southern Italy however the situation is more complex. It is therefore not surprising that the share of new firms with less than 6 employees is higher in the north than in the two southern areas in sectors such as 'metal products', textiles, timber and furniture, food - since in these sectors firms are clearly linked to the decentralization process.

In southern areas the birth of new plants results from three different phenomena:

- a) in-moves, many of the firms moving in being smaller than those of the past;
- b) firms arising as a consequence of unemployment in sectors with low barriers to entry and therefore characterized by high birth and death rates;

Table 4.13

Annualized untimely death rates.

INDUSTRY (class ISTAT)	AREA A			AREA B			AREA C			AREA D		
	within I year	within 2 years	within 3 years	within I year	within 2 years	within 3 years	within I year	within 2 years	within 3 years	within I year	within 2 years	within 3 years
Non metal mining industry	.I2I	.200	.256	.I39	.224	.238	.I30	.2II	.282	.I50	.235	.297
Secondary chemical industry	.I98	.3I8	.337	.I28	.202	.282	.032	.IO9	.I75	.II8	.2I6	.300
Metal objects construction	.IO6	.274	.329	.I46	.2I9	.283	.I80	.239	.304	.I96	.320	.395
Machine construction	.I40	.23I	.307	.098	.I54	.209	.II8	.I50	.I86	.I34	.I56	.204
Electric and electronic construction	.II3	.20I	.307	.I25	.202	.280	.II8	.245	.3I9	.II7	.I7I	.309
Food industry	.I43	.227	.287	.I33	.2I3	.286	.I95	.290	.359	.I98	.269	.350
Sugar, beverages, and tobacco	.II3	.I8I	.268	.I44	.226	.298	.I32	.I78	.262	.I95	.290	.3I9
Textile industry	.I60	.259	.335	.I70	.279	.372	.I86	.248	.367	.II2	.I39	.2I9
Clothing	.200	.305	.396	.I7I	.248	.368	.I38	.334	.304	.242	.288	.373
Timber and wooden furniture industry	.I49	.227	.3II	.I66	.244	.3I4	.I98	.342	.409	.I92	.264	.352
Paper and cardboard industry	.II7	.I98	.257	.IO5	.I78	.228	.I63	.247	.3I3	.I63	.27I	.373
Rubber and plastic material processing	.I48	.2I3	.300	.I2I	.207	.283	.I43	.2IO	.205	.II6	.I80	.209
Repairs: consumer goods and vehicles	.I62	.256	.333	.I33	.204	.266	.2II	.282	.346	.226	.302	.369

Source CFR Report

Table 4.14

Job gains and losses  
from 'births' and 'deaths' (1978-81).

Size	AREA A			AREA B		
	job gains	job losses	total net jobs	job gains	job losses	total net jobs
I - 5	6,530	3,902	2,628	11,643	6,299	5,344
6 - I9	1,530	2,050	- 520	3,658	4,792	- 1,124
20 and over	3,530	3,780	- 450	7,448	9,821	- 2,373
Total manufacturing industry	11,390	9,732	1,658	22,749	20,902	1,847
% share of industrial employment in sample provinces			0.5			0.4

Size	AREA C			AREA D		
	job gains	job losses	total net jobs	job gains	job losses	total net jobs
I - 5	5,544	2,905	2,639	2,905	1,703	1,201
6 - I9	1,308	1,760	-452	430	578	- 148
20 and over	1,541	2,306	-765	337	664	- 327
Total manufacturing industry	8,393	6,971	1,422	3,670	2,944	726
% share of industrial employment in sample provinces			0.9			1.0

\* Estimates made in some sample provinces of the four areas.

Source CFR Report

Table 4.15

Breakdown of employment change:  
manufacturing industry (1978-1981).

	AREAS				Total Italy
	A	B	C	D	
.Δ  = difference between births and death equal to net birth gain	+10	+ 7	+ 8	+ 4	+ 29
.Δ  = dimensional change operating enterprises	-39	+11	+ 1	- 3	-30
ΔL = total employment change	-29	+18	+ 9	+ 1	- 1

(ΔL estimate based on the quarterly ISTAT survey on the labour force)

Source CFR Report



- c) enterprises arising in connection with a market growth both as a result of decentralization and for the final market.

Tables 4.11 and 4.12 do not enable us to distinguish each phenomena, but sectoral analysis enables us to identify areas where a single phenomenon is dominant. Area C experienced a net gain in firms (birth rates - death rates). In traditional sectors, generally, below those found in the North.

On the other hand in three sectors birth rates in Area C were found to be higher than in the northern and north-eastern areas and in the remaining sectors differences were insignificant. This means that death rates are generally higher in Area C than in the North. New local enterprises in these sectors do not seem to have been particularly successful.

In traditional sectors the birth rate of new firms with less than 6 employees exceeds death rate in this group. It is suggested that enterprises benefit from demand, formerly satisfied by large firms which have closed.

In modern sectors characterized by non-local units (chemicals, electronics, and electrotechnology, etc.) net gains are decisively higher than in the north and in the central area and involve a clear increase in the number of firms with less than 6 employees. Some of these are likely to have arisen as 'downstream' enterprises connected with inmoves.

Moreover there are sectors such as repairs of consumer goods and vehicles and in which southern birth rates are around 20%, compared with northern areas, where they do not exceed 14% and very probably include a certain number of firms set up by the unemployed or by workers dismissed by the large enterprises. In many sectors in area D the net rates are lower than in the corresponding sectors of the north-central areas, A and B (two examples are for instance such advanced sectors as chemicals and electronics). This is particularly true of electronics where the

loss of firms with less than 6 employees is greater than the gain in new firms of the same class. This reflects the difficulties facing innovative small firms operating outside the industrialized regions. It raises major questions about policies to promote high technology firms outside the core regions since peripheral areas are at a disadvantage both from the point of view of market outlets and from that of the purchase of components; consequently in these sectors experience high death rates.

In area D new firms in traditional sectors such as clothing, timber and furniture, the sugar industry, spirits and other beverages, show even worse performances than those in the corresponding northern areas.

This demonstrates that the sectors which are to be given priority must be appraised not only in relation to general criteria (a high level of technological innovation, etc.) but also with a view to their prospects of success within the area concerned. Firms operating in the same sector may have entirely different chances of success in one area as opposed to another. As a consequence, whereas in some areas it will be worthwhile to finance such firms, whereas in others financing is unnecessary.

#### 4.3 Factors affecting Regional differences in small firm employment and new firm formation

##### 4.3.1 Social factors in the regional changes in the characteristics of small firms in Italy

The analysis of Garofoli (1981) and the research studies conducted by the Union Camere (1982, 1983) have confirmed that the model of the 'firm of the industrial district' is prevailing in the central and north-eastern areas of Italy (Emilia-Romagna, Veneto, Toscana, Marche). Diffused industrialization is instead an all but widespread phenomenon in the south, where the prevailing models are the traditional artisan and, in more recent years, the subcontractor.

This pattern of spatial differentiation of the characteristics of small firms corresponds with Bagnasco's model of the three Italies (1977). The central area (north-western Italy) is characterized by the existence of large enterprises and of small and medium sized firms performing functions complementary to those of the larger establishments (backward and forward linkages). In the north-eastern regions it is the 'firm of the industrial district' model that is prevalent and in the southern regions traditional local enterprise coexists side by side with large plants of a non-local origin and a small number of modern small and medium sized firms (Del Monte - Giannola, 1986).

The irregular spatial distribution of the 'firm of the industrial district' has stimulated research on the social factors which have conditioned industrial development in central and eastern Italy.

Some studies, such as Paci (1979) have concluded that the vigorous entrepreneurial spirit and, more generally, the industrious climate observed within industry in central and eastern Italy stem from the metayage. Paci maintains that the historical base for the entrepreneurial skills which induce industrial development are inherent in this legal institution. The status of a metayer, whose earnings are strictly dependent on the quality and quantity of his work,

is much more likely than the status of a small farmer to stimulate the growth of entrepreneurial attitudes. The crisis of share-cropping set free such entrepreneurial potential, which provided the spark for industrial development.

According to other authors, personal experience is instead not a necessary assumption for a metayer to turn into a self-employed artisan: personal experience can be obtained provided the social 'texture' is 'impregnated' with the managerial spirit. Other authors such as Bagnasco (1977) have instead emphasized the role of the city in the growth of industrial districts. In these regions the growth of new firms results from the existence of numerous towns which generate a demand for new industrial activities (such as workshops for repairing machinery, the organization of fairs and markets, banking-services, transport infrastructure) instead of the former demand for agricultural activities.

Brusco (1986) identifies two further elements which are said to account for the growth of self-employment in the areas of the industrial district. First the historical origins of industrial districts often stem from the previous existence of one or more large firms which - sometimes a long time ago - were working in a market where small and artisan firms are now operating. These large and medium size firms, with their daily work, introduce the necessary technical and professional competence to a peasant community with few market connections. The workers learn to manage the production process, to link with suppliers and to market the product. Then, under certain conditions, workers and employers progressively become independent workers undertaking on their own account work from the factories. These 'certain' conditions are factors such as the demand for customized goods, a tendency to decentralization on the part of large firms, and a production process easily divided into phases (Brusco 1982).

The importance of the school system should also be noted. Since the early twentieth century technical schools - spread all over the areas

with many small autonomous firms - have been providing workers with the fundamental theoretical elements of their trades.

All these factors are, of course, connected. The traditional specialization in agriculture also favoured the development of industrial activities since it provided low-cost residential accommodation to the families of those engaged in industrial activities, and in some cases even the very premises for the manufacturing process itself. The capital for financing industrial initiatives was often derived from the sale of farmland made possible by the growth of the cities. Eventually such traditional practices as working in the home, having a second job, or undertaking part-time agricultural work did much to guarantee full employment. This resulted in a higher degree of social integration in this region, so that the process of channelling human resources toward new production processes was achieved with minimum social stress.

A second stage was that a process of division of labour within the industrial districts led to the birth of new firms. The firms operating within these areas reflect the division of labour which results in a high degree of diversification and complexity of the local manufacturing system. The complexity of the local system can lead even to the birth of a sector manufacturing producer goods for use only within the locality.

A net gain in new small firms and a net loss in the number of large enterprises brought about by processes of vertical disintegration in progress in the province of Modena were the main findings of a study by Brusco, Giovanetti, Malagoli (1979) on the firms in the ceramics, metal-working, and textile sectors operating in that area between 1966 and the end of 1977. The very forces that favour the growth of small firms and 'hinder' the growth of the large also determine a higher small-firm birth rate and a lower large-firm one.

The mechanisms by which growth and development takes place within leading firms or parent companies are the following:

- the transfer of a number of work cycles to outsiders;
- a boost in production job orders in all of the work cycles already being conducted outside the enterprise;
- the transfer of the workers who have become redundant as a consequence of the disappearance of such work cycles from the enterprise to such work cycles as the enterprise continues to implement directly.

Such a strategy enables the firm to increase its total sales without increasing the size of its workforce or its capital assets.

Parent companies behave similarly, so that the same work cycles are dropped generally. The outcome of this process is that orders from the parent are not distributed equally amongst firms. Instead firms which specialise in undertaking this type of work, and which tend to be of a given size, are the prime beneficiaries. The boost in the total sales of firms is therefore not all uniform across size bands.

#### 4.3.2 New firm formation in Southern Italy

The labour division phenomena that explains the development of small firms in much of northern and central Italy is less apparent in southern Italy. There existing firms are experiencing growth at a comparatively slow pace. Vertical disintegration is less marked even when the market expands. Unlike the more advanced regions, in the south obstacles to growth mean cost curves rise much sooner than in more industrialized areas. Transferring work cycles previously carried out inside a firm to outsiders therefore becomes less attractive.

In Southern areas average firm size tends to be relatively large, firms are highly integrated and this excludes them from the advantages of flexibility and so leads to higher costs of production. It means that Southern firms are producing intermediate products at higher costs than their counterpart in the North could buy on the open market. These higher costs, in turn, lead to a lack of competitiveness and slower

growth amongst Southern firms as well as a lower rate of positive spin-off of small companies. Furthermore the higher levels of vertical integration in the South i.e. minimum firm size mean that entry barriers are higher in the South also leads to a lowering of rates of new formation.

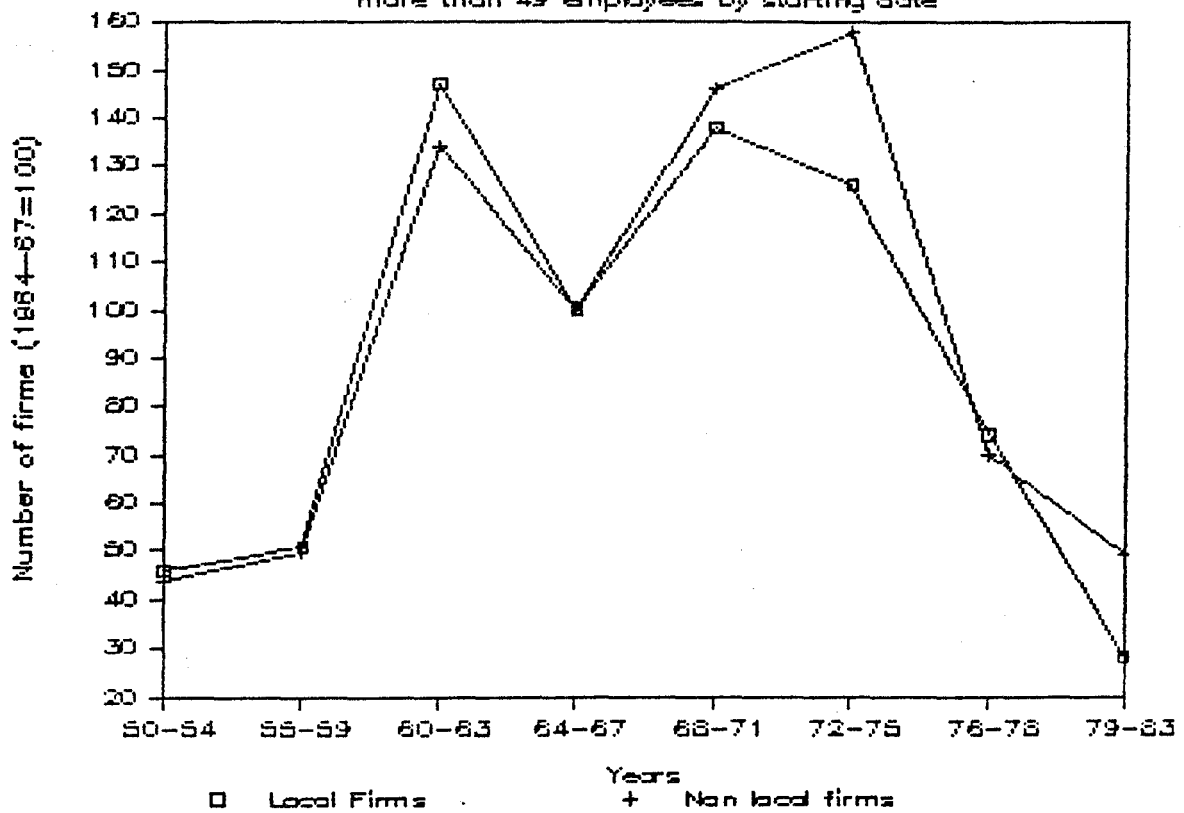
The major factor explaining high birth rates in Southern Italy is the presence of non-local enterprises. This is shown by the Iasm Cesan Data Bank, in which firms in operation in the year 1984 are classified by year of incorporation and plant construction year. Unfortunately neither of these years necessarily coincides with the firm's date of birth, for the year of incorporation may refer to a legal conversion of the firm whilst the plant construction may be before or after its birth date. In cases where the two dates do not coincide other information was obtained by direct contact. Because of the number of such cases data on birth year was only collected for firms, both local and non-local, with 50 or more employees. Given these proviso's new firms, established after 1950 and surviving until 1984 had generated, in southern Italy, 39,175 new jobs. On the other hand 163,890 new jobs had been created by non-local enterprises over the same period.

Fig. 4.4 shows the average figures of local and non-local firms set up in the period 1950-54, 1955-59, 1960-63, 1964-67, 1968-71, 1972-75, 1976-78, 1979-83 in southern Italy. The trends in the number of local and non-local enterprises follow very similar patterns. A broadly similar pattern is apparent by examining employment created within these firms.

The similarity is less clear at the level of the individual region. In Abruzzi patterns are similar up to the period 1966-71, but diverge in subsequent periods. Puglia has different turning points and, consequently, some divergence trends but in the remaining regions the trends of the two series are very similar throughout the period. The two series are significantly positively correlated in all regions except for Sardinia (Table 4.16).

Figure 4.4

Number of firms surviving in 1983 with  
more than 49 employees by starting date



(Southern Italy)



Table 4.16

CORRELATION COEFFICIENTS of the nos. of local firms to the nos. of non-local firms set up between 1950 and 1978 in some southern regions of Italy

	EMPLOYEES		FIRMS	
	TOTALS	MECHANICAL SECTOR	TOTALS	MECHANICAL SECTOR
CAMPANIA	.51	.52	.78	.58
ABRUZZI	.69	.24	.56	.29
PUGLIA	.58	.75	.87	.57
SICILIA	.40	.74	.43	.55
CALABRIA	.77	-	.77	-
SARDEGNA	.23	-.37	.26	-.14
MEZZOGIORNO	.97	.70	.95	.76

\* The correlation coefficients have been calculated with reference to the average values for the eight periods into which the years 1950-1978 have been divided.

\* The period is 1965-81

As far as the mechanical sector alone is concerned, the correlation coefficient values, though high for all regions except Sardinia and Abruzzi, are lower than for the manufacturing industry as a whole. This might suggest that in the mechanical sector in-moves did not lead to the birth of 'downstream' firms. Higher correlation coefficient values are obtained for employment in the mechanical sector for Puglia, Campania, and Sicily. This is not wholly surprising, since these are the regions with the highest concentrations of mechanical establishments, and a higher threshold level of demand is required for manufacturing than for other sectors. A concentration of non-local units is therefore needed if this threshold is to be reached.

Despite some reservations over the data the analysis suggests a positive impact of non-local enterprises on the birth of local firms which grow to having more than 50 employees. Each region has different ratios of the number of small local to non-local units, but the two series move broadly parallel.

For the period 1981-85 further analysis of these trends can be undertaken for firms with 10 or more employees.

Table 4.17 shows the variations in the number of local and non-local firms and of workers employed in them, for each area of southern Italy, and the correlation coefficients between these variations.

In the nine areas considered, the value of the coefficient for absolute variations in the number of firms is .45 and the one for relative variations is .30. This would suggest a positive balance between the trend in non-local new units and local units (unlike the data for firms with over 50 employees, these observations apply to net new job and firm gains).

The negative balance in net job gains is less easily explained. One explanation might be that employment reductions in non-local firms resulted in increased unemployment, so encouraging workers to become self-employed. This might explain the experience of Calabria and

Table 4.17

Net changes in local and non-local enterprises and employees in the same. Area covered by the Cassa, period 1981-85 (firms with over 10 employees).

	No. FIRMS		No.EMPLOYEES		VARIATION RATE % FIRMS		VARIATION RATE % EMPLOYEES	
	L	NL	L	NL	L	NL	L	NL
CAMPANIA:	- 72	- 1	-7,149	-12,222	- 2.4	- 0.3	- 7.1	-10.0
PUGLIA	+ 190	- 3	+3,078	- 4,630	+ 12.2	- 1.5	+ 6.3	- 9.5
ABRUZZI	+ 117	+ 38	+1,176	+ 2,452	+ 12.7	+20.7	+ 4.2	+ 7.1
MOLISE	- 1	+ 8	+ 231	+ 4,913	- 0.8	+36.4	+ 6.8	+ 9.3
CALABRIA	+ 80	+ 13	+1,333	- 979	- 16.1	+23.2	+ 11.4	-10.0
BASILICATA	+ 46	+ 4	+ 416	- 1,230	- 35.1	+11.1	+ 9.6	-13.3
SARDEGNA	- 41	- 25	-1,297	+ 398	- 7.2	-14.1	- 9.9	+ 1.5
SICILIA	+ 55	- 3	-2,122	- 8,965	- 4.0	- 1.5	- 5.6	-18.7
LAZIO	+ 16	+ 9	-1,896	- 1,668	+ 2.2	- 2.2	- 7.5	- 2.1
TOTALE	+ 390	+ 22	-6,230	-26,352	+ 4.4	+ 1.4	- 2.2	- 6.6
CORRELATION COEFFICIENT	r = 0.45		r = 0.16		r = 0.30		r = 0.02	

Source : Iasm, Cesan, own calculation

Basilicata (two regions with high unemployment rates), where a net job loss in non-local units is matched by a net job gain in local units.

#### 4.4 Small Firms Policies in Italy

##### 4.4.1 Policies in favour of small firms in Italy

Italy has a long history of assisting small firms. Assistance is provided on a national basis although greater incentives are available in the South.

The provision of government credit to small and medium sized firms has been central to industrial policy in the post-war period.

In the 1960's approximately 37% of all government loan assistance went to small and medium sized firms, but as the incentives to large sized industrial enterprises increased, the relative share taken by SME's fell. In the 1970's their share was about 18% and by the 1980's it had fallen to no more than 3%. This may however, over-dramatise the fall since small firms do have access to credit incentives where there is no upper limit on expenditure eligibility.

Assistance to SME's can be categorised as follows:

- a) financial incentives for the purchase of machinery and equipment;
- b) financial incentives to facilitate the diffusion or transfer of technologies;
- c) financial incentives to foster growth of new businesses.

##### 4.4.1.1 Financial aid for the purchase of machinery, equipment

The State finances the purchase of machinery and equipment by SME's in three ways: Presidential Decree (DPR) No. 902/76, Act. No. 1329/65 called the 'Sabatini law' and Act. No. 696/83.

SME's have made little use of DPR No.902/76 because the procedure for granting aid are rather lengthy and bureaucratic even for relatively modest sums.

Act No.1329/65 (called the 'Sabatini law') has been in force since 1965 and has been highly effective in inducing investment in machinery by SME's. The 'Sabatini law' makes provision for specified categories of machinery, in particular machine tools, to be purchased against payment by bills assisted by a creditor's lien; the bills are then discounted by a bank and rediscounted with Banca d'Italia or Mediocredito Centrale. Tax breaks are available on these operations, together with a particularly advantageous three years' depreciation scheme with annual allowances fixed by the firm at its own discretion.

This procedure provides protection for the seller, financial support for the buyer and seller, the latter being given an opportunity to rapidly turn his credit into cash. In addition to the tax facility, a facility on the rediscount rate is also provided by Mediocredito Centrale.

This procedure suits the needs of small firms because of its simplicity (only the purchase of machinery is required rather than the provision of an investment plan) and because it lowers the cost of investment.

Finance under the 'Sabatini law' is mainly in the North, where three quarters of the operations are concentrated. If, however, assistance is normalised by the the spatial distribution of enterprises in the metal-working industry (buyers) and by the machine tools sector (sellers), the law appears to have mainly benefited the central regions, which in the last decade have exhibited rapid industrialization and dynamism.

Financing under the 'Sabatini law' increased from 370 with contributions amounting to 100 million lire in 1968 to over 3,200 for a total contribution value equal to 63 billion lire in 1984 (a peak figure of 5,900 operations was registered in 1981): between 1967 and 1984 included, about 30,000 operations for an aggregate contributions amount

equal to 170 billion lire were processed. In 1984 the average amount per single operation was consequently about 20 million lire.

The total public expenditure under this law between 1975 and 1984 was only a relatively modest 220 billion lire, indicating the high degree of leverage.

At the end of 1983 Act No. 696 was passed. It provides for unredeemable contributions of 25% (32% in southern Italy) to be granted, in addition to a 6% VAT deduction (the so-called 'negative VAT provision'), on the purchase of electronic machines and equipment for automating the manufacturing processes of small and medium sized firms.

The 'Sabatini law' differs from Act No. 696 because the former was devised to provide support to suppliers and, through these, to buyers as well. The 696 Act however was devised only as a means to provide direct support to buyers. Experience with both the Sabatini law and Act No. 696 suggests that policies of encouraging small firms to modernize their machinery are most effective (and less costly to the State), when they exploit the synergic effects of both supply and demand and when procedures are decentralized and made simple and automatic.

#### 4.4.1.2 Financial assistance of favour research and the transfer of technologies

Early experience in promoting technology transfer has been disappointing. Act No. 374/76, which was meant to promote research consortia among small and medium sized enterprises, was ineffective, probably because it was too limited in scope and in the extent of the facilities granted. A subsequent law, No.240/81, made provision for extending the credit and tax facilities to consortia of firms including public bodies and allowed grants to be provided also by regional administrations; so far also Act No.240 has been little used.

Act No.675/1977 enables Applied Research Fund of IMI to fund the transfer of national know-how and technological innovation to small and medium sized firms. It also provides for a technical assistance and training programme designed to support consortia of companies and co-operatives which provide services to single and/or pooled small and medium sized firms in southern Italy.

Act No.46 of 7th February 1982 provides for credit facilities to be granted to finance technological innovation in small and large sized enterprises. Bureaucratic bottlenecks however have resulted in low rates of takeup of this law on the part of small firms (Table 4.18).

A recent study (Pezzoli 1984) concludes that small or medium sized firms do exist, which, although they conduct no formalized in-house R & D and merely adopt or imitate innovation acquired elsewhere, are prepared to cope with problems of change and are endowed with an innovation potential deserving encouragement. Such enterprises usually lack access to any innovation aids. Existing initiatives however give priority to innovative enterprises which conduct R & D in-house and which are usually able by themselves to successfully overcome the 'barriers to information' and bureaucratic difficulties preventing other firms from gaining access to public incentives.

The present institutional framework is unsatisfactory since it provides aid (in particular financial aid) to support innovative activities but does not provide a mechanism for removing obstacles to innovation.

Act No. 46 is also designed to facilitate technological transfers to SME's. Financing is available for both the establishment and enlargement of transfer structures and the implementation of specific transfer programmes. The public contribution is up to a maximum of 50% of costs or 200 million lire whichever is the lower. Bureaucratic delays, however, have meant that no results have yet been obtained.



Table 4.18

Technological innovation fund (Act no. 46/1982).

Expenditures admitted to financing under this law  
within the year 1984 (% breakdown).

Areas and groups of firms Sectors	Centre-North		South		Total
	small & medium sized	large sized	small & medium sized	large sized	
Fine chemicals .....	2.7	16.1	0.2	0.9	19.9
Electronics .....	5.2	20.3	0.4	5.4	31.3
Automobiles and components.	3.4	27.5	0.4	2.2	33.5
Aeronautics .....	0.7	7.6	-	4.1	12.4
Iron and steel .....	0.3	2.7	-	-	2.9
<u>Total</u> .....	12.3	74.2	0.9	12.6	100.0
Statutory Reserves .....	12.0	48.0	8.0	32.0	100.0

Source: derived from data supplied by the Ministry of industry, trade, and handicraft. Bank of Italy Report, 1984.

#### 4.4.1.3 Financial incentives to foster growth of new businesses

Two laws have recently been passed to deal with the problem of growing unemployment particularly in the South and among young people.

Act No. 49 (the 'Marcora law') finances co-operatives in projects for (a) increasing productivity and/or employment through technical, commercial and administrative services; (b) restructuring and remodelling of plants.

This law provides for a further Special Fund to grant unredeemable contributions for underwriting capital in co-operatives established by dismissed workers or workers receiving lay-off pay, the latter being obliged to underwrite shares to the extent of no less than 4 million lire.

More substantial incentives are provided under Act No. 44 of 28th February 1986. This provides assistance to co-operatives and companies located or operating in southern areas provided their members are primarily young people aged between 18 and 29 years. Assistance includes:

- a) 60% grant on plant and machinery at start up;
- b) subsidized interest rate loans at 30% of the reference rate for up to 30% of the expenditure for facilities and equipment;
- c) gradually decreasing contributions to the extent of 75, 50, 25% of the operating expenses respectively in the first three years if activity.

It is impossible to appraise the effectiveness of these laws since they are not yet in force, although the law in support of the young self-employed is still arousing much controversy. Some groups see the purpose being to reduce unemployment among the young in southern Italy whilst others see the objective as being the setting up of new enterprises in southern Italy regardless of their impact on employment.

Among recent legal provisions not specifically directed at small enterprises, but from which small firms are undoubtedly drawing some benefit, is Act No.863 of 19th December 1984, which introduces a new legal framework for part-time training contracts and the recruitment of personnel without passing through the official employment agencies. The law provides that workers aged between fifteen and twenty-nine may be hired by private firms and public bodies for up to two years by signing non-renewable training contracts. This law is meant to reduce rigidities in labour markets and has been well received by the firms which are exempted from the payment of most social contributions.

Industrial policy for SME's in Italy suggests that the successful laws are those providing financial incentives. Other forms of assistance has been much less successful primarily because of the complex bureaucracy. Automatic financial incentives are found to be the most effective since businessmen are aware of the rates of payment and the monies are processed quickly.

#### 4.4.2 The experience of large groups in job creation

Several large Italian industrial groups have been involved in job creation by restructuring or converting their own activities. These initiatives are relatively recent, so it is not possible to provide an evaluation of their effectiveness. Instead we shall simply list the initiatives.

SPI is the IRI holding company whose function is to launch new business initiatives. SPI is about to set up three BICs (Business and Innovation Centres) respectively in Genoa, Turin, and Taranto.

In the vicinity of Brindisi Montedison offers:

- land at convenient prices;
- a feasibility plan;
- technical assistance in plan layout and/or product manufacturing;

- market researches and/or product marketing services.

Currently fifty-two projects are estimated to have generated 684 new jobs stemming from this initiative.

The ENI group has established several companies to engage in promoting new industrial initiatives in 'problem' areas. The most important among these are:

- Indeni, a mixed, i.e. public and private owned company-engaging in job creation in those areas where ENI formerly had operations; so far it has generated 950 new jobs;
- Ageni, a company which, though set up for the same purpose as Indeni, has provided financial subsidies and services to firms. Currently the company has entered into agreements providing for four new industrial undertakings generating a total of 577 new jobs.

Two other companies of the ENI group, Alta and Insar, are very similar to Indeni and Ageni. Insar on 30 June 1985 had undertaken projects costing a total of 20 billion lire and leading to 281 new jobs.

This brief list clearly shows that the experience so far gathered by the large industrial groups in the field of job creation in Italy is both limited and recent. In any event its impact is small as compared to the public interest which was aroused.

#### 4.5 Conclusions

The main conclusions to be drawn from the Italian experience with respect to the role played by small firms in the field of the generation of new jobs are the following:

- a) the performance of small enterprises in Italy is the result not so much of a specific industrial policy as of the flexibility of their production structures;
- b) the social factors that have enabled given regions of Italy to develop a flexible production model are not easily compatible with nationally framed industrial policies.
- c) there exist a number of technology- and demand-determined factors conducive to the development of small firms both in Italy and in other countries (diminishing barriers to entry are being observed in many sectors). These factors lead to more rapid growth in the industrialised areas and less rapid growth in the depressed areas;
- d) the objectives of regional policies, i.e. the creation of a possibly large number of local units and, consequently, the expansion of the local entrepreneurial class, lacks any support, whether analytical or empirical;
- e) regional policies are required for favouring a process of division of labour in depressed areas; by diminishing obstacles hindering the growth of existing local enterprises rather than generating an ever larger number of new local firms through the provision of public assistance services;
- f) in areas with a high unemployment rate the role of non-local enterprises in bringing about the birth and further growth of local firms cannot - and must not - be underrated.

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