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ENTREPRENEURSHIP AND ECONOMIC DEVELOPMENT: THE EMPRETEC SHOWCASE

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1. Introduction

The hypothesis that entrepreneurship is linked to economic growth finds its most immediate foundation in simple intuition, common sense and pure economic observation: activities to convert ideas into economic opportunities lie at the very heart of entrepreneurship. Entrepreneurship is a source of innovation and change, and as such spurs improvements in productivity and economic competitiveness.

Entrepreneurship is closely associated with knowledge and flexibility, two factors that have gained new significance as a source of competitiveness in an increasingly globalized world economy. The shift in industry structure towards less concentration and more decentralization that OECD countries experienced between the mid-1970s and the early 1990s is only one indicator of this development. With technological change and the intensified global competition brought about by globalization and economic liberalization, the assumption that fostering entrepreneurship means fostering a country's competitiveness today appears more valid than ever.

It is striking that the current debate discusses the importance of entrepreneurship mainly with regard to developed countries and that the question of how to foster entrepreneurship seems to be primarily a concern of policy makers in OECD countries. As a key element in securing the competitiveness of developed countries, entrepreneurship is even more central to developing countries trying to attain competitiveness in international markets.

This paper examines the following questions:

- What is the exact nature of entrepreneurship and its role in economic theory?
- How much have theory and research advanced since Schumpeter's theory of long waves?
- What are the links of entrepreneurship to economic growth?
- Can entrepreneurship be considered as the interface between small business (the micro level) and economic growth (the macro level)?
- Given that entrépreneurship plays a role in economic dévelopment, how can it be fostered?

2. What Is Entrepreneurship?

Most economic, psychological and sociological research points to the fact that entrepreneurship is a *process* and not a static phenomenon. Entrepreneurship is more than just a mechanical economic factor (Pirich 2001: 14–15). Entrepreneurship has to do with *change* and is also commonly associated with *choice*-related issues.

Existing definitions of entrepreneurship often relate to the functional role of entrepreneurs¹ and include coordination, innovation, uncertainty bearing, capital supply, decision making, ownership and resource allocation (Friijs et al. 2002: 1–2; Jääskeläinen 2000: 5). Indeed, three of the most frequently mentioned functional roles of entrepreneurs are associated with major schools of thought on entrepreneurship:

¹ See, for instance, Barreto (1989).

- Risk seeking: the Cantillon or Knightian entrepreneur willing to take the risk associated with uncertainty
- Innovativeness: the Schumpeterian entrepreneur accelerating the generation, dissemination and application of innovative ideas
- Opportunity seeking: the Kiznerian entrepreneur perceiving and seizing new profit opportunities (OECD 1998: 11; Carree and Thurik 2002: 8)

One operational *definition of entrepreneurship* that successfully synthesises the functional roles of entrepreneurs is that of Wennekers and Thurik (1999):

"...the manifest ability and willingness of individuals, on their own, in teams within and outside existing organizations, to perceive and create new economic opportunities (new products, new production methods, new organisational schemes and new product-market combinations) and to introduce their ideas in the market, in the face of uncertainty and other obstacles, by making decisions on location, form and the use of resources and institutions." (46–47)

Entrepreneurship is, hence, essentially a *behavioural characteristic* of a person. Entrepreneurs may exhibit it only during a certain phase of their career or only with regard to certain activities (Carree and Thurik 2002: 4–5).

3. Linking Entrepreneurship to Economic Growth

3.1. The theoretical approach

The entrepreneur has been a fundamental agent in most production, distribution and growth theories. The role of entrepreneurship as the driving force of economic growth found its most explicit foundation in Joseph Schumpeter's theory of long waves.

According to Schumpeter, "Everyone is an entrepreneur when he actually carries out new combinations". Finding new combinations of factors of production is a process of entrepreneurial discovery that will become the engine that drives economic development. These "new comb inations" constitute better ways to meet existing demand or create new products, often making current technologies and products obsolete (in a "process of creative destruction"). The firm of the innovative entrepreneur will, consequently, grow through the dual process of taking market share from existing suppliers and increasing overall demand for the products offered in the market (by extending the boundaries of economic activity). Thus, the process of creative destruction is built on dynamic, deliberate entrepreneurial efforts to change market structures and can be propitious for additional innovations and profit opportunities. Based on the concept of creative destruction, Schumpeter formulated his theory of long waves of business cycles and economic growth. Business cycles are seen as the result of innovation, which consists of the generation of a new idea and its implementation in a new product, process or service, leading to the dynamic growth of the national economy, the increase of employment, and creation of pure profit for the innovative enterprise (Schumpeter 1911: 78; Schumpeter 1942: 83-84; Dejardin 2000: 2; Jääskeläinen 2000: 9–10, 15; Thurik and Wennekers 2001: 2; Ba rreto 1989: 22–34).

While developing economies grow as standard economic growth models predict (through the accumulation of human and physical capital and increasing specialization), once an economy has entered the industrialized phase of capitalist development, a qualitative change in the drivers of economic growth occurs. In advanced industrial economies, growth is driven by the process of technological advance and knowledge accumulation brought about by R&D efforts of firms (Peretto 1999). Schmitz presents a model in which entrepreneurial activity is a key determinant of productivity growth. In his model Schmitz focuses in particular on the role of imitative activities of entrepreneurs in economic growth. This focus is motivated by the growth experience of numerous economies, suggesting that it is less the innovating entrepreneur à *la* Schumpeter than the imitating entrepreneur who contributes to growth. Imitating entrepreneurs are entrepreneurs who imitate existing activities and put them into practice, thereby often creating knowledge through a process that Schmitz characterizes as learning by implementing (Schmitz 1989).

3.2. The empirical approach

There are various strands in the empirical literature on entrepreneurship and economic growth using different measures of entrepreneurial activity. For instance, while one strand of empirical studies measures entrepreneurship in terms of the relative share of economic activity accounted for by small firms, other studies use data on self-employment, the number of market participants (competition) or firm start-ups as an indicator of entrepreneurial activities (Carree and Thurik 2002: 16; OECD 1998: 11-12).²

Together with recent studies on OECD countries,³ the analyses of the Global Entrepreneurship Monitor (GEM) represent one of the most important sources for statistical analysis of the links between entrepreneurial activity and economic growth. The GEM is a research programme launched in 1999 that provides annual assessments of the national level of entrepreneurship. GEM analyses are based on a harmonized assessment of the level of national entrepreneurial activity for all participating countries and represent one of the rare sources of data on entrepreneurship conducive to cross-country comparison. The GEM measures national entrepreneurial activity as the share of people among a country's labour force who are either actively involved in starting a new venture and/or manage a business less than 42 month s old.

In its latest report (2002), the GEM shows that the national level of entrepreneurial activity has a statistically significant association with subsequent levels of economic growth. GEM data also suggests that there are no countries with high leve is of entrepreneurship and low levels of economic growth (Reynolds et al. 2002: 7, 24). Until now, the GEM data have had to be viewed with caution. It can, however, be assumed that an analysis of more countries over a longer period of time will accumulate evidence of a positive link between high rates of entrepreneurship and economic growth.

This assumption is supported by a variety of other empirical studies using different indicators of entrepreneurial activity. Nickell (1996) and Nickell, Nicolitsas and Dryden (1997) examine, for instance, the effect of market competition, measured as an increase in the number of competitors in relation to the development of companies' productivity performance. An increase in the number of competitors is a possible measure of entrepreneurship, since the introduction of a new product or the start-up of a new firm is an entrepreneurial act. Using data from around 600 UK manufactu ring firms from the periods 1972–86 and 1982–94, the authors find evidence that competition, or an increase in the number of competitors, has a positive impact on

² All these measures have several limitations. For instance, data on start-ups only account for net entry of firms, giving little information on volatility, and exclude "intrapreneurship", or entrepreneurial activity within existing enterprises. ³ For instance, studies on OECD countries reveal a positive relationship between business start -up rates in OECD countries between 1988 and 1996 and economic growth between 1989 and 1999 (see Kantis et al. 2002: 1).

total factor productivity growth (Nickell 1996: 741; Nickell, Nicolitsas and Dryden 1997).

Caree and Thurik (1998), who examine how the share of small firms affects subæquent industry output growth, have likewise established positive effects between this measure of entrepreneurship and growth. Basing their study on a sample of 14 manufacturing industries in 13 European countries, the authors investigated whether or not a higher share of small business at the beginning of the 1990s led to higher output growth in subsequent years in European manufacturing. The results of their study indicate that industries with a high share of small enterprises relative to the same industries in other countries performed better in terms of output growth during the subsequent 3-4 years (Carree and Thurik 1998: 144).

This evidence suggests an increase in the importance of entrepreneurship as a feature of the economy, often referred to as the transformation from a "managed" to an "entrepreneurial" economy (Thurik and Wennekers 2001: 3; Friijs et al. 2002: 11). The transformation to an "entrepreneurial economy" occurred between the mid-1970s and early 1990s and becomes evident in a change in industry structure shifting economic activity away from large enterprises to smaller entities, in particular to small and medium-sized enterprises (SMEs).

The growing number of SMEs and increasing outsourcing by large firms are a reaction to greater dependence on flexibility and knowledge as factors of production brought about by technological change and the intensification of global competition. Smaller business entities appear to be better suited to cope with the conditions of increased globalization, since they show higher flexibility and propensity to innovation and are an outstanding vehicle for channeling the entrepreneurial ambitions of individuals (Audretsch and Thurik 2001: 6–11; Carree and Thurik 2002: 7–8). In addition, the outsourcing strategies of large established firms go hand in hand with a new emphasis on "intrapreneurship" (entrepreneurial behaviour within an existing co mpany), which is considered essential to competitive success (OECD 1998: 35). The increasing importance of entrepreneurship as a result of hese developments is best expressed in the words of Michael Porter: "Invention and entrepreneurship are at the heart of national advantage" (Porter 1990: 125).

3.3. Conceptual frameworks to link entrepreneurship to economic growth

Recently two established models have succeeded in *not* restricting explanations for economic growth to the realm of macroeconomics. The related framework models are proposed by Wennekers and Thurik (1999) and the GEM research programme.

Wennekers and Thurik (1999) established the following model, relating entrepreneurial activity to economic growth:





Source: Carree and Thurik (2002): 20.

The model distinguishes between three levels of analysis: the individual level, the firm level and the macro level. Entrepreneurial activity originates at the *individual level* and is always traceable to a single person, the entrepreneur. Entrepreneurship is, hence, induced by an individual's attitudes or motives, skills and psychological endowments. Yet the individual entrepreneur is not undertaking entrepreneurial activities in a timeless and spaceless vacuum, but is affected by the context in which he or she is acting. Therefore, entrepreneurial motives and actions are influenced by cultural and institutional factors, the business environment and macroeconomic conditions.

While entrepreneurship originates at the individual level, realization is achieved at the *firm level*. Start-ups or innovations are vehicles for transforming personal entrepreneurial qualities and ambitions into actions. At the *macro level* of industries and national economies, the sum of entrepreneurial activities constitutes a mosaic of competing experiments, new ideas and initiatives. This competition leads to variety and change in the market – that is, a selection of the most viable firms, their imitation and a displacement of obsolete firms. Entrepreneurial activity hence expands and transforms the productive potential of the national economy by inducing higher productivity and an expansion of new niches and industries. Processes at the aggregate level are, in turn, linked to the individual layer, obviously including important feedback mechanisms for individual entrepreneurs. Entrepreneurs can learn from both their own and others' successes and failures, which enables them to improve their skills and adapt their attitudes (Caree and Thurik 2002: 19–20).

The conceptual framework of GEM takes a slightly different angle. It analyses the success of large firms advancing market opportunities for SMEs and the role of entrepreneurship in the enterprise creation/growth process as the main mechanisms driving macroeconomic growth along with their complementary n ature.

Figure 2: The GEM Conceptual Model



Source: Adapted slightly from Reynolds et al. (2002): 40.

The top portion of Figure 2 focuses on the role of large established enterprises. Depending on national framework conditions, large firms, generally integrated into international trade markets, can promote self-expansion and maturation. The economic success of large enterprises tends to create new market opportunities for SMEs through technological spill-overs, spin-offs, an increase in domestic demand for goods and services, an integration of SMEs in supplier networks, and so forth. Yet whether domestic firms are able to seize these opportunities depends largely on the existence of a competitive and vibrant SME sector. The lower portion of Figure 2 highlights the second mechanism driving economic growth: the role of entrepreneurship in the creation and growth of firms. The entrepreneurial process occurs in the context of a set of framework conditions (see "Entrepreneurial framework conditions"). It further depends on (a) the emergence and presence of market opportunities and (b) the capacity, motivation and skills of individuals to establish firms in pursuit of those opportunities. While the success of large established enterprises tends to create profit opportunities for small and new firms, these firms can also affect the success of large enterprises. For instance, by being competitive and reliable suppliers, SMEs provide a competitive advantage for large firms in global arenas (Revnolds et al. 2002: 40-41).

Box 1: The Global Entrepreneurship Monitor

According to the Global Entrepreneurship Monitor (GEM) studies by the Kauffman Center for Entrepreneurial Leadership, Babson College and London Business School, the factors affecting different levels of entrepreneurship are the perception of opportunity, a culture that espects entrepreneurs and accepts wide disparities in wealth creation, the policy and business infrastructures, investments in tertiary education, and demographics, as men aged 25 to 45 are most likely to start a business. While venture capital is growing, the financial support provided by informal sources is more than 10 times that. National, social, political and economic forces and entrepreneurial support frameworks underpin the business dynamics wherein ventures are continuously being created and transformed.

The Total Entrepreneurial Activity Index combines two measures: the proportion of the adult population currently engaged in creating a new business and the prevalence of new firms that have survived the start-up phase. In most developing countries, entrepreneurs and innovators have to struggle against severe financial, cultural and bureaucratic constraints. When these persons migrate to a developed economy, the strong infrastructure and cultural attitudes give them a head start, as evidenced by successful Indian and Chinese innovators in Silicon Valley, California (United States).

Based on a survey of 37 countries representing about 62 per cent of the world's population, the GEM 2002 study estimates that 460 million adults around the globe are engaged in entrepreneurial activity. Some two-thirds of the entrepreneurs are *opportunity-oriented*, while the rest are *necessity-oriented* – that is, are trying to start businesses because they have no job options. Interestingly, the bulk of the ventures involve replication of existing businesses, not break-through innovations. The highest activity levels have been identified in Thailand, India, China and Korea, followed by some of the former British colonies – Australia, Canada, New Zealand, South Africa – and then Israel and the EU countries. At the bottom of the rankings are the developed Asian countries of Japan, Taiwan and Singapore. The demographic profile of the entrepreneurs suggests that about two-thirds are men and one-third women. The largest represented age group is 25–44.

4. How to Foster Entrepreneurship

Both conceptual models introduced above refer to the importance of the individual level – that is, the attitudes, skills and actions of individual entrepreneurs. This indicates that policies for boosting entrepreneurial capacity should not focus solely on macroeconomic conditions or access to finance, the most frequently used policy tools to promote entrepreneurship. Although such policies are doubtless important for broadening the base of individuals with incentives to start up a business and with access to the necessary means, these policies alone will not suffice. Rather, the founding and development of firms depend to a large extent on the entrepreneurial qualities of the individual entrepreneur; an issue stressed by the leading British economist Alfred Marshall (Barreto 1989: 54).

4.1. Fostering entrepreneurial traits: McClelland's research

Individuals are widely recognized as the primary agents of entrepreneurial activity. Since the origin of any innovation, start-up or entrepreneurial decision is traceable to a single person, one approach to fostering entrepreneurship is to strengthen the entrepreneurial traits of individuals. One of the most important theoretical foundations for the so-called traits approach are the studies of the Harvard psychologist David McClelland (1961).

McClelland is among the most known scholars who have analysed the concept of entrepreneurship from a psychological point of view. Psychological studies on entrepreneurship concentrate on studying who an entrepreneur is and/or the personality traits of an entrepreneur. McClelland emphasizes the importance of the *motivational aspect* of the entrepreneur. In his studies he shows that entrepreneurial behaviour is driven by the need for personal achievement leading to a clear proclivity for becoming an entrepreneur. McClelland also suggests that, regardless of variations in economic development, entrepreneurs with high motivation will almost always find ways to maximize economic achievement. He identifies 10 personal entrepreneurial competencies for detecting and strengthening entrepreneurial potential, which are remarkably consistent from country to country: (1) opportunity seeking and initiative; (2) risk taking; (3) demand for efficiency and quality; (4) persistence; (5) commitment to the work contract; (6) information seeking; (7) goal setting; (8) systematic planning and monitoring; (9) persuasion and networking; and (10) independence and selfconfidence (McClelland 1961).

McClelland's research has inspired a flurry of studies in the same vein up to the present. Although his thesis has not remained uncontested and recent studies put more emphasis on cultural variables and their influence on entrepreneurship, McClelland remains the main point of reference for the traits approach. For instance, while Müller and Thomas (2001) argue in their study on culture and entrepreneurial potential that some cultures are more conducive to entrepreneurial traits than others, they do not challenge the assumption that entrepreneurial traits are the same across cultures (Müller and Thomas 2001).

4.2. The EMPRETEC programme and the Brazilian experience

EMRETEC was established in 1988 to promote entrepreneurship in developing countries. It is an integrated capacity-building programme of UNCTAD that helps foster entrepreneurial capabilities and the growth of internationally competitive SMEs. The programme was developed in response to field research that highlighted the importance of the behaviour and performance of the individual entrepreneur (EMPRETEC 2004: EDECU 2002: 3). This evidence showed that a programme was needed that not only focused its interventions on the technical and managerial aspects of small enterprises but also developed mechanisms that would strengthen entrepreneurial traits. In general terms, the programmes identify promising entrepreneurs, provide them with training aimed at strengthening their entrepreneurial behaviour and business skills; assist them in accessing business services and financing for their business ventures; help to arrange mutually beneficial links with larger national and foreign companies; and put in place long-term support systems to facilitate the growth and internationalization of their ventures. The programme emphasizes the building of active networking between public institutions, private business associations and multilateral organizations as well as between national EMPRETEC programmes and other programmes promoting entrepreneurship at the regional level. Since EM-PRETEC's inception, programmes have been initiated in 27 countries (plus 26 National Centres in Brazil), assisting more than 80,000 entrepreneurs through local market-driven business support centres.

The main component of the EMPRETEC programme is ubiquitous - the behavioural approach to entrepreneurship. This approach consists of 10 personal entrepreneurial

competencies (PECs) developed by Harvard University. The PECs are exercised through the central activity of the project: the Entrepreneurship Training Workshop. The ETW focuses on motivation and on strengthening entrepreneurial talents, not on traditional business skills. A careful selection process is conducted through focused interviews, and selected candidates undergo a two-week workshop in which their strengths and weaknesses are identified. The success of the programme is neither abstract nor nominal, as direct feedback and written evaluations indicate that, as a result of the workshop, more than 85 per cent of the participants experience a marked change in personal and business attitudes. Such training creates workshop bonds that are instrumental in business growth and in building a critical base of competent, committed entrepreneurs, who become the driving force of the project and ensure the successful implementation of its subsequent stages. Follow-up support to empretecos (EMPRETEC workshops participants) is provided through in -house advice and/or training workshops on, among others, change management, marketing, quality control, productivity improvement, accounting practices, financial management and negotiating joint ventures.

EMPRETEC offers a radical commitment to strengthening SMEs in developing countries. The EMPRETEC strategy has produced enviable results throughout its 17 years of operation thanks to its tested method. An increase in the number of entrepreneurs in developing countries provides the impetus for a vigorous developmental process. This in turn generates a dynamic business environment assuring sustainable sources of new employment and better conditions for integrating countries into the global market. A number of indicators of the performance of small firms run by *empretecos*, such as the creation of new SMEs, their survival rate, and sales increases (including export sales), indicate the effectiveness of the EMPRETEC methodology.

An interesting example indicating *the success of the traits approach* is a recent study of the impact of EMPRETEC Brazil. In 2002 an evaluation was undertaken to examine the actual impact of the EMPRETEC programme in Brazil, which has been operating for more than 10 years. The evaluation showed that the level of entrepreneurship among Brazilian participants in the EMPRETEC programme is *more than twice* that of the overall population (40.4 per cent compared to 14.2 per cent). It also became evident that enterprises led by *empretecos* are more likely to survive and display better economic performance. For instance, while labour productivity in the Brazilian service sector had a value of R\$13,000 between 1996 and 2000, the value of productivity among companies of *empretecos*, of which 87 per cent are involved in the service sector, amounted to R\$17,000 in 2001. Employment in these companies rose by 29 per cent, while the Brazilian service sector had an increase of only 8.5 per cent between 1996 and 2000 (EDECU 2002: 11–12, 28–29).

4.2. Improving entrepreneurial framework conditions

However, whether entrepreneurship will be allocated predominantly to activities that add to the social product or to activities that are unproductive or even destructive depends greatly on the reward structure of the economy (Baumol 1990).

Hence, policy makers face the question of how to create framework conditions conducive to entrepreneurial activities and how to ensure that entrepreneurial skills are allocated to activities adding to the social product. It is self-evident that almost any economic, institutional or cultural framework condition has some impact on entrepreneurship. It is, for instance, significantly easier to carry out entrepreneurial activities in a stable macroeconomic environment with low inflation, which allows entrepreneurs to clearly interpret signals about demand and prices and to develop consistent long-term business plans. Nevertheless, the absence of sound structural policies will not completely suppress entrepreneurial activity (OECD 1998: 14-15). A recent OECD study distinguishes between economic fundamentals (macroeconomic stability, labour markets, local infrastructure, tax levels, etc.), which influence any economic activity, and policy issues that directly affect entrepreneurship. The study identifies three policy domains as significantly important for entrepreneurial activities. These domains are access to finance, facilitation of entry and exit of firms, and government support schemes (OECD 2002: 8). Figure 3 presents a slightly adapted framework developed in this study to benchmark the policies of OECD countries in the field of fostering firm creation and entrepreneurship. Although the framework was primarily developed with regard to OECD economies, it refers to policy areas that are also significant for the promotion of entrepreneurship in developing countries. Moreover, it can be a useful starting point for devising a similar framework for developing and transition economies.



Figure 3: Main policy domains for fostering entrepreneurial framework conditions

Source: Adapted from OECD (2002): 8.

Increasing access to finance: According to the GEM, almost 20 per cent of the interviewed entrepreneurs mentioned lack of finance as the most important barrier to their entrepreneurial activities (Reynolds et al. 2000: 29). Since small businesses rarely meet the conditions for getting *access to bank loans* and other traditional debt financing instruments, governments can increase access to loans for firm start-ups by introducing, for instance, loan guarantee schemes. Under government-backed guarantees, governments warrant the payment of a percentage of a loan made by a financial institution. Although such schemes can improve access to finance for new and small firms, OECD studies indicate that *stock markets* and *access to venture capital* might be more successful mechanisms for channeling risk capital to emerging sectors. This is particularly true for small innovative firms, which are generally characterized by a heavy reliance on intangible assets, uncertain operating environments and negative cash flows. Owing to the risk involved, these firms are rarely supported by the banking sector (OECD 2002: 9; OECD 1998: 18).

Facilitating entry and exit: Entrepreneurial framework conditions are probably shaped as much by regulatory and administrative environments as by markets. *Administrative procedures and regulations* govern the manner in which companies are created, and compliance with administrative and regulatory requirements constitutes an ongoing cost for businesses. Moreover, comparative studies show that starting a business can be much more complex and time-consuming in some countries than in others (OECD 1998: 20). Since administrative burdens risk discouraging entrepreneurial activity, governments should consider streamlining administrative requirements and better coordination between public agencies. In reducing barriers to doing business, governments must, however, strike a balance between facilitating entrepreneurial activities and taking care of public interests. Examples are environmental protection regulations and safety and health standards (OECD 2002: 10).

Bankruptcy treatment, which should ensure the effective closure of unsuccessful enterprises, is a key element in facilitating the entry and exit of firms. Policies that restrict the scope for enterprises to restructure or close down discourage the reallocation of resources from unsuccessful to more productive business ventures and diminish an e conomy's ability to adjust quickly. The issue of bankruptcy treatment is also a good example of how social attitudes are reflected in and reinforced by institutional and legal structures, discouraging entrepreneurial behaviour. For instance, in many European countries people who go bankrupt are required to settle all their debt, which de facto prevents them from using their experiences to start a new firm. This legal requirement reflects the perception in many European countries that business failure is a personal failure and carries a social stigma. On the other hand, in the United States, business failure seems to be viewed more as a reasonable outcome of a "good try" and an experience that might be a useful apprenticeship for starting a more successful new business. This attitude is also found in the US bankruptcy treatment system, which gives those who suffer bankruptcy an opportunity to set up a new business. Meanwhile, the system quickly channels resources away from companies that are not competitive (OECD 1998; 23; OECD 2002; 10). Experience in some countries shows that employee ownership schemes are another mechanism to foster firm creation and may help firms to survive during the first years after their creation. Employee ownership schemes can increase the attractiveness of a firm for employees and can help to motivate and retain employees, particularly in the early stages of firm development, when the viability of start-ups is uncertain and cash flows are scarce (OECD 2002: 11).

Government support programmes: There is no doubt that government support programmes cannot substitute for well-functioning markets, and governments' first priority should be to get the economic fundamentals right. Nevertheless, *government support schemes* can complement and support other policies to create an environment conducive to entrepreneurial activities (OECD 1998: 24). Likewise, they are a significant policy tool for addressing specific issues that constitute direct barriers to entrepreneurial behaviour and for improving skills formation. Examples are programmes that focus on the business needs of *disadvantaged enterprises or groups*, such as SMEs or women. To support the participation of disadvantaged enterprises and groups in entrepreneurship is crucial for unlocking latent economic resources and entrepreneurial potential, critical to long-term economic prosperity (Reynolds et al. 2000: 43–44). To have an impact, government support schemes should be well-

designed and well-targeted. One way to achieve this is to constantly evaluate and revise existing programmes and share experience on best practices among countries and across regions. Additionally, governments can promote entrepreneurship through *information programmes* Information programmes can build awareness of the opportunities afforded through entrepreneurship. Furthermore, they can introduce people to existing economic incentives for entrepreneurial activities and motivate them to take advantage of these. The more entrepreneurial opportunities are recognized, the more likely they are to be pursued. An advantage of information programmes is that they are comparatively inexpensive and do not interfere with market incentives.

5. Conclusion

On the basis of two new conceptual frameworks linking the actions of individuals to the realm of macroeconomics, this paper has argued that a comprehensive a pproach to the promotion of entrepreneurship rests on two primary pillars: strengthening of entrepreneurial skills and improvement of entrepreneurial framework conditions. These two pillars should be considered as an interlinked set of policies for the following reason: on the one hand, entrepreneurs do not act in a vacuum, but whether and how they use their skills and motivations to transform business ideas into profit opportunities is shaped by existing framework conditions. On the other hand, entrepreneurial attitudes, skills and motivations. Experience shows that when these attitudes and skills exist, adverse framework conditions cannot totally suppress them, and individuals will seek to find ways that allow them to capitalize on their ideas.

REFERENCES

- Audretsch, David B., and Roy Thurik (2001). *Linking Entrepreneurship to Growth.* Paris: OECD Directorate for Science, Technology and Industry Working Papers.
- Barreto, Humberto (1989). The Entrepreneur in Microeconomic Theory: Disappearance and Explanation. London: Routledge.
- Baumol, William J. (1990). Entrepreneurship: Productive, unproductive and destructive. *Journal of Business Venturing* 11: 3–22.
- Carree, M., and A. Roy Thurik (1998). Small firms and economic growth in Europe. *Atlantic Economic Journal* 26 (2): 137–146.
- Carree, M., and A. Roy Thurik (2002). The Impact of Entrepreneurship on Economic Growth. In Zoltan Acs and David B. Audretsch (2003), *International Handbook of Entrepreneurship Research*, Boston/Dordrecht: Kluwer Academic Publishers.
- Dejardin, Marcus (2000). Entrepreneurship and Economic Growth: An Obvious Conjunction? Namur, Belgium: University of Namur.
- Educational and Development of an Entrepreneurial Culture Unit (EDECU) (2002). Research on the Impact of EMPRETEC in Brazil. Rio de Janeiro: SEBRAE.
- EMPRETEC (2004). What is EMPRETEC? www.EMPRETEC.net
- Friijs, Christian, Thomas Paulsson and Charlie Karlsson (2002). *Entrepreneurship* and Economic Growth: A Critical Review of Empirical and Theoretical Research. Östersund, Sweden: Institutet för tillväxtpolitiska studier.
- Global Entrepreneurship Monitor (GEM). See www.gemconsortium.org/category_list.asp for a list of available documents.
- Jääskeläinen, Miko (2000). Entrepreneurship and Economic Growth. Helsinki: Institute of Strategy and International Business.
- Kantis, Hugo, Masahiko Ishida and Masahiko Komori (2002). *Entrepreneurship in Emerging Economies: The Creation and Development of New Firms in Latin America and East Asia.* Washington, DC: Inter-American Development Bank.
- McClelland, David (1961). The Achieving Society. Princeton, NJ: Van Nostrand.
- Nickell, Stephen J. (1996). Competition and corporate performance. *Journal of Political Economy* 104 (4): 724–746.
- Nickell, Stephen J., Daphne Nicolitsas and Neil Dryden (1997). What makes firms perform well? *European Economic Review*41: 783–796.
- Müller, Stephen L., and Abisya S. Thomas (2001). Culture and entrepreneurial potential: A nine-country study of locus of control and innovativeness. *Journal of Business Venturing* 16 (1): 51–75.
- Organisation for Economic Co-operation and Development (OECD) (1998). *Fostering Entrepreneurship.* Paris: OECD.
- Organisation for Economic Co-operation and Development (OECD) (2002). *Benchmarking: Fostering Firms Creation and Entrepreneurship.* Paris: OECD Directorate for Science, Technology and Industry.
- Peretto, Pietro F. (1999). Industrial development, technological change, and long-run growth. *Journal of Development Economics* 59: 389–417.

- Pirich, Amir (2001). An interface between entrepreneurship and innovation: New Zealand SMEs perspective. Paper prepared for the 2001 DRUID Conference, Aalborg, Denmark.
- Porter, Michael E. (1990). *The Competitive Advantage of Nations*. New York: Free Press.
- Reynolds, Paul D., William D. Bygrave, Erkko Autio, Larry W. Cox and Michael Hay (2000). *Global Entrepreneurship Monitor 2000 Executive Report.* Wellesley, MA/London: Babson College/London Business School.
- Reynolds, Paul D., William D. Bygrave, Erkko Autio, Larry W. Cox and Michael Hay (2002). *Global Entrepreneurship Monitor 2002 Executive Report.* Wellesley, MA/London: Babson College/London Business School.
- Schmitz, James A. (1989). Imitation, entrepreneurship and long-run growth. *Journal* of *Political Economy* 97 (3): 721–739.
- Schumpeter, Joseph A. (1911). *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest and the Business Cycle*. 1934 translation. Cambridge, MA: Harvard University Press.
- Schumpeter, Joseph A. (1942). *Capitalism, Socialism, and Democracy*. 3rd ed. New York: Harper and Bros., 1950.
- Thurik, Roy, and Sander Wennekers (2001). A Note on Entrepreneurship, Small Business and Economic Growth. Rotterdam: Erasmus Research Institute of Management Report Series.
- Wennekers, Sander, and Roy Thurik (1999). Linking entrepreneurship and economic growth. *Small Business Economics* 13: 27–55.