

Points of view
Entrepreneurship, small business and economic growth

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Abstract

Looks at the relationship between small business and entrepreneurship and also the differences between the two. Stresses that both are important separately and, in addition, notes where they overlap. Posits that in the early part of the last century small businesses were both vehicles for entrepreneurship and sources of employment and income but, although still important in the post-war years, large firms made great inroads in the 1960s and 1970s. Concludes that government's central role in entrepreneurialism for the economy is, by its very nature, enabling. Furthermore, entrepreneurship is acknowledged as a driver for economic growth, competitiveness and job creation.

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Entrepreneurship and small business matter in varying ways

Entrepreneurship and small business are related but certainly not synonymous concepts. On the one hand, entrepreneurship is a type of behaviour concentrating on opportunities rather than resources (Stevenson and Gumpert, 1991). This type of behaviour can happen in both small and large businesses but also elsewhere. On the other hand, small businesses can be a vehicle both for Schumpeterian entrepreneurs introducing new products and processes that change the industry and for people who simply run and own a business for a living (Wennekers and Thurik, 1999). The latter group includes many franchisees, shopkeepers and people in professional occupations. They belong to what Kirchhoff (1994) calls "the economic core". That both entrepreneurship and small businesses matter is not a new observation. In particular, they are important where they overlap. This is in the area of new small and often fast-growing businesses. However, the way in which they matter has evolved over time. During the first decades of the last century, small businesses were both a vehicle for entrepreneurship and a source of employment and income. This is the era in which Schumpeter (1912) conceived his *Theory of Economic Development*. Here Schumpeter (1912) emphasizes the role of the entrepreneur as a prime cause of economic development. He describes how the innovating entrepreneur challenges incumbent firms by introducing new inventions that make current technologies and products obsolete. This process of creative destruction is the main characteristic of what has been called the Schumpeter Mark I regime.

During the post-war years small business still mattered, but increasingly less on the grounds of economic efficiency, and more for social and

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political purposes. In a time when large firms had not yet gained their powerful position of the 1960s and 1970s, small businesses were the main supplier of employment and hence of social and political stability. Scholars, such as Schumpeter (1942), Galbraith (1967) and Chandler (1977), had, however, convinced the economists, intellectuals and policy makers of the post-war era that the future was in the hands of large corporations and that small business would fade away as the victim of its own inefficiencies. Policy in the USA was divided between allowing for the demise of small business on economic grounds, on the one hand, and preserving at least some semblance of a small-enterprise sector for social and political reasons, on the other. Small business, it was argued, was essential to maintaining US democracy in the Jeffersonian tradition. Certainly, passage of the Robinson-Patman Act (Foer, 2001), which has been accused of protecting competitors and not competition (Bork, 1978), and creation of the United States Small Business Administration were policy responses to protect less-efficient small businesses and maintain their viability. These policy responses are typical of a Schumpeter Mark II regime. In *Capitalism, Socialism and Democracy*, Schumpeter (1942) focuses on innovative activities by large and established firms. He describes how large firms outperform their smaller counterparts in the innovation and appropriation process through a strong positive feedback loop from innovation to increased R&D activities. This process of creative accumulation is the main characteristic of what has been called the Schumpeter Mark II regime.

In Audretsch and Thurik (2001) the two Schumpeterian regimes are used in the framework of two broader concepts of organizational economies:

- (1) the managed; and
- (2) the entrepreneurial.

They introduce the concept of the managed economy that flourished for most of the last century. It was based on relative certainty in outputs, which consisted mainly of manufactured products, and in inputs, which consisted mainly of land, labour and capital. The twin forces of globalization and the

telecommunications and computer revolutions have drastically reduced the cost of shifting not just capital but also information out of the high-cost locations of Europe and into lower-cost locations around the globe. This means that economic activity in a high-cost location is no longer compatible with routinized tasks. Rather, globalization has shifted the comparative advantage of high-cost locations to knowledge-based activities, and in particular search activities, which cannot be costlessly transferred around the globe. Knowledge as an input into economic activity is inherently different from land, labour and capital. It is characterized by high uncertainty, high asymmetries across people and is costly to transact. The response to a trend establishing knowledge as the main source of comparative advantage is the entrepreneurial economy. Audretsch and Thurik (2001) identify 15 characteristics that differ between the entrepreneurial and managed economies and provide a framework for understanding how the entrepreneurial economy fundamentally differs from the managed economy.

The aim of the present contribution is to show that, since the 1970s, the world has changed considerably, and that this change has had consequences for the current policy debate. It deals with some aspects of the recent scientific literature on the relation between entrepreneurship and small business, on the one hand, and economic growth, on the other. In particular, it gives a summary of some work of the EIM/CASBEC research group in The Netherlands. It refers to scientific analyses showing that countries that are lagging behind in the process of restructuring will pay a penalty in terms of forgone growth (see Carree and Thurik (2003) for an extensive survey of the literature on the relation between entrepreneurship and economic growth).

Small business as a vehicle for entrepreneurship

In today's world small businesses, and particularly new ones, are seen more than ever as a vehicle for entrepreneurship, contributing

not just to employment and social and political stability, but also to innovative and competitive power (Wennekers and Thurik, 1999). In short, the focus has shifted from small businesses as a social good that should be maintained at an economic cost to small businesses as a vehicle for entrepreneurship. With this shift came the renewed perception of the important role of entrepreneurship. Indeed, recent econometric evidence suggests that entrepreneurship is a vital determinant of economic growth (Audretsch and Thurik, 2000; Audretsch *et al.*, 2002b; Carree and Thurik, 1999; Carree *et al.*, 2002; Audretsch *et al.*, 2001). According to Audretsch *et al.* (2002a), a cost in terms of forgone economic growth will be incurred from a lack of entrepreneurship. The positive and statistically robust link between entrepreneurship and economic growth has now been verified across a wide spectrum of units of observation, spanning the establishment, the enterprise, the industry, the region, and the country.

Thus, while small business has always mattered to policy makers, the way in which it has mattered has drastically changed. Confronted with rising concerns about unemployment, job creation, economic growth and international competitiveness in global markets, policy makers have responded to this new evidence with a new mandate to promote the creation of new businesses, i.e. entrepreneurship (see Reynolds *et al.* (2000)). Initially, European policy makers were relatively slow to recognize these links but since the mid-1990s have rapidly built momentum in crafting appropriate approaches (see EIM/ENSR (1993, 1994, 1995, 1996, 1997) and Audretsch *et al.* (2002b)). Yet, without a clear and organized view of where and how entrepreneurship manifests itself, policy makers are left in uncharted waters without an analytical compass. This explains the variation in their responses (European Commission, 2000, 2001; Audretsch *et al.*, 2002b). The so-called Green Paper (European Commission, 2003) is the first EU document extolling the virtues of entrepreneurship as the most important driver in the economy and paving the way for Union-wide stimulation programmes.

Five stages of policy reactions in the European Union

The general assumption is that the USA has been much quicker to absorb the virtues of entrepreneurship than Europe. Given that entrepreneurship is a vital determinant of economic growth, the idea is that much of the excess growth of the USA when compared with European countries is due to this lead. The European countries have been relatively slow to follow suit. Clearly, the European response varied across countries. Nevertheless, by and large, five distinct stages can be discerned of the evolution of the European stance towards the entrepreneurial economy (Audretsch *et al.*, 2002b, pp. 4-6).

The first stage was denial. During the 1980s and early 1990s, European policy makers looked to Silicon Valley with scepticism and doubts. After all, in 1968 Jean-Jacques Servan-Schreiber had warned Europeans about the "American challenge" in the form of the giant US corporations which needed to amass the requisite resources for innovation. Servan-Schreiber advocated the "creation of large industrial units which are able both in size and management to compete with the American giants". Europe was used to looking across the Atlantic and facing a competitive threat from large multinational corporations, such as General Motors, US Steel and IBM, and not from nameless and unrecognisable start-up firms in exotic industries such as software and biotechnology. The emerging firms, such as Apple Computer and Intel, seemed interesting but without any sufficient relevance for the incumbent businesses in the automobile, textile, machinery and chemical industries, which were the then obvious engines of European competitiveness.

The second stage, during the mid-1990s, was recognition. Europe recognized that the high performance of the entrepreneurial economy in Silicon Valley did deliver a sustainable long-run performance. The theory of comparative advantage typically evoked during this phase was that Europe's most important economy, Germany, would provide the automobiles, textiles and machine tools. The entrepreneurial economy of Silicon Valley, Route 128 and the Research Triangle would produce the software

and microprocessors. Each continent would specialize in its comparative advantage and then they would trade with each other. Thus, Europe held to its traditional institutions and policies, channelling resources into traditional moderate technology industries.

The third stage, during the second-half of the 1990s, was envy. As Europe's unemployment soared into double digits and growth stagnated, the capacity of the US entrepreneurial economy to generate both jobs and higher wages became the object of envy. The USA and Europe seemed to be on divergent trajectories. The separate but equal doctrine from the concept of comparative advantage yielded to the different but better doctrine of dynamic competitive advantage. As the entrepreneurial economy continued to diffuse across the USA, most policy makers, particularly in large countries such as Germany and France, despaired that European traditions and values were simply inconsistent and incompatible with the entrepreneurial.

The fourth stage, during the final years of the last century, was consensus. European policy makers reached a consensus that – in the terminology of Audretsch and Thurik (2001) – the new entrepreneurial economy was superior to the old managed economy. Moreover, in their opinion a commitment had to be forged to creating a new entrepreneurial economy. Leaders like Tony Blair and Gerhard Schroeder defied the politics and policies of their traditional left-oriented parties in leading the way of privatization, deregulation and encouraging entrepreneurship. Rather than despairing that the USA had what Europe could not attain, a broad set of policies were instituted to create a new entrepreneurial economy. These European policy makers looked across the Atlantic and realized that, if places such as North Carolina, Austin, and Salt Lake City could implement very conscious and targeted policies to create the entrepreneurial economy, cities such as Munich and Randstad (the “circular” agglomeration spanning Rotterdam, The Hague, Utrecht and Amsterdam) could do the same. After all, Europe had a number of advantages and traditions favouring the emergence of the entrepreneurial economy, such as a highly educated and skilled labour force, world-class research institutions and its

variety in cultures and hence innovative approaches to new products and organizations. These phenomena would provide a perfect framework for absorbing the high levels of uncertainty inherent in the entrepreneurial economy (Audretsch and Thurik, 2001).

The fifth stage is attainment. There are cautious signs that an entrepreneurial economy is finally emerging on the old continent. Consider the Green Paper on Entrepreneurship of the European Commission (http://europa.eu.int/comm/enterprise/entrepreneurship/green_paper/) presented in the Spring of 2003. It aims to stimulate debate among policy makers, businesses, representative organisations, journalists and experts on how to shape entrepreneurship policy for the future. It analyses a range of policy options and asks, within the proposed framework for entrepreneurship policy, a number of questions suggesting different options on how to make progress. (See Audretsch *et al.* (2002b) for further information on the five stages and some country studies on the determinants of entrepreneurship.)

Evidence of the shift to small business and entrepreneurship

There is ample evidence that economic activity moved away from large firms to small firms in the 1970s and 1980s. The most impressive and also the most cited is the share of the 500 largest US firms, the so-called *Fortune* 500. Their employment share dropped from 20 per cent in 1970 to 8.5 per cent in 1996 (Carlsson, 1992, 1999). European data dealing with the size distribution of firms were not available in a systematic manner until recently. However, Eurostat has begun publishing yearly summaries of the firm size distribution of (potential) EU-members at the two-digit level for the entire business sector. The efforts of Eurostat are supplemented by the European Network of SME Research (ENSR), a cooperation of 19 European institutes. This organization frequently publishes a report on the structure and the developments of the small business sectors in 19 European countries (see EIM/ENSR (1993, 1994, 1995, 1996, 1997) and European Commission (2000, 2002)).

Additionally, the annual *Global Entrepreneurship Monitor* will contribute to our knowledge of the rate of entrepreneurship, because it assembles unique data on nascent entrepreneurship and new business start-ups in a large number of countries across various phases of economic development (see Reynolds *et al.* (2000, 2001, 2002)).

Finally, there is the COMPENDIA data set of business ownership rates of 23 OECD countries in the period 1972-2000 (Audretsch and Thurik, 2000; Audretsch *et al.*, 2002b) (see Van Stel (2003) for a detailed documentation of this unique data set). Table I shows that there has been considerable disparity among OECD countries in business ownership rates both

across countries and over time. It also shows that the countries with the lowest rate of business ownership are Austria, Denmark, Finland, France, Luxembourg, Norway and Sweden. For these countries, three of which are Scandinavia, the rate of business ownership is below 8.5 percent in 2000. By comparison, the weighted sample average in 2000 is approximately 11 percent. By contrast, in five countries: Australia, Greece, Italy, Portugal, and New Zealand, the business ownership rate exceeds 14 percent. Note that three of these countries are Mediterranean. Taken as a whole, the number of business owners in the 23 countries grew from about 29 million in 1972 to about 45 million in 2000. The proportional

Table I Business owners per labour force in 23 OECD countries

	1972	Level 1986	2000	Growth		Country share in total business owners		
				1972-1986	1986-2000	1972	1986	2000
Australia	0.126	0.165	0.158	0.039	-0.008	0.025	0.033	0.034
Austria	0.093	0.066	0.083	-0.026	0.016	0.010	0.006	0.007
Belgium	0.105	0.106	0.117	0.001	0.012	0.014	0.011	0.012
Canada	0.079	0.100	0.131	0.021	0.031	0.025	0.035	0.048
Denmark	0.082	0.063	0.061	-0.020	-0.001	0.007	0.005	0.004
Finland	0.066	0.066	0.081	0.000	0.015	0.005	0.004	0.005
France	0.113	0.098	0.084	-0.016	-0.014	0.084	0.062	0.049
Germany (West)	0.076	0.069	0.087	-0.007	0.018	0.070	0.052	0.078
Greece	0.161	0.182	0.191	0.021	0.009	0.018	0.018	0.019
Iceland	0.111	0.099	0.133	-0.012	0.035	0.000	0.000	0.000
Ireland	0.077	0.087	0.113	0.010	0.026	0.003	0.003	0.004
Italy	0.143	0.167	0.185	0.024	0.019	0.096	0.098	0.099
Japan	0.125	0.125	0.097	0.000	-0.028	0.220	0.195	0.146
Luxembourg	0.107	0.078	0.061	-0.028	-0.017	0.001	0.000	0.000
The Netherlands	0.100	0.082	0.109	-0.019	0.028	0.020	0.014	0.020
New Zealand	0.106	0.115	0.142	0.009	0.027	0.005	0.005	0.006
Norway	0.097	0.084	0.064	-0.013	-0.020	0.006	0.005	0.003
Portugal	0.113	0.108	0.140	-0.004	0.031	0.014	0.013	0.016
Spain	0.118	0.114	0.126	-0.005	0.013	0.053	0.043	0.050
Sweden	0.074	0.066	0.083	-0.008	0.017	0.010	0.008	0.008
Switzerland	0.066	0.070	0.087	0.004	0.017	0.008	0.007	0.008
UK	0.078	0.089	0.105	0.012	0.015	0.067	0.065	0.069
USA	0.080	0.103	0.100	0.023	-0.003	0.242	0.319	0.315
Average	0.098	0.107	0.107					
Total business owners (‘000s)						29,401	38,470	44,921

Note: Business owners include unincorporated and incorporated self-employed, and exclude unpaid family workers. Business owners in agriculture, hunting, forestry and fishing are excluded. Germany is West Germany for 1972 and 1986

Source: COMPENDIA 2000.2 (Van Stel, 2003)

growth of the labour force has been lower in this period, with the result that the rate of business ownership increased from 10 percent to 11 percent. Clearly, the USA is the country with the highest number of business owners: about 32 percent of the total 45 million business owners in the 23 countries in 2000 are situated within the USA, about the same percentage as in 1986. Countries that increased in business ownership rate by more than 2.5 percentage points in the period of 1986-2000 are Canada, Iceland, Ireland, The Netherlands, New Zealand and Portugal. Of these countries, Canada, Ireland and New Zealand also experienced a growth of the business ownership rate in the period prior to 1986. There are four countries suffering a decline in the business ownership rate in both periods: Denmark, France, Luxembourg, and Norway. Although Japan only had a decline in business ownership in the second period (1986-2000), this decline is particularly noteworthy, since its share in total business owners dropped from more than 20 percent in 1972 to 15 percent in 2000.

Causes of the change

Acs and Audretsch (1993) and Carlsson (1992) provide evidence concerning manufacturing industries in countries in varying stages of economic development. Carlsson (1992) advances two explanations for the shift toward smallness. The first deals with fundamental changes in the world economy from the 1970s onwards. These changes relate to the intensification of global competition, the increase in the degree of uncertainty and the growth in market fragmentation. The second explanation deals with changes in the character of technological progress. Carlsson shows that flexible automation has various effects, resulting in a shift from large to smaller firms. The pervasiveness of changes in the world economy, and in the direction of technological progress, results in a structural shift affecting the economies of all industrialized countries. Also Piore and Sable (1984) argue that the instability of markets in the 1970s resulted in the demise of mass production and promoted flexible specialization. This fundamental change in the

path of technological development led to the occurrence of vast diseconomies of scale.

This shift away from large firms is not confined to manufacturing industries. Brock and Evans (1989) show that this trend has been economy-wide, at least for the USA. They provide four more reasons why this shift has occurred:

- (1) the increase in labour supply leading to lower real wages and coinciding with an increasing level of education;
- (2) changes in consumer tastes;
- (3) relaxation of (entry) regulations; and
- (4) the fact that we are in a period of creative destruction.

Loveman and Sengenberger (1991) stress the influence of two trends of industrial restructuring: that of decentralization and vertical disintegration (the breaking-up of large plants and businesses) and that of the formation of new business communities. These intermediate forms of market coordination flourish owing to declining costs of transaction. Furthermore, they emphasize the role of public and private policies promoting the small business sector. Audretsch and Thurik (2000) point to the necessary shift towards the knowledge-based economy being the driving force behind the move from large to smaller businesses. In their view globalization and technological advances are the major determinants of this challenge of the Western countries (see Loveman and Sengenberger, 1991; Acs *et al.*, 1999; Carree *et al.*, 2002) for a further documentation of industrial changes and their causes.

Consequences of the change

The causes of this shift are one thing. Its consequences cover a different area of research.

Acs (1992) began the discussion. He distinguishes four consequences of the increased importance of small firms:

- (1) a vehicle for entrepreneurship;
- (2) routes of innovation;
- (3) industry dynamics; and
- (4) job generation.

His claims are that small firms play an important role in the economy, serving as

agents of change by their entrepreneurial activity, being the source of considerable innovative activity, stimulating industry evolution and creating an important share of the newly generated jobs. Baumol (1993) amply deals with the role of entrepreneurial activities and the different effects it may have. The role of smallness in the process of innovative activities is investigated extensively by Acs and Audretsch (1990) and Audretsch (1995). The discussion of the relation between the role of small firms and industry dynamics is spread out: examples can be found in Audretsch (1995). Cohen and Klepper (1992) focus on the role of the number of firms and diversity for obtaining progress. Audretsch and Thurik (2001) observe that the change is of major importance and talk about the shift from the managed to the entrepreneurial economy (see also Audretsch and Thurik (2004)).

Clearly, there are many more consequences of the increased share of small firms than the four mentioned by Acs (1992). For instance, an increase in the share of small firms may lead, *ceteris paribus*, to a lower orientation towards exports, a lower propensity to export employment, a qualitative change in the demand for capital and consultancy inputs, more variety in the supply of products and services or in the manner and aims of conducting research and development. The literature of the consequences of smallness is complemented by some empirical exercises by Carree and Thurik (1998, 1999) for some European countries. They show that a rise in the share of smallness in a certain economy and a high share of smallness in a certain industry, respectively, generate additional output in the entire economy and industry, respectively. Schmitz (1989) provides a theoretical model with a similar result. Audretsch and Thurik (2000) show that an increase in the rate of entrepreneurship (number of business owners per labour force) led to lower levels of unemployment in 23 OECD countries in the period 1984-1994.

The relationship between economic growth and entrepreneurship has been shrouded with ambiguity. There is assumed to be a two-way causation between changes in the level of entrepreneurship and those in the level of economic development: a "Schumpeter" effect

of entrepreneurship enhancing growth, particularly in the economically most advanced countries, and a "refugee" or "shopkeeper" effect of low growth rates stimulating self-employment, particularly in countries with less generous social security schemes. Audretsch *et al.* (2001) try to reconcile the ambiguities found in the relationship between unemployment – as the inverse of economic growth – and entrepreneurship. In Reynolds *et al.* (2000) a more direct approach is taken, correlating growth and entrepreneurial activity. The latter approach is simpler in a methodological sense but more sophisticated in that a wider variety of countries is observed and that entrepreneurial activities are measured appropriately. Despite their entirely different approaches both studies show a positive correlation between entrepreneurship and economic growth (see Carree and Thurik (2003) for a survey of the literature on entrepreneurship and economic growth). One has to be cautious about too simplistic views of the relation between entrepreneurship in the sense of business start-ups and subsequent economic growth: push effects as well as low entry barriers due to generous policy measures may lead to start-ups that are successful in that at least the employment of the business owner/founder is secured (mom-and-pop stores) but no employment growth is generated, let alone economic growth (Van Stel and Storey, 2002).

The growth penalty

In short, a series of studies has identified that the industry structure is generally shifting towards an increased role for small enterprises. However, the extent and timing of this shift are anything but identical across countries. Rather, the shift in industry structures has been heterogeneous and apparently shaped by country-specific factors (Carree *et al.*, 2002). Apparently, institutions and policies in certain countries have facilitated a greater and more rapid response to globalization and technological change, along with the other underlying factors, by shifting to a less centralized industry structure than has been the case in other countries (Audretsch *et al.*, 2002a). An implication of this high variance in

industry restructuring is that some countries are likely to have industry structures that are different from “optimal”.

But what determines this “optimal” structure? It is beyond the scope of this paper to define or even discuss this (Audretsch *et al.*, 2002a). For an intimation we have to refer to the field of industrial organization. There is a long-standing tradition in this field devoted to identifying the determinants of industry structure. Blair (1948) stated that technology is the most important determinant of industry structure. Scherer and Ross (1990) and Chandler (1990) expand the determinants of optimal industry structure to include other factors as well as the underlying technology. Dosi (1988, p. 1157), in his systematic review of the literature in the *Journal of Economic Literature*, concludes that:

Each production activity is characterized by a particular distribution of firms.

When the determinants of the underlying industrial structure are stable, the industry structure itself would not be expected to change. However, a change in the underlying determinants would be expected to result in a change in the optimal industry structure. Certainly, Chandler (1990) and Scherer and Ross (1990) identified a shift in optimal industry structure towards increased centralization and concentration throughout the first two-thirds of the previous century as a result of changes in the underlying technology along with other factors.

While the evidence suggests that the restructuring paths of industry vary considerably across countries, virtually nothing is known about the consequences of lagging behind in this process. Do countries with an industry structure that deviates considerably from the optimal industry structure forfeit potential economic growth in comparison with countries deviating less from the optimal industry structure? This question is crucial to policy makers, because, if the opportunity cost, measured in terms of forgone growth, of a slow adjustment towards the optimal industry structure is low, the consequences of not engaging in a rapid adjustment process are relatively trivial. However, if the opportunity cost is high, the consequences are more

alarming. Audretsch *et al.* (2002a) try to identify the impact on growth of deviations in the actual industry structure from the optimal industry structure. They use a database linking industry structure to growth rates for a panel of 18 European countries spanning five years to test the hypothesis that deviations from the “optimal” industry structure result in reduced growth rates. They find that deviations from the optimal industry structure, measured in terms of the relative importance of small firms, have had an adverse effect on economic growth rates. This evidence suggests that those countries that have shifted industry structure towards a larger share of small firms in a more rapid fashion have been rewarded by higher growth rates.

Conclusion

Government policy in the managed economy was largely about control. High certainty with respect to technology and stability of mass consumer markets dictated that it was known what to produce, how it should be produced, and who would produce it. This led to a predominance of scale economies. The role of government was to constrain the power of large corporations, which were needed for efficiency under mass-production, but posed a threat to democracy through their concentration of power. Under the managed economy the policy debate aimed at competition policies (antitrust), regulation and public ownership of business. In the entrepreneurial economy these constraining policies have become increasingly irrelevant. The central role of government policy in the entrepreneurial economy is enabling in nature. The focus is to foster the production and commercialisation of knowledge. Rather than focus on limiting the freedom of firms to contract through antitrust, regulation and public ownership, government policy in the entrepreneurial economy targets education, increasing the skills and human capital of workers, facilitating the mobility of workers and their ability to start new firms, lowering administrative burdens for small business and promoting knowledge transfer to innovative new enterprises.

Europe is bogged down in stagnant economics growth and structurally high

unemployment. This high unemployment, coupled with stagnant growth in Europe, has triggered a plea by policy makers for rethinking the policy approach that ushered in European prosperity during the post-war era. Entrepreneurship is a crucial element for achieving the political objectives set at the European Council Meeting in Lisbon in 2000, where the European Union committed itself to becoming, within a decade, the most competitive and dynamic knowledge-based economy in the world. Entrepreneurship is seen as a driver for economic growth, competitiveness and job creation. Furthermore, it can be a vehicle for personal development and can help resolve social issues. The Barcelona Council in 2002 endorsed the Commission's intention to present a Green Paper on entrepreneurship as a contribution to reaching these ambitious goals (European Commission, 2003).

In other words, the empirical evidence as well as the clear European policy initiatives to move towards an entrepreneurial economy shows the importance of initiatives like the *Global Entrepreneurship Monitor* and the EIM/CASBEC research program in supporting the policy debate to focus more and more on the role of entrepreneurship for economic growth. Despite various research initiatives:

... remarkably little is known about the relationship between entrepreneurship and economic growth, including how it works, what determines its strength and the extent to which it holds for diverse countries (Reynolds *et al.*, 2000, p. 11).

The richness of the newly-arising data material in terms of the variety of countries, the variety with which entrepreneurship can be measured and the large amount of explanatory variables will in due time provide policy makers with an indispensable insight in up-to-date macroeconomic policies and instruments needed to foster solid economic growth in the present era.

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