On Enlarging Employment by Promoting Small Enterprises

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Abstract

This paper provides an overview of the role of Small and Medium Sized Enterprises (SMEs) in employment generation in both advanced and developing countries and a critique of the 'job generation' literature in both contexts. It sets out an analytical approach to the question of SME growth based on a synthesis of theories emphasising internal management and external market failures as growth inhibitors in SMEs. The paper emphasises the need for SMEs to develop efficient managerial and organisational strategies if sustained enterprise employment growth is to occur.

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1. Introduction

The context of this paper is the observation of the World Summit for Social Development that ' in many developed countries, growth in employment is currently great in small and medium sized enterprises and in self-employment. In many developing countries, informal sector activities are often the leading source of employment opportunities for people with limited access to formal-sector wage employment, in particular for women'. The role of small and medium scale enterprises (SMEs) in the generation of employment is a major issue in policy debates in the transition economies and the developing and the developed economies alike. The literature on which this debate is based is both large and in some degree controversial. Given the emphasis in the World Summit observation on the recent experience of the developed economies this report focuses on the main lessons that can be derived from recent research on the role of small enterprises in the developed economies. It also places relatively more emphasis on Europe and in particular on the experience of the UK where the emphasis upon creation of an enterprise culture based on small and medium sized firms has received particular attention in recent years.

Policy support for the small and medium sized enterprise sector has been justified on many grounds. The most vulnerable and poor members of the labour force are, it is argued, to be found in this sector which is at the same time the dominant source of direct employment in developing economies. Concern with employment creation and with the welfare of the least advantaged can therefore lead to policies to raise labour standards and employment levels and stability in this sector on macroeconomic and distributional grounds. This has been reinforced in the past by the not always sustainable notion that these firms are in a general sense efficient users of labour

inputs at a microeconomic level. Snodgrass and Biggs (1996) provide a useful critical review of this line of reasoning. Another set of arguments hinges upon notions of market failure. The most frequently cited of these depends upon the presence of fixed costs, in particular in relation to access to various types of information. Thus it is argued that fixed costs of obtaining information may disadvantage small firms in their access to private and public sources of data and advice on training, financial resources, technology, or export markets. Equally the fixed costs of obtaining information about small firms may lead to credit rationing in the loan market, or to the unavailability of equity finance. Finally, policy support may be justified on promotional grounds. Governments seek to pursue modernising policies based around the perception that entrepreneurship and small business formation and growth lie behind the dynamism of the developed economies in recent decades. On this view the balance of economic activity and efficiency is switching away from large scale business activity towards smaller scale, flexible, and networked businesses which represent the new dynamic of industrial development. It leads in turn to a policy concern with the characteristics and skills of entrepreneurs and small business owner managers, the growth of individual businesses and the characteristics of successful networks or clusters.

There is an extensive existing literature on limitations to small enterprise development arising from external market failures of various kinds, (e.g. Levine (1997) and Otero and Rhyne (1995) on financial market failure) and an emerging and equally well reviewed literature relating to networks clustering and agglomeration effects influencing the performance of groups of firms (e.g Schmitz (1995); Nadvi and Schmitz (1999); Van Dijk and Rabellotti (1997), Grierson et al (1997) and McCormick and Rederson (1996)). This report focusses therefore on the analysis of the growth of individual firms. It emphasises the role of management in sustaining enterprise growth, development, and employment generation. It also addresses the macro

issue of job creation, and the notion that small firms in general represent a new dynamic of industrial development.

The report begins with an overview of the role of SMEs in domestic economic activity in terms of output and employment in developed and developing economies which provides the context for the report as whole. This is followed by a complementary section examining the extent of involvement of SMEs in international trade. The next section reviews the literature in both developed and developing countries on SMEs as 'generators' of new jobs. It also provides an analysis of the nature of the jobs which they provide. The report then sets out an approach to the analysis of small business growth and development which provides a synthesis of internal and market failure factors. It emphasises the need to develop efficient managerial and organisational strategies if sustained enterprise growth is to occur. Given constraints of space the report is deliberately selective and does not attempt to provide a systematic review of all the existing literature. It does however draw on a wide range of secondary evidence from the existing research literature, upon published World Bank, ILO, OECD and European Union reports as well as original research on the SME sector in the UK conducted by the author and his colleagues in Cambridge (eg. Hughes (1998); Cosh, Duncan and Hughes (1998) and Cosh and Hughes (1996) (1998)).

2. Small Business Growth and The Nature and Extent of SME Activity in Developed and Developing Economies.

SME growth: the stylised facts.

The analysis of the growth rate patterns of individual businesses of different sizes which survive over time reveals a number of distinctive features. First, the variability of growth rates is greater the smaller the size class and the younger the age category of businesses considered. Smaller, younger businesses experience wider variations in growth rates than do larger, more mature ones. Second, the

distribution of growth rates is very heavily skewed and the longer the time period over which growth is calculated the more skewed is the distribution. Thus, a handful of businesses will account for the bulk of employment, output or sales generated by a given cohort of surviving firms. Empirical studies for the UK suggest that 5-10% of firms surviving over any period will typically account for 40-50% of the total employment generated by the surviving group as a whole (Storey, 1994). Recent detailed survey based work for a sample of African economies yields similar results (Mead (1994); Liedholm and Mead (1999) and Liedholm, McPherson and Chuta (1994)). Relatively few businesses maintain persistently high growth rates and, in the context of developed economies, make the transition from start up to maturity as a large, typically stock market listed, public corporation. The result of this heavy skewness of growth rates is that differences in median growth rates between firms in different size classes are much less significant than differences in mean growth rates (which are much more sensitive to the extreme values of the growth rates registered by the fastest sustained growers). Third, younger firms grow faster than other firms and the very smallest grow faster than the rest (Liedholm and Mead (1999) and Dunne et al (1989)). Once a certain threshold size is passed it appears, however, that growth is not systematically related to size. Finally, the higher mean growth rate amongst smaller firms in developed economies does not appear to be due to a bias arising from the fact that smaller, slow growing, companies are more likely to fail, and go out of existence, than are large slow growing businesses (and hence be more likely to be excluded from calculations of growth rates based on surviving firms).

These stylised facts go hand in hand with the observation in all economies of highly skewed size distributions of firms, as a handful of persistent growers pulls away from the rest. The remainder of the pack exhibit great turbulence of growth rates, and birth and death rates which are highest amongst the smallest and youngest firms (see for example Audretsch (1995); Dunne et.al. (1989); Dunne and

Hughes (1994); Schmalensee (1989); Cosh and Hughes (1994); Storey, (1994); Cosh, Hughes, Lee and Pudney (1996); Oulton and Hart, (1996); Cosh, Duncan and Hughes (1996a); Lee (1992) and Goedhuys and Sleeuwaegen (1999)). In developing economies the degree of turbulence may be greater than in developed economies as higher birth and death rates generate very high rates of job turnover (Roberts and Tybout (1998)). It is important to note that skew size distributions are not only a feature of developed economies. In the case of developing economies there is however a more dualistic nature to the size distributions with a more pronounced concentration of enterprises and employment at the micro end of the size spectrum, a relative lack of middle range enterprises, and a tendency for somewhat higher levels of concentration of domestic output in the hands of the very largest firms (Lee (1992); Tybout (1998) and the evidence presented below).

The shares of SMEs in economic activity

Any attempt to provide an overview of shares of SMEs in economic activity is confronted with a series of definitional and data availability issues. These are explored in the appendix to this paper. In general, for data availability reasons this report follows employment size classifications. The data mainly relate to enterprises (units of ownership), rather than to establishments (units of production). Data is also presented on self employment and on indicators of the informal economy.

The importance of the SME sector in the developed economies in the early 1990's is shown in Table 1. This provides, for 18 OECD economies, data on the percentage share of SMEs in the total number of enterprises, overall employment, and GDP.

In virtually every economy around 99% of all enterprises employ less than 500 employees. The share of employment in such enterprises varies between 52% in Finland and 77% in Denmark for whole

economy estimates, and for manufacturing alone between 45% for Australia (using a much lower cut off of 100 employees) and 85% in Ireland. Shares of SMEs in GDP are much lower (and more difficult to obtain). In general the ranking of countries in terms of the importance of SMEs in employment is the same as their ranking in terms of output shares.

Table 2 allows us to go beyond the broad data for the SME sector as a whole, to provide evidence on the relative importance of SMEs of different sizes in terms of employment. The data once again relate to the early 1990s but are based on establishments rather than enterprises. As in Table 1 the data reveal substantial variations across countries with, for example 51.1% of Italian employees in establishments with less than 20 workers compared with 33% in the UK, and 17% in Portugal.

Similar data for enterprises are only available for the EU. They use a different cut off point for the SME sector. These data are summarised in Tables 3 and 4. The first three columns of Table 3 relate to all enterprises and show that there were 15¾ million enterprises in the EU in 1992 employing 101 million workers, and with a combined turnover of 11.8 billion ECU. Column 4 shows that enterprises with less than 250 employees accounted for 66% of the total employment in all enterprises. In the major EU economies (Germany, France, Italy and the UK) these SMEs accounted respectively for 59.9%, 63.4% and 57.7% of total employment. Table 4 breaks down the total EU enterprise population into finer size classes. It reveals that 14.5 million enterprises employed less than ten workers and had a total labour force of 32.8 million. Of these enterprises around a half are one person businesses with no employees. A further interesting feature of the table is that the middle sized SMEs, in the 10-249 size group, are an important group economically, employing around a third of all the EU labour force and accounting for two fifths of total EU turnover. Finally, it is important to note that the largest 30,000 enterprises, employing over 250 people, accounted for one third of

employment and turnover in 1992 whilst accounting for less than 1% of all enterprises.

The significance of SMEs varies across sectors as well as countries. It also varies over time, in both the short, and the long run. The EU data can be used to illustrate these short run variations, and the variations across sectors. Table 5 shows variations in average annual changes in real value added and employment over the period 1988-97 and three sub periods, 1988-90, 1990-93, and 1993-97. For the period as a whole value added in SMEs and large scale enterprises (LSE's) grew at much the same rate (2.5%), whilst the former grew faster in terms of employment (0.5%) compared to employment in LSEs which was stable over the period as a whole. However this overall outcome reflected rather different patterns of development during the period. The value added performance of SMEs, and especially very small enterprises (VSEs), deteriorated substantially in the recession between 1990 and 1993 both relative to LSEs, and absolutely. The absolute employment growth of SMEs also deteriorated in this period although VSEs fared far less worse than other SMEs and, especially, LSE's. All SMEs fared less well than LSEs in employment growth after 1993. The data do not by themselves suggest an inexorable rise in the share of SMEs in employment or value added in the European Union in recent years. These short to medium run changes may conceal longer run trends, however, and may mask shifts in the sectoral composition of activity. These shifts can influence trends in the overall share of SMEs because of variation in the importance of the latter across different sectors. These sectoral patterns are illustrated in Table 6, using the same EU enterprise data set as reported in Tables 4 and 5.

Table 6 shows that the vast majority of all enterprises are to be found outside manufacturing, in the construction and service sectors. These sectors are also the ones in which the employment share of SMEs is highest. SMEs account for only 20.4% of employment in the energy and extraction sectors, and 55.5% in manufacturing. In contrast over

80% of employment in construction and in the wholesale, and retail trades, and in hotels recreation and catering, employ less than 250 employees. Over 60% of employment in the rapidly growing finance and business services sector is also to be found in this size category.

Taken as a whole the analysis of this section so far reveals that SMEs are a significant component of the economic structure of industrial countries. Direct and up to date comparisons with the position in developing economies are difficult to make. Studies for earlier periods suggest higher concentrations of businesses and activity in the SME sector in developing countries, and in particular in the micro enterprise and the informal sectors employing less than 5 workers. (Anderson (1982); Banerji (1978) and Hoselitz (1959); Snodgrass and Biggs (1996).

Figures 1 and 2 provide some more recent approximate comparisons. In each chart countries are positioned from left to right in terms of ascending order of 1995 GDP per capita (at 1987 $ prices). Figure 1 pulls together data from various studies and time periods of shares of employment in enterprises/establishments in manufacturing and industry, employing 1-10 and 10-49 employees. It must be emphasized that these data are only roughly comparable and that whereas the data for the EU economies relate to a consistent data set for 1995, the data for the other countries are drawn from a variety of periods and are based on varying data sources. The picture nonetheless is clear enough. The lower is GDP per capita the greater is the micro (1-9) share and the smaller is the small (10-49) share. A similar analysis, not reported here for reasons of space, shows the share in employment in units with 50 or more employees rises with GDP. The heavy emphasis on micro activity is reinforced if we consider self employment data. Thus Chart 2 focusses on the informal, or self employed category of enterprises with no employees. It reveals a clear pattern of lower shares of employment in this sector in countries with higher GDP per capita. (For a similar analysis for Latin America see ILO (1998)).

Although this discussion has emphasised the significance of smaller enterprises in economic activity it has to be remembered that economic activity remains heavily concentrated in a few giant firms. Thus in the European Union it has recently been estimated that the mean share in activity of the largest four enterprises across a large sample of industries and countries was 20%, with a maximum of 87% (Lyons and Matravers (1995)). These ratios appear to have been rising rather than falling in recent decades (EC (1994) Table 10, page 31). Moreover, there is evidence to suggest that levels of aggregate and market concentration are if anything higher in developing than developed economies (see e.g. Lee (1992)). In Korea in 1994 it has been estimated that the top 20 business groups accounted for 13.5% of GDP, whilst in the same year in Taiwan, Province of China, the top 100 groups accounted for 42.5% of GDP (Abe and Kawakami (1997)).

Finally it is important to stress that our analysis has been at a very aggregate level. The role of different sizes of enterprise and establishment varies considerably across industries within countries (Snodgrass and Biggs (1996)). Equally, although these are well established patterns of relative industry concentrations across countries, "efficient" size distributions can vary depending upon the impact of a variety of transaction costs and institutional factors (see eg. Levy (1991)).

3. Globalisation of SMEs

The interelationship between enterprise size, export promotion, and development is extremely large and controversial (see e.g. Helleiner (1992) and Parker, Riopelle and Steel (1995), and for some recent empirical evaluations at the micro enterprise level see Roberts and Tybout (1996)). There are wide variations in the SME intensity of trade activity between countries (e.g Korea compared with Taiwan, Province of China). It seems, however, that in general in the

developing economies trade is if anything more concentrated than economic activity generally (for references and a review see e.g. Berry (1992)). It has been argued that the role of SMEs in trade is however growing and it is instructive to consider recent developments in the industrial market economies.

A central problem in the analysis of the globalisation, or internationalisation, of SMEs is to agree on an appropriate metric. Internationalisation may be taken to refer to the sourcing of inputs, including both raw materials and finance; the extent to which exporting is an important component of total sales; the degree to which production is located in subsidiaries in different national economies; or the degree to which competition is locally, or internationally, based (see e.g. UN (1993)). In a recent study (OECD (1997) the OECD has proposed a ten point scale along which globalisation may be measured. The scale starts from 1, for a purely domestically based producer with no subsidiaries, and sourcing and selling exclusively in the domestic market whilst facing only domestic competitors. The scale ends at a fully globalised SME, scoring 10, where the majority of inputs are sourced across borders; there is a pattern of international location of production through affiliates or wholly owned plants in different countries, and sales are internationally diversified with potential competitors in any international market. The scale is shown in detail in Table 7. The data required to locate SME's along this scale are much less easily available than those required to measure their significance in terms of say domestic employment. Moreover the lack of data is especially severe for service trade, so that the most readily available data typically refer to manufacturing. OECD estimates based on national studies of 18 countries suggest that about 40% of SME's (typically defined as employing less than 500 employees: see Annex 1 Table A) are insulated from global pressures and are at point one on the scale. The other 60% are subject to international pressures to some degree. At the other extreme less than 1% of SMEs, mostly in hi-tech

industries, may be considered as fully globalised at point 10 on the scale.

Table 8 provides more detail and shows that between 15% and 30% of manufacturing SME's can be placed in the major and extensively globalised categories, scoring between 4 and 8 on the index. In the former category the SME's covered have between 10% and 40% of their turnover generated from international activity spanning two or three countries, whereas in the latter over 40% of turnover is generated by activity two or more continents and five countries.

The extent of SME globalisation varies considerably be country. Estimates of the numbers of manufacturing and service sector SMEs scoring higher than 1 on the globalisation scale are shown in Table 9. As might be expected the great bulk of these manufacturing and service SMEs are to be found in the 6 major OECD economies of France, Germany, Italy, Japan, the UK and the US. However Spain too has a high number of SMEs with some degree of exposure to international activities. It is notable that there are far larger numbers of service sector SMEs than manufacturing SMEs in this globalisation category. This is partly a reflection of the much greater numbers of SMEs in the service trades upon which we have already remarked. It also suggests, however, that SME global activity is also significant in the services as well as in manufacturing. Columns 1 and 2 of the table are, however, based on a relatively weak measure of globalisation. The number of SMEs consistently engaged in exporting are lower by an order of magnitude than the numbers in columns 1 and 2. Only in the cases of Italy, Belgium and the Netherlands are the aggregate number of exporting SMEs high relative to the total number of those exposed to some degree of international activity. Columns 4 and 5 of the table reveal the tiny numbers of fully globalised SMEs scoring 8 or more on the globalisation scale, with only Belgium (7%) and the UK, Canada, Denmark, and Italy having more than 1% of SMEs in this category. Finally column 6 gives an estimate of the significance of SME

exports. The data here is more patchy and often based on surveys covering samples of firms with different size cut-offs (shown in brackets next to the relevant estimates). These data suggest that SME exports are a significant component of total exports, amounting to around 25% of OECD country exports, and around 40% of the value of exports if their indirect contribution via sales to larger exporting firms or through agents is taken into account (OECD 1997 p.77). These estimates of direct export contributions are less than the shares of GDP and employment accounted for by SMEs which were reported in the previous section. This suggests a generally lower export intensity for SMEs than larger firms. Some illustrative data is provided in Tables 10-12 (for a fuller review of the problems of providing systematic data on this issue, see UN (1993)). The data for France in Table 10 do reveal an upward gradient in export intensity with size amongst exporting firms. The data for Spain in Table 11 reveal an inferior export intensity amongst exporting firms only for the smallest two size classes. Once the large numbers of non-exporters are allowed for the gradient is more obviously upward with firm size in both countries. The data available for the UK in Table 12 relates to SMEs with less than 500 employees only. These are broken down into micro enterprises with less than 10 employees, small enterprises with between 10 and 50 employees medium enterprises with between 50 and 200 employees and large SMEs with between 200 and 500 employees. The Table reveals that amongst exporting firms, the export to sales ratio is, somewhat surprisingly, highest in the micro firms. The export to sales ratio, however, does rise with the size of firm in the other size groups. The Table for the UK also shows that export to turnover ratio growth was higher in the larger SMEs than in the smaller SMEs in the period 1990 to 1995.

Taken as a whole the evidence in this section suggest that SMEs, and especially the smaller of them, are less likely to be involved in international activity than larger firms. They are also likely as a class to exhibit lower export to sales ratios (unless zero exporters are excluded). Nevertheless, they account for a significant share of export

activity in the OECD economies. Moreover a substantial proportion of SME's are exposed to international trade and production pressures, even if only a handful are extensively globalised in the terms used in this section.

There is also reason to believe that the proportion of SME's involved in international activity is likely to rise in the coming decades. There are a number of reasons for this (see e.g. OECD 1997 esp. pp 92-93). Firstly, there is general, continued, pressure for trade liberalisation arising from GATT/WTO, APEC, NAFTA, and EU negotiations and agreements, and from technical change in communications and information flows. These will affect all firms including SMEs. Secondly, the rapid growth in trade in services in which SMEs are disproportionately represented will provide particular pressures for globalisation in SME activity. Thirdly, learning by doing in existing SMEs which have begun to internationalise their operations will lead them further along the internationalisation path. Finally, to the extent that governments actively seek to promote the international competitiveness of their SME sectors, as part of a general policy consensus that this sector is of increasing significance, at least in employment terms, then this to may lead to policies for SME export promotion.

4. Job Generation and the growth of SMEs

The previous sections have illustrated the significance of SMEs in economic activity in a largely structural and static way by emphasising the shares of economic activity of various kinds for which they account. This evidence however can be combined in a policy context, with a more dynamic analysis. This approach emphasises changes in the SME share of activity over time, and in particular has attributed to them a particularly important role as prime movers in employment creation.

There is little doubt that the share in employment and economic activity of the SME sector, and within that the share of micro enterprises has risen in the last two decades in the developed economies (Sengenberger et al, (1990); Acs and Audretsch (1993); OECD (1994) and Dunne and Hughes (1992)). Furthermore, a range of studies based on methodologies developed by Birch for the United States have claimed that small firms have 'created' the vast majority of new jobs in that country and elsewhere, including the UK (Birch (1987) and OECD (1994)). There is also some evidence to suggest that SMEs have been relatively productive in terms of innovation and that industries with high rates of entry by new small firms have superior rates of productivity growth and innovative activity (Geroski (1995); Geroski and Pomroy (1990) and Cosh, Hughes and Wood (1997)). In conditions of continuing high unemployment, and in circumstances in which competitiveness is seen to be closely linked to innovation, policy makers in developed and developing economies alike have seen in this group of firms a potential solution to problems of both joblessness and growth, and have become interested in maximising their export potential. However there are dangers in proceeding too readily from the proposition that the share of SMEs in economic activity has been rising to a general statement about their employment creating, or innovative, or export capacity as a group. To explore these dangers it is necessary to provide a critique of the job generation literature.

Estimating the Role of Smaller Firms in Job Creation

Studies which have attempted to estimate the role that SMEs play in job growth in an economy must ultimately reflect the stylised facts of small business growth and survival which have been outlined earlier. In practice the two literatures, on business growth and on job generation respectively, have in the main developed separately. The focus on patterns of employment generation by size class in the job creation debate has served to obscure the important insights into the

skewness and variance of growth rates *within* size classes which the literature on firm growth rates reveals.

The structure of most studies of job generation can be summarised using the accounting framework set out in Figure 3. Beginning with total employment in an economy at some opening date it is possible to break down the change in total employment between that opening date and a closing date into four components: jobs lost through business closure or 'death'; jobs lost through some firms surviving through the period studied but experiencing employment contraction; jobs gained through new firm formation or 'birth'; and finally jobs gained through firms which were alive at the beginning and end of the period and which expanded their labour force. Births and expansions together make up gross job 'creation', and deaths together with contractions make up gross job 'destruction'. Total employment change over the period, or *net* job 'creation' is the difference between gross job 'creation' and gross job 'destruction'. It is possible to carry out these calculations for each size class of firm, using for instance opening year size classes, and thus to partition net job creation in the economy as a whole into that part 'accounted' for by each particular size class. Losses through death may be attributed to the particular firms' opening size classes, and gains through birth to the new firms' closing, or entry, size classes. A sample of estimates of this kind for five OECD countries is shown in Table 13.

This shows the average annual rate of net job creation as a percent of total employment broken down by business size class for periods covering the 1980s to the early 1990s. It is clear that calculated in this way the smallest size classes have the highest net job creation rates. In some countries (Sweden) they account for more than 100% of net job creation. Moreover, the largest size classes frequently have *net* job *losses*.

Figure 4 provides a breakdown of UK gross job creation in the period 1987-91 into its component parts by size class. Thus section (a)

shows the percentage distribution of job gains and losses due to births and deaths respectively. It shows that in this period the smallest businesses accounted for the vast majority of gross job creation via births *and* gross job destruction via deaths, which is entirely consistent with our earlier discussion of the turbulence experienced at the bottom end of the UK size distribution. Section (b) of the figure shows that the smallest businesses also accounted for the highest share of gross job creation via expansion. The largest businesses (employing over 500 employees in 1987) accounted for the highest share of gross job destruction by contraction, but they also provided a substantial share of gross job creation via expansions even though they were outstripped in that respect by the smallest businesses. Once again this is consistent with our earlier discussion of individual firm growth/size relationships. Section (c) shows that taking together births and expansions on the one hand, and deaths and contractions on the other, the smallest size class accounted for the bulk of both gross job creation and destruction. The upshot was, as shown in Table 13, that net job creation in these years was dominated by the smallest SMEs and represented the difference between two large flows of gross job creation and gross job destruction.

We can look at patterns of SME employment growth rates and deaths for a more recent period for the UK using results from the regular surveys of the SME sector carried out by the ESRC Centre for Business Research (CBR) at Cambridge (SBRC, 1992; Cosh, Duncan and Hughes, 1996a). The results shown in the matrix in Table 14 cover a *size stratified* sample of firms employing less than 500 employees in 1990 in the manufacturing and business service sectors of the UK. The analysis relates to 1329 of the original sample of 2,000 firms which either responded to the subsequent survey in 1996, or were known to have ceased independent trading by then. The matrix is not designed for the calculation of net job creation rates by size class. That would require information on births, and the grossing up of the results of each size class by the proportions of employment which each size class accounted for in the manufacturing and

business service populations as a whole. Moreover the matrix focuses on the lower tail of the size distribution and ignores businesses with over 500 employees in 1990. It does, however, allow us to see the pattern of size class changes in the important lower tail, as well as the degree of skewness in business growth rates in each size class, and the patterns of job gain and loss by opening size class.

The table as a whole reveals a number of important features of the employment growth process amongst a large sample of SMEs in the UK. First, it reveals that only a small number of firms shift size classes. The vast majority of businesses cluster around the diagonal of the matrix, moreover the larger the opening size class the more likely are downward than upward movements so that the calculated mean growth rates of employment for the surviving firms, although not shown in the table, are negative for firms employing 100 firms or more. Second, it shows that a very small number of businesses do show spectacular growth, notwithstanding the recession dominated years of the early 1990s. Thus 2 firms moved from employing less than 10 workers in 1990 to employing over 100 in 1995, and there were nine firms which grew beyond the 500 employee boundary by the latter year. Between them these businesses employed 6,310 workers in 1995. A separate analysis of the data presented in the matrix shows that the top 5% of growers accounted for 44% of all employment growth in the sample, and the fastest 10% of growers accounted for 59% of all employment growth. A third point worthy of note is that the largest SMEs have the lowest death rates. Thus firms employing over 200 workers in 1990 were around half as likely to die as those employing less than 10 workers. In discussing the job "creation" activity of small firms it is important to keep the heavily skewed problem of growth which Table 14 reveals in mind.

Estimates of job generation using a similar conceptual framework have also been provided for a sample of African economies (Botswana, Kenya, Malawi, Swaziland, Zimbabwe) and the Dominican Republic. These are not based on official census data for

the whole economy but are based on extrapolations from a specially constructed series of surveys of the small enterprise sector of firms employing less than 50 workers. The central results are summarized in Liedholm and Mead (1999), and Mead (1994), and are very similar to those for the OECD economies (see also McPherson (1995)). The majority of net employment creation is accounted for by the very smallest firms. Turnover rates and turbulence are very high in the lowest size bands, with birth and death rates of around 20% per annum on average. On average around 80% of new starts are of one person businesses (Liedholm and Mead (1999) Table 3.1 p.29, Table 3.2 p30), and smaller younger businesses are more likely to close with consequent employment losses. (Liedholm and Mead (1999) pp.32ff). Growth is also highly skewed. Of all enterprises with a start up size of 1-4 workers only 26% had grown at all in the ten year period prior to the survey date and less than 1% had grown into the 10+ size category (Mead (1994) Table 3 p.1886). However those firms accounted for around 23% of net employment expansion of firms starting out with less than 5 employees (Mead (1994) Table 4 p.1886). Net employment expansion by firms starting with over 5 employees is less than for smaller firms (Mead (1994) and Liedholm and Mead (1999)).

Estimates of job and plant turnover for the formal sectors (i.e units with 10 or moe employees) in the manufacturing sectors of samples of Latin American and Asian developing economies also reveal high levels of job creation and destruction. On balance these appear to exceed those experienced in the OECD (Aw, Chen and Roberts (1997) cited in Tybout (1998) and Roberts and Tybout (1996)).

Problems with Accounting for Job 'Creation'

There are a number of arguments against taking the results of job creation studies as providing a case for policy assistance for the SME sector, and particularly for the smallest firms within it. First, the results of the most influential studies for the developed economies

may be methodologically flawed and as a result overestimate the role of small firms in job generation. Second, it is clear that we may be interested in the kinds of jobs created and their relative permanence rather than their number alone. Finally, and perhaps most importantly, whatever may be claimed for job generation studies in terms of numbers of jobs created by size class they are in themselves merely accounting exercises and tell us nothing about the direction of causation. We can consider each of these issues in turn.

A variety of arguments may be deployed to suggest that the estimates of small firm net job creation may be biased upwards. One of the most important arises from what is known as the problem of "regression to the mean" (Leonard (1986) and Davis et al (1996)). The idea here is that at any time, in a given set of businesses, transitory random shocks will leave some of them above, and some of them below their preferred or 'permanent' sizes. At the beginning of any time period of study some 'small' businesses will actually be 'larger' businesses which have suffered a transitory adverse shock in the previous period. They will be adjusting upwards in the period of study to try to get back to their preferred permanent 'larger' size. Equally some 'large' firms will actually be 'small' businesses temporarily displaced upwards by a previous transitory shock. They will be adjusting downwards in the present period. In any period of analysis there will, therefore be a bias towards finding that growth is negatively related to size. 'Smaller' business employment growth will be overestimated relative to 'larger' business growth because many 'smaller' firms are actually 'larger' ones undergoing temporary adjustments.

The precise extent of the effect of regression to the mean will depend upon the frequency and magnitude of transitory employment shocks, the extent to which the size distribution of firms is closely packed together, so that firms are readily displaced in rankings by small changes in size, and the precise way in which size groupings are drawn up in carrying out the analysis (Davis et al (1996)). The same

set of factors will influence analogous regression to the mean biases which can arise from errors in the measurement of business size (Singh and Whittington (1975)) and which are endemic in small business data sets. One way around regression to the mean problems in empirical studies is to classify businesses not by their opening size but either by their closing size, or by their average size over a given period, and use that as a proxy for 'permanent' size. Estimates based on average size classifications for the United States have, in stark contrast to studies based on opening size classes, found no systematic relationship between net job creation and business size over the period 1973-88 (Davis et al (1996)).

The evidence for this sort of effect in the UK is less compelling, and the very smallest surviving firms appear to account for a disproportionate share of job expansions net of job contractions, whether opening size or an average size approximation is used (Hart and Oulton (1996) and Cosh, Duncan and Hughes (1996b)). Whether this adjustment is wholly appropriate is in any case a moot point. As we have shown the great bulk of employment 'created' by any cohort of surviving small firms is accounted for by a handful of persistent or spectacular growers. It is not clear that classifying them by their "average" size adds anything useful from an analytical point of view. These firms as a group cannot sensibly be regarded as temporarily displaced from an optimum size if over some period they sustain steady growth throughout it, or experience step changes sufficient to cross several size class boundaries as revealed in Table 14. It makes more sense to try to analyse the circumstances which led to their sustained or spectacular discrete growth performance, or to inquire into the forces which inhibit other businesses which may wish to emulate them. It is also worth noting that the promotion of stable firms which survive is also an objective worth pursuing unless growth is seen as an end in itself (a point well made in Robson (1996) and Robson and Gallagher (1994)).

These points may assume even more significance in the context of developing economies. The role of entry into the micro enterprise sector as a survival strategy in difficult macro-economic circumstances means that 'job generation' in this sector is particularly susceptible to the influence of transitory shocks. Thus in some periods micro firm job generation simply reflects this supply push and is counter-cyclical and reversed in the upswing (Liedholm and Mead (1999)).

So far job generation has been discussed without reference to the types of job created. This reflects the fact that most studies are unable to go beyond simple enumeration because of data problems. More recently however this has become a central issue in studies for the USA (Davis et al (1996) and Brown, Hamilton and Medoff (1990)). The evidence on SME growth rates and survival patterns reviewed earlier suggests that many jobs in this sector will be relatively unstable in the sense that the employers are both more likely to experience more substantial proportionate fluctuations in size than larger firms, and in the sense that the smallest youngest firms are more likely to cease trading. There are a number of other general characteristics of SME employment which, notwithstanding some important sectoral variations, are worth noting and which point to a relatively low quality of job 'created' in the SME sector. We can illustrate with evidence for the UK (see Brown, Hamilton and Medoff (1990)) for the USA). First, smaller firms employ more part-time workers and also engage more non-employees than larger firms (homeworkers, self-employed, freelancers) (Kitson and Wilkinson (1996)). Smaller firms are also more frequently involved with employing labour at the 'margin of legality' (Scott et al (1989)) and pay lower wages than larger firms (Thompson and Wilson (1991)). Smaller firms also offer fewer fringe benefits, and employees in smaller workplaces are more likely to work longer hours than those in larger workplaces. The latter is however a characteristic shared with smaller business owners who work longer hours than full-time employees in the labour force as a whole. There is also evidence to

suggest that smaller firms provide less formal training and less external training than larger firms (Kitson and Wilkinson (1996)), with a relative lack of interest in formal training common to both small firm employers and employees. Finally, smaller businesses experience higher rates of major injury per employee but lower rates of less serious injury (SBRC (1992); Thomas (1991); Curran and Burrows (1988a) and (1988b); Curran et al (1993); Storey, Watson and Wynarczyk (1989); Townroe and Mallalieu (1993); Wynarczyk et al (1993) and Storey, (1994)). Recent evidence for the United States also suggests that SMEs typically hire less educated workers, pay wages which in the vast majority of industries are less than those paid in larger firms and offer lower job tenure. (US Small Business Administration (1996)). Against these job characteristics it is possible to trade off the relative informality and flexibility of small business working relationships, and a variety of other non-material benefits arising from paternalism or 'benevolent autocracy' exercised by small business owners (Curran (1991) and Curran et al (1993)). There seems little doubt however that on other grounds the jobs created in smaller firms are of lower quality than those in the larger firms.

The evidence for developing economies is equally compelling on these points, in particular for the smallest micro firms and those in the informal sector. (World Bank (1995) pp.76ff ILO (1997)).

The point is, however that these aspects are as, if not more, important from a policy and welfare point of view than the gross count of jobs created. Moreover, to the extent that both employer and employee training are regarded as important factors in business performance and competitiveness the growth of higher shares of employment in smaller firms with an apparently lower propensity to train poses a potentially major problem.

Finally it is important to note that from the point of view of designing economic policy the central weakness of the job generation literature is that it fails to proceed to an analysis of causation. It does not have

anything to say about the characteristics of those few firms which we have seen dominate the job generation process in arithmetic terms. It counts up, however imperfectly, where jobs are located by size class but does not explain why the particular pattern has emerged. This is a particularly important issue in the case of developing economies. The relative importance of transitory macoeconomic shocks, and the powerful 'supply push' imperatives to set up survival micro enterprises, may mean that this sector is most likely to contain transitory and marginal enterprises with unstable employment characteristics and low efficiency (Liedholm and Mead (1999) and Roberts and Tybout (1998)).

5. Growth Constraints and Persistent Growth; Some Theoretical and Empirical Reflections

To explore the characteristics of enterprises on different growth trajectories it is helpful to begin by setting out alternative theoretical approaches to the explanation of the stylised facts of business growth which were outlined earlier. The discussion emphasises the turbulence of small business growth, and the tendency for younger smaller firms to have faster growth on average than larger firms but with a greater variability of growth experience and a greater propensity to fail. The skewness of growth rates amongst smaller firms is also highlighted with only a handful of firms sustaining high growth over successive periods. In considering theoretical explanations for variations in growth performance explanations are considered based on the notion of adjustments towards minimum efficient scales of production as well as more dynamic models emphasising learning by management, and the management of transitions in organisational form and market scope which small firms make as they grow. Emphasis is placed on recent models which build in the work of Penrose (1959) in emphasising management capability and competence in explaining inter-firm variations in growth, and which highlight potential barriers to growth which are internal or external to the firm and which we seek to analyse in the remainder of

this report.

Economies of Scale, Learning and Patterns of Growth

Within models which hypothesise profit maximising behaviour on the part of businesses and postulate U-shaped cost curves and unique minimum efficient scales (m.e.s.) of production, growth represents an adjustment towards the m.e.s. Firms above m.e.s. will tend to decline and firms below m.e.s. will tend to grow. This approach predicts a negative relationship between size and growth, and growth will not be sustained unless the m.e.s. itself shifts persistently upwards. If we allow for different managerial competence in owner managed firms then a range of small firms m.e.s. sizes is possible with each equally efficiently managed at the margin of their respective managerial competence. The better managers run bigger businesses (Lucas (1978) and You (1995)).

This sort of model could in principle explain both the empirical observation in studies covering periods of one or two years that size is negatively related to employment growth, and why persistence in growth is weaker the longer the time period covered in empirical studies. It can also be used to suggest that in any sample of small firms considerable numbers may be at their m.e.s. and exhibiting no growth, whilst others may be temporarily disturbed from it, and exhibit transient growth or expansion as they adjust back towards it (Leonard (1989) and OECD (1994)). It is also possible to augment this kind of model by postulating that, in an uncertain world, firms may not start up at m.e.s., but will learn over time what their 'true' m.e.s., cost conditions and market opportunities are. As they mature they will be better able to identify transient movements away from their m.e.s. and less likely to adjust their investment and output plans in the face of shocks. Older firms will thus exhibit less frequent and less extreme transient growth adjustments than younger firms (Jovanovic (1982)). Both of these predictions are consistent with the observation of higher mean and variance of growth rates amongst

smaller, younger, firms. Neither of these approaches however suggest persistent sustained growth unless m.e.s. rises permanently.

Models based on adjustments to m.e.s. can however be augmented to deal with the empirical observation that above certain threshold sizes growth does not appear to be related to size or adjustments to m.e.s.. This may be done by an appeal to the empirical evidence on scale curves which suggests that they are not U-shaped, with a unique m.e.s., but L-shaped (Pratten (1971) and (1998) and Roberts and Tybout (1996)). This evidence also highlights the fact that there may be many sectors in which firms may achieve m.e.s. at relatively low levels of output relative to the industry and beyond which, with L-shaped scale curves, there will be no cost incentive to expand. In the UK, for example, this threshold may be as low as 8 employees (Dunne and Hughes (1994) and Oulton and Hart (1996)). There is, moreover, evidence that in the context of many manufacturing sector activities in developing economies the flat portion of the curve is attained at employment levels as low as one or two employees. (Roberts and Tybout (1998) provide a useful review.) There are of course substantial variations around this average in particular industries, and m.e.s. may be very large in relation to relevant market sizes. Moreover the institutional setting within which firms operate may through transaction cost effects alter the efficient scale (Levy (1991)). The point remains however that beyond m.e.s. growth must be explained by an appeal to factors beyond technical determinism alone (Davies and Lyons (1982), Simon and Bonini (1958) and Sutton (1997)).

The m.e.s. based models we have discussed tell us very little by themselves about which factors, other than maturity, influence the extent to which firms depart from m.e.s.; which firms recognise the need to adjust to a shifting or given m.e.s.; which make the adjustment faster than others; and finally, given L-shaped scale curves, which firms seek to expand beyond m.e.s. and exhibit persistent growth. This emphasises the need to consider motivations

beyond static cost minimisation/profit maximisation in analysing growth. It raises the question of whether small firms vary significantly in their medium term growth aspirations and in their capacity or competence to manage growth and overcome barriers to meeting growth objectives.

Motivational Issues, Management Competence and Patterns of Growth

Other things being equal an important determinant of which small firms sustain growth over the medium and longer term and make a transition to larger firm sizes is the motivation and competence of their owners/managers. There is a substantial body of survey evidence on motivation to suggest that amongst smaller businesses a relatively small proportion seek substantial or persistent growth. For socio-psychological as well as economic reasons many businesses do not seek long run growth but prefer to attain and then remain at scales of operation which permit continued family owner/management, or satisfy the desire for independence without resorting to outside equity (Hakim (1989), SBRC (1992) and Storey (1994)). Competence too is clearly an important factor in meeting whatever growth objectives are set. Following recent 'resource based' theories of the firm management competence is to be interpreted as the broad set of management capabilities which a firm has as a result of its past history experience and management development (Teece and Pisano (1994); Teece (1982); Garnsey (1995) and Foss (1993)). Management competence is then a core resource for the firm which is central to the way in which financial, labour, and other resources are utilised to meet the market opportunities and growth objectives to which the firm is being directed (Penrose (1959); Garnsey (1996); Foss (1997) and Romijn (1998)).

We may expect therefore that part of the skewness of growth rates amongst small firms reflects both motivational and competence issues and a study of growth constraints must address them.

Categories of constraints on the growth of businesses

Given a desire for sustained growth, which factors, including management competence, constrain, and which factors enhance persistent growth? This is clearly a complex problem but to help resolve it we may usefully follow the distinctions made in a major study of barriers to growth in small firms in the UK (ACOST (1990)), and consider growth constraints arising from the market environment, and constraints arising from restricted access to the internal and external resources for growth.

The Market Environment

The market environment in which the firm operates will clearly condition its growth possibilities. A given growth objective will need to take account of market conditions and, obviously, will become increasingly difficult to meet the more 'competitive' is the market environment. Much here depends on the precise market positioning of the firms (McGee (1989)). It is now well established that smaller firms, on average, perceive themselves as having relatively few competitors. Thus a recent national survey showed that 40% of firms employing less than 10 employees considered they had 4 or less competitors as did 38% of those employing between 10 and 99 workers (SBRC (1992)). Smaller firms are thus typically found to be operating in local markets and/or as "niche" producers (Bradburd and Ross (1989) and Penrose (1959)). They are, moreover, frequently dependent upon a relatively narrow range of customers. Thus in the same survey reported above it was found that around one third of the sample relied on one customer for 25% or more of their sales (SBRC (1992)). The growth prospects of smaller firms may thus be typically tied to the market fortunes of particular market segments or customers. The development of a persistent growth trajectory, which reaches beyond the scale of output required by those sectors or customers, requires a transition in market scope and marketing

strategy, which may in turn involve geographic, as well as, product diversification (Woo and Cooper (1985), Stasch and Ward (1985) and Hammermesh, et al (1978)). What appears to emerge from the existing empirical work is that faster growing firms are more likely to have made conscious decisions on market positioning to exploit their particular quality or technical advantages, and show a greater willingness to spread their product market base via product and geographical (export) diversification (see e.g. Macrae (1991); Solem and Steiner (1989); Kinsella *et al.* (1993) and Smallbone, North and Leigh (1992)). An analysis of the differential characteristics of persistent growers must therefore include an examination of market constraints and responses to them.

In doing this attention must be paid to the overall macroeconomic circumstances in which growth occurs. This not only influences which kinds of constraints may affect firms in general (e.g. high interest rates exacerbating financial constraints) but also may affect firms differentially (export oriented firms being less affected by domestic recession than those predominantly dependent on the home market). Work carried out in Cambridge as part of the regular CBR programme of SME surveys shows that the nature of reported constraints on SMEs meeting their business objectives changed substantially between 1987-90 and 1991-97. Financial constraints rated lower in the latter period as interest rates fell and increasing competition as a constraint rose in significance in the face of recession (Keeble (1996) and Cosh and Hughes (1998)).

Access to Internal and External Resources for Growth

Given a desire for persistent growth, and the market opportunities to pursue it, the achievement of growth will be influenced by the firm's ability to obtain the resources to expand its activity including those necessary for a transition away from a growth path based on a particular market niche or customer base to a wider or more diversified structure. Attempts to grow and diversify require a careful

strategy to develop the appropriate resource base. Limitations on the supply of labour, including managerial labour, finance and premises may each constrain the abilities of firms to grow, as may limited ability to access developing products and process technologies. Each of the external contraints has received major emphasis in the development of policy in a developed and a developing economy context (Levin (1997); Boomgard et al (1992); Liedhold and Mead (1999); Anderson (1982); Hallbert (1999) and Storey (1994)). A summary of these various forces is contained in Figure 5.

The emphasis here is on *firm specific* characteristics which enable these constraints to be more readily overcome and which characterise sustained fast growers. Are there generic characteristics of persistent fast growers which enable us to distinguish them from other firms either in terms of access to resources, or the management of that access? Compared to the literature on resource constraints upon small firms as a whole, the literature on their impact upon growth differentials across small firms is less well developed. Some summary conclusions are however possible.

On the finance side faster growing firms are more likely to have shared the equity in their business as part of funding growth and are less likely to report financial constraints on growth. They are also more willing to devolve management decision making to non-owner management and to recruit externally, as the internal management organisation of the firm evolves alongside its growth, (Wynarczyk *et al.* (1993); Smallbone, North and Leigh (1992); Cosh and Hughes (1996) and Hughes (1998)).

The CBR small business surveys also clearly reveal that fast growing firms are more likely than slower growers to report constraints arising from shortages of management and marketing skills and skilled labour (SBRC (1992); Keeble (1996) and Cosh and Hughes (1998)).

Much of the empirical literature in this area emphasises issues

relating to management strategy and organisation and the development of management competences. This echoes the emphasis on this in the more normative management literature (e.g. McGee (1989)). It is quite consistent with the emphasis on evolving management structures, in the Stage or Life Cycle models of business growth (Casson (1982); Scott and Bruce (1987); Greiner (1974) and Kotter and Sathe (1978)).

The role of strategic management development has also been emphasised by Reid (1993 and 1995) building on the work of Richardson (1964), and Slater (1989). An important insight here is that the recruitment of new management, given a shortage of internal resources, poses particular problems for firms because hiring 'outsiders' is more risky and integration costs may be high (Penrose (1959)). Their talents and capacity are much more uncertain from the point of view of incumbent management than are those of insiders. Moreover management requires team work. Familiarity with, and confidence in, members of a management team requires time to develop. Outsiders are inevitably at a disadvantage in this respect. In the case of small firms these generic problems of expanding management are exacerbated by the changed position of 'insiders'. Their sense of ownership and informal inter-personal links are threatened as companies move from closely held informally organised businesses to the more hierarchical and formal forms of organisation that increased organisational scale and outside equity funding often requires. Differential ability to manage these tensions may therefore be central to differing abilities to sustain growth.

A recent set of detailed UK studies utilising the framework set out in Figure 5 has been carried out (Hughes (1998)). The following conclusions emerged.

a) External supply conditions, including the provision of finance, exercised a narrowing and constraining influence on stalled and sustained growers but the latter more frequently responded by

developing their own internal resources and capabilities to achieve growth or sought access through selling onto bigger firms;
b) The internal operations of the sustained growth businesses were directed at expanding the capabilities and ambitions of, and opportunities for, their people (through training, HRD programmes, and sometimes by recruitment of the skills which cannot be grown in-house); at the same time, the internal operations were monitored and managed closely and often by use of information systems;
c) As a consequence of this release of personal ambitions within the sustained growth businesses and/or as a deliberate external strategy, the firms broadened and diversified their product and/or customer basis, but again with a disciplined specification of the market parameters within which they operated;
d) External market opportunities in sustained growers were consequently broadened, allowing for the spreading of risks;
e) Further growth was provided for by a broadening of the external supply conditions and a widening of the internal focus, providing staff with increased opportunities for personal and career development.

6. Conclusion

In interpreting the job generating role of small enterprises this report has emphasised the extreme skewness and volatility of individual small business growth patterns, and the low quality and sustainability of many of the jobs 'created' by the mass of micro enterprises. The analysis has also shown that the bulk of sustained 'job generation' in the smallest firms is accounted for by a relatively few rapid and sustained growers. This insight has been related to the emergence of heavily skewed size distributions of firms in both the developed and developing economies. The report has also pointed out that despite the resurgence of interest in the small and medium sized enterprise sectors in the developed economies, as possible exemplars for their role in developing economies, the bulk of economic activity remains highly concentrated in the hands of relatively few large producers in a

wide range of industries. Moreover export activity is if anything more concentrated in the hands of large producers.

Attention has been drawn, however, to the relatively dual nature of the size distributions of enterprises in developing compared to developed economies. The former in general sustain much longer tails of micro and informal enterprises which 'generate survival or supply push jobs most prolifically in times of macroeconomic downturn. This has led the report to emphasise the analysis of those factors which may affect the distribution of growth rates across individual small firms. In that context the report has paid particular attention to the internal factors which may encourage persistent growth, raise the proportion of micro firms making the transition into the small and medium size classes, and hence reduce the dual character of the size distribution as a whole.

This emphasis on internal and management issues should not be taken to mean that the institutional and market failures, which may inhibit small business growth generally, are unimportant. Access will be required in varying degrees to the full range of policies set out, for instance, in the ILO's recent typological exercise and shown here in table 15. The conclusion to be drawn is instead that in accessing and benefiting from this wider range of policies, management competence, and organisational design are central factors. It follows that policies designed to move towards best practice in these areas should be an essential component of enterprise development policy as whole. The variety of contexts in which governments will seek to support this sector, the past paths of enterprise development which have been followed, the availability of pools of managerial and entrepreneurial talent and the variety of legitimate objectives which will be pursued will lead to a diversity of policy initiatives across countries. There is therefore no unique 'one true way' within which individual business growth and development should be pursued.

TABLES AND FIGURES

TABLE 1

The role of SMEs in national economies

Percentages

	Number of SMEs	Employment	SME contribution to GDP
Australia <100	96.0	45.0 (1)	23.0 (1)
Belgium <500	99.7	72.0	n.a.
Canada <500 (m) <50 (s	99.8	66.0 (2)	57.2 (2)
Denmark <500	98.8	77.8	56.7
Finland <500	99.5	52.6	n.a.
France 10<500	99.9	69.0	61.8 (3)
Germany <500	99.7	65.7	34.9
Greece <500	99.5	73.8	27.1 (4)
Ireland <500	99.2	85.6 (1)	40.0
Italy <500	99.7	49.0 (1)	40.5
Japan <300	99.5	73.8 (1)	57.0 (3)
Netherlands <100	99.8	57.0	50.0
Portugal <500	99.0	79.0	66.0
Spain <500	99.5	63.7	64.3 (5)
Sweden <200	99.8	56.0 (6)	n.a.
Switzerland <500	99.0	79.3	n.a.
United Kingdom <500	99.9	67.2	30.3
United States <500	99.7	53.7	48.0

Note:
Data refer to 1991, except for Spain, Canada and Ireland (1989) Denmark (1992), Germany, Greece and Italy (1988), Japan (1992), the Netherlands and France (1990). In general the data refer to enterprises employing less than 500 workers. The exceptions are Australia 300), Netherlands (<100), Sweden (<200).
In addition for Canada the cut off point for services is 50 employees.

1. Manufacturing only
2. For Canada, percentage of private sector employment and GDP in 1993.
3. Percentage of value added.
4. Percentage of sales.
5. Percentage of value added in manufacturing.
6. Percentage of private sector employment in 1992.

Source: OECD 1997

TABLE 2

Breakdown of employment by size of establishment in OECD economies

		Percentages			
		1 - 19	20 - 99	00 - 499	500+
United States (1	1990	25.1	18.8	13.4	42.7
Japan (2)	1991	23.2	48.9	14.3	13.6
Germany	1990	18.8	26.8	16.9	37.5
France (3)	1990	28.8	20.4	16.4	34.4
Italy	1990	51.1	22.4	10.0	16.5
United Kingdom	1991	33.0	16.1	17.2	33.8
Canada (2)	1989	4.2	36.2	35.6	23.9
Belgium (4)	1991	19.0	32.0	21.0	28.0
Denmark	1990	31.3	32.9	16.2	19.5
Ireland (5)	1989	4.6	36.7	36.7	14.4
Portugal	1990	17.0	36.4	22.0	24.4
Sweden	1992	38.5	18.4	15.9	27.2
Spain	1990	43.2	26.6	12.4	17.8

Note:

1. By size of establishment (excluding agricultural establishments).
2. Manufacturing only.
3. Employees only
4. Private Sector only.
5. The total does not add up to 100% because between 7.6 and 8.9 per cent of establishments are not broken down by year.

Source:

OECD 1997; The State of Small Business; A Report to the President, US Government Printing Office, Washington, DC, 1992; Small Business in Japan, White Paper on SMEs in Japan, 1993; European Observatory for SMEs (1993), First Annual Report, 1993, EIM Zoetermeer, Netherlands.

TABLE 3

European Union enterprises in 1992: country breakdown

	No of enterprises	No of persons employe	Turnover	Share of SMEs (1) in total employment
	Thousand	Million	Billion ECU	%
EUR 15	15,777	101.02	11,636.20	66.2
Belgium	396	2.95	377.58	56.2
Denmark	163	1.41	172.96	72.5
Germany	2,420	24.13	2,865.19	59.9
Greece	1,038	1.95	n.a.	85.6
Spain	2,166	10.37	n.a.	81.1
France	1,956	14.40	1,753.88	63.4
Ireland	81	0.54	n.a.	79.3
Italy	3,243	13.49	1,695.45	78.7
Luxembourg	15	0.16	20.46	71.0
Netherlands	395	4.27	475.01	60.9
Austria	188	2.16	232.9	68.0
Portugal	626	2.95	151.38	77.5
Finland	199	1.15	137.19	56.6
Sweden	341	2.24	368.25	65.2
United Kingdo	2,549	18.85	2,189.59	57.7

Source: Enterprises in Europe: Fourth Report. Eurostat Luxembourg 1997
Note:
(1) SME: 0-249 employees.

TABLE 4

European Union Enterprises in 1992: Size Breakdown.

		Number of employees					
		0	1 - 9	10 - 49	50 - 249	250 +	All
No of enterprises	Thousand	7,846	6,783	971	146	31	15,777
Total employment	Million	9.4	23.4	19	15.1	34.2	101.1
Turnover	Billion ECU	835	2,131	2,368	2,231	4,071	11,636

Source: Enterprises in Europe: Fourth Report Eurostat Luxembourg 1997

TABLE 5

Development of real value added and employment in non-primary private enterprise by size-class, European Enterprises, 1988-1997.

	1988-1990	1990-1993	1993-1997	1988-1997
	Average annual charge in %			
Real value added				
SMEs:				
Very Small	5.0	0.5	3.0	2.5
Small	2.8	0.5	3.0	2.3
Medium sized	2.5	0.5	3.0	2.3
Total	3.5	0.5	3.0	2.5
LSEs (1)	2.8	1.0	3.5	2.5
All enterprises	3.3	0.8	3.3	2.5
Employment				
SMEs:				
Very Small	3.0	-0.5	0.3	0.5
Small	2.5	-1.3	0.5	0.3
Medium sized	2.5	-1.8	0.5	0.3
Total	2.5	-1.0	0.5	0.5
LSEs (1)	0.8	-2.0	1.0	0.0
All enterprises	2.0	-1.5	0.5	0.3

Source:
European Observatory for SMEs 1994, EIM Small Business Research and Consultancy on the basis of data from Eurostat and European Economy, Supplement A, No 12, Brussels, December 1995, and OECD: Economic Outlook, No. 58, Paris, December 1995.

Note: (1) LSE = Large Scale Enterprise

TABLE 6

European Union enterprises 1992: sectoral breakdown

	Enterprises		Employment		Turnover		Employment Share of SMEs (1)
	Thousand	%	Million	%	Billion ECU	%	%
Energy and extraction	55	0.3	2.8	2.7	691	5.9	20.4
Manufacturing industry	2,050	13.0	29.7	29.4	3,364	28.9	55.5
Construction	2,010	12.7	9.5	9.5	730	6.3	85.7
Trade and HoReCa (2)	6,353	40.3	28.3	28.0	5,021	43.1	83.3
Finance and business servic	2,407	15.3	13.4	13.3	1.032	8.9	61.6
Other services	2,901	18.4	17.3	17.1	798	6.9	56.7
All sectors	15,778	100.0	101.0	100.0	11,636	100	66.2

Source: Enterprises in Eurostat.

Note:

(1) SME: 0 to 249 employees.

(2) HoReCa = Hotels Recreation and Catering

Table 7

SME Index of Globalisation

Index	Description	Traded inputs and outputs	Establishments and affiliations	Market opportunities and competition
1	No globalisation "Domestic"	All inputs sourced from local area, all outputs sold in local area.	Single establishment, no establishments or affiliations outside local area.	No market outside local area, no potential competition from outside local area.
2				
3	Limited globalisatio "Mainly domestic"	< 10% of inputs sourced across borde and < 10% revenue from across bord usually within a limited span of nations.	At least one establishment, or affiliate o local area or outside national area.	Barriers to entry to outside markets and to local market (for competitors) are significant and amount to more than 50% of costs.
4				
5	Major globalisation "Internationalised"	>10% but <40% of inputs sourced internationally, and > 10% but <40% revenue form across borders, usually two major international regions.	Establishments or close affiliates in at le different nations and in two major intern regions (e.g. Europe, North America, As	Barriers to entry are noticeable, and make up to 10% of cost disadvantage, but can be overcome fairly easily.
6				
7	Extensive "Globalis	> 40% of inputs sourced internationall > 40% of revenue from outputs traded borders, across all major international regions.	Establishments or close affiliates in at le country in all three major international re	Barriers to entry to international markets are not a significant impediment for firm or competitors, make up less than 5% of cost of disadvantage.
8				
9				
10	Complete "Fully globalised"	Majority of inputs of any establishme sourced across borders, large majorit output traded across borders.	Multiple establishments or affiliates in m countries and in all major international r	Markets in all major international regions, competition likely to be present or come from any international region.

Source OCED 1997

TABLE 8

The extent of SME globalisation in the OECD economies.

Insulated	Limited	Major	Extensive	Fully globalised
	Exposed to global competitive pressures in some degree.	>10 % but < 40% of turnover from international activity, usually in two or three countries.	Over 40% of turnover from global activity in more than two continents and five countries.	Extensive presence in global markets.
1 2	3 4	5 6	7 8	9 10
About 40% of SMEs are presently insulated from global pressures.	Bulk of SMEs increasingly subject to some global pressures.	About 10-20% of manufacturing SMEs compete internationally, as do 2-3% of other SMEs. About 300,000 to 600,000 SMEs.	About 5-10% of manufacturing SMEs in global competition, as are about 1% of other SMEs.About 150,000 to 300,000 SME's.	Less than 1% of SMEs mostly in globalised or high-tech industries. About 30,000 to 40,000 SMEs.

Source: OECD 1997

TABLE 9

Estimated number of globalised SMEs in OECD economies 1991-92

	Manufacturing	Services (1)	Approximate number of known ISMEs (2)	Approximate number of globalised SMEs (3)	Percentage of globalised SMEs	Percentage of Direct Exports from SME's	Employment Size Cut Off
Australia	46,000	485,000	4,500	500	1.0	n.a.	-
Belgium	49,000	144,000	40,000	3,400	7.0	n.a.	-
Canada	54,000	755,000	10,000	1,000	2.0	n.a.	-
Denmark	38,000	250,000		1,100	2.4	46.0 *	(<500)
Finland	6,000	120,000	6,000	60	1.0	23.0 *	(<500)
France	267,000	2,023,000		3,000	1.0	26.0 *	(<500)
Germany	418,000	1,083,000		4,000	1.0	n.a.	(<500)
Greece	8,000	6,000		80	1.0	19.0	-
Ireland	5,000	8,000	1,250	50	1.0	n.a.	(<500)
Italy	527,000	640,000	250,000	8,000	1.5	52.7	(<300)
Japan	856,000	5,600,000	214,000	6,000	<1.0	13.5	(<100)
Netherlands	27,000	52,000	50,000	270	1.0	26.0	-
Portugal	14,000	16,000		100	<1.0	n.a.	-
Spain	229,000	1,563,000	73,000	1,000	<1.0	n.a.	(<200)
Sweden	43,000	187,000	48,000	400	1.0	36.0	(<500)
Switzerland	72,000	209,000	11,000	700	1.0	40.0	-
United Kingdom	251,000	2,189,000	92,000	6,200	2.5	n.a.	(<500)
United States	322,000	4,500,000	100,000	3,220	1.0	11.0	-
Total OECD	3,232,000	19,830,000	899,750	39080.0	approx. 1.0	-	-

Note:
Data generally refer to 1991-92. The SME definition for each country is given in Table 1.
1. Services include all non-agricultural, non-mining, and non-manufacturing activities.
2. ISMEs refer to SMEs consistently engaged in international activity such as exporting.
3. Globalised SMEs are extensively or fully globalised, as defined in Table 7.
* Manufacturing only.

Source: OECD 1997.

TABLE 10

Export/ Turnover Ratios by size of Firm: France 1990

Employment Size Class	Average Export Ratio * %	Export Ratio of Exporting Firms %
20-49	10.0	26.7
50-99	15.1	28.0
100-199	20.2	30.9
200-499	22.8	30.2
All SME's	17.7	-
500-1999	29.3	
> 1999	39.1	34.6
All LSE's **	35.4	-
All Firms	28.3	36.2

Note: * Includes firms with zero exports
** Includes large scale enterprises

Source: OECD 1997, Volume 2, p113.

TABLE 11

Export / Turnover Ratios by Size of Firm: Spain 1991

Employment Size Class of Firm	Average Export Ratio*	Export Ratio for Exporting Firms
<20	3.30	17.7
21-50	7.20	20.7
51-100	11.0	22.4
101-200	15.9	22.9
201-500	17.1	20.5
>500	19.8	22.4

Note: * Includes firms with zero exports

Source: OECD 1997 Vol. 2 p238

TABLE 12

Export to Turnover Ratios for UK SMEs by Size of Firm 1990-1995

	Median export to turnover ratio (exporters only)		export/turnover ratio (exporters in both years only)
	1990 %	1995 %	1990-1995 %
Micro(<10)	16.7	20.0	0.99
Small(10<100)	9.7	11.8	1.66 **
Medium(100<200)	10.0	17.5	2.87 *
Larger(200<500)	18.0	23.2	3.52 **
All (%)	11.8	16.0	1.77 **
Total Responses (n	254	293	195

Note: * Significantly different from zero at 10% level
** Significantly different from zero at 5% level

Source: Cosh and Hughes (1996)

Table 13

Net Job "Creation" by Business Size Class: Average Annual Rates as a Percent of Total Employment

		Establishment Size				
		Total	1-19	20-99	100-499	500 +
Canada	1983-1991	2.6	2.2	0.6	0.1	-0.3
France	1987-1992	0.9	0.4	0.4	0.3	-0.2
Italy*	1984-1992	1.3	1.5	-0.2	-0.2	-0.5
Sweden	1985-1991	1.3	2.6	-0.2	-0.5	-0.6
United Kingdom	1987-1991	2.7	1.6	0.4	0.3	0.4

* Sum of size categories does not equal total as firms temporarily operating with 0 employees are not classified according to size for the period 1986-1992.

Source : OECD (1994)

Table 14

Growth and Death by Employment Size Class in a Sample of UK Manufacturing and Business Service Firms 1990-95

			Number of Firms 1995 Employment Size											
1990 Empl. Size	1990 Total Empl.	1990 No of Firms	0-9	10-19	20-49	50-99	100-199	200-499	499+	Total Alive	Total Dead	Death Rate	Total Empl. Dead	% Empl. Loss
0-9	2,056	376	186	51	4	1	1	1	-	244	132	35.1	674	32.8
10-19	3,525	258	43	104	39	2	-	-	-	188	70	27.1	937	26.6
20-49	8,615	281	6	27	137	31	2	-	1	204	77	27.4	2,479	28.8
50-99	14,316	206	-	2	35	85	27	5	2	156	50	24.3	3,424	23.9
100-199	14,950	115	-	3	2	18	61	11	1	96	19	16.5	2,340	15.7
200-499	26,706	93	-	-	-	2	13	56	5	76	17	18.3	4,638	17.4
Total	70,168	1,329											14,492	20.7
1995 Tota Number of Firms			235	187	217	139	104	73	9	964	365	27.5		
1995 Tota Employme			1,260	2,578	6,716	9,717	13,679	21,579	6,310	61,839				

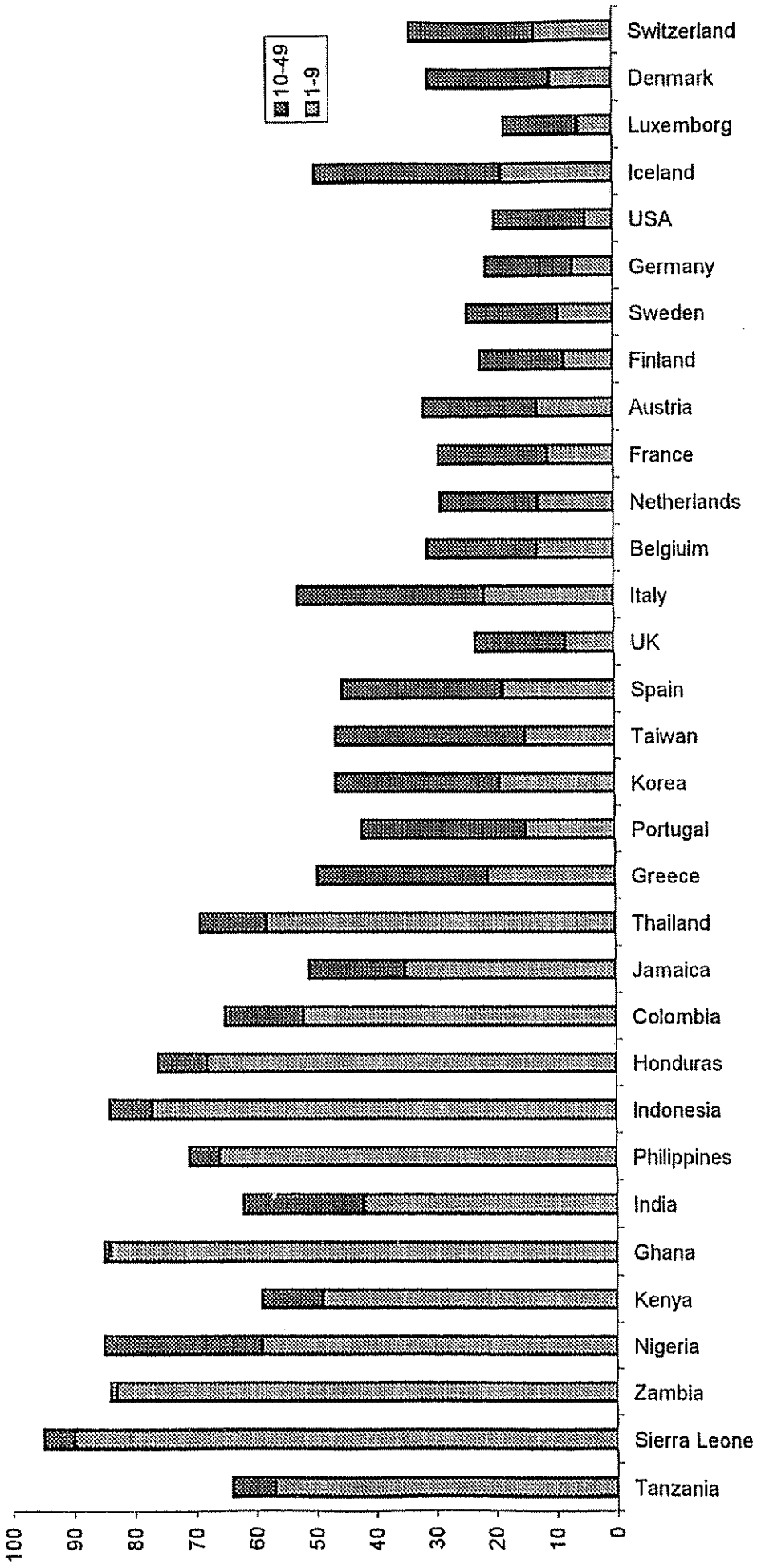
Source: Cosh, Duncan and Hughes 1996a

Table 15 A Typology of SME Support Policies

Level of intervention	Major types of intervention to support enterprise-based job creation
Business environment [Macro]	. Promotion of a conducive policy and regulatory environment for small and medium-sized enterprises . Stimulation of an enterprise culture . Promotion of national tripartite frameworks for productivity and competitiveness improvements . Design of national strategies for small enterprise development . Reform of co-operative policy and legislation . Advice to central banks to improve the regulatory framework for improved access to credit and finance
Service delivery capacity [Meso]	. Development of effective support service intermediaries, including tripartite productivity centres . Capacity-building for employer's, workers' and similar organizations . Promotion of business linkages . Human resource development and the promotion of co-operative efficiency . Development of effective financial retail agents . Development of SME credit windows in commercial banks . Support for associations of savings and credit co-operatives
Business development services [Micro]	. Training for business start-up and expansion . Entrepreneurship, productivity and management development . Identification of business opportunities . Facilitation of access by co-operatives to markets and export opportunities . Development of credit guarantee systems . Design of micro-finance for self-employment schemes
Others	. Promotion of access to social protection and services for self-employed and small enterprises . Improvement of working conditions in small enterprises . Development of co-operatives for indigenous peoples

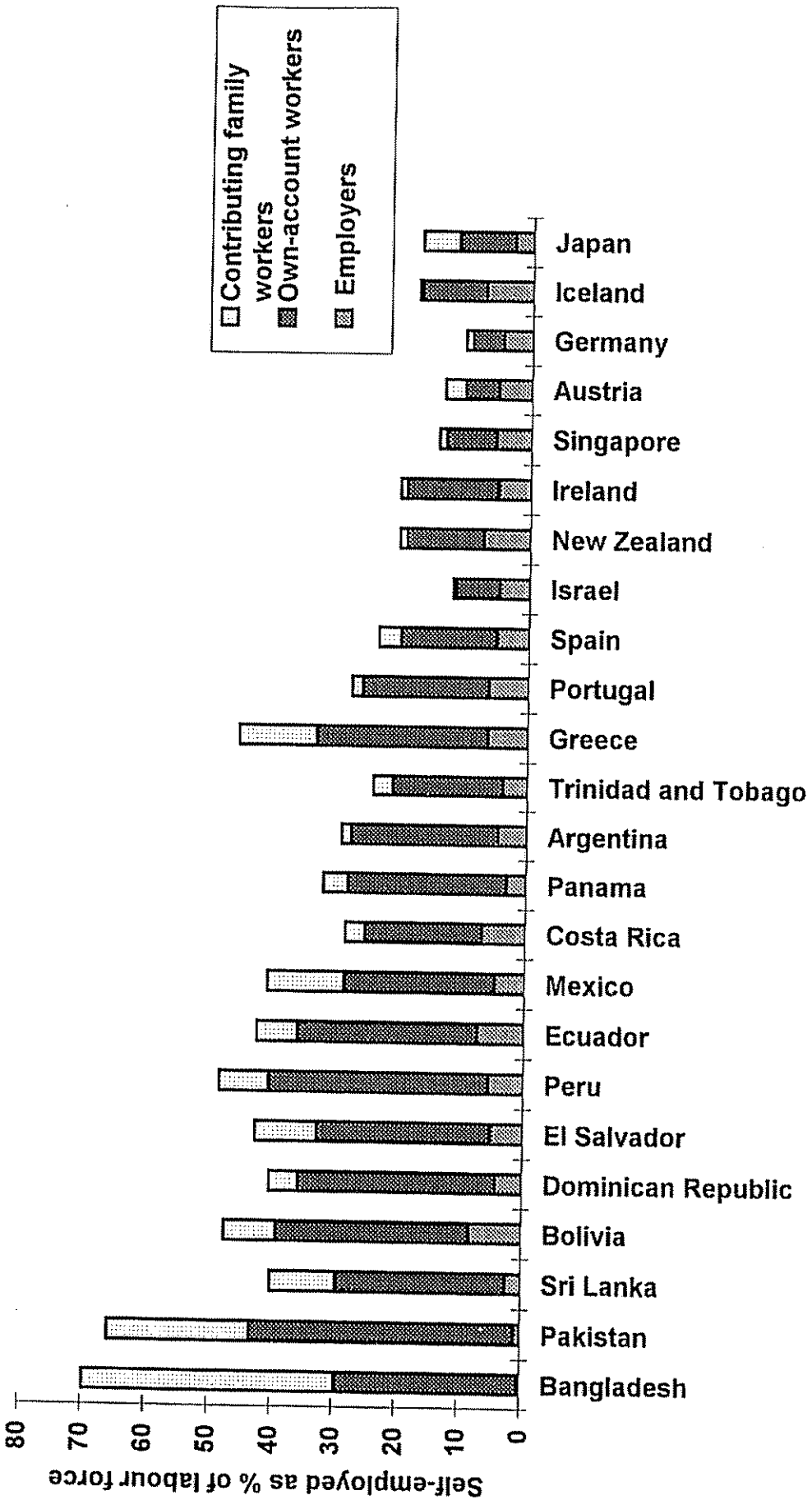
Source [International Labour Organization (1999)]

Figure 1 - The Share of Employment in Industry in Micro and Small Enterprises



Source: Enterprises in Europe: Firth Edition Eurostat 1998, ILO (1998); Tybout (1998); Abe and Kawakami (1997)

Figure 2 - Micro-Enterprises with no Employees as percentage of labour force, 1996



Source: Calculated from ILO (1998) Tables 1, pp214ff and Table5, p 227

Figure 3: "Accounting" for Net Job "Creation"

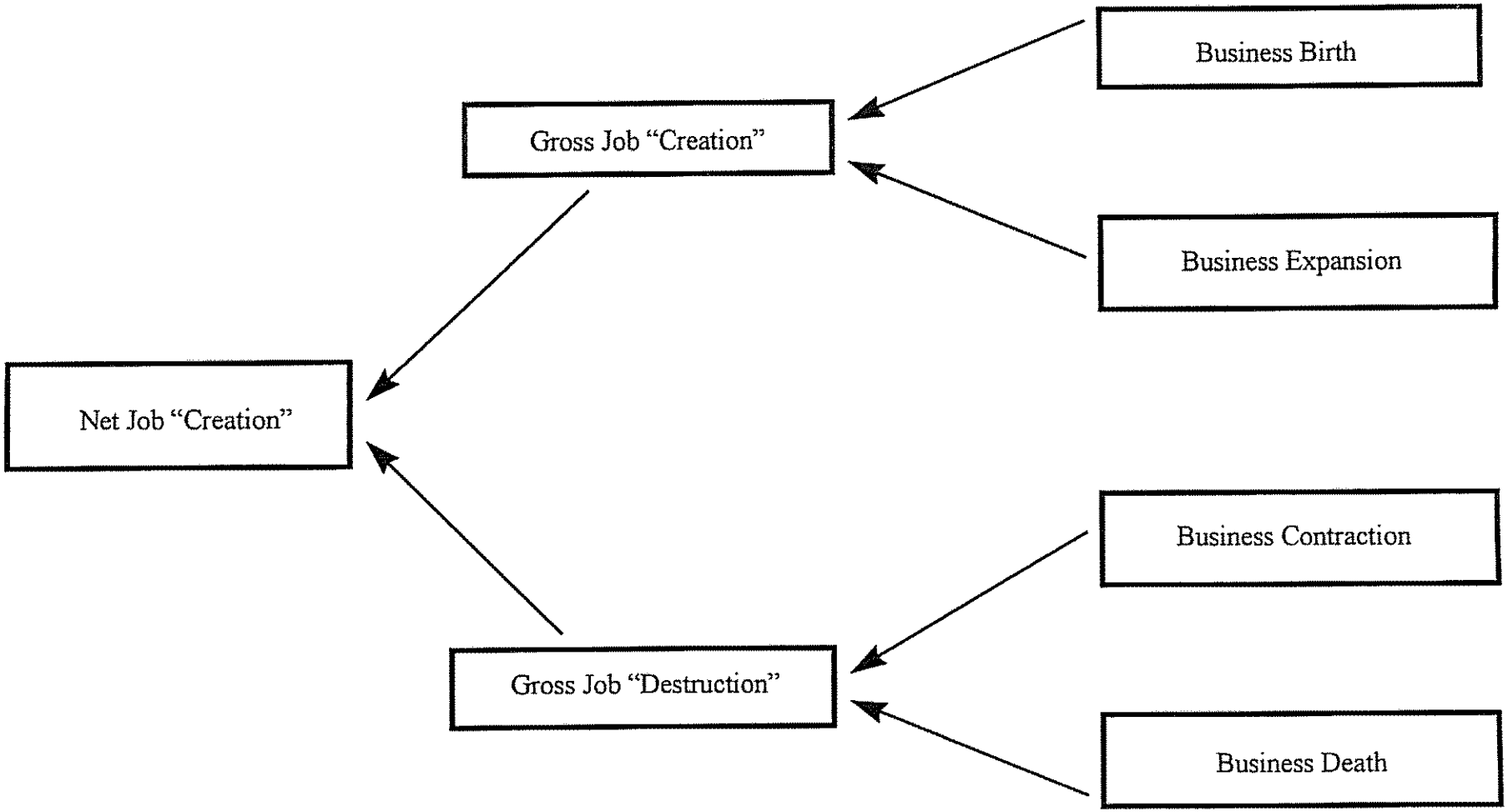
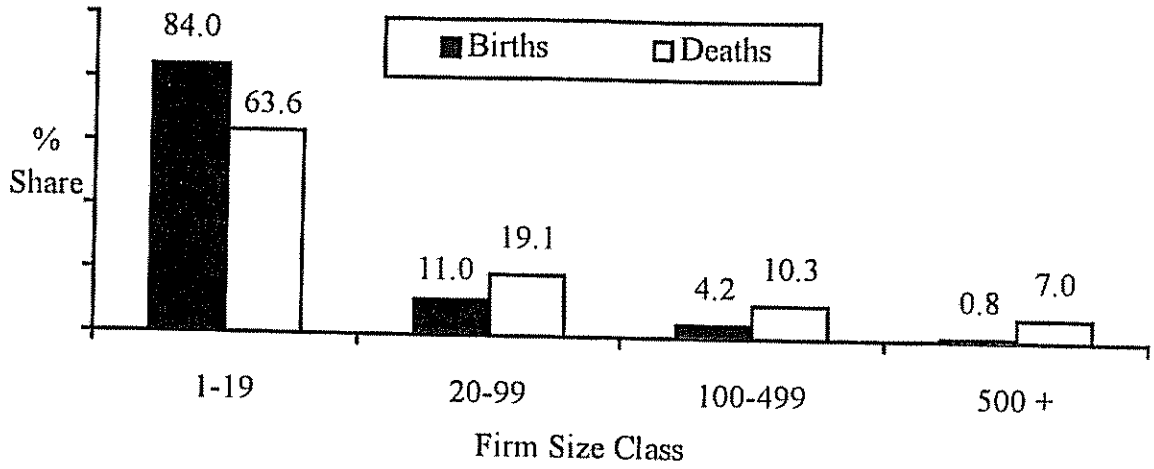
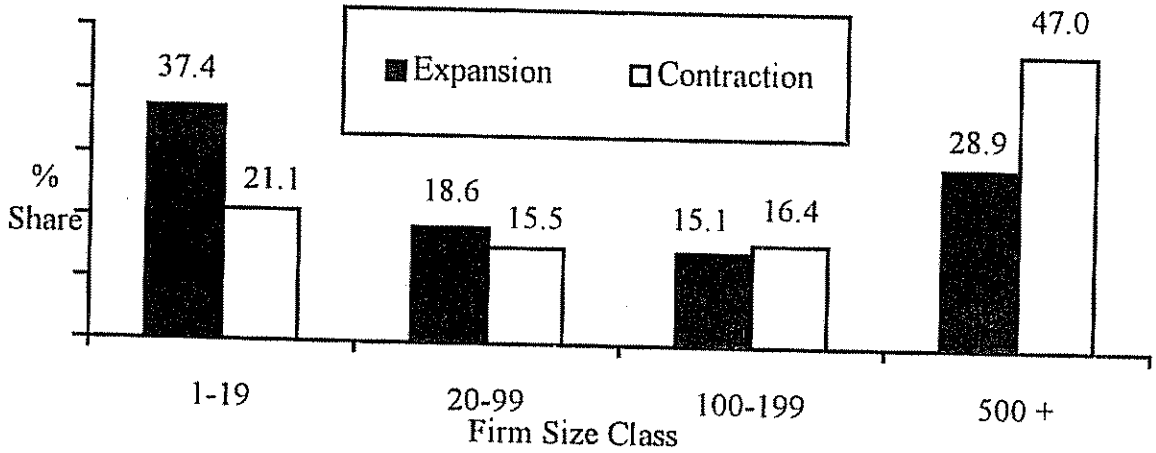


Figure 4: The Percentage Distribution, by Size of Business, of the Components of Job Creation and Destruction in the UK 1987-91

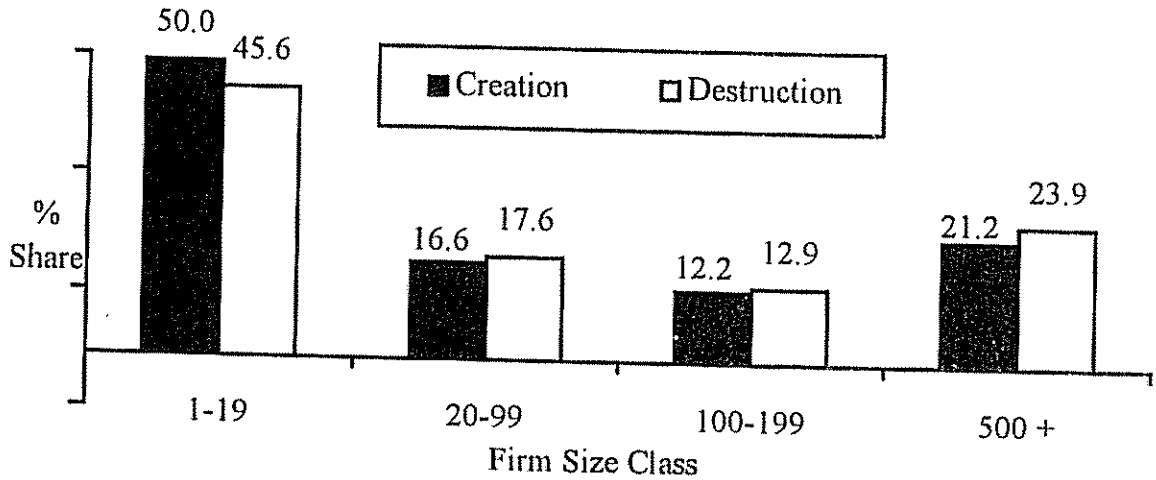
(a) Births and Deaths



(b) Expansions and Contractions

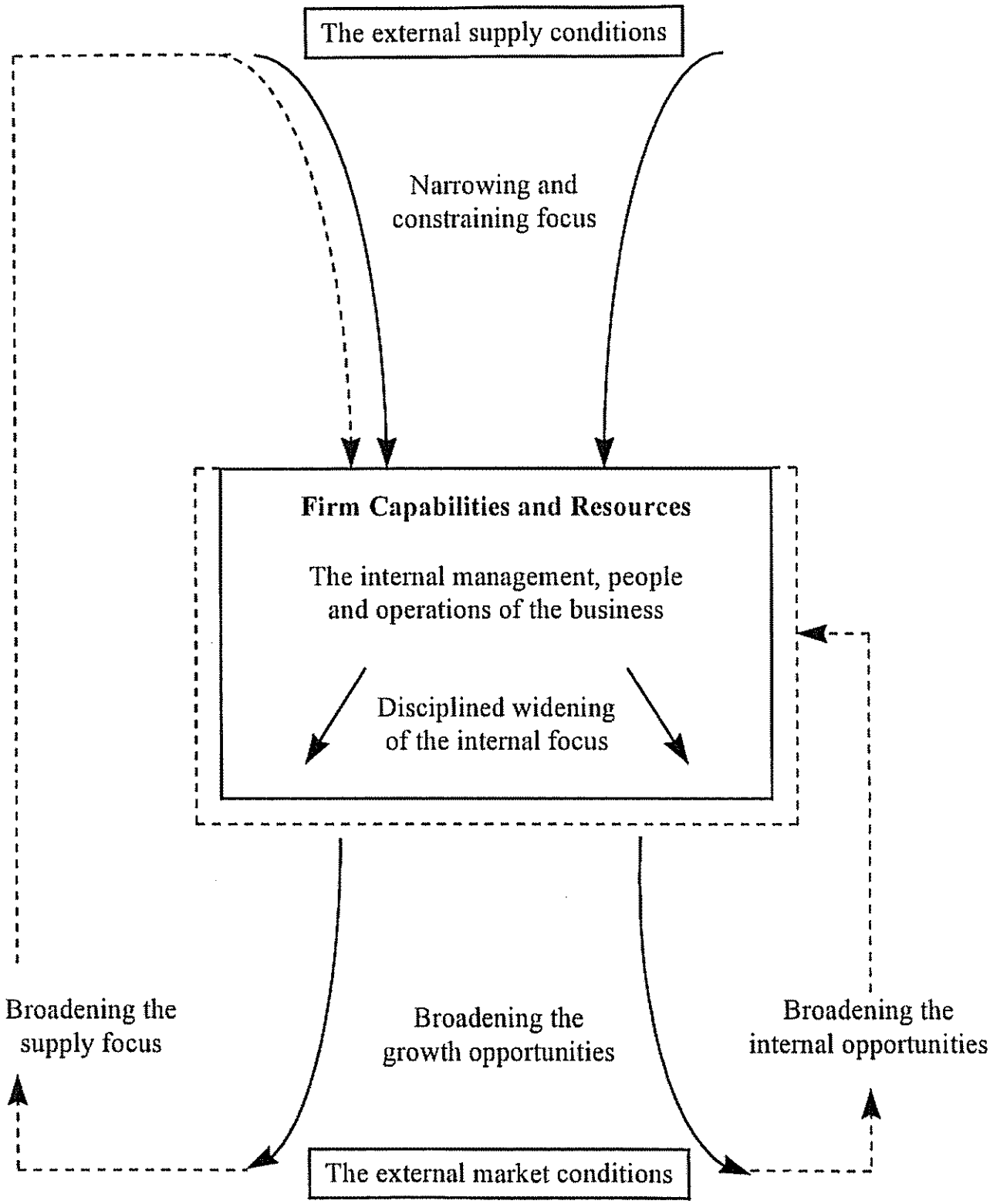


(c) Gross Job Creation and Destruction



Source: OECD (1994)

Figure 5: The Conditions for Sustained Growth



References

Abe, M and Kawakami, M (1997) 'A Distributive Comparison of Enterprise Size in Korea and Taiwan', *The Developing Economies* Vol XXXV-4, December, pp. 382-400

ACOST (Advisory Council on Science and Technology) (1990) *The Enterprise Challenge: Overcoming Barriers to Growth in Small Firms*, HMSO, London.

Acs, Z.J., Audretsch, D.B. (1993) *Small Firms and Enterpreneurship: An East West Perpective*, Cambridge University Press, Cambridge

Anderson, D. (1982) 'Small Industry in Developing Countries: A Discussion of Issues', *World Development*, vol. 10, no. 11, pp. 913-48.

Atkinson, J. and Meager, N. (1994) 'Running to Stand Still: The Small Business in The Labour Market' in Atkinson, J. and Storey, D.J. (eds) Employment, the Small Firm and the Labour Market, Routledge, London.

Audretsch, D. B., (1995) *Innovation and Industry Evolution*, The MIT Press Cambridge and London

Aw, B-Y, Chen, X., and Roberts, M. (undated) 'Firm-Level Evidence on Productivity Differentials, Turnover, and Exports in Taiwanese Manufacturing' mimeo Pennslvania State University (cited in Tybout (1998))

Banerji, R. (1978) 'Small-Scale Production Units in Manufacturing: An International Cross-Section Overview', *Weltwirtschaftsliches Archiv*, vol. 144, no. 1, pp. 62-84.

Berry, R. A. (1992) 'Firm (on Plant) Size in the Analysis of Trade and Development' in Helleiner, G. K. (ed) (1992) *Trade Policy, Industrialisation and Development*, Clarendon Press, Oxford.

Birch, D. L. (1987) *Job Creation in America: How our Smallest Companies Put the Most People to Work*, The Free Press, New York

Bolton, J. E. (1971) *Report on the Committee of Enquiry on Small Firms*, Cmnd. 4811, HMSO, London.

Boomgard, J., Davies, S., Haggblade, S. and Mead, D. C. (1992) 'A Subsector Approach to Small Enterprise Promotion and Research', *World Development*, vol. 20, no. 2, pp. 199-212.

Bradburd, R. M. and Ross, D. R. (1989) 'Can Small Firms Find and Defend Strategic Niches? A Test of the Porter Hypothesis', *Review of Economics and Statistics,* Vol. LXXI, May, No. 2, pp.258-62.

Brown, C., Hamilton, J. and Medoff, J. (1996) *Employers Large and Small*, Harvard University Press, Cambridge, Mass.

Casson, M. (1982) *The Entrepreneur: An Economic Theory,* Martin Robertson, Oxford.

Cortes, M., Berry, A. and Ishaq, A. (1985) *Success in Small and Medium-Scale Enterprises: The Evidence from Columbia*, A World Bank Research Publication, Oxford University Press, New York.

Cosh, A. D., Duncan, J. and Hughes, A. (1996) 'Age, Size, Survival and Employment Growth' in Cosh, A. D. and Hughes, A. (eds.) *The Changing State of British Enterprise: Growth Innovation and Competitive Advantage in Small and Medium Sized Firms*

1986-95, ESRC Centre for Business Research, University of Cambridge.

Cosh, A. D., Duncan, J. and Hughes, A. (1996a) 'Age, Size, Survival and Employment Growth', in Cosh, A. D. and Hughes, A. (eds.) *The Changing State of British Enterprise: Growth Innovation and Competitive Advantage in Small and Medium Sized Firms 1986-95*, ESRC Centre for Business Research, University of Cambridge.

Cosh, A. D., Duncan, J. and Hughes, A. (1996b) 'Growth and the Smaller Firm: Lessons for Size Class Measurement in the Job Creation Debate' presentation to World Bank, November 1996, mimeo, ESRC Centre for Business Research, University of Cambridge

Cosh, A. D. and Hughes, A. (1994) 'Acquisition in the Small Business Sector' in A. Hughes and D. J. Storey (eds.) Finance and the Small Firm, Routledge, London, 1994.

Cosh, A. D. and Hughes, A. (1994) 'Size, Growth and Profitability' in Hughes, A. and Storey, D. J. (eds.) *Finance and the Small Firm*, Routledge, London.

Cosh, A. D. and Hughes, A. (eds.) (1998) *Enterprise Britain: Growth Innovation and Public Policy in the Small and Medium Sized Enterprise Sector 1994-7*, ESRC Centre for Business Research, University of Cambridge.

Cosh, A. D. and Hughes, A. (eds.) (1996) *The Changing State of British Enterprise: Growth Innovation and Competitive Advantage in Small and Medium Sized Firms 1986-95*, ESRC Centre for Business Research, University of Cambridge.

Cosh, A., Hughes, A., and Wood, E. (1997) 'Innovation in UK SMEs: Causes and Consequences for firm failure and acquisition' in Acs, Z., Carlsson, B. (eds), *Entrepreneurship, SMEs and the Macro Economy*, forthcoming Cambridge University Press. Also available as ESRC Centre for Business Research Working Paper No. 48.

Cosh, A. D., Hughes, A., Lee, H. and Pudney, S. E. (1996) 'Semi-Parametric Estimation of the Company Growth-Size Relation', ESRC Centre for Business Research Working Paper No.32, Department of Applied Economics, University of Cambridge.

Curran, J. (1991) 'Employment and Employment Relations' in Stanworth, J. and Gray, C. (eds.) *Bolton 20 Years On: The Small Firm in the 1990s*, Paul Chapman Publishing, London.

Curran, J. and Burrows, R. (1988a) *Enterprise in Britain: A National Profile of Small Business Owners and the Self Employed*, Small Business Research Trust, London.

Curran, J. and Burrows, R. (1988b) 'Small Business Owners and the Self Employed in Britain: A Secondary Analysis of the General Household Survey, 1979-84', report for the Economic and Social Research Council

Curran, J., Blackburn, R. and Woods, A. (1991) 'Profiles of the Small Enterprise in the Service Sector', paper presented at the ESRC Small Firms Initiative Conference, Warwick University April 18, 1991.

Curran, J., Kitching, J., Abbott, B. and Mills, V. (1993) 'Employment and Employment Relations in the Small Service Sector Enterprise - A Report' ESRC Centre for Research on Small Service Sector Enterprises, Kingston Business School.

Davies, S., Mead, D. C. and Seale, J. L. (1992) 'Small Manufacturing Enterprises in Egypt', *Economic Development and Cultural Change*, vol. 40, no. 2, January.

Davies, S. W. and Lyons, B. R. (1982) 'Seller Concentration: The Technological Explanation and Demand Uncertainty', *Economic Journal*, 92, pp. 903-919.

Davis, S., Haltiwanger, J. and Schuh, S. (1996) 'Small Business and Job Creation: Dissecting the Myth and Reassessing the Facts', *Small Business Economics*, Vol. 8, No. 4, pp. 297-315

de Soto, H. (1989) *The Other Path*, I. B. Tauris and Co Ltd, London.

DTI (1997) 'Growth Constraints on Small and Medium Sized Firms', a report prepared by Alan Hughes on behalf of ESRC Centre for Business Research and PACEC for the Department of Trade and Industry, April.

Dunne, J. P. and Hughes, A. (1992) 'The Changing Structure of Competitive Industry in the 1980s' in Dunne, J.P. and Driver, C. (eds) 'Structural Change in the Economy', Department of Applied Economics, Occasional Paper 58, Cambridge University Press.

Dunne, J. P. and Hughes, A. (1994), 'Age, Size, Growth and survival: UK Companies in the 1980s', *The Journal of Industrial Economics*, Volume, XLII, June, No. 2, p. 115.

Dunne, T., Roberts, M. and Sammelson, L. (1989) 'The Growth and Failure of US Manufacturing Plants', *Quarterly Journal of Economics* Nov. Vol 104 (4), pp. 495-515.

EC (1994), 'Competition and Integration: Community Merger Control Policy', European Economy No. 57, Table 10, p. 31.

Eurostat (1996) *Enterprises in Europe : Fourth Report*, Eurostat/DG XXIII Brussels/Luxembourg.

Foss, N. J. (1993) 'The Theory of the Firm: Contractual and Competitive Perspectives', *Journal of Evolutionary Economics*, Vol. 3, pp. 127-144.

Foss, N. J. (1997) *Resources and Strategy: A Reader*, Oxford University Press, Oxford.

Garnsey, E. (1995) 'The Resource Based Theory of the Growth of the Firm: A Systems Perspective' in Ellis, K., et al (eds.) *Critical Issues in Systems Theory and Practice*, Plenum Press, New York and London.

Garnsey, E. (1996) 'A Theory of the Early Growth of the Firm', *Research Papers in Management Studies*, No. 1, 1995-96, University of Cambridge.

Geroski, P. A. (1995) 'Innovation and Competitive Advantage', OECD Economics Department, Working Paper No. 159.

Geroski, P. A. and Pomroy, R. (1990) 'Innovation and the Evolution of Market Structure', *Journal of Industrial Economics*, 38, pp. 299-314

Goedhuys, M and Sleeuwaegen, L., (1999) 'Barriers to Growth of Firms in developing countries: evidence from Burundi' in Audretsch, D.B., and Thurik, R., (eds.) *Innovation, Industry Evolution, and Employment,* Cambridge, Cambridge University Press .

Greiner, L. (1974) 'Evolution and Revolution as Organisations Grow', *Harvard Business Review*, July - August, pp. 37-46.

Grierson, J., Mead, D. C. and Moyo, S. (1997) 'Business Linkages in Zimbabwe: Helping to Shape "Win-Win" Economic Structures', *Development in Practice*, vol. 7, no. 3, pp. 304-7.

Hakim, C. (1989) 'Identifying Fast Growth Small Firms', *Employment Gazette*, January, pp.29-41.

Hallberg, K. (1999) 'Small and Medium Scale Enterprises: A Framework for Intervention' Working Paper Small Enterprise Unit, Private Sector Development Department, The World Bank, May.

Hammermesh, R. G., Anderson, M.J. and Harris, E.J. (1978) 'Strategies for Low Market Share Businesses', *Harvard Business Review*, Sept-Oct, pp. 161-168.

Hart, P. E. and Oulton, N. (1996) 'Growth and Size of Firm', *Economic Journal*, September, pp. 1242-1252.

Helleiner, G. K. (ed) (1992) *Trade Policy Industrialisation and Development*, Clarendon Press, Oxford.

Hoselitz, B. F. (1959) 'Small Industry in Under-Developed Countries', *Journal of Economic History*, vol. XIX, no. 4, pp. 600-18.

Hoselitz, B. F., (1959) 'Small Industry in Developing Countries' *Journal of Economic History*, Vol. XIX, No 4, pp. 600-618.

Hughes, A. (1998) 'Growth Constraints on Small and Medium Sized Firms' Working Paper 107, ESRC Centre for Business Research, University of Cambridge.

ILO (1997) Informa: Panorama Laboral 1997 Lima.

ILO (1998) World Employment Report 1998-9: Employability in the Global Economy - How Training Matters International Labour Organization Geneva.

Jovanovic, B. (1982) 'Selection and the Evolution of Industry', *Econometrica,* Vol. 50, pp.649-70.

Keeble, D. (1996) 'Growth Objectives and Constraints' in Cosh, A. D. and Hughes, A. (eds.) *The Changing State of British Enterprise: Growth Innovation and Competitive Advantage in Small and Medium Sized Firms 1986-95*, ESRC Centre for Business Research, University of Cambridge.

Kinsella, R. P., Clarke, W., Coyne, D., Mulvena, D. and Storey, D. J. (1993) *Fast Growth Firms and Selectivity*, Irish Management Institute, Dublin.

Kitson, M. and Wilkinson, S. F. (1996) 'Workforce and Skill Compositions' in Cosh, A. D. and Hughes, A. (eds.) (1996) *The Changing State of British Enterprise: Growth Innovation and Competitive Advantage in Small and Medium Sized Firms 1986-95*, ESRC Centre for Business Research, University of Cambridge.

Kotter, J. and Sathe, J. (1978) 'Human Resource Problems in Rapidly Growing Companies', *California Journal of Management*, Vol. 21, No. 2, pp. 29-36.

Lee, N. (1992) 'Market Structure and Trade in the Developing Economies' in Helleiner, G. K.,(ed.), *Trade Policy, Industrialization and Development: New Perspectives,* Clarendon Press Oxford .

Leff, N. H. (1979) 'Entrepreneurship and Development: The Problem Revisited', *Journal of Economic Literature*, March.

Leonard, J. (1989) 'In the Wrong Place at the Wrong Time: The Extent of Frictional and Structural Unemployment' in Land, K. and Leonard, J. (eds.) *Unemployment and the Structure of Labour Markets,* Basil Blackwell, Oxford.

Leonard, J. S. (1986) 'On the Size Distribution of Employment and Establishments' NBER Working Paper No. 1951.

Levine, R. (1997) 'Financial Development and Economic Growth: Views and Agenda', *Journal of Economic Literature*, Vol 35, No.2 June pp.688-726.

Levy, B., (1991) 'Transaction costs, the size of firms and industrial policy: Lessons from a comparative case study of the footwear industry in Korea and Taiwan', *Journal of Development Economics* Vol 34 pp.151-78.

Liedholm, C. and Mead, D.C. (1999) *Small Enterprises and Economic Development: The dynamics of micro and small enterprises,* Routledge, London and New York.

Liedholm, C., McPherson, M. and Chuta, E. (1994) 'Small Enterprise Employment Growth in Rural Africa', *American Journal of Agricultural Economics*, December, pp. 1177-82.

Little, I. M. D., Macumdar, D. and Page, J. M. Jr (1987) *Small Manufacturing Enterprises: A Comparative Analysis of India and Other Economies,* World Bank, Oxford University Press, Oxford.

Lucas, R. E. (1978) 'On the Size Distribution of Business firms', *Bell Journal of Economics*, Vol. 9, pp. 508-523.

Lyons, B. C., and Matraves, C. (1995) 'Industrial Concentration and Endogenous Sunk Costs in the European Union' University of East Anglia Working Paper.

Macrae, D. J. R. (1991) 'Characteristics of High and Low Growth Small and Medium Sized Businesses', paper presented at 21st European Small Business Seminar, Barcelona, Spain.

McCormick, D. and Pedersen, P. O. (eds) (1996) *Small Enterprises: Flexibility and Networking in an African Context*, Longhorn, Nairobi, Kenya.

McGee, J. (1989) 'Barriers to Growth: The Effects of Market Structure' in Barber, J., Metcalfe, J.S. and Porteous, M. (eds.) *Barriers to Growth in Small Firms*, Routledge, London.

McPherson, M. A. (1995) 'Growth and Small Enterprises in Southern Africa', *Journal of Development Economics*, October.

Mead, D. C. (1992) 'Microenterprise Development in a Subsector Context', *Small Enterprise Development*, vol. III, no. 1, pp. 35-42.

Mead, D. C. (1994a) 'The Contribution of Small Enterprises to Employment Growth in Southern and Eastern Africa', *World Development*, vol. 22, no. 12, pp. 1881-94.

Mead, D. C. (1994b) 'The Legal Regulatory and Tax Framework and Small Enterprises', *Small Enterprise Development*, vol. V, no. 2, pp. 10-17.

Nadvi, K. and Schmitz, H. (1999) 'Industrial Clusters in Developing Countries', *World Development Special Issue*, Vol. 27, No. 9. pp. 1503-1735.

OECD (1994) *Employment Outlook* July, OECD, Paris.

OECD (1997) *Globalization and Small and Medium Sized Enterprises*, 2 vols, Paris OCED 1997.

Otero, M. and Rhyne, E. (1994) *The New World of Microenterprise Finance: Building Healthy Financial Institutions for the Poor*, The Kumarian Press, West Hartford, CN.

Parker, R. L., Riopelle, R. I. and Steel, W. F. (1995) *Small Enterprise Adjusting to Liberalization in Five African Countries*, World Bank Discussion Paper No. 271, Africa Technical Department Series, Washington DC.

Penrose, E. T. (1959) The Theory of the Growth of the Firm, Basil Blackwell, London.

Pratten, C. F. (1971) *Economies of Scale in Manufacturing Industry*, Cambridge University Press, Cambridge.

Pratten, C. F. (1988) 'A Survey of the Economics of Scale', *Research on the Cost of Non-Europe*, Vol 2, Basic Finding, Brussels Commission of the European Communities.

Reardon, T., Crawford, E. and Kelly, V. (1994) 'Links Between Nonfarm Income and Farm Investment in African Households', *American Journal of Agricultural Economics*, December, 1172-6.

Reid, G. C. (1993) *Small Business Enterprise: An Economic Analysis*, Routledge, London.

Reid, G. C. (1995) 'Early Life-Cycle Behaviour of Micro Firms in Scotland', *Small Business Economics*, No. 7 pp. 89-95.

Richardson, G. B. (1964) 'The Limits to a Firm's Rate of Growth', *Oxford Economic Papers*, Vol. 16, No. 1, March, pp. 9-23.

Roberts, M. and Tybout, J. (1996) *Industrial Evolution in Developing Countries: Micro Patterns of Turnover, Productivity, and Market Structure,* Oxford University Press Oxford and New York .

Robson, G. B. (1996) 'Unravelling the Facts about Job Generation' Small Business Economics, Vol. 8, pp. 409-417.

Robson, G. B. and Gallagher, C. (1994) 'Change in the Size Distribution of UK Firms', *Small Business Economics*, Vol. 6, No. 4, pp. 299-312.

Romijn, H. (1998) 'Technology Support for Small Industries in Developing Countries: From "Supply-Push" to "Eightfold-C", Working Paper No. 21, Queens Elizabeth House, Oxford, October pp. 33.

SBRC (1992) *The State of British Enterprise: Growth Innovation and Competitive Advantage in Small and Medium Sized Firms*, Small Business Research Centre, University of Cambridge.

Schmalensee, R. (1989) 'Inter-Industry Studies of Structure and Performance' in Schmalensee, R. and Willig, R. (eds.) *Handbook of Industrial Organisation,* Vol. 2, North-Holland, Amsterdam.

Schmitz, H. (1995) 'Collective Efficiency: Growth Path for Small Scale Industry', *Journal of Development Studies*, vol. 31, no. 4, pp. 529-66.

Scott, M. and Bruce, R. (1987) 'Five Stages of Growth in Small

Businesses', *Long Range Planning*, Vol. 20, No. 3, pp. 45-52.

Scott, M., Roberts, I., Holroyd, G. and Sawbridge, G. (1989) 'Management and Industrial Relations in Small Firms', Research Paper No. 70, Department of Employment, London.

Sengenberger, W., Loreman, G. W., and Piore, M. J. (eds) (1990) *The Reemergence of Small Enterprises : Industrial Restructuring in Industrialized Countries*, Geneva International Institute for Labour Studies.

Simon, H. A. and Bonini, C.P. (1958) 'The Size Distribution of Business Firms', *American Economic Review*, Vol. 48 pp. 607-617.

Singh, A. and Whittington, G. (1975) 'The Size and Growth of Firms', *Review of Economic Studies*, January, pp. 15-26.

Slaley, E. and Morse, R. (1965) *Modern Small Industry for Developing Countries*, McGraw Hill, New York.

Slater, M. (1989) 'The Managerial Limitation to the Growth of Firms', *Economic Journal*, Vol. 90, pp. 520-528.

Smallbone, D., North, D. and Leigh, R. (1992) 'Managing Change for Growth and Survival: The Study of Mature Manufacturing Firms in London during the 1980s', Working Paper No. 3, Planning Research Centre, Middlesex Polytechnic.

Snodgrass, D and Biggs, T. (1996) *Industrialization and the Small Firm: Patterns and Policies*, International Center for Economic Growth and Harvard Institute for International Development, San Francisco.

Solem, O. and Steiner, M. P. (1989) 'Factors for Success in Small

Manufacturing Firms - and with Special Emphasis on Growing Firms', paper presented at Conference on Small and Medium Sized Enterprises and the Challenges of 1992, Mikkeli, Finland.

Stasch, S. F. and Ward, J. C. (1985) 'Growth Strategies for Small Share Businesses in Mature Industries' in Thomas, H. and Gardner, D. (eds.) *Strategic Marketing and Management*, Wiley, Chichester.

Storey, D. J. (1994) *Understanding the Small Business Sector*, Routledge, London.

Storey, D. J., Watson, R. and Wynarczyk, P. (1989) 'Fast Growth Small Businesses: Case Studies of 40 Small Firms in Northern England', Department of Employment, Research Paper No. 67

Sutton, J., (1997) 'Gibrat's Legacy' Journal of Economic Literature Vol 35 pp40-49.

Teece, D. J. (1982) 'Towards an Economic Theory of the Multi Product Firm', *Journal of Economic Behaviour and Organisation*, Vol. 3, pp. 39-63.

Teece, D. J. and Pisano, G. (1994) 'The Dynamic Capabilities of Firms: An Introduction', *Industrial and Corporate Change*, Vol. 3, No. 3, pp. 537-556.

Thomas, P. (1991) 'Safety in Smaller Manufacturing Establishments' *Employment Gazette*, January, pp. 20-25.

Thompson, M. and Wilson, A. (1991) 'Wage Levels, Labour Markets and Firm Size: Evidence from Size Local Labour Markets', paper presented at the seventh ESRC Small Business Initiative Meeting, University of Warwick.

Townroe, P. and Mallalieu, K. (1993) 'Founding a New Business in the Countryside' in Curran, J. and Storey, D.J. (eds.) *Small Firms in Urban and Rural Locations*, Routledge, London.

Tybout, J. (1998) 'Manufacturing Firms in Developing Countries: How well do they do and why?' mimeo Georgetown University and Economic Development Institute, World Bank.

UN (1993) 'Small and Medium Sized Transnational Corporations: Role, Impact and Policy Implications' United Nations, New York 1993.

US Small Business Administration (1996) 'The State of Small Business: A Report to the President 1995' US Government Printint Office, Washington.

Van Dijk, M. P. and Rabellotti, R. (eds) (1997) *Enterprise Clusters and Networks in Developing Countries*, EADI Book Series 20, Frank Cass, London.

Woo, C. Y. and Cooper, A. C. (1985) 'Corporate Settings of Effective Low Share Businesses' in Thomas, H. and Cardner, D. (eds.) *Strategic Marketing and Management*, Wiley, Chichester.

World Bank (1995) *World Development Report,* 1995 World Bank

Wynarczyk, P., Watson, R., Storey, D. J., Short, H. and Keasey, K. (1993) *The Managerial Labour Market in Small and Medium Sized Enterprises,* Routledge, London.

You, J-il. (1995) 'Small Firms in Economic Theory: A Survey', *Cambridge Journal of Economics*, Vol. 19, No. 3, June, pp. 441-462.

APPENDIX

Appendix: Definitional Issues

The first issue which arises in measuring the importance of small-scale economic activity is the need to distinguish units of *production* from units of *ownership*, since different forces may determine the size distribution of each of these. In principle a clear distinction can be drawn between *enterprises* which are units of independent business *ownership*, and the one or more *local units, plants, establishments or factories* which are the units of *production* which they operate. From the point of view of this report our interest is in enterprises.

In practice the definition of an independent enterprise requires that an economic concept be matched to a legal entity, or an entity defined for data gathering purposes. For legal, institutional, and cultural reasons and for official data gathering purposes this matching is not treated consistently across countries. A further issue is that enterprises, as units of ownership, may take many different forms, from sole proprietorships, through partnerships, to private and public limited companies. In principle we are interested in independent enterprises irrespective of legal form but for taxation legal or other administrative reasons data may only be available for some sectors or countries for certain types of legal forms (e.g. accounting data may only be available for companies). Moreover it is well known that many enterprises, especially in low income developing economies, operate outside the boundaries of legally registered forms of business in the informal economy (ILO (1998). Snodgrass and Biggs (1996)).

These issues pose obvious problems in defining the appropriate business unit level at which to measure and compare the importance of SMEs across different countries, and the measure of size to be used. The problems become especially acute when comparisons are attempted between developed and developing economies. It is helpful to deal with each in turn.

In the context of developed market economies the most recent attempt to deal with these issues has resulted in the harmonized estimates of enterprise structure in the EU prepared by Eurostat (see e.g. *Enterprises in Europe Fifth Report,* Eurostat/DGXX111 Brussels Luxembourg 1997 and The European Observatory for SMEs Fourth Annual Report 1996, EIM Small Business Research and Consultancy, Zoetermeer The Netherlands 1996).

In this data the *enterprise* is defined as 'the smallest combination of legal units that is an organizational unit producing goods or services, which benefits from a certain degree of autonomy in decision making, especially for the allocation of its current resources. An enterprise carries out one or more activities in one or more locations. An enterprise may be a sole legal unit.' An *enterprise group* is defined as 'an association of enterprises bound together by legal or financial links....It constitutes an economic entity which is empowered to make choices, particularly concerning the units which it comprises.' These units of analysis are distinguished from the *local unit* which is defined as 'an enterprise or part thereof (e.g. a workshop factory, warehouse, office mine or depot) situated in a geographically defined place. At or from this place economic activity is carried out for which...one or more persons work...for one and the same enterprise'(Eurostat 1996 p20).

In addition to these business units Eurostat also defines *kind-of-activity unit* KAU and *local kind-of-activity units*. The former consists of all those parts of an enterprise 'contributing to the performance of an activity at a detailed sectoral level (four digit level of NACE Rev 1) and corresponds to one or more operational sub-divisions of the enterprise'. The latter 'is the part of a KAU which corresponds to a local unit', this is close in concept to the idea of an establishment in many countries (op.cit. p20). The essential difference between the KAU level of analysis, and the enterprise and local unit level of analysis, is that the former by definition have

activities confined to narrowly defined industries whereas the latter may do but are not defined to be so.

From the point of view of this report four important points emerge from this review of definitions in developed economies. First, the simplest kind of business will be a wholly independent enterprise operating at a single site in a single 4 digit industry. In this case all the above definitions collapse into one. Second, variations across countries in the estimated empirical significance of SMEs will vary in so far as the data they provide correspond to the KAU level, the enterprise/local unit level, or the enterprise group level. Third, the significance of this variation will depend on the extent to which enterprise groups in different countries are diversified or vertically concentrated across NACE industries and the extent to which they are multi-local-unit, or multi-enterprise organizations.

In the context of developing economies although the plant and enterprise distinction is frequently available in official statistics there is no unified database comparable to that for the EU. Moreover definitional debates in relation to small enterprises have been as much concerned with the extent to which *production* is home or factory-based as with the distinction between ownership and production itself. Thus in the context of manufacturing Slaley and Morse (1965) distinguished between *household businesses* (including subsistence manufacturing, artisans working in the home, artisans with workshops, and home work under a putting out system) and *factory production.* This emphasis of course reflected a concern with theories of industrialization which posit a transformation of industrial organization away from household or cottage industry production through small scale factory or workshop production to large scale production activity. As a result the focus has frequently been on production units or establishments, although it is clear that in the vast majority of instances production and ownership are co-terminous (e.g. Hoselitz (1959) the studies reviewed and discussed in Anderson (1982) esp. Table 1 p 915, and more recent contributions based on

detailed micro survey work such as Liedholm and Mead (1999)). This literature on business type in the developing economies has also been concerned with the debate over the nature of the distinction between informal and formal enterprise activity. Unfortunately this distinction frequently hinges on whether or not legal regulations and tax and registration procedures are being followed. As a result estimates of the informal business enterprise sector are imprecise and have frequently emerged as residual estimates after comparing estimates of employment in registered production units with total labour force participation (e.g. Anderson (1982)).

In both developed and developing countries there is an important category of enterprise activity which emerges form labour force analyses rather than the analysis of business registers. This can be loosely described as self-employment. This category includes a group of businesses with no employees. The ILO:LABORSTA data bank provides an analysis of labour force status based on the International Classification by Status in Employment (ISCE-1993) which is useful in this context. They provide a distinction between employees on the one hand, four categories of the self employed and a residual unclassified group. The four categories of self employed are *employers* who work on their own account and engage one or more employees, *own-account workers* who have no employees, self employed *members of producer cooperatives* in which they have equal decision making capacity, *and contributing family workers* who are self employed in a market oriented establishment but do not have the same level of commitment as the head of the establishment. The own-account workers category is very close conceptually to the zero employment category of enterprises identified in the EU data.

This category of firm raises the second definitional issue we face, which is how to measure size and how to choose the size class boundaries between small, very small, medium and large. From a conceptual point of view most definitions of a small firm in developed economies have been based on economic characteristics

and have traditionally emphasized three features of "smallness" (see for example Bolton 1971, Storey 1994); independence in the sense of not forming part of a larger ownership group which could constrain freedom of action in the interests of the owner/manager; little market power, associated with small market shares, and weak bargaining power in supplier markets; independently managed/controlled by their owners with a personalized informal management structure

11. The first two characteristics may not easily be mapped into a statistical definition in terms of size. It is perfectly possible to be both independent, family or owner controlled and very large. Independence is therefore only an important feature when taken in conjunction with a measure of smallness. It is also perfectly possible to find small firms with fairly dominant positions in terms of market share, if the market is defined closely enough. This is the general problem of niche market definition and measurement. Small firms frequently perceive themselves as having very few competitors. Thus in the UK in the early 1990's over 50% of firms employing less than 10 employees reported that they had 4 or fewer serious competitors (SBRC 1992). In practice individual market share data is notoriously difficult to collect systematically at a disaggregated industry level, and there are no internationally comparable data sets for SMEs which do this.

An alternative market or industry based approach to defining a small firm is to 'ground' a definition of "smallness" in the perceptions of owner managers, consultants, and trade association representatives in the market concerned (see e.g. Curran, Blackburn and Woods (1991)). This leads to both a variety of definitions of smallness across different markets and leaves open the particular dimension along which size is grounded (e.g. number of retail outlets, employment, turnover etc.). As with market share there are however no widely accepted, or large scale economy wide, size classifications using this approach, although a broad distinction is sometimes drawn between service and manufacturing definitions of smallness, using lower cut

off points in the former to reflect the typically smaller scale of service firms on average.

The final characteristic of informality and personalized owner control is somewhat more tractable empirically. There is a substantial literature on life cycle models of the firm which trace connections between maturity, size, and management organization. There is also empirical evidence to suggest that changes in management structure and style emerge as firms enter and then cross different employment size bands with for instance changes away from personal informal systems of management occurring in the 20 to 50 employee size ranges (DTI (1997), Smallbone North and Leigh (1992), Reid (1995), Atkinson and Meager (1994), ACOST (1992). As size increases further so too does managerial complexity and formality, moreover above 200 and more significantly above 500 employees there is an increasing likelihood of outside equity participation and diluted ownership control (SBRC (1992)). This along with a more ready availability of data suggests that employment size is the most promising metric to use in an international review of the kind attempted in this report.

In a developing country context the concept of smallness has been approached from a somewhat different perspective which has first emphasised variations across firms in the capital intensity of production and skill level requirements, and then distinguished between *cottage or household* enterprises, and micro or factory based enterprise on the other (Cortes, Berry and Ishaq (1987) and Little, Mazumdar and Page (1987)). An alternative approach has sought to ground a classification of enterprise scale and types in terms of their degree of market orientation and growth prospects as well as more conventional capital and skill intensity characteristics (Davies, Mead and Seale (1992)), although this requires specially designed data gathering methods to implement. In practice these approaches have led to the use of a variety of employment cut off points in studies of developing countries. These have usually been driven by the

availability of official census data or survey design methodologies. Thus Banerji distinguishes between establishment plant sizes of 1-4, 1-9 and 1-49 employees in what he defines as the small firm sector. Little et al. distinguish between cottage shops (fewer than 5 workers manufacturing at home or in small workshops), very small firms (fewer than 10 workers), small firms, (10-50 workers) and medium sized firms (50-99 workers), and Cortes et al. classify their establishment data into similar groups. More recently Liedholm and Meade (1999) and Meade (1992) have proposed groupings of micro (1-4 workers) and small (10-50) and Boomgard et al distinguish between microenterprise (1-10) and small scale enterprise (11-20). In practice these correspond fairly closely to the kind of size cut offs used in the developed economies. A recent tabulation of these, prepared by OECD (1997) is set out in main report. This reveals both that 500 employees is the typical upper cut off point used and that in a number of economies a somewhat lower cut off is used for the service sector.

In the main report we make use of number of OECD tabulations based on the 500 cut off point, noting in particular where different countries use different boundary definitions. We also make use of the recent EU enterprise data set, referred to earlier in this section, which allows some disaggregation within the group of firms defined by a 200 employee cut off point, and which, in addition, reports a range of data using an upper cut off point of 250 employees (Eurostat (1996)).

The Eurotsat analyses of small firms in Europe employ the following groupings within the SME category; very small (0-9 employees); small (10-49 employees); medium(50-199 employees); and large (200+ employees). It is clear that the very small and small categories correspond fairly closely with classifications used in the developing country literature. It is also worth making a few observations about the first or 'very small' class. Self-employment has grown substantially in Europe in the past two decades. This has often been as a result of contractual strategies adopted by larger employers, for

reasons of tax convenience, or to avoid certain regulatory obligations. This means that the inclusion of the self employed *with no employees* as individual businesses can lead to important differences in estimated business enterprise populations across sectors and countries, this should be borne in kind in interpreting the data reported for developed countries in the main report. The existence of separate data for those firms in the very small group with no employees does however enable some comparisons to be drawn between developed and developing countries focussing on this category of enterprise, which corresponds to the breakdown of self employment on own account in the ILO database.