

# Entrepreneurship, Geography and American Economic Growth

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*Book Review by Stephen J. Redding, London School of Economics and CEPR*

This stimulating book analyses the interplay between entrepreneurship, innovation and economic growth in the United States of America. The starting premise is that innovation is the driving force of growth in the “knowledge economy.” The book draws on insights from theories of endogenous growth and economic geography to propose a unified conceptual framework that places entrepreneurship centre-stage in the process of innovation and growth. Empirical evidence on entrepreneurship and employment growth is presented using an impressive dataset on more than 14 million establishments that existed at some time between 1989 through 2001 across 394 Labor Market Areas (LMAs) of the United States.

While there are now large theoretical literatures on economic geography, innovation and growth, there are few formal models of entrepreneurship and little is known about its underlying determinants. Indeed, in most economic models entrepreneurship is firmly encased within the familiar black box. The authors are therefore to be applauded for their theoretical and empirical contributions in this area, but a thorough understanding of the microeconomics of entrepreneurship remains some way off. A central challenge in understanding entrepreneurship is identifying the right institutional and regulatory framework towards entry and employment. Progress in this direction is starting to be made by innovative recent empirical work on entry barriers and labor regulation using detailed information on actual policy measures (see, in particular, Besley and Burgess 2004, Botero et al. 2004, Djankov et al. 2002 and Holmes 1998).

In their empirical work, the authors consider a restrictive definition of entrepreneurship as *new firm formation*. While this is undoubtedly an important facet of entrepreneurship, concentrating exclusively on new firm formation sits awkwardly with recent empirical evidence on the importance of reallocation within firms. For example, Bernard *et al.* (2006) find that one third of the net increase in real U.S. manufacturing output between 1972 and 1997 is due to the net adding and dropping of products by surviving firms, a contribution that dwarfs that of net firm entry and exit. Clearly new firm formation is only one dimension of innovation and existing firms account for a large share of total research and development (R&D) in many industries such as Pharmaceuticals. As the authors themselves discuss, the spin-off of existing operations and the acquisition of independent start-ups are now important dimensions of new process and product development.

The delineation of the causal connections between entrepreneurship, innovation and growth raises formidable identification challenges that face any study in this area. For example, employment growth across LMAs is strongly positively correlated with firm formation, but this does not necessarily imply that entrepreneurship causes growth. There may be third factors that cause employment growth and firm formation to co-vary, and it is hard to find instruments that affect firm formation but have no independent effect on employment growth. The interpretation of the correlation between employment growth and firm formation relates to old debates in economic

geography about whether workers follow firms, firms follow workers, or there are mutually reinforcing feedbacks between firms' and workers' locations decisions. It is noticeable that many of the high rates of firm formation in the map on the book's cover are observed in the West and South-East of the United States, consistent with a general re-orientation of economic activity towards these regions. Since many areas within these regions enjoy favourable climates, as emphasized in Rappaport (2007), it is at least possible that the differences in firm formation are partly endogenous to a relocation of population that is occurring for other reasons.

In the final chapter of the book, the authors discuss the foundations of entrepreneurial policy and distinguish four broad actors: (a) individual agents who identify business opportunities and choose to exploit them, (b) newly-formed businesses which innovate using new knowledge and other resources, (c) the economy including all institutions that influence economic growth, and (d) society as the collection of all agents who are the ultimate beneficiaries of wealth creation. Within this organizing framework, several policy instruments are proposed to promote entrepreneurship. While several interesting suggestions are made, the market failures that rationalize intervention are not always clear, nor is the way in which these market failures could be quantified. In contrast to some of the specific policy instruments considered, the most important dimension of public policy may well be the regulatory framework that shapes the overall business climate.

One of the most interesting theses in the book is the claim that the success of American capitalism can be understood in terms of a nexus between the creation of wealth (entrepreneurship) and the reconstitution of wealth (philanthropy). Philanthropy is viewed as being important because it creates new opportunities for future generations of entrepreneurs, which is crucial because new firm formation is so closely identified with entrepreneurship. But philanthropy is surely only one of several factors that are important in enabling new profit opportunities to be exploited and wealth to be created. The institutional environment including the protection of property rights, the legal system, entry barriers and labor regulation all surely have roles to play. The quantification of these factors, both within and across countries, is one of the most exciting contributions of the growing literature on the new institutional economics.

Taken together, this book is the source for a wealth of ideas and empirical facts that will be of great interest to researchers concerned with economic growth and spatial inequality in economic development. In emphasizing entrepreneurship, the authors are drawing attention to a woefully neglected area of theoretical and empirical economics and pointing the way to several interesting areas for further research.

## References

Bernard, A., Redding, S. and Schott, P. (2006) "Multi-product Firms and Product Switching," *NBER Working Paper*, 12293.

Besley, T. and Burgess, R. (2004) "Can Labor Regulation Hinder Economic Performance? Evidence from India," *Quarterly Journal of Economics*, 119(1), 91-134.

Botero, J., Djankov, S., La Porta, R., López -de-Silanes, F. and Shleifer, A. (2004) "The Regulation of Labor," *Quarterly Journal of Economics*, November.

Djankov, S., La Porta, R., Lopez-de-Silanes, F. and Shleifer, A. (2002) "The Regulation of Entry," *Quarterly Journal of Economics*, February..

Holmes, T. (1998) "The Effect of State Policies on the Location of Manufacturing: Evidence from State Borders," *Journal of Political Economy*, CVI, 667-705.

Rappaport, J. (2007) "Moving to Nice Weather," *Regional Science and Urban Economics*, forthcoming.