

Employment Generation in Manufacturing SMEs in Contrasting External Conditions

David Smallbone

Centre For Enterprise and Economic Development Research

Middlesex University

UK EN3 4SF

Office: +181-362-5337 Fax: +181-362-6607 e-mail d.smallbone@mdx.ac.uk

David North

Middlesex University

Abstract

This is an empirically based paper which examines the extent to which employment generation in manufacturing SMEs varies according to external environmental conditions, both over time and in different types of location in the UK. The results reveal a much higher rate of employment growth in rural SMEs compared with urban SMEs that stems mainly from differences in local labour market conditions. Although changes in macroeconomic circumstances reduced the rate of employment growth in the 1990s compared with the 1980s, the main effect was on the pattern of sectoral variation. However, employment growth was strongly associated with output growth in all types of external conditions.

Introduction

This paper is concerned with the circumstances in which the development of SMEs lead to employment generation. The extent to which any business can maintain or increase employment depends on its ability to survive and grow over a period of time, which is a result of an interaction between internal and external factors. Since smaller firms have more limited ability to shape their external environment than larger firms, their survival and growth depends on the extent to which their managers can identify and respond to the threats and opportunities presented by their environment; in other words, on their ability to adapt or adjust. In this context, the aim is to examine the extent to which differences in external circumstances, both over time and in different spatial contexts, can affect the ability of SMEs to create employment based on empirical data drawn from two linked studies in the UK undertaken at the Centre for Enterprise and Economic Development Research at Middlesex University. The first study enables us to examine the role of different local environments on the ability of similar firms to create employment between 1979-90; the second enables us to make a comparison over time (ie 1979-90 and 1991-95), thereby demonstrating the role of changes in macroeconomic and other external circumstances over time.

The first database was compiled for a study that was concerned with analysing the development of a panel of manufacturing SMEs between 1979-90, drawn from three different types of location: a major conurbation (London); an outer metropolitan area (OMA) (Hertfordshire and Essex); and a remote rural area (ie the rural parts of a number of counties in northern England). The original project was concerned with analysing the development of firms between 1979-90 in terms of products and markets, production processes, ownership and organisational structure, as

well as changes in employment and the use of labour. The firms were drawn from 8 manufacturing sectors that included some medium-high technology sectors (such as electronics, instruments, pharmaceuticals) as well as craft type sectors (such as furniture and clothing). The other definitional criteria were that a firm had to be independently owned and employ less than 100 in the base year (ie 1979). As a result, firms that survived to be interviewed in 1990/91 may be considered well established firms since they were at least 11 years old at that time.

A total of 306 firms were interviewed in 1990/91 using an indepth, face to face method. The interviews comprised 126 firms from London; 100 from the OMA; and 80 from remote rural areas. As the next section of the paper demonstrates, the study reveals some marked differences in the pattern of employment change between 1979-90 in these three groups of firms, reflecting differences in the nature of local environmental conditions and the ability of SME managers to adjust to them.

The second database was compiled from a survey of 180 manufacturing SMEs, undertaken in 1995, covering the development of firms between 1991-95. These firms were all drawn from remote rural areas in northern England that featured in the previous project. These areas are characterised by the absence of a major conurbation and to qualify as 'rural' districts only those with at least 50% of the population living in settlements of less than 10,000 inhabitants were included. To qualify for inclusion in this study, all firms had to employ less than 100 in 1991 (the base year); be independently owned; and in one of 8 manufacturing sectors. Although 5 of these sectors were the same as those included in the previous study, 3 additional sectors were included (agricultural machinery, food processing and joinery) in order to make the sample representative of manufacturing SMEs in remote rural areas.

In compiling the second database, telephone interviews were conducted with 180 firms (100 by telephone and 80 face to face) covering various aspects of business development during the 1991-95 period. Apart from profile data, these interviews covered the owner's aims and objectives for the business during this period, changes in production processes and capital investment, changes in employment and the use of labour, and external assistance received. The face to face interviews enabled a more detailed examination of the same issues as those covered in the telephone survey.

Since both studies are concerned with established manufacturing SMEs in broadly comparable sectors, we can examine the role of changes in macroeconomic circumstances on the ability of similar firms to create employment by comparing employment change in the 80 remote rural firms in the original study between 1979-90, with that between 1991-95 for the 180 firms in the second study. In fact, since 46 of the 180 companies interviewed in rural areas in 1995 featured in our study of the development of manufacturing SMEs between 1979-90, for these firms we have a longitudinal database covering their development between 1979-95.

The rest of the paper uses evidence from these 2 databases to consider 3 key questions: to what extent do differences in local external environmental conditions affect the ability of manufacturing SMEs to create employment?; to what extent do changes in macroeconomic circumstances affect the ability of manufacturing SMEs to create jobs?; what are the key characteristics of manufacturing SMEs that increase employment?

To What Extent Do Differences In Local External Environmental Circumstances Affect The Ability Of Manufacturing SMEs To Create Employment?

Table 1 shows net employment change between 1979-90 for surviving firms in the 3 types of location. It shows that remote rural firms achieved a net increase in employment of 51% between 1979-90 which was significantly higher than that achieved by either firms in the OMA (23%) or those in London (7%). Indeed, in firms located within inner London the net employment increase during the 11 year period was just 3%.

TABLE 1: EMPLOYMENT CHANGE 1979-90 BY SMEs IN DIFFERENT LOCATIONS

	London Panel (126 firms)	Inner London Firm (65 firms)	OMA Panel (100 firms)	Rural Panel (80 firms)	All firms (306 firms)
1979 Employ.	3611	(1682)	1634	1067	6312
1990 Employ.	3852	(1729)	2013	1606	7471
Net Absolute Change	241	(47)	379	539	1159
% Change	7%	(3%)	23%	51%	18%
Change per firm					
Mean	1.9	(0.7)	3.8	7.0	3.8
Median	0	(0)	2	2	1

In view of other evidence showing that much of the job growth that has occurred in the UK as a whole has occurred in businesses employing less than 10 people (Daly et al, 1991), it might be thought that the better employment growth performance of rural SMEs reflects the fact that they tended to be younger and smaller than their counterparts in similar sectors in London, for example. In fact, it appears not to be the younger and smaller firms in rural areas which showed the better employment performance but the more established and larger SMEs instead. Specifically, it was firms in the 20-49 size band which had the greatest capacity to expand their employment; by 19.5 jobs on average in rural areas compared with 4.4 for similar firms in London. These results are broadly consistent with those of Keeble et al (1992) who also found that the main urban-rural contrast was in the employment performance of the larger firms rather than in the smallest enterprises.

The urban-rural contrast in employment change described above is confirmed by the results of other recent research suggesting that it has become an important component of urban-rural employment shift in the UK. For example, the large national survey of over 2000 SMEs carried out by the University of Cambridge Small Business Research Centre (1992) showed that during the 1987-90 period, rural firms had a median employment growth rate of 33.4% compared with 25% for firms in 'large towns' and 22.5% for those in conurbations. Over a similar time period (but 1988-91 instead), Keeble et.al. (1992) found, on the basis of a matched pair sample of

manufacturing and service firms, that the fastest employment growth was to be found in remote rural firms, their mean employment change being an additional 4.1 jobs per firm compared with 3.0 jobs per firm in accessible rural firms and a decrease of 1.7 jobs per firm in urban firms.

However, whilst different studies show similar results in terms of the urban-rural contrast in employment change, there are differences in the interpretation that is placed on the results by different authors. One interpretation is that it reflects differences in growth performance with rural areas having a higher proportion of fast growing firms, although studies that conclude this tend to be those that emphasise employment as the main growth indicator. Whilst growth in employment terms may be a legitimate priority for policy makers, for business owners business 'success' is more likely to be seen in terms of a growth in sales, profits or assets; and employment as a consequence of growth rather than a growth objective. Indeed, this is confirmed by our 1995 survey since when managers of growth oriented firms were asked about the specific growth objectives, 79% referred to sales growth as their main priority, 43% to a growth in profits and only 11% to a growth in employment (Smallbone et al, 1996b). In both of the studies on which this paper is based, sales turnover is the main indicator used to measure business growth.

When growth is measured on the basis of deflated sales turnover, the difference between urban and rural firms in terms of employment between 1979-90, begins to disappear. Each firm was assigned to 1 of 5 performance groups based largely on the change that occurred in real sales turnover during the 1979-90 period, but also using additional criteria to distinguish between 'high growth' and 'strong growth' firms¹. A comparison of the growth of surviving firms in the 3 types of location in the 1980s reveals that the pattern is remarkably similar; there is no significant difference in the distribution of firms across the 5 performance categories between the 3 locations. In other words, it seems to make little difference whether a business is located in an urban or a remote rural environment to its ability to achieve growth in terms of sales turnover. Where location does make a difference however, is in terms of the jobs that are generated from a given increase in turnover. The marked disparities between the employment generation potential of growing SMEs in different geographical environments is emphasised when we regress employment change against changes in real turnover for the firms which grew over the decade (ie firms in performance groups 1-3). Table 2 shows that employment creation in London-based SMEs was dependent upon a much larger increase in the value of sales than in rural firms. Using the regression coefficients to predict the typical growth in sales that was required in order to generate a given increase in employment in each of the 3 locations, an additional 10 or more employees typically required an increase in sales turnover of £1,284,000 (at 1990 prices) between 1979-90 in inner London firms compared with an increase of £336,000 in rural firms and £677,000 in OMA firms. SMEs may be able to achieve growth in very different types of location, but their means of achieving it would seem to have very different consequences for employment.

**TABLE 2: PREDICTED INCREASES IN TURNOVER (at 1990 prices)
REQUIRED TO INCREASE EMPLOYMENT IN SMEs IN THE DIFFERENT
GEOGRAPHICAL ENVIRONMENTS**

PANEL	R squared value	intercept	slope	standard error	Predicted incr. in t'over required for 10 additional employees (in £'000)
LONDON	0.5582*	-2.319	0.023	14.684	£1081
INNER LONDON	0.5808*	-4.961	0.023	17.107	£1284
OMA	0.4212*	3.981	0.018	13.623	£677
RURAL	0.6538*	1.957	0.048	13.819	£336
TOTAL PANEL	0.4440*	2.379	0.022	15.760	£683

* significant at the .001 level

In our analysis, the differences identified in the relationship between sales growth and employment growth between firms in different local environments resulted from the behavioural responses of managers to the opportunities and constraints that they faced, which we characterise as adaptations or adjustments to local external environmental conditions (North & Smallbone, 1996). Our analysis has highlighted 3 particular types of adjustment made by rural firms to different aspects of their local environment, based on a comparison of their development path with urban based firms during the 1979-90 period. The main types of adjustment identified in SMEs located in remote rural areas are: adaptation to the limited size and scope of the local market through active strategies for the development of non-local sales; adaptation to local labour market conditions that are relatively benign as far as employers are concerned in comparison with urban (and particularly inner urban locations); and adaptation to the lack of a local industrial milieu offering substantial possibilities for local supply and subcontracting out. It is the nature of the responses of the managers of rural firms to these latter two conditions which explain the higher rate of employment growth for a given increase in sales between 1979-90 in rural firms.

The types of strategy that SME managers adopt to achieve growth is very much affected by the nature of the local labour market and the kind of relationships which they have with it. Decisions on how best to achieve growth are likely to be influenced by the ease with which managers consider that they can recruit the skills and the kind of people that they need, the cost of hiring additional workers, and the ability of the existing workforce to adapt to changes in product markets, production technology, and working practices. Thus firms in the same industrial sector may adopt very different strategies for achieving growth in rural environments compared with urban locations because they face different opportunities that result from local labour market conditions.

Although it is notoriously difficult to make a comparison of wage levels between SMEs, some comparison between specific occupations is possible from our data (North & Smallbone, 1995). In printing for example, the median maximum and minimum wage for a machine minder in 1990 was £195 and £169 respectively in remote rural SMEs compared with a median maximum and minimum of £300 in inner London. Moreover, a similar contrast is found in other sectors such as furniture. Overall, our evidence supports the view that the lower marginal cost of employing an

additional worker in rural areas encourages firms to develop in ways which use labour more intensively. There is also less incentive to invest in labour saving equipment in these circumstances and our evidence does show some tendency for rural SMEs to lag behind similar firms in other parts of the country in terms of production technology; other evidence also shows remote rural firms to be less active in terms of production process innovation (Keeble et.al.,1992; Keeble and Tyler, 1995).

As well as these cost advantages, various qualitative attributes of rural workers were also identified by managers that would seem to encourage a more labour intensive form of expansion than in the case of urban based firms. Qualitative data gathered in the interviews in rural areas reveals that managers generally thought that firms were able to attract 'a better class of worker' than would be the case in an urban environment. The typical attributes identified included reliability, commitment and loyalty to the firm, and flexibility. In many local labour markets the relative absence of alternative sources of employment was thought to contribute to the low levels of turnover within the workforce and low levels of unionisation were thought to have encouraged greater functional flexibility within the workplace (North and Smallbone, 1995). Management-worker relations were usually described as informal and non-confrontational and hardly any resistance was encountered to changes in working practices. The dedication that workers showed to their jobs and the future of the business sometimes led to them being prepared to work longer hours for lower rates of pay.

Our conclusion is that the development of rural SMEs in the 1980s has been assisted by the nature of the rural labour market. Only 11% of the rural panel considered that their development during the 1980s had been constrained by labour problems, compared with 28% of the London firms. Also, very few of the rural firms have had to adjust the nature of their product markets as a result of the skill competencies of their workforce. Most rural SMEs therefore appear to have a positive and favourable relationship with their local labour markets whereas many London firms adopted growth strategies which aimed to prevent any expansion of the direct labour force.

The other major factor that helps to explain the higher level of (in-house) employment generation in remote rural SMEs compared with London-based firms is their higher level of self sufficiency and lower level of subcontracting out of production which means that more of the jobs they create are retained in-house. For example, whereas 48% of London based firms and 53% of those in the OMA used subcontractors regularly in 1990, this compared with 30% of rural firms. Moreover, only 1 rural firm subcontracted out more than a quarter of the value of its turnover compared with a fifth of London based firms. Although the main reasons given for putting work out to other firms appeared to be the same irrespective of location namely that some work required specialist equipment or skills that were not available in-house, an urban-rural contrast emerges when we focus only on those firms which had increased the amount of subcontracting out that they did in the 1980s. Whereas in London 40% of these (and 32% of those in the OMA) had increased their use of externalisation as part of a strategy for reducing costs, just 11% of remote rural firms that had increased the use of subcontracting gave this rationale for doing so. This would seem to suggest that rural SMEs are not under the same pressures to externalise production as those located in urban (particularly conurbation) environments.

To summarise, the main reasons why the growth of rural SMEs was more likely to lead to employment generation than that of urban based firms was firstly that local labour market conditions encouraged it and secondly that the lack of a local industrial milieu discouraged firms from externalising production to the extent that their London based counterparts were. Both may be conceptualised as forms of adaptation to local environmental circumstances that affect the nature

and extent of the employment generation in SMEs. It should be noted that whilst our survey data does not include any jobs created in subcontractors by sales growth in contracting firms, the differences in the rates of employment growth between rural and urban firms 1979-90 are far greater than can be explained by the difference in the extent of subcontracting out of production.

To What Extent Do Changes in Macroeconomic Circumstances Affect the Ability of Manufacturing SMEs to Create Jobs?

Having considered the influence of spatial variations in local environmental conditions on the ability of SMEs to increase employment, we turn in this section to assess the influence of differences in macroeconomic conditions by comparing employment change during the 1979-90 period with that in 1991-95 for similar groups of businesses. By covering these two periods, the studies include periods of recession (early 1980s and early 1990s) and a period when the macroeconomic trends were relatively buoyant (late 1980s and improving in the mid 1990s). Since it has not yet been possible to extend our initial study to cover the development of surviving firms in all 3 types of location between 1991-95, in this section of the paper we refer only to remote rural firms since it is for these firms that we have comprehensive data for both 1979-90 (80 firms) and 1991-95 (180 firms). Clearly, the key question to consider is to what extent SMEs in remote rural areas have continued to generate jobs in the 1990s at the rate they were doing in the 1980s.

Our evidence indicates that in aggregate the 166 firms interviewed in 1995, that were already in existence in 1991 (14 firms were set up between 1991 and 1995), employed 17% more people than they did in 1991. This represents an increase in the mean employment size of firms from 11.5 (or median of 6) in 1991 to 13.6 (or median of 8) in 1995. In fact, if we allow for the different lengths of the time periods in the two studies, the aggregate employment increase is 4% per annum in both cases. However, such a comparison is somewhat misleading because of some differences in the sectoral composition of the two panels of firms. If we just take those sectors which were included in the earlier study, the net employment increase between 1991-95 in surviving SMEs falls to 8%, or 2% per year. Our conclusion is that the recession of the early 1990s did slow down the rate of employment increase in surviving SMEs but it did not halt or reverse the trend.

The strategies that these rural firms used to survive and grow during this period are analysed in detail elsewhere (Smallbone et al, 1996). However, one of the main findings of this research was the extent to which the scope for business growth in these remote rural SMEs during the 1991-95 period was linked to their ability to develop non-local sales. Overall, our recent evidence confirms that from the 1980s in showing that established manufacturing SMEs in remote rural areas in the UK are an important source of additional employment, even during periods that contain relatively hostile macroeconomic conditions.

Clearly, one of the factors that influences the ability of SMEs to create employment is their survivability, which is one aspect that might be expected to be particularly sensitive to recessionary conditions. Although most of this paper is concerned with employment change in surviving firms, we do have some data that enables us to assess the extent to which jobs lost through non-survival reduced the impact of job increases in firms that were able to survive until 1995.

Since our database of remote rural SMEs (ie database 2) contains a subset of 80 firms which were interviewed in 1990 as well as in 1995, we have employment data for these firms covering the 1979-95 period. These data show that just 13% of firms that were trading in 1991 failed to survive until 1995 accounting for just 7% of total employment in 1991. In other words the effect of non-survival on total employment was considerably less than in the case of London-based firms between 1979-90 despite the fact that the early 1990s was a period of severe recession in the national economy. Not only were non-surviving firms typically smaller than firms that survived, but they also had a poorer record of employment growth between 1979-90 than surviving companies: 33% and 58% respectively. These results suggest that not only were remote rural locations a more benign environment for SMEs to create employment in the 1980s, but the recession of the early 1990s had a lower impact on SME non-survival than in other locations, which we can assume resulted in a lower rate of job loss. Although macroeconomic conditions may have an impact on survival rates overall, local external environmental conditions would also seem to be an important influence on the ability of SMEs to survive (with consequent effects on employment) on this evidence.

WHAT ARE THE KEY CHARACTERISTICS OF FIRMS THAT HAVE INCREASED EMPLOYMENT?

Although we have demonstrated how external environmental conditions (particularly local environmental circumstances) can influence the ability of SMEs to increase employment, there are a number of generalisations that can be made about the characteristics of SMEs that are the most consistent employment generators in different external circumstances. These include their performance in terms of sales growth, their age, size and sector; although in the latter case the propensity of firms to increase jobs may vary according to macroeconomic circumstances and/or structural trends.

A key finding of both studies featured in the paper, is the clear relationship that exists between employment change and output growth. Although remote rural firms generated more jobs for a given increase in sales turnover than their counterparts in London or the OMA between 1979-90, employment change was significantly related to changes in the real value of sales turnover in all three types of location (all significant at the 0.001 level). Moreover, in both studies it was the fastest growing firms creating the bulk of the additional jobs. Between 1979-91, 83% of additional jobs were in 37% of the 306 firms which at least doubled their real turnover over the decade (ie the 'high growth' and 'strong growth' firms) (North et al, 1994); between 1991-95 in remote rural areas 78% of the additional jobs came from 41% of the firms in the 'high growth' and 'strong growth' groups. In fact, the majority of all firms (70%) that grew in real turnover between 1991-95 (ie groups 1-3) were able to translate some of their growth into additional employment.

In both studies it was the younger firms that accounted for a disproportionate amount of the increased employment. For example, in the study of remote rural firms between 1991-95, net employment growth in firms that were set up between 1980-91 increased employment by 35%; and in those established between 1970-79 by 25%; whereas in firms established between 1950-69 employment actually declined by 2.8%, and in firms set up before 1950 there was no change in the employment level. The main reason why younger firms were more dynamic in terms of employment growth was that they were more likely to be growing in terms of sales although there may also be a certain proportionality effect associated with their smaller initial size. Although a

significant minority of old established firms were able to increase the number of jobs, the problem in the case of the older age groups is that job increases in the minority of firms that did expand employment were often offset by job losses in other firms. At the same time, in younger firms a higher rate of employment increase in surviving firms may be offset by a higher level of job losses resulting from non-survival.

Associated with the greater propensity for young firms to generate employment compared with larger SMEs, is the tendency for smaller firms to generate more jobs than larger firms. At the same time, this is one aspect that appears to be sensitive to local external circumstances, particularly those relating to local labour markets. Both in the 1980s and in the 1991-95 period in remote rural locations, it was firms in the 20-49 size band that proved to be making a disproportionate contribution to employment growth, reflecting the relatively labour intensive development path followed by manufacturing SMEs in remote rural areas described above, since this is a size band which was not dynamic in terms of employment growth at a national level.

TABLE 3: THE RESULTS OF REGRESSING CHANGES IN EMPLOYMENT AGAINST CHANGES IN REAL TURNOVER 1979-90

Sector	No.of firms	R squared value	intercept	slope	standard error	Incr.in t'over for 100% incr in empt.
Clothing	29	0.880**	-0.198	0.462	0.727	259%
Elect'nics	44	0.925**	-0.261	0.362	1.190	348%
Furniture	63	0.536**	0.129	0.457	1.204	190%
Ind. Plant	47	0.712**	0.415	0.201	1.112	291%
Inst'ments	28	0.225*	0.425	0.236	1.324	244%
Pharm'cals	10	0.916**	-0.607	1.147	1.688	140%
Printing	61	0.449**	0.557	0.143	1.797	309%
Toys & Games	14	0.978**	-0.219	0.959	0.656	127%
Total Panel	296	0.558**	0.335	0.259	1.835	257%

* significant at the .01 level

** " " " .001 level

Note: there was insufficient data to include 10 cases

Another characteristic that affects a firm's propensity to generate jobs, but which is sensitive in some cases to changes in external (in this case macroeconomic conditions particularly), is its sector. In fact, there are marked differences in the scale of employment change between the 8 sectors included in both studies. For example, whilst between 1979-90 employment in surviving firms grew in all sectors except clothing, there is considerable sectoral variation in rates of employment change. This partly reflects differences in the extent to which firms were able to achieve a growth in sales in different sectors because of differences in demand conditions but it also reflects the nature of the relationship between a growth in sales and a growth in employment (Table 3).

Analysis of the results of the survey of 180 rural SMEs in 1995 also shows the importance of a firm's sector as one of the characteristics affecting a firm's propensity to increase employment. Whilst the overall rate of net employment growth between 1991-95 was 17%, equivalent figures for firms in individual sectors varied from net increases of 60% in the case of agricultural machinery

and 41% in electronics and instruments on the one hand, to net losses of -0.7% in the case of general printing and -5.3% in industrial plant on the other. At the same time, the influence of macroeconomic circumstances is reflected in the fact that there is some change in the fortunes of particular sectors in the 1990s compared with the 1980s. For example both industrial plant and printing were sectors where remote rural SMEs increased employment 1979-90 (by 35% and 83% respectively) suggesting that the circumstances leading to the growth of SMEs in these sectors during the 1980s may have changed in such a way that they are less conducive to employment growth during the 1990s. Despite this, approximately one third of firms in each of these two sectors were able to increase employment between 1991-95. Changes in macroeconomic and other external conditions may have made it more difficult for firms to grow, and thereby increase employment in the 1990s, but there was still scope for individual firms to grow. In the case of the electronics sector by contrast, external conditions in both the 1979-90 and 1991-95 periods enabled consistently high rates of net employment growth to be achieved in remote rural areas: by 103% and 41% respectively, which are broadly similar rates when an allowance is made for the difference in the length of the two time periods.

Conclusions

It is clear that the circumstances in which SMEs generate employment are a combination of external conditions (both in the macroeconomy and at the local level) and individual characteristics of firms. As a consequence, any approach to explain employment generation in SMEs that focuses exclusively on either external environmental factors or the characteristics of individual firms is only considering some of the relevant circumstances.

This paper has demonstrated how variations in local external environments (particularly local labour markets) can result in significant differences in the number of jobs that result from a given increase in turnover from similar firms in different locations. However, whilst the development of manufacturing SMEs in remote rural locations in northern England between 1979-95 has resulted in a fairly consistent level of job generation that mainly results from SME owners and managers choosing to exploit the opportunities presented by relatively benign local labour market conditions to grow by relatively labour intensive means, there is a concern that this type of development path may turn into a threat in the longer term. We have already drawn attention to the fact that these firms have appeared to lag behind their counterparts in some other parts of the country in terms of investment in production process technology during the 1980s. Our survey evidence shows that not only was their average productivity level below that of similar urban firms between 1979-90 but that the gap widened during this period. Our evidence from the 1990s is that there is little sign of any increased commitment to production process upgrading among the majority of firms. In fact, the average rate of productivity increase between 1991-95 in these remote rural firms was very similar to that for 1979-90 (which was below that of urban firms). Whilst recognising that the role of productivity in competitiveness is likely to vary according to the nature of the firms' products and the type of markets that it is trading in, the fact that the average annual productivity gains achieved by surveyed firms between 1991-95 are typically no higher than those achieved in the 1980s, means that the issue must be a concern for policy makers with responsibility for the future economic development in these remote rural areas.

Our evidence with respect to the influence of changes in macroeconomic trends suggests that whilst the recession of the early 1990s slowed down the rate of employment increase in rural firms compared with the 1980s, it did not halt or reverse the trend. From a policy perspective, one of the main points that emerges from this part of the analysis is the influence of changes in external

circumstances on the sectoral pattern of employment growth, that may have implications for targeting policy. However, in terms of policy implications, the most consistent theme that emerges from the two studies is that whatever the external circumstances (at either the local or national levels), SMEs that create jobs are those that grow in terms of output (measured here in terms of growth in the value of sales at constant prices). This lends support for policies that attempt to focus those resources available for external support on growing (or potentially) growing firms since it is these that are most likely to generate employment in the longer term.

References

- Daly M, Campbell M, Robson G. and Gallagher C. (1991) 'Job Creation 1987-89: the Contribution of Small and Large firms' **Employment Gazette**, November, 589-596.
- Keeble D, Tyler P, Broom G and Lewis J (1992) **'Business Success in the Countryside: the Performance of Rural Enterprise'**, London: HMSO
- Keeble D & Tyler P (1995) 'Enterprising Behaviour and the Urban-Rural Shift' **Urban Studies**, 32, 6, 975-997
- North D and Smallbone D (1995) 'The Employment Generation Potential of Mature SMEs in Different Geographical Environments', **Urban Studies** 32, ,9 1517-1534
- North D and Smallbone D (1996) 'Small Business Development in Remote Rural Areas: the Example of Mature Manufacturing Firms in Northern England', **Journal of Rural Studies** 12, 2, 151-167
- Smallbone D, North D & Kalantaridis C (1996) **'Employment Change and Business Growth in Manufacturing SMEs in Remote Rural Areas'**, Final report to the Rural Development Commission, CEEDR, Middlesex University
- University of Cambridge (1992) **'The State of British Enterprise: Growth, Innovation and Competitive Advantage in Small and Medium Sized Firms'**, Small Business Research Centre, University of Cambridge.

NOTES

1. Growth Performance Groups 1979-90 and 1991-95

Performance Group	1979-90 criteria	1991-95 criteria
1. High Growth	(i) at least 100% increase in real turnover (ii) consistently profitable 1987-89 (iii) Minimum £0.5m sales in 1990	(i) 36% increase in real turnover (ii) Profitable in 1994/95 (iii) Minimum £0.55m sales
2. Strong Growth	At least 100% increase in real turnover but either inconsistently profitable and/or below £0.5m	At least 36% increase in real turnover but not meeting one or both the other conditions
3. Moderate Growth	Increased real turnover of 50%-100%	Increased real turnover of between 18% and 35%
4. Stable	Real turnover change of 0%-49%	Increased real turnover of between 0% and 17%
5. Declining	Declining real turnover	Declining real turnover

Note: Turnover criteria for 1991-95 are set at 4/11 of the 1979-90 figures

