

## SME DEVELOPMENT

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### Barriers to SME Growth in Slovenia

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**Abstract.** The paper is based on the findings of a research project which aimed to identify the critical barriers to small business growth and development in Slovenia. The key barriers identified in the research included factors linked to the institutional environment including bureaucracy, and to external financial constraints including the high cost of capital. Internal organisation and resource issues, and social support through local development coalitions were found to be less important. The research was based upon a sample survey of small firms in Slovenia, and on an econometric analysis of the sources of firms' growth. This provided evidence that firms' growth was negatively linked to firms' size, and that growth was reduced by the presence of institutional and financial barriers. The paper concludes with a discussion of the policy implications.

**Key words:** Growth, SME, Transition.

#### 1. Introduction: the role of SMEs in transition economies

Interest in the role of SMEs in the process of transition has developed apace in recent years. It is now widely accepted that the SME sector can play a key role in the process of transition. The main areas in which the sector contributes are in job creation, innovation and the creation of competition.

Blanchard (1997) argues that the essence of transition is a reallocation of resources from the state sector to the private sector, combined with a restructuring within firms. The creation of new firms is a key mechanism through which the process of reallocation can take effect. Once established, the growth of these firms provides a further avenue through which reallocation can proceed.

The process of transition may be held up and delayed or even subverted if the reallocation of resources towards the private sector is blocked. One way in which this can occur is if there are significant barriers to the entry of small firms. Several authors have recently studied the significance of this phenomenon. However, in most transition economies there is not an absence but rather a surplus of new firm entry. A more serious potential problem which may hold up transition is barriers to the growth of firms, especially the potentially dynamic fast growth firms that will provide the largest part of future employment growth and be the seeds of the successful large firms of the future economy.

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## 2. Theories and empirics of SME growth

Much of the economic theory of the growth of small firms has been concerned with the relationship between growth and firm size. The conventional wisdom in economic theory has long held that, due to economies of scale and scope, the growth of firms is positively related to their size. Large firms were typically expected to have advantages over small firms and so grow more rapidly. This process was expected to lead to a growing concentration of industry. This partly explains the emphasis on large scale industry in the former centrally planned economies. But to some extent it no doubt also explains the fascination of economists from both east and west with the newly privatised firms in those countries. It was expected by many that all that was needed to release the forces of growth was a transfer of ownership from the state to “outside owners” who would engage in a process of strategic restructuring which would lead inevitably to rapid growth of the privatised firm sector. It was also thought that the small firm sector would play a relatively insignificant role in regeneration and transition growth (Scase, 1997). However, these expectations were in many cases frustrated. Attention turned to imperfections in “corporate governance” as an explanation of the poor performance of the privatised large firms. “Insider” ownership was one culprit widely put forward to explain the disappointing performance of the large-scale privatised sector.

The outcome may have been less puzzling if those observers had paid attention to the growing literature on the empirical analysis of the relationship between firm size and growth which has emerged in the West in recent years. This literature is beginning to show a consistent *negative* relationship between firm size and firm growth, spanning several studies and many countries. As Hart (2000) observes, “most studies relating to periods since 1885 show that small firms grow more quickly than larger firms”. In the UK, for example, Hart and Oulton (1996) studied a sample of 29,230 firms and found a negative relationship between growth and firm size, based on a Galtonian regression, for the period 1989-1993. In the USA, Evans (1987) studied a sample of 24,244 firms which had been in business for over seven years, and found a similar relationship for the years 1976-1980. Alnus and Nerlinger (2000) show the same relationship in Germany, while Farinas and Moreno (2000) confirmed the relationship for Spanish data covering over 2,000 firms. Many other studies have shown similar results, including those by Evans (1987a), Dunne and Hughes (1994) and Hart and Oulsen (1998). These empirical studies confirm that in contrast to the orthodox views, small firms grow faster than large firms.

There are several possible explanations of the reasons for the faster growth of small firms. Small firms may grow faster than large firms because since they are initially uncertain about their costs firms enter the market at less than minimum efficient scale and over time grow to reach it (Jovanovic, 1982). However, as Hart has pointed out, if this was all there was to it the dispersion of firm sizes would be very small, whereas the reality is that the dispersion of firm sizes is large. A second explanation relies on the theories of flexibility and adaptability of small firms, emphasised by the students of the phenomenon of the industrial district and of the strength of network economies which can offset the

economies of scale enjoyed by large firms (Bartlett and Franičević, 2001). A third explanation is that large firms suffer from diseconomies of scale. This is often linked to the increase in managerial costs as firm size increases, the costs of coordinating across an expanding span of control, and the limits placed by bounded rationality (Penrose, 1980). A fourth explanation is that firms react asymmetrically to exogenous shocks in the short run. Given short run U-shaped cost curves, small firms which operate below minimum efficient scale will expand output when prices rise, while larger firms above minimum efficient scale will not. Conversely, small firms will not react to price falls while large firms will reduce output. In the absence of capacity adjustments, small firms have a bias to increase output, while larger firms have a bias to reduce it (Johnson, Conway and Kattuman, 1999). A fourth explanation, emphasised by Hart (2000), is the impact of the many measures introduced by Western governments to promote and support the growth of small firms and entrepreneurship in recent decades in those economies. This implies that the “invisible hand” of the market is not enough to generate economic growth on its own: an activist state pursuing an energetic enterprise policy is a key mechanism to get the most out of the market economy system.

The stylised fact that small firms grow faster than large firms in advanced market economies has important implications for industrial policy in transition economies. It suggests firstly that SME development should be a central plank of industrial policy in these economies, with the aim of expediting the reallocation of resources from the state sector to the private sector (Levitsky, 1996; Kolodko, 2000). As the large firm sector is being privatised and restructured, the small and medium sized sector will need to expand and grow to generate enough jobs to absorb those laid off as well as providing jobs for the new entrants to the labour market (Rona-Tas, 1997).

But in many transition economies, especially in south east Europe<sup>1</sup>, the small firm sector has not grown sufficiently rapidly to prevent unemployment from rising, nor has it fulfilled its potential as an engine of growth (Acs and Audretsch, 1993; Johnson and Loveman, 1995). Although large numbers of new small firms have entered the market, as commercial laws have been reformed and markets liberalised, they have not grown as rapidly as might have been expected from experience in advanced western market economies. The reason is likely to be found in the barriers to growth which persist in the transition economies (Hanley, 2000; Broadman, 2000). As we show in the following section, these can be classified as institutional barriers, internal organisational and resource barriers, external market barriers, financial barriers and social barriers. In the remainder of this paper we explore the nature of these barriers to growth and report the results of an empirical survey carried out in Slovenia in 2000 to study the impact of these barriers on the growth of small and medium sized firms in that country.

1. Elsewhere in Eastern Europe, there has been more success. Poland for example is a success story in respect of SME sector promotion and development.

### 3. Barriers to SME growth

In most market economies, except the most flexible, and deregulated, there are significant real barriers to both business entry and growth. The importance of the issue in the UK for example has been highlighted in a recent report by the Federation of Small businesses entitled “Barriers to Survival and Growth in UK Small Firms” (FSB, 2000). It might be imagined that transition economies are likely to face even more severe barriers to growth of SMEs. Of special importance here is the set of barriers which hinder the growth of potentially fast growth firms (“gazelles”) which have the greatest capacity to generate jobs and introduce innovations and new technologies. These barriers are likely to be both internal and external to the firm. Such barriers to growth hinder the rapid redeployment of labour from the old unproductive large firms to the newly emerging small-scale private sector. In consequence, growth may be below the potential of the economy, and unemployment consequently higher than it need be. In the worst case barriers to growth may block the transition to a competitive market economy altogether.

Of course, not all entrepreneurs seek growth, and growth is not a necessary or even desirable objective for all SMEs. Firstly, the SME owners may have objectives other than profit maximisation. Secondly, if profit maximising, they may have already reached the minimum efficient scale of business activity (small retail shops, repair shops and so on). Therefore a lack of growth on its own does not necessarily indicate the presence of significant barriers to growth. This implies the need for a benchmark model of growth against which the impact of perceived barriers to growth can be identified and measured.

In our research we distinguish between institutional barriers (including the legislative framework, the degree of corruption and bribery a firm encounters), barriers due to the external market position of a firm (the sector in which the firm operates, the degree of competition, whether a firm is facing strategic behaviour by competitors, extent of network alliances to support growth), financial barriers (including availability and cost of capital and finance), internal organisational barriers (including managerial capacity and capability, objectives of firm, principal-agent difficulties, skills), and social barriers (to do with the support, or lack of it, from local actors and agencies).

#### 3.1 *Institutional barriers*

The institutional framework within which firms interact with customers, government and each other can have a profound influence on firms’ economic performance. Business growth is often considered to be at risk from heavy-handed bureaucracy, in both West and East European economies. Official and unofficial institutions each play a part in this. An unsuitable tax system and various discriminatory legal regulations can represent a severe burden for SMEs in many SEE countries. Complicated laws, rules and regulations concerning companies can be especially tough on small and growing companies. Over-regulation of the company sector in market economies provides an incentive for entrepreneurs to seek ways to evade regulations leading to the growth of the grey economy. It

also provides incentives to them to devote resources to influencing the regulatory environment in their own favour, encouraging “unproductive entrepreneurship” (Baumol, 1990). The uncertainty resulting from unofficial institutions of the grey economy, and the uncertain effects of interest group lobbying to influence regulatory outcomes may reduce productive investment and slow down growth. In the worst case, the relative newness of market institutions and legislation, and the legacy of the culture of connections inherited from the communist past, may encourage the growth of bribery and corruption (Schleifer and Vishny, 1993). This may further increase the uncertainties and costs of carrying out business, and reduce the growth of firms. In addition, powerful large firms, whether recently privatised or not, whose managers have good political connections, may also employ a variety of tactics to reduce the growth of smaller firms, from strategic pricing policies to outright threats verging on criminal behaviour. These institutional factors may increase transaction costs facing SMEs, and hinder the transition to a competitive market economy.

### *3.2 Barriers internal to the firm*

In addition to resource shortages and capacity limitations, an important set of internal barriers to growth is related to the whole issue of human resource management and the conditions concerning the hiring and firing of labour. Where there are limitations of the use of fixed-term labour, where long advance notification of layoff is required, where there are high mandatory severance payments which increase the cost of dismissal, and where taxes and contributions on labour are excessive, then entrepreneurs may be reluctant to expand their activities if this would require that they take on new permanent employees. A key internal constraint on growth of SMEs is a reluctance or inability of owner managers to diversify control over business functions to professional managers (Storey, 1994). In some transition economies of Southeast Europe (SEE) this tendency may be magnified by a lack of skilled managers, as well as an absence of business skills in the areas of marketing and business development. The strength and salience of internal barriers is likely to vary with the size of the firm. In the early stages of a firm’s growth, an owner manager can cope alone with many of the areas of management such as finance, human resources, marketing, and product development. However, once a firm has reached a certain size, or stage in its life cycle, there is a need to professionalise the management function if a firm is to continue to grow.

### *3.3 External barriers*

Economists have long debated the existence of barriers to entry, which vary depending on the degree of competition in the market and the sector of activity. Barriers to growth may also be linked to the market environment in which firms are placed. Factors such as low demand for the product, access to raw materials, difficulties in exporting, public procurement rules and the late payment of bills by business customers and even the government can all obstruct the growth of firms.

### *3.4 Financial barriers*

In a recent working paper of the EBRD, Francesca Pissarides (1998) has argued that “the findings of [recent] analysis confirmed the belief that credit constraints constitute one of the main obstacles to growth of SMEs” and indicated that “this encouraged the EBRD to tailor its financial instruments ... to the ability of the local financial system to assume key responsibilities”. These credit constraints operate in a variety of different ways. In most SEE countries, an underdeveloped capital market forces entrepreneurs to rely on self-financing or borrowing from friends and relatives. Pissarides also points to the lack of equity capital and lack of access to long term credits for SMEs, so that small firms are forced to rely on high cost short term finance. Financial barriers, which affect SMEs, include the high cost of credit, relatively high bank charges and fees, high collateral requirements, and a lack of outside equity and venture capital. Often, domestic banks are orientated to providing loans to insolvent large enterprises. Information asymmetries between lenders and borrowers make it hard for banks to determine the real value of a project, and lead to credit rationing (Stiglitz and Weiss, 1981). The high risk of credit to SMEs with information asymmetry may explain the relatively high interest rates charged to those borrowers, and the demands made on SMEs by banks for high collateral and loan guarantees. Nevertheless, entrepreneurs may be reluctant access formal sources of outside equity capital which dilutes their control of the firm (an issue which is also relevant in developed economies – Hamilton and Fox, 1998).

### *3.5 Social barriers*

Recent research in the field of economic sociology has emphasised the importance of social capital, trust and network ties between entrepreneurs as factors stimulating the development of the SME sector (Grabher and Stark, 1997; Raiser, 1999). Without a degree of trust between business partners, the parties to a transaction will feel exposed to opportunistic behaviour which will either raise the transactions costs of doing business or even prevent the transaction being carried out altogether. In some SEE economies these problems seem to have been addressed by narrowing down the range of social ties to relatively narrow ethnic or family groups. There is an absence of open networks in which economic agents can place trust in anonymous trading partners or in casual acquaintances. The reliance on personal connections replaces the anonymous market transaction as a basis for doing business. Clientelism, paternalism and corruption can flourish in such an atmosphere.

Small firms may need an institutional support network to overcome some of these (and other previously mentioned) barriers to growth. Local enterprise agencies can ideally provide much needed support to new and growing SMEs in the form of provision of information, advice and training services (“real services”). These services may be a more effective way of overcoming the barriers to SME development than the provision of financial assistance alone. But there are many issues, which need to be addressed in

making such institution-building policies successful. A key issue is the role of the state in supporting them. Too close a link to the state may lead to suspicion and mistrust by potential SME clients. Yet the support institutions may not be sustainable propositions if transformed into private companies and left to rely on the market alone for their future survival (Bateman, 1999).

This suggests that an approach based on a public/private partnership approach may be needed to underpin a sustainable and responsive institutional support structure (Franičević and Bartlett, 2000). Alternatively the re-invention of the Local Authority as the principal locus for SME support has been proposed by Bateman (2000), while others have emphasised the importance of the creation of Local Development Coalitions to encourage a user-oriented and participative approach to SME support services (Bukvič, Krc, Mayr, Penca and Rus, 2000).

#### **4. SME growth and SME policy in Slovenia**

The importance of social ties and business networking for reducing the social barriers to SME development has been emphasized in the Slovenian approach to SME policy. The policy approach is based upon the hypothesis that SME development can be promoted by the activities of local actors and development coalitions including: SME development agencies, local governments, chambers of commerce, business associations, entrepreneurs associations and clubs, local NGOs, local banks, colleges & universities, and networks of firms (business-to-business support). Thus, in contrast to other SEE countries, a much more supportive institutional framework has been in place in Slovenia for since the early 1990s (Bartlett and Prašnikar, 1995; Bartlett and Hoggett, 1998; Bartlett, 2000).

Early initiatives were coordinated through a Ministry for Small Business, later absorbed into the Ministry of Economic Affairs as the Small Business Development Centre (SBDC). The SBDC has established a small business development network. Its membership includes the Slovenian Business Innovation Network comprising 210 promotional and innovation centres, the Association of Business Consultants, the Slovenian Business Incubator Group linking 17 business incubators, the Slovenian Association for Venture Capital, linking 15 risk capital funds and 42 municipal funds, and the Association of Business Clubs and Societies with 12 member organisations. The network has been criticized for a lack of coordination between the members (Glas, 1996). In 1996 therefore, a new bottom up approach was initiated in which coalitions of local partners were invited to bid for funds to establish Local Business Centres. The role of these local centres is to act as one-stop shops for business advice and training. In addition a number of local guarantee funds and venture capital funds have also been established.

Although this approach does not necessarily address the full range of concerns which are encompassed by the term 'social capital', its relative success indicates that it may be a way forward for other SEE countries, beyond the 'finance first' dictum promoted by international financial institutions such as the EBRD. Our empirical research allows us to

shed some light on these competing claims concerning the relative merits of different approaches to SME policy in Slovenia.

## 6. The SME survey design

The research was designed to uncover the extent to which SME policies in Slovenia have succeeded in dealing with barriers to growth facing SMEs, to determine the main types of barriers which continue to hinder transition and development, and to provide pointers to successful experience which could be useful in comparable economies elsewhere in Southeast Europe. The first stage of the research involved a sample survey of SMEs, followed up by a set of case studies of fast and slow growth firms<sup>2</sup>. The survey covered 173 small and medium sized firms in all sectors of the Slovenian economy except agriculture. The wide coverage of economic sectors ensured that the sample would be representative of the SME sector as a whole, rather than being restricted to a particular section of the economy. The sample was random with a number of quotas including a purposeful under-sampling of firms in the trade sector (which was limited to a maximum of 30% of the total sample). The sample was also restricted to firms with at least 2 employees but no more than 250. This was designed to avoid swamping the sample with a large number of micro firms, and to capture medium sized firms as well as smaller firms in the sampling frame. The data were collected by personal interviews with owners and managers of the selected firms in the autumn of 2000. Comparable surveys were also carried out in Bosnia and Macedonia, the results of which will be reported in later papers.

## 7. Survey findings

### 7.1. *Employment growth, size and sector*

The surveyed firms had a mean size of just over 18 full time employees, with a median size of 5 (see Appendix Table 1). Of the 167 firms for which data on employment were recorded in both 1997 and 1999, 65 had expanded employment over the three years, 70 had stayed at the same size and 32 had reduced employment. The mean size of the growing firms was just under 15 employees, while the mean size of the shrinking firms was just over 46 employees. Clearly the smaller firms in the sample were delivering better economic performance than the larger (medium sized) firms. The mean size of firms which recorded no change in employment size was 8.5. This indicates that the very smallest firms are not so likely to expand employment as firms in an intermediate range. The differences in average size of firms in these three groups was significant at the 1% level, with a F statistic of 19.15.

2. This paper reports on the interim findings of the sample survey only which has since been further supplemented by interviews with thirty seven firms.



The data shown in Table 2 indicate that firms in the manufacturing and construction sector were more likely to be among the group of growing firms than firms in the services, retail and wholesale sectors. In manufacturing, over 25% of firms were growing compared to only 20% of the whole sample. On the other hand, manufacturing firms were also most likely to be among the group of shrinking firms. Over one half of firms in the services, retail and wholesale sectors remained stable over the three years between 1997 and 1999, neither gaining nor losing employees. The difference among groups was significant at the 10% level with a  $\chi^2=16.04$

### *7.2. Barriers to growth*

The survey asked the respondents to indicate the severity of a number of barriers to business expansion. The barriers were placed in five groups covering (a) institutional, (b) internal organisation and resources, (c) barriers external to the firm, (d) finance and (e) social barriers. Altogether, 56 potential barriers to expansion were identified and included in the questionnaire. Table 3 to Table 7 in the Appendix presents the key findings of the survey concerning the barriers which the sample firms faced, grouped in problem areas covering institutional, internal, external, financial and social barriers.

Among the institutional barriers, the general problem of too much bureaucracy and the specific problem of too many licenses needed rank the most important, with 39% and 37% of firms viewing these as “very important” barriers to business expansion (i.e. response code=5 on a scale 1-5). Among internal barriers, the problem of high labour taxes clearly ranks as the most important barrier with 47% of firms regarding this as “very important”. Among external barriers, late payment of bills is ranked most highly with 49% of firms viewing this as a “very important” problem. Among financial barriers, the high cost of credit and loans and high collateral requirements are ranked the most serious barriers, with 44% and 41% of firms respectively viewing these as “very important”. Finally, among social barriers, a lack of state support is seen as the most serious, with 28% regarding this as a “very important” barrier to business expansion. Clearly, overall, social barriers are seen as less serious than the other types of barriers which each have at least one issue which around 40% of firms of more find an extremely serious barrier to growth. This may reflect success in the Slovenian efforts to reduce social barriers by setting up Local Development Coalitions to support SME growth.

Table 8 presents the most problematic barriers to business expansion facing Slovenian SMEs, ranked by the incidence of very high barriers. Of these, two are from the group of institutional barriers, one, from the group of internal barriers, two are external barriers and three are financial barriers. Financial barriers, as predicted by Pissarides (1999), are highly important barriers but do not top the list. Late payment of bills and high labour taxes, precede the high cost of loans as the key barriers facing SMEs in Slovenia.

But do these barriers have a real impact on the growth of firms? It may be that the subjective estimates of the respondents to the survey are misconceived and do not reflect reality. Survey research is beset by the problem of subjectivity of respondents' replies to

questions. Pissarides, Singer and Svejnar (2000) study the determinants of a similar set of perceptions about barriers to growth in their study of two samples of SMEs in Russia and Bulgaria. In this paper, in order to test the hypothesis that the five groups of barriers have real effects on firms' growth, we developed a model explaining firm growth based upon the standard approach in the literature which was discussed above, namely the firm-size growth relationship.

### 8. Barriers to growth in Slovenia: a regression model

In our econometric estimates and test of the hypothesis that the various types of barriers reduce potential growth of SMEs we first estimated the growth-size, and growth-size-age relationships for our sample. We then supplemented this basic model with the barriers to growth reported by our respondents. Based on the assumption that the reported importance of a barrier is strongly correlated to its real strength, we expected that strong barriers would reduce firms' predicted growth rates from the basic benchmark model estimated in the first stage. We were interested in estimating the size of these effects and identifying the key variables which policy makers would have to influence to improve the growth of the SME sector. The empirical results indicated that both the growth-size model and the growth-size-age model fit the data well.

$$\begin{aligned} \ln(\text{employment growth}) &= -0.139 - 0.493 * \ln(\text{employment}) \\ &\quad (0.719) (5.95)** \\ \bar{R}^2 &= 0.35; F = 35.4** \end{aligned} \tag{1}$$

In equation (1) the natural log of employment growth between 1997 and 1999 was regressed on the natural log of employment size in 1997. Taking logs of the data transformed the skewed size data into a normal distribution. Of course, it means that only firms which experienced positive growth are included in the estimates (N=65). *The results indicate, in line with most comparable studies, that there is a negative relationship between growth and size of firm.* The coefficient on size is significant at the 1% level. The coefficient is negative, confirming that smaller firms grow faster than larger firms. The size of the coefficient indicates that a 1% increase in firm size brings about a 0.5% decrease in the rate of growth. Variations in the size of firms explains 35% of the variation in firms' growth..

$$\begin{aligned} \ln(\text{employment growth}) &= -0.554 - 0.435 * \ln(\text{employment}) - 0.37 * \ln(\text{firm age}) \\ &\quad (1.45) (5.09)** \quad (2.09)* \\ \bar{R}^2 &= 0.38; F = 20.3** \end{aligned} \tag{2}$$

The second regression supplements the first by the age of firms since their start up. This is justified by the assumption of learning effects. Following Jovanovic (1982), it is argued that firms learn about their real efficiency and costs over time. The argument is that there are diminishing returns to learning as time goes by, and so there are diminishing opportunities

for growth as firms age. This relationship is borne out by the estimates in equation (2). The coefficient of the natural log of firm age is negative and significant at the 10% level.

A basic issue which we had to deal with in developing the empirical research was the selection of relevant variables from each of the groups of barriers. Owing to the high degree of collinearity within the groups, we decided to select, for inclusion in the model, those barriers which the highest proportion of respondents regarded as “very important”. The results of this exercise are reported in Table 9 in the Appendix. In the first column the benchmark equation (2) is supplemented by the inclusion of dummy variables for the effects of bureaucracy, labour taxes, late payment of bills, high cost of credit and the support of the local authority. The latter was chosen in preference to the more ambiguous “support of the state” in order to test the proposition that “local development coalitions” are a useful policy instrument to promote SME growth. The dummy variables take a value of “1” if the respondent reported the respective barrier as “very important”, else “0”. A negative coefficient on the dummy therefore indicates that the barrier reduces growth, a positive coefficient that it increases it. A further dummy variable, “university education” is included to indicate a salient characteristic of the entrepreneur. It takes the value of “1” if the respondent has had a university education, and “0” if not. Several other qualitative variables from the survey were also included in various estimations of the model. Only education level turned out to be a significant (negative) determinant of firm growth<sup>3</sup>.

Equation (8b) in Table 9 indicates that growth is lower in firms which experience severe problems with bureaucracy, and for whom the high cost of credit is a serious issue. The importance of the negative influence of bureaucracy on growth supports the institutionalists, while the negative influence of the cost of capital supports those, like Pissarides (1999), who argue that financial barriers are key obstacles to private sector development and transition in Eastern Europe. The age of the firm, late payment of bills, support of the Local Authority, and education are not significant explanatory variables in this regression model. The raw responses to the survey indicated already that entrepreneurs do not experience a serious lack of Local Authority support. The regression results further indicate that even where this is a serious problem, the real impact on growth is in fact negligible. Further investigation of the reasons for this would be warranted. Does it mean the Slovenian policy to support SMEs locally is successful, or does it mean that Local Authorities support is irrelevant to SMEs?

Unexpectedly, labour taxes as a perceived barrier has a significant positive coefficient. One possible explanation is that labour taxes are experienced as a greater abstract by fast growing firms than by slow growing firms rather than being truly causal and should be dropped from the regression analysis. An alternative explanation, which we pursue below, is that the impact of this variable works indirectly through interaction effects with size or age.

3. Experiments including sector dummies indicated that there were no specific effects arising from different sectors (manufacturing, services and so on). This may be linked to the non-linear bivariate relationship between growth and sector reported above (in the manufacturing sector in particular). This warrants further research on the survey sample data in the future.

Late payment of bills has no significant effect on growth and was dropped from the equation in the second estimation, equation (9b). In this model education turns out to be a significant explanatory variable, but with a negative sign, indicating that higher education is not a prerequisite of successful entrepreneurship. In fact, if the results of this regression model are to be believed, it implies quite the opposite: firms whose owners have a university degree have lower rates of growth than other firms. A similar result was observed in a study of small firm growth in the UK service sector (Johnson, Conway and Kattuman, 1999). They observe that “it is possible for the owners and employees to be overqualified in a way which generates a level of frustration that is inimical to growth” and which outweighs the otherwise expected positive human capital effects of education.

Equations (9c) and (9d) drop the insignificant firm age and local authority variables. The resulting model (9d) indicates that, given the size of firms, the variables *bureaucracy*, *cost of capital* and *education* all have negative influences on firm growth, and that *labour taxes* has a positive influence.

But these equations do not take into account possible interaction effects of the dummy variables with size and age of firm. Equations (11c) and (11b) make up for this by introducing three dummy variables X9A (ln size x cost of capital), X2I (ln size x labour taxes) and Z1A (ln age x bureaucracy). These were identified by a number of experiments with the regression model using the procedure of backward elimination. The results indicate that the cost of credit has a more serious negative impact on growth for larger firms compared to smaller firms. Labour taxes have a direct negative impact on growth but an indirect positive interaction with firm size, although both are insignificant. The impact of bureaucracy on growth varies according to the age of firms, with older firms being more adversely affected by bureaucratic obstacles to growth than younger firms. The coefficients on the interaction terms are all highly significant at the 5% level. The equation residuals are normally distributed in all estimations. The equations explain almost 50% of the variation in employment growth among SMEs.

## 9. Policy conclusions

International organisations have been increasingly engaged in the development of the small business sector in Slovenia, as in other transition economies in Central and Southeast Europe. A view has arisen that financial barriers present the most severe obstacles to SME development in these countries (Pissarides 1998). This position has been stressed by the international financial institutions such as the EBRD and the World Bank. Other non-financial organisations such as the PHARE programme have stressed the importance of non-financial barriers, which are either external to the firm (such as the business and regulatory environment) or internal to the firm (such as lack of managerial skills, information and training). The World Bank has characterised the different types of actions needed to eliminate these various barriers as three “pillars” of SME support (World Bank 2000). The *first pillar* involves inputs of finance through SME credit lines, development of

micro-finance banks, or setting up equity capital funds. The *second pillar* involves actions designed to establish “fair and transparent” tax systems and improvements to the regulatory framework. The Investment Compact proposed by the OECD and the establishment of Business Advisory Councils, are measures within the Stability Pact designed to address these issues of the business and institutional environment within which SMEs operate. The *third pillar* involves the creation of supportive institutions and support networks. For example, the PHARE programme of technical assistance has been active in setting up enterprise agencies such as the NEPA in Macedonia and other agencies and training programmes to support SME development through the provision of “real services” in the form of information, advice and training.

Our research findings indicate that the first pillar focus on finance may be well directed. Even in Slovenia, one of the more developed transition economies, SMEs experience financial barriers to growth. In our regression analysis the experience of problems with the high cost of capital was one of the variables which had a significant negative impact on the growth of employment, especially for larger firms. Other related financial issues, including high collateral requirements and high bank charges were considered to be important obstacles by the firms in the survey. Second pillar issues connected with the institutional environment were also problematic for SMEs. In particular the experience of high levels of bureaucracy was shown to lead to lower growth, especially for older firms. Specific related issues such as a requirement for too many licences were also important for a large proportion of firms, as were tax issues including social security payments and profits taxes. However high levels of taxation did not significantly reduce growth rates. This is line with research carried out in the UK which has shown that the tax cuts implemented in the 1980s had no effect on business growth. Entrepreneurs preferred to increase consumption rather than investment when taxes were cut. Third pillar issues related to the social support for SME development did not pose a great problem for SMEs in Slovenia. This may reflect the relative success of existing local development coalitions in support of entrepreneurial activity. Overall, financial and institutional problems such as bureaucracy, rather than internal organisational problems or problems with the provision of “real services”, seems to be the most pressing SME policy issues in Slovenia.

The research also revealed some unexpected results. The most widely perceived barriers to business growth were late payment of bills by customers, and large taxes on labour. However the regression results showed that late payment of bills had little influence on the actual growth of firms. It may be that this is more of a nuisance than a serious obstacle to economic activity. Alternatively, and more likely, the lack of significance of this variable indicates that it is a serious problem facing all firms, and that its impact does not discriminate between fast and slow growth firms. Surprisingly, firms which experienced labour taxes as a serious problem appeared to have higher rates of growth than other firms. This may indicate a problem of reverse causality with faster growing firms experiencing the worst problems. However, our extended regression analysis indicated a negative but insignificant direct effect when the indirect effect through firm size was taken into account.

Finally there are a number of cautions which need to be indicated and a number of areas of

future research which the present study suggests. The main caution in interpreting the results of the regression equations is that they are not generalisable to all firms. Strictly speaking they are applicable only to firms which are in any case growing. They do not encompass non-growth or shrinking firms. A wider analysis of the barriers to all firms, whether growing or not, will be reported in a subsequent paper. Further research is also needed into differences in barriers to growth facing different sectors of the economy, and further detailed analysis of the survey data to encompass other dimensions of interest including differences between innovative and non-innovative firms, and firms engaged in various networking activities including subcontracting, both of these dimensions are captured in the survey results.

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**APPENDIX**

Table 1: NUMBER FULL TIME EMPLOYEES 1997 BY EMPLOYMENT GROWTH CLASS

<i>Employment growth class</i>	<i>Mean</i>	<i>Median</i>	<i>% of firms.</i>	<i>N</i>
<i>Shrinking</i>	46.34	14.00	19.6%	32
<i>No growth</i>	8.47	3.00	41.8%	70
<i>Growing</i>	14.71	6.00	38.6%	65
<i>Total</i>	18.16	5.00	100%	167

$F = 19.15^{***}$

Table 2: EMPLOYMENT GROWTH BY SECTOR (% OF FIRMS)

	<i>Shrinking</i>	<i>No growth</i>	<i>Growing</i>	<i>Total</i>	<i>N</i>
<i>Manufacturing</i>	25.6%	25.6%	48.7%	100%	39
<i>Services</i>	13.7%	50.7%	35.6%	100%	73
<i>Construction</i>	33.3%	16.7%	50.0%	100%	12
<i>Retail</i>	21.4%	50.0%	28.6%	100%	14
<i>Wholesale</i>	15.8%	52.6%	31.6%	100%	19
<i>Total</i>	19.6%	41.8%	38.6%	100%	158

*Pearson  $\chi^2=16.04^*$*

Table 3: INSTITUTIONAL BARRIERS TO GROWTH

	<i>Very high barrier (%)</i>	<i>Mean score (Scale 1-5)</i>
Bureaucracy	39.4	3.68
Too many licences	37.3	3.64
Accounting standards	26.0	3.21
Licenses refused	24.0	3.16
Public procurement regulations	21.6	2.81
Lack of support services	15.5	2.81
Need for certificates	14.8	2.66
Lack of market information	12.4	2.69
Lack of finance information	11.2	2.76
Threats from competitors	9.5	2.17
Environmental regulations	8.9	2.34
Need to bribe officials	4.4	1.93



Table 4: INTERNAL BARRIERS TO GROWTH

	<i>Very high barrier (%)</i>	<i>Mean Score (Scale 1-5)</i>
Large severance pay	47.1	4.16
High labour costs	22.7	3.31
High dismissal costs	18.9	2.64
Long notice layoff	17.7	2.62
Family labour shortage	15.9	3.07
Limits on fixed term workers	15.7	2.73
Lack space	14.6	2.44
Lack capacity	10.6	2.44
Lack management time	8.8	2.50
Low skills labour	7.7	2.32
Poor labour relations	7.6	2.02
Poor quality equipment	6.4	2.21
Lack training opportunities	4.7	2.14
Labour shortages	2.3	1.47

Table 5: EXTERNAL BARRIERS

	<i>Very high barrier (%)</i>	<i>Mean Score (Scale 1-5)</i>
Late payment	49.1	3.92
High social security payments	39.2	3.84
High profits tax	36.8	3.60
High income tax	25.7	3.21
Lack of market demand	19.2	3.06
Access raw materials	6.4	1.97
Export difficulties	4.2	1.77

Table 6: FINANCIAL BARRIERS TO GROWTH

	<i>Very high barrier (%)</i>	<i>Mean Score (Scale 1-5)</i>
Cost of credit	44.2	3.87
High collateral requirements	41.1	3.71
Bank charges	30.0	3.41
Bank bureaucracy	26.4	3.16
Banks ignore SME	23.4	2.79
Long time to get loan	22.8	2.90
Cost to prepare business plan	15.7	2.86
Lack access venture capital	15.6	2.77
Lack access equity capital	15.1	2.76
Refusal of bank finance	11.2	2.20

Table 7: SOCIAL BARRIERS TO GROWTH

	<i>Very high barrier (%)</i>	<i>Mean Score (Scale 1-5)</i>
Lack of state support	28.1	3.25
Lack of support from LA	21.1	2.90
Lack of support from Chamber	16.5	2.81
Lack support business assoc.	11.2	2.56
Lack of consultancy services	11.1	2.53
Lack of trust in society	10.7	2.48
Lack foreign partners	10.6	2.28
Lack support friends & family	5.3	1.72

Table 8. TOP TEN BARRIERS TO BUSINESS EXPANSION: SLOVENIA 2000

<i>Barrier</i>	<i>Very high barrier (%)</i>	<i>Mean Score (Scale 1-5)</i>
Late payment of bills (c)	49.12	3.92
Large severance payments (b)	47.06	4.16
Cost of loans (d)	44.19	3.87
High collateral payments (d)	41.07	3.71
Too much bureaucracy (a)	39.41	3.68
High social security payments (c)	39.18	3.84
Too many licences needed (a)	37.28	3.64
High profits tax (c)	36.84	3.60
Employment laws (a)	31.80	3.45
High bank charges (c)	30.00	3.41

*Scale: 1=not important to 5=very important; (a) indicates an institutional barrier, (b) an internal barrier, (c) an external barrier, (d) a financial barrier.*

Table 9: OLS REGRESSION; DEPENDENT VARIABLE: LN (EMPLOYMENT GROWTH)

	8b	9b	9c	9d	11c
<i>ln (employment)-</i>	-0.464 (5.10)**	-0.467 (5.23)**	-0.467 (5.27)**	-0.512 (6.11)**	-0.529 (5.21)**
<i>ln (age of firm)</i>	-0.270 (1.44)	-0.257 (1.43)	-0.259 (1.45)		
<i>Bureaucracy</i>	-0.347 (1.79)*	0.343 (1.79)*	-0.341 (1.80)*	-0.340 (1.77)*	
<i>Labour taxes and contributions</i>	0.340 (1.80)*	0.345 (1.84)*	0.347 (1.88)*	0.401 (2.20)**	-0.096 (0.256)
<i>Late payment</i>	0.055 (0.28)				
<i>Cost of credit</i>	-0.405 (1.97)*	-0.397 (1.96)*	-0.387 (2.07)**	-0.417 (2.22)**	
<i>Local Authority</i>	0.018 (0.08)	0.030 (0.13)			
<i>University education</i>	-0.327 (1.63)	-0.334 (1.70)*	-0.336 (1.72)*	-0.338 (1.72)*	-0.374 (1.96)*
<i>X9A</i> (Cost of credit x ln size)					-0.200 (2.58)**-
<i>X2I</i> (Labour taxes x ln size)					0.231 (1.45)
<i>Z1A</i> (Bureaucracy x ln age)					-0.184 (2.15)**
<i>Constant</i>	0.670 1.58	0.666 (1.59)	0.671 (1.62)	0.181 (0.74)	0.248 (0.96)
	$\bar{R}^2=0.43$ F=6.9**	$\bar{R}^2=0.44$ F=8.0**	$\bar{R}^2=0.45$ F=9.5**	$\bar{R}^2=0.44$ F=10.7**	$\bar{R}^2=0.47$ F=10.2**

Note: Bureaucracy, severance pay, late payment, cost of credit, local authority, university education, are dummy variables, equal to 1 where the respective barrier to firm's expansion is recorded as 5 on a scale of 1=not important to 5=very important; values 1 to 4 are coded as "0". Significance levels are indicated by "\*\*\*" for 1% level and "\*" for 5% level.

