

Toward the entrepreneurial society

**Jean Bonnet, Marcus Dejardin and
Antonia Madrid-Guijarro**

Over the last four or five decades, advanced economies have been confronted to tremendous changes and challenges. Adopting a global or macro-view can help in identifying social and economic stylized facts. Audretsch and Thurik (2000, 2001) and Thurik (2011) distinguish two polar economies according to which economic stylized facts can be reinterpreted and reordered. The managerial model articulates economic growth around mass production, specialization, certainty, predictability and homogeneity, allowing the full play of economies of scale. The model of the entrepreneurial economy articulates economic growth around a variety of needs, novelty, turbulence, innovation and functioning in networks, allowing the full play of entrepreneurial flexibility. By observing recent social and economic trends in advanced economies, including European economies, one may consider that a transition from a managerial to an entrepreneurial economy has been taking place since the late seventies/early eighties. The factors and mechanisms for the transition to take place are numerous. However, Stam (2008) identifies three main sources that may be evoked to explain the emergence of new entrepreneurial opportunities:

- Technological changes, which are important sources for entrepreneurship opportunities, especially referring to activities linked to information and communication technologies and to biotechnologies. It is apparent that certain technological evolutions are fundamental, in particular the development of data processing technology and its applications to manufacturing (Julien and Carrière, 1994). The robot, as was noted early by Camagni (1985), presents three fundamental advantages in today's economy. It can multitask, i.e. it can be programmed to work on a variety of products of the same family, and at the same time. It is adaptable, meaning that light product modifications can be introduced in order to remain current. Finally, it can be converted for other uses, at a moderate cost, which reduces the risk of sunk cost.

- Social and demographic changes with, in particular, an ageing population and the growing number of single-parent families, contribute to open new markets in the services industry. The reduction of working time along with increased standard of living allows access to new leisure or cultural activities. Also noteworthy is the move from standardized goods towards more individualized and personalized goods.
- More structural changes, consisting in a deepening of the market economy by deregulation, privatization and liberalization. Philips (1985) shows, referring to the US economy, the positive effect of deregulation in some branches of industry on the formation of new enterprises. Berkowitz and Holland (2001) show, in the case of Russia, that the large-scale privatizations increased the formation of new companies.

Audretsch and Thurik (2004) add the changing composition of the labour force with a bigger participation of women and immigrants, young people and old workers, which is favourable to small firms rather than to labour intensive big companies due to the importance granted to flexibility.

The quest for an environment that is favourable to innovative entrepreneurship needs, first, to answer the following questions: ‘Why, when and how opportunities of creations of new goods and services appear?’ (Shane and Venkataraman, 2000). Recent research on the production of knowledge, for which spillover effects cannot be neglected, or considering organizational learning, suggest that there are continual interactions between creators, owners and consumers of technology. An interactive process accelerates new discoveries, the production of new knowledge and the creation of wealth (Agrawal and Henderson, 2002).

The establishment of technology transfer offices, incubators and science parks close to university labs is significant of the growing concern for creating a better environment to facilitate and to sustain the processes leading to new economic knowledge through innovation spillovers.

Regarding the development of incubators in Europe, two main barriers can however be found: the lack of innovative entrepreneurship itself and the underdevelopment of seed finance and private funding networks (Aernoudt, 2004). In France, for example, there is generally consensus among scholars and professionals emphasizing a lack of seed money. These funds are crucial to enable nascent entrepreneurship. There is also a lack of financial resources necessary for the first stage of firm development. ‘From 2002 to 2009 the French venture and development capital industry was in the European norm for invested amounts (equivalent to 0.10% of GDP)’ (CAS, 2011). In the United States during the same period the amount represents around 0.22% of GDP.

The above observations suggest a kind of chicken and egg problem. Is it the lack of entrepreneurial facilities and financing that leads to a lack of entrepreneurial projects, or the opposite? Or both? This important question must be addressed. Indeed, is it due to the lack of entrepreneurial projects, explained for example by insufficient R&D, or by insufficient concern for the valorization of university research, or even by a lack in entrepreneurial human resources, it might be useless to try to provide more facilities or more finance.

In commenting on a report of the French Council for Economic Analysis on the financing of SMEs Professor David Thesmar, HEC Paris, declares that, based upon solid research, the investment in venture capital is not profitable and that could explain why administrators of investment funds are reluctant to it (Chertock et al., 2009 commentaries from David Thesmar, p. 83 and following). In reality, there are very strong disparities of return among a variety of funds. In the United States, some star funds are exclusive and pull the profitability upward. These are generally funds that have for investors the most important American universities and so a privileged access to the R&D that is produced there (Lerner et al., 2008). It is also necessary to take into account the size of the US market which probably allows successful firms to be more profitable than in France or in another European country.

The weak entrepreneurial dynamism may also be analysed from another perspective, implying specific attention to human capital. Verheul and Van Stel (2010) show that older and more highly educated entrepreneurs are particularly important for stimulating economic growth in less developed countries while younger entrepreneurs are more important in developed countries. Bonnet and Cussy (2010) refer to freshly educated French elites – graduate students from ‘Grandes Ecoles’, for instance – and make a first attempt to explain their insufficient involvement in entrepreneurship, though their involvement might appear critical for economic growth. Fayolle (1996) underlines the interrelationships between entrepreneurial intention and commitment among engineers and helps to shed light on some dynamic involvements. Examples are the participation in the creation and management of student associations, or the fact of having stayed for significant durations (at least six months) in foreign countries. More recently, Fayolle (2009) shows that the effect of an entrepreneurship educational programme on the entrepreneurial intention depends on the level of initial intention. The impact of the programme is all the more raised as the initial level of entrepreneurship intention is low and vice versa.

What would be appropriate policy measures in order to build a more entrepreneurial economy? This important question can certainly not be

exhausted in a couple of paragraphs, but at least some principles can be identified. According to Audretsch (2008), an entrepreneurial policy must be designed to create an environment that allows the production and the marketing of new economic knowledge. An entrepreneurial policy is not limited to actual entrepreneurs but has to include potential entrepreneurs. Furthermore, it has to be distinguished from classical small business policy that might be described as more static and dedicated to protecting and supporting the existing small business sector.

The high concern for potential entrepreneurs requires that the salaried people might easily commit to the entrepreneurial venture. An open, favourable environment for this to happen implies the fluidity of the labour market. In this regard, workers interested in entrepreneurship should be sure that possible failure in entrepreneurial venture will not penalize them in their later career, whether as an employee or as an experienced entrepreneur taking a second chance. The stigma of failure is a potential problem on which policy makers can work. It is also important to be sure that the financial and accompaniment supports needed are available. The same reasoning applies to young students at university or engineering schools.

Referring to Venkataraman (2004), promoting entrepreneurship among university students and scientists may be also a way to act on their perceptions of technological progress and of the processes leading to innovation. It contributes to generating a new vision. In order to concretize these entrepreneurial inspirations, venture capital has a tremendous role to play. It must be channelled to new and brilliant ideas which are found in the research institutions. Informal forums, meeting places which disinhibit social relations, are open to diversity and facilitate creative face-to-face meetings, can make an important contribution that cannot be neglected. It is key to favouring a hassle-free atmosphere and to make room for serendipity.

Very often, inventions stem from the combination of knowledge resulting from diverse research domains. The meeting of students and researchers from different faculties – natural, human and social sciences, engineering – might help to facilitate ‘cross-fertilizations’ or individual spillover effects and possibly, the emergence of new ideas. For these inventions to be translated into innovations and new ventures with high-growth potential, entrepreneurship and some kind of ambition are required. Additionally, the environment has to enable strong development of new ventures. In this respect, through her research on the Silicon Valley, Saxenian (2004, p. 36) has emphasized the importance of networks in order to facilitate the transmission of knowledge among individuals, firms and localized industries. The interrelationships between regional

organizations, among which are Stanford University, business associations and specialized financial and consultancy companies, create a very specific environment whose social capital is able to transcend professional and sectoral barriers. Individuals' cross-sectoral mobility and mobility from established firms to start-ups, and vice versa, contribute to promoting the diffusion of intangible capacities in absorbing and recombining ideas and technologies. The reported advantage associated with labour force mobility supports once again the idea that fluidity of the labour market can be beneficial for entrepreneurial development, calling for adapted public policy.

Not only growth but better growth is required to address the tremendous challenges that our European economies are facing. More entrepreneurs and more entrepreneurial firms – new and innovative firms – can contribute. A variety of factors may be considered to promote entrepreneurship among young people, and innovative activities among firms. Education is certainly one of the most relevant. The need to create a more favourable social climate for new businesses requires not only changing the state of mind but also improving globally the skills of entrepreneurs. It is also important to identify the most favourable context for the creation and development of sustainable, innovative companies, especially during economic crisis. This timely book analyses how the built economy in education, sustainability and regulation to favours the emergence of new, entrepreneurial firms. It collects original contributions from scholars in economics, management and sociology. It is a continuation of *The Entrepreneurial Society: How to Fill the Gap between Knowledge and Innovation* (Bonnet et al., 2010), and is issued from the second international workshop *Entrepreneurship, Culture, Finance and Economic Development* (Cartagena, Spain).

Contributions are grouped into four parts. The first part, entitled 'Entrepreneurial motives, education and performance', is composed of contributions examining the important topics of human capital and entrepreneurship, and education in entrepreneurship within the educational system.

José Luis Vázquez, Ana Lanero, Pablo Gutiérrez and Maria Purificación García (Chapter 1) show that, due to a high rate of unemployed graduates, entrepreneurship can be seen as a promising option for work insertion and professional development of recent university graduates, and this, to the benefit of broader objectives, like sustainable socioeconomic welfare. Nevertheless, it appears that entrepreneurship is still underestimated as an alternative professional option for university students and, as a consequence, too little attention is paid to the needs of those interested in starting a business. The authors develop a programme

to overcome these drawbacks and to support entrepreneurship as an option to value one's human capital.

José A. Porras, Guadalupe Oliveras and Hernán P. Vigier (Chapter 2) present a methodology defining the set of competences that would help to increase the probability of entrepreneurial success. This methodology named the 'Entrepreneurial Process Requirements Approach' will be useful not only to educators but can also serve as a reference for future studies in the area.

Alicia Rubio Bañón, Antonio Aragón Sánchez and Paula Sastre Vivaracho (Chapter 3) explore which variables are significantly correlated with the individual's decision to become an entrepreneur. They show that an entrepreneur is more probably a young man, with a low level of education and with a low risk perception. When taking into account opportunity perceptions and self efficacy, their results also suggest that the relationships between the likelihood of becoming an entrepreneur and all perceptual variables do not depend on gender.

Jean Bonnet, Thomas Brau and Antonia Madrid-Guijarro (Chapter 4) show that the setting-up of an innovative firm enables its creator to give an answer to the professional dissatisfactions she or he may have developed in her/his past life as a salaried worker.

The second part of the book is entitled 'Entrepreneurial sustainability and innovation'. The contributions presented in this part deal with the following research questions: what are the main barriers to innovation among SMEs located in developing countries? What are the main determinants of innovation investment? What is the relationship between innovation and creativity, and how to motivate team creativity at workplace? What are the links between innovation and sustainability? And is cooperation an incentive to innovate?

Lúisa Carvalho and Teresa Costa (Chapter 5) make an attempt to understand how innovation contributes to sustainability. The study explains how some innovation inputs (R&D, external sources of information and being multinational) contribute to innovation promoting economic, social and environmental outcomes. They prove that engaging in R&D investment and using external sources of information increase the probability of a firm obtaining global, sustainable results. Literature indicates that the development of specific external linkages also depends on the type of industry and technology (Pavitt, 1984; Marsili, 2001). A firm's dynamics in science-based industries usually tend to benefit most from interactions with public research organizations with a focus on product innovation (Leiponen, 2002).

Gonzalo Maldonado Guzmán, María del Carmen Martínez Serna, Domingo García Pérez de Lema and Antonia Madrid-Guijarro (Chapter 6)

study what the main barriers to innovation are in firms located in a developing country such as Mexico. An important contribution of this research lies in the methodology that is used, i.e. structural equation models. The authors reveal that financial factors are considered as barriers for process innovation, while uncertainty in the external environment and limited human resources are inhibitors of product, process and management system innovation.

Mathilde Aubry (Chapter 7) deals with the interrelationships between firm cooperation and innovation. Companies are continuously under pressure to innovate and the literature suggests that more and more firms need each other to innovate (De Man and Duysters, 2005; Hagedoorn and Roijakkers, 2006). Cooperative R&D is the sharing of resources between independent firms in order to innovate. Cooperative agreement can help to limit market failures. However, the current empirical literature still fails to provide strong support that cooperation enhances firm innovativeness (De Man and Duysters, 2005). The main explanation of the mixed results is the ineffective coordination of cooperative agreements. Aubry proposes a theoretical model where the information-sharing agreement between firms provides a means of exchanging information, leading to the innovation technological and commercial success.

Mariluz Mate-Sanchez-Val and Richard Harris (Chapter 8) identify the main factors that promote R&D activities, by comparing data from the Community Innovation Survey for Spain and the United Kingdom. Results reveal important differences between the two countries. In fact, while in Spanish firms the decision to undertake R&D investment depends on firms' specific characteristics, such as size and industry, in UK firms this decision depends on firms' absorptive capacity and public support.

Fernando Cardoso Sousa, Ileana Pardal Monteiro and Antonio Juan Briones Peñalver (Chapter 9) consider innovation as a social, spatially embedded, interactive learning process that cannot be understood independently of its institutional and cultural context (Lundvall, 1992; Cooke et al., 2004). The authors establish the relationship between innovation and creativity. They then focus their attention on the development of team creativity with the objective of testing the effectiveness of creative problem solving (Osborn, 1953). The authors prove creative problem solving effectiveness in bringing in more commitment at team level and in giving insight into the problems which, once solved, might lead to innovative new firms.

The contributions collected in the third part, entitled 'Entrepreneurship, finance and crisis', address the topic of entrepreneurship and entrepreneurial finance by emphasizing important questions ranging from how and how much entrepreneurial finance contributes to the start and development of new firms; the determinants of new firms' capital structures; finance resources appearing as substitutes or complements according to

firm internal and external factors; and access to entrepreneurial finance in a time of global economic crisis.

M. Camino Ramón-Llorens and Ginés Hernández-Cánovas (Chapter 10) highlight, from results based on a survey among Spanish venture capital companies (VCs), how contractual clauses that are used by VCs are responses to agency conflicts, in accordance with contract and agency theory. Indeed the most important clauses appear to be related to the periodic presentation of accounting, audits and other economic and financial reports.

Françoise Bastié, Sylvie Cieply and Pascal Cussy (Chapter 11) investigate the capital structure of business start-ups and, more specifically, the determinants of banking debt used by French business start-ups. Debt is, with trade credit, a major source of financing. Financial theory – i.e. trade off and pecking order theory – leads to seven hypotheses regarding the expected role of risks, collaterals, signals, human and social capital, as well as alternative sources of finance. Their results, based on a representative sample of new French firms, clearly confirm the role of risks, collaterals, subsidies and the signal effects of financial forecasting statements and market research, and partially confirm the role of insiders' finance and the role of human and social capital.

Jean Bonnet, Sylvie Cieply and Marcus Dejardin (Chapter 12) qualify the interrelationships between finance and entrepreneurship according to French regions. New firms significantly suffer at birth from a lack of access to finance. But this lack of access at birth, in particular through banks, does not induce the absence of relationships as firms develop. Entrepreneurial regions with a high percentage of rationed and self-constrained new firms tend to develop less highly intensive relationships with banks but more highly intensive relationships with proximity finance and with other firms. Substitution exists in almost all the French regions but, by contrasting this phenomenon according to the region's entrepreneurial dynamism, the authors suggest the departure point of an original pecking order theory according to the entrepreneurial intensity of regions.

Antonio García Sánchez and Andrés Sánchez Cerón (Chapter 13) contribute to our better understanding of the macro- and microeconomic determinants of the start-up activity and survival by considering factors at work in the Region of Murcia. Their dataset sheds light on the recent period and also through time, by comparison of different surveys. In particular, they report the complexity linked to accessing financing and to the administrative burden as perceived by entrepreneurs during the start-up process. They call attention to the necessary improvement of public policies that may have an effect on firm sustainability and growth.

Finally, Pere Segarra, Eleni Papaikonomou and Xiaoni Li (Chapter

14) explore how entrepreneurs in the Spanish region of Catalonia perceive, experience and respond to the recent global economic crisis. Their survey includes 205 entrepreneurs. The examination of the perceptions, experiences and difficulties of the entrepreneurs in times of crisis may help to advise policy makers. Global crisis increases the feeling of uncertainty as regards future and questions entrepreneurs' access to financing. The survey conducted puts forward additional factors with perceived negative influence on the regional economy, particularly in adverse economic times (i.e. the lack of trained workforce and training centres, some deficit in connecting infrastructures, excessive administrative burdens, insufficient communication vehicles between banks and entrepreneurs).

Factors determining entrepreneurial motives and behaviours include moral, cultural and legal norms. They are part of the institutions that are shaping and regulating (market) economies. To be a bit more illustrative, we may cite the legislation ruling on labour market relations, fiscal rules, social laws organizing the social security system and bankruptcy laws. Scholars especially consider their effects and their efficiency in regards to the entrepreneurial and innovative processes. Four contributions are more directly linked to this field of research. They are collected within the fourth and last part, entitled 'Entrepreneurship and regulation'.

Amélie Jacquemin and Frank Janssen (Chapter 15) define regulation as 'the legal and administrative rules belonging to different legal fields (e.g. tax law, environmental law) created, applied and enforced by state institutions – at local, national and supranational levels – that both mandate and prohibit actions by individuals and organizations, with infringements subject to criminal, civil and administrative penalties'. The authors focus on potential positive effects of regulation on entrepreneurship. They make an attempt to advise policy makers in producing 'entrepreneurial regulations', i.e. regulations creating opportunities rather than constraints for entrepreneurs.

Dieter Bögenhold and Uwe Fachinger (Chapter 16) highlight the other side of economic and social reality of entrepreneurship. Entrepreneurship does not always deliver individual and social wealth and prosperity. The heterogeneity of self-employment is reflected in different levels of social and economic integration of self-employed people. The explosion of solo-self-employment has not very much in common with a revival of entrepreneurship. These tendencies are more probably explained by global changes related to the functioning of labour market, secular processes towards tertiarization and the emergence of new professions which can be operated through freelance activities or micro-firms.

Elsa de Morais Sarmiento and Alcina Nunes (Chapter 17) consider that the distribution of firms by size has received a considerable amount of

attention, firstly related to regulation, competition and oligopoly issues. Recent empirical studies on Portugal have revealed that size is a fundamental founding condition for the post-entry survival and growth of firms in Portugal. Given the observed high firm turbulence, policy makers and researchers need to conduct a re-examination of the principles of public policy which are based on static equilibrium analysis, to better understand what part of it will be altered as more dynamic firm specific processes begin to play a larger role in explaining enterprises' performance.

Alcina Nunes and Elsa de Morais Sarmiento (Chapter 17) acknowledge that firms in Portugal face specific challenges: small average size of firms and newborn firms, the increasing dominance of the service sector, the dependence on the economic cycle (Geroski et al., 2010) and possibly the impact of structural funds. The authors examine, more specifically, factors determining firm survival. Through a better understanding of the underlying processes at work, one may expect the design of more efficient policies.

In a global and competitive market that demands high levels of adaptation and proactive business attitudes, the start-up process has to be linked to innovative ideas, and established firms need to introduce and adopt an innovative culture that highlights the benefits generated by new combinations. This business orientation appears crucial in sustaining global economic prosperity. Innovation is thus a critical factor. But contributions collected in this book complement this view by showing the decisive role that education, access to an efficient financial system and regulation may have. We hope that this book will be a source of knowledge and inspiration for all of its readers.

REFERENCES

- Aernoudt, R. (2004), 'Incubators, tool for entrepreneurship', *Small Business Economics*, **3**, 127–35.
- Agrawal, A. and R. Henderson (2002), 'Putting patents in context: exploring knowledge transfer from MIT', *Management Science*, **48** (1), 44–60.
- Audretsch, D. (2008), 'Creating the entrepreneurial society', *Conferencia Magistral*, Fundación Rafael del Pino, 23 April.
- Audretsch, D. and A.R. Thürik (2004), 'A model of the entrepreneurial economy', *International Journal of Entrepreneurship Education*, **2** (2), 143–66.
- Audretsch, D. and A.R. Thürik (2001), 'What is new about the new economy: sources of growth in the managed and entrepreneurial economies', *Industrial and Corporate Change*, **19**, 795–821.
- Audretsch, D. and A.R. Thürik (2000), 'Capitalism and democracy in the 21st century: from the managed to the entrepreneurial economy', *Journal of Evolutionary Economics*, **10**, 17–34.

- Berkowitz, D. and J. Holland (2001), 'Does privatization enhance or deter small enterprise formation?', *Economics Letters*, **74** (1), 53–60.
- Bonnet, J. and P. Cussy (2010), 'High education, sunk costs and entrepreneurship', in J. Bonnet, D. García Pérez de Lema and H. Van Auken (eds), *The Entrepreneurial Society: How to Fill the Gap between Knowledge and Innovation*, Cheltenham, UK and Northampton, MA, USA: Edward Elgar, pp. 37–53.
- Bonnet, J., D. García Pérez de Lema and H. Van Auken (2010), *The Entrepreneurial Society: How to Fill the Gap between Knowledge and Innovation*, Cheltenham, UK, and Northampton, MA, USA: Edward Elgar.
- CAS (Centre d'Analyse Stratégique) (2011), 'Business angels and venture capital in France: tax challenges', *La Note d'Analyse*, September, No. 237.
- Camagni, R. (1985), 'Industrial robotics and the revitalization of the Italian north-west', *Colloque Technologies Nouvelles*, Bruxelles, 22–23 April.
- Chertok, G., P.-A. de Malleray and P. Pouletty (2009), 'Le Financement des PME', CAE report, La documentation française.
- Cooke, P., M. Heidenreich and H.J. Braczyk (2004), *Regional Innovation Systems*, New York: Routledge.
- De Man, A.-P. and G. Duysters (2005), 'Collaboration and innovation: a review of the effects of mergers, acquisitions and alliances on innovation', *Technovation*, **25**, 1377–87.
- Fayolle, A. (1996), 'Contribution à l'étude des comportements entrepreneuriaux des ingénieurs français', PhD thesis, Université Jean Moulin de Lyon.
- Fayolle, A. (2009), 'Evaluation d'une formation en entrepreneuriat: prédispositions et impact sur l'intention d'entreprendre', *M@n@gement*, **12** (3), 176–203.
- Geroski, P., J. Mata and P. Portugal (2010), 'Founding conditions and the survival of new firms', *Strategic Management Journal*, **31**, 510–29.
- Hagedoorn, J. and N. Roijakkers (2006), 'Inter-firm R&D partnering in pharmaceutical biotechnology since 1975: trends, patterns, and networks', *Research Policy*, **35** (3), 431–46.
- Julien, P.A. and J.B. Carrière (1994), 'L'efficacité des PME et les nouvelles technologies', *Revue d'Economie Industrielle*, **67**, 1.
- Leiponen, A. (2002), 'Why do firms not collaborate? The role of competencies and technological regimes', in A. Kleinknecht and P. Mohnen (eds), *Innovation and Firm Performance*, London: Palgrave.
- Lerner, J., A. Shoar and J. Wang (2008), 'The limited partner puzzle: smart institutions, foolish choices', *Journal of Finance*, **62** (2), 731–64.
- Lundvall, B.A. (1992), *National Systems of Innovation: Towards a Theory of Innovation and Interactive Learning*, 237 pages.
- Marsili, O. (2001), *The Anatomy and Evolution of Industries: Technological Change and Industrial Dynamics*, Cheltenham, UK and Northampton, MA, USA: Edward Elgar.
- Osborn, A.F. (1953), *Applied Imagination: Principles and Procedures of Creative Problem-solving*, Scribner's Sons.
- Pavitt, K. (1984), 'Sectoral patterns of technical change: towards a taxonomy and theory', *Research Policy*, **13**, 343–73.
- Philips, B.D. (1985), 'The effect of industry deregulation on the small business sector', *Business Economics*, **20**, 28–37.
- Saxenian, A. (2004), *Regional Advantage: Culture and Competition in Silicon Valley and Route 128*, Harvard University Press.

- Shane, S. and S. Venkataraman (2000), 'The promise of entrepreneurship as a field of research', *Academy of Management Review*, **25**, 217–26.
- Stam, E. (2008), 'Entrepreneurship and innovation policy', Jena Economic Research Papers 006, Friedrich-Schiller-University Jena, Max-Planck-Institute of Economics.
- Thurik, A.R. (2011), 'From the managed to the entrepreneurial economy: considerations for developing and emerging economies', in W. Naudé (ed.), *Entrepreneurship and Economic Development*, Houndmills: Palgrave MacMillan, pp. 147–165.
- Venkataraman, S. (2004), 'Regional transformation through technological entrepreneurship', *Journal of Business Venturing*, **19**, 153–167.
- Verheul, I. and A. van Stel (2010), 'Entrepreneurial diversity and economic growth', in J. Bonnet, D. García Pérez de Lema and H. Van Auken (eds), *The Entrepreneurial Society: How to Fill the Gap between Knowledge and Innovation*, Cheltenham, UK and Northampton, MA, USA: Edward Elgar, pp. 17–36.