

## The Review of Regional Studies

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### **BOOK REVIEWS**

Book Review Editor:

Clifford A. Lipscomb Greenfield Advisors LLC, 1870 The Exchange, Suite 100, Atlanta, GA 3033, USA

cliff@greenfieldadvisors.com

Jean-Luc Gaffard and Evens Salies, eds. 2010. *Innovation, Economic Growth, and the Firm*. Northampton, MA and Cheltenham, UK: Edward Elgar. 243 and xx. ISBN: 978-1-84720-832-3. \$125.00.

Reviewed by Peter V. Schaeffer, West Virginia University

Schumpeter argued that invention and innovation depend on market structure and that a perfectly competitive industry may not be the most innovative. History shows that significant technological change or product innovation leads to the births of new firms, but also to the decline of established ones who adapt too slowly as in the recent bankruptcy of Kodak, an innovative firm that failed to capitalize on its own invention of digital photography. Such cases illustrate that invention and innovation result in the birth, growth, and death of firms. Therefore, research in invention and innovation deals with one or more of the following: (1) industry structure, (2) technological change and knowledge creation, and/or (3) the birth and death of firms. The book being reviewed here is roughly organized along these three criteria.

The book starts with a preface that provides an outline and summary of the contents; the ten chapters that follow are organized into three parts. With only two chapters, Part I, "Evolutionary Theories of the Firm," is the shortest. Part II and Part III contain four chapters each, with Part II dedicated to the study of "Firms' Formation and Growth" and Part III to "Firms' Performance and Industrial Dynamics." The 23 contributors, which include the two editors, are mostly scholars based in Europe and all empirical studies use European data. In terms of disciplinary orientation, all contributors are affiliated with research organizations related to business and/or economics.

Stan Metcalfe, a chaired professor of economics at the University of Manchester, is the author of Chapter 1. He claims that Alfred Marshall's two major books "...locate him as a major figure in a thread of evolutionary reasoning that explores the restless, dynamic nature of modern capitalism, a thread that begins with Adam Smith..." He continues to say "[T]hat Marshall's work, along with that of Schumpeter, provides a convincing structure in which to focus on the self-transforming as well as the self-organizing nature of capitalism" (p. 3). The intelligent and rigorous discussion is informative and a pleasure to read. Chapter 2 is authored by *Mario Amendola* and *Sergio Bruno* of the University of Rome along with *Jean-Luc Gaffard*, who is

© Southern Regional Science Association 2012. ISSN 1553-0892 www.srsa.org/rrs affiliated with four French institutions. Their discussion of "open system dynamics" analysis and policy nicely complements Chapter 1.

Part II opens with a chapter by *David B. Audretsch, T. Taylor Aldridge*, and *Adam Lederer*, all members of the Max Planck Institute of Economics in Jena, Germany. The focus of their chapter is on Small and Medium Enterprises (SME), knowledge spillover theory, and entrepreneurship. They hypothesize that industries—and regions—that invest more in new knowledge have more start-up firms. This is called the Endogenous Entrepreneurship Hypothesis (EEH). Comparing the role of new entrants in a static versus dynamic economy they argue that in the former case, new entrants serve a disciplinary function when established firms earn higher than normal profits. By contrast new entrants in a dynamic economy are innovators and change agents. The authors summarize previous empirical research into six stylized facts: (1) smaller enterprises grow at a faster pace; (2) new enterprises grow at a faster pace; (3) smaller and newer enterprises in knowledge-intensive industries are less likely to survive; and (6) smaller and newer enterprises in knowledge-intensive industries are even less likely to survive. The contrast between the first three and the last three stylized facts does not indicate a contradiction, but reflects that the promise of great rewards comes at the price of large risks.

Chapter 4 is a critical note on Schumpeter's theory of innovation by *William Baumol*, who concedes that "... none of the points raised here can be regarded as more than quibbles about the main argument ..." and that the "...significant slips in Schumpeter's scenario" (p. 69) do not invalidate Schumpeter's fundamental insights into the process of invention and innovation. One of the quibbles raised by Baumol concerns the role entrepreneurs as risk takers; Schumpeter denies that they bear risks. On this point I suspect that most readers would agree with Baumol's objection. The discussion of Schumpeter's theory is particularly timely, given the resurgence of interest in his work.

*Flora Bellone, Patrick Musso, Lionel Nesta*, and *Michel Quéré*, authors of Chapter 5, "Market Selection Along the Firm Life Cycle," are affiliated with the University of Nice Sophia Antipolis, University of Annecy, Observatoire français des conjonctures économiques (OFCE), and Centre d'Etudes et de Recherches sur les Qualifications (Céreq), all French institutions. Data for the empirical research are of French manufacturing industries. The research hypothesis is that in markets with heterogeneous firms, the efficiency of market mechanisms that select the most promising firms depends on rules and regulations. Therefore, it may differ by industry and country and the authors conjecture "...that higher entry and labour-adjustment costs in France encourage more pre-entry evaluation of business plans with consequently less market experimentation and ostensibly slower firm expansion. Then, start-ups in France tend to be larger than those in the US, but their survival probably is lower and their growth rates slower" (p. 75). In their empirical analysis they find that the firm failure rate is very sensitive to deviations from average profitability. New firms are more likely to exit if the number of new entrants is above average, but a higher than usual number of entrants seems to have little effect on established firms.

The final chapter in Part II tests Schumpeter's hypothesis of the relationship between R&D spending and industry structure. The author, *Evens Salies*, is a member of OFCE. For his empirical analysis he relies on a panel of 22 European electric utilities from 1980 through 2007, a good choice because this industry went through significant regulatory changes and

restructuring. The empirical finding that large electric utilities spend relatively more on R&D has implications for regulators considering approval of industry consolidation.

Part III starts with a chapter on the trade-off between specialization and flexibility (SFT) by *Santos Ferreira* and *Ehud Zuscovitch*, both affiliated with the University Louis Pasteur, France. One of the most common SFT issues is that between mass production (scale economies) and multi-product production (scope economies), and in the monopolistic competition literature the trade-off is with respect to optimal product differentiation. This theoretical chapter presents a sequential game between two firms. It is the only model in this book to include location as a decision variable. The model implies that competitive markets are not necessarily optimal in a dynamic economy with the possibility of technological choices and change.

Chapter 8 relates to Chapter 7. This is no coincidence since the three authors, *Patrick Cohendet*, University Louis Pasteur and HEC (Hautes Études Commerciales), Montreal, *Jean-Alain Héraud* and *Patrick Llerena*, both at the University Louis Pasteur, base their chapter on theoretical work by Zuscovitch, whose work has its foundations in evolutionary economic theory.

The next chapter presents empirical research. "One of the main economic aims of European integration was to foster growth through the benefits of increased competition" on productive and allocative efficiency. While the benefits of competition are unambiguous in an economy in equilibrium, results for a dynamic (or spatial) economy are mixed. *Joszef Konings* and *Patrick van Cayseele* are affiliated with the Catholic University of Louvain in Belgium and *Frédèric Warzynski* is at the University of Aarhus, Denmark. The three authors look at the Price-Cost Margin (PCM) of Belgium and Dutch manufacturing industries. Both countries had instituted competition policies. In the case of the Netherlands, the authors found that the policy decreased PCM, but that poor policy design and implementation in Belgium left it ineffective. In both cases they found that the prices of imports also had a negative effect on PCM.

The book's final chapter is authored by *Sarah Guillou*, OFCE and *Stefano Schiavo*, University of Trento, Italy. It can be viewed as a continuation of the previous chapter in that its focus is also on competition and pricing behaviors. Unlike in Chapter 9, in this chapter it is not domestic policy but global competition that influences firms' export pricing behaviors. The analysis is based on French, German, and Italian export data. The hypothesis being tested is that firms will absorb some of the exchange rate risk when selling to foreign markets, a strategy labeled Price-to-Market (PTM). In the case of France and Germany the authors do not find statistically significant evidence of PTM, but is evidence of PTM in Italy. Guillou and Schivao think that this might indicate a relatively weaker position in the global market of the Italian goods being studied, than of the French and German goods.

This book is aimed at readers with an advanced understanding of economics and should appeal to many members of the regional science community. Chapters 1, 2, and 4 assume some background knowledge of the works of Marshall and Schumpeter, in particular, but they are well-argued and could also be assigned as background readings in a graduate regional economics, development, or growth theory course. This reviewer also enjoyed Chapter 7, but this chapter requires an understanding of game-theoretic concepts. In summary, although this book will not be equally accessible to all regional scientists, it is an excellent contribution to the literature in innovation and growth.

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# Craig Pittman and Matthew Waite. 2009. *Paving Paradise: Florida's Vanishing Wetlands and the Failure of No Net Loss.* Gainesville: The University Press of Florida. ISBN 978-0-8130-3507-9. \$22.50

#### Reviewed by Abigail Mooney, Greenfield Advisors LLC

The aptly chosen title to this book is a perfect play on words. Are the authors suggesting that development in Florida is paving its way to paradise, as in the green-lawn, well-landscaped, paradise-like community on the cover, or something else? It seems to me that they could have also chosen "Paving Paradise" as the title to mean that development "paves" over an existing paradise, the wetlands. Although the idea of hanging out in a swamp is far from appealing, the authors note how wetlands provide natural filtration from pollution, storage for floodwaters, homes for various species of fish and wildlife that are vital to the fishing industry, or how they recharge the drinking water supply. These characteristics are what make the wetland areas a paradise in their own right.

The picture on the cover of the book is also very suiting to its content. The cover shows a Florida neighborhood where houses are lined up almost flawlessly in a row with a small wooded area and pond in the center. It appears to be a neighborhood that is the result of a dredge-and-fill project over a wetland area, with the small pond being the mitigation most likely required so the developers could get their permit. It's a perfect visual example of some of the development projects outlined in the book.

This non-fiction account examines the history of the relationship between diminishing wetlands and urban development throughout the state of Florida. The book is a result of the authors' award-winning series, "Vanishing Wetlands" published in the St. Petersburg Times. Interviews are conducted with past and present Army Corps of Engineers employees as well as government officials, lobbyists, and concerned citizens. The authors review the environmental impacts of various development projects throughout the state of Florida starting from when it achieved statehood (1845) up to 2007, with a particular emphasis on the most recent half-century. The novel consists primarily of text, but there are also pictures in some chapters that illustrate the site or the people being discussed. The pictures of site locations and maps were especially helpful as they provide the reader with a better grasp of what the affected area is like and where it is located.

Throughout the book Pittman and Waite show how development decisions in Florida are most strongly influenced by the developers themselves, government officials, politicians, and the Army Corps of Engineers. In fact, the taxpayers who are in many cases the ones footing the bill for environmental protection programs, often have little impact on or knowledge of the development process at all. The authors put it this way:

"When wetlands are destroyed to make room for subdivisions and stores and limestone mines, we taxpayers wind up footing the bill. We pay for government-subsidized flood insurance for homes built in what used to be swamps. We pay for the government to spend millions buying homes that are repeatedly inundated just to tear them down. We pay to clean up the water pollution that the wetlands once filtered naturally. We pay to find new sources of water to replace the ones we've paved over." The authors expose how several political figures across the board have used the system so they appear to have a concern for Florida's dwindling wetlands, while at the same time cutting deals and enacting policies that result in quite the opposite. Pittman and Waite also outline the continuous struggle of the Army Corps of Engineers to properly review permit applications so that the wetlands are actually being protected and continue to issue permits in a timely enough fashion for state urban development to continue prosperously. It was absolutely astonishing to learn that between 1999 and 2003 only one of approximately 12,000 permits was denied by the Corps. Additionally, between 1990 and 2003, when No Net Loss was supposed to be the official federal policy, the authors found that at least 84,000 acres of wetland were lost to real estate development.

Just as the subtitle suggests, the authors explore how the No Net Loss policy that was designed to prevent loss of valuable wetlands has actually, in most cases, failed. There are nearly countless recollections of how developers have found loopholes in the policy which allow them to scantily mitigate the wetland impacts caused by their development. The failure of mitigation as part of the No Net Loss is arguably one of the most heavily emphasized ideals in this book. The authors explain how in many cases the mitigation is not executed properly and therefore often causes more harm than good, completely defeating the purpose of conducting mitigation in the first place. They also note how preservation as mitigation is often abused despite the fact that preservations are supposed to be utilized as a last resort, following the avoidance of wetland development altogether and the minimization of damage.

One negative aspect of the book was that it provides such an extensive account of destruction of the Florida's wetlands that towards the end the authors really started to lose my attention. With each chapter I already knew what I was about to read: another account of how the Army Corps of Engineers granted a permit in a case where they probably should have never done so, how the developers cut corners so that the project would be approved knowing that the Corps did not have enough resources to fully perform an assessment of the area to be developed, and how politicians aided the process by making deals and encouraging the speediness of permit approvals.

To address many of the issues with the No Net Loss policy that are interjected throughout the book, the last chapter outlines a 12-step process to make wetland protection from development more streamlined and effective in the state of Florida. This chapter summarizes the key points that the authors were trying to convey throughout the book in a concise manner; this made it simple for the reader to recall the previous topics. This 12-step process also shows how the writers assessed the problems with the No Net Loss program to create a more suitable public policy for preserving Florida's wetlands while still allowing for growth in urban development.

Their proposal calls for more stringent rules on developing wetlands such as those that have proven successful in individual Florida counties and in Canada. Some of the improvements suggested for the system are among the most obviously needed such as, mapping the swamp areas so it is possible to actually determine where wetlands still exist, saving the priority wetland areas, and setting a tipping point for which no more wetlands can be destroyed. The authors also advocate a system that has more open communication with the public and that emphasizes restoration. The "more honest system" proposed by Pittman and Waite promotes a "sliding scale" so developers who seek development of larger areas have to pay more for a permit than developers with smaller projects. Additionally, they encourage preservation acreage to be counted properly not as if it were new acreage that was previously nonexistent, and demand fines for developers who submit falsified permit applications. Finally, in order to have a functioning system that still allows for urban development to thrive, the authors ask that the Army Corps of Engineers are given a deadline for permit approvals so that permits can be processed in a timely fashion, and that agencies with veto power are held accountable for their misuse of that power.

Overall, I really enjoyed this book. I learned a lot more about the process of urban development within the state of Florida and how it impacts the local environment. The book provides an adequate mix of social, political, economical, and environmental issues to make for a good read for anyone interested in environmental protection, public policy, or urban development, especially if they have a keen interest in the state of Florida. Additionally, I would suggest that anyone who is a taxpayer in the state of Florida should read this book. They are the ones who end up paying much of the costs of these development projects that go awry and for programs that are ultimately ineffective. Though Florida has suffered the greatest losses of wetland areas, it is clear after reading this book that the Federal No Net Loss policy has the potential be exploited to the benefit of the developers in other states as well, the very people from which the policy was designed to protect wetlands.

#### Philip Cooke, Bjørn Asheim, Ron Boschma, Ron Martin, Dafna Schwartz and Franz Tödtling. *Handbook of Regional Innovation and Growth*, Cheltenham, UK: Edward Elgar Publishing Ltd. ISBN 978-1-84844-4171-1. \$250 (hardcover) and \$54 (paperback)

#### Reviewed by Jan Youtie, Georgia Institute of Technology

Regional innovation has re-emerged, at least in the U.S., as a framework for national economic development and growth programs. It is thus timely that the *Handbook* of regional innovation and growth has come on the scene. The premise of the book is that current policy challenges can be addressed at the intersection between innovation and regions. The book promises an intellectual framework for understanding the roots of the regional innovation domain and for addressing key issues: post-linear model conceptualizations, radical innovation, innovator versus entrepreneur, path dependency, technological versus regional paradigms, and self-organization versus system leadership. Based on the names in the editorial and chapter author list, the *Handbook* is more than capable of fully addressing this challenge.

The *Handbook* opens with a discussion of overlaps and differences between regional innovation and growth. It then proceeds apace, beginning with chapters that have strong conceptual bent, to those focused on growth dynamics, evolution, and agglomeration. These chapters are followed by discussions of regional innovation strategies concerning the role of culture, services, open innovation, foreign direct investment, and green innovation. Several chapters address important institutions and intermediaries, with a focus on entrepreneurship and innovation. The *Handbook* aptly closes with a discussion of policy platforms, including how new ideas, learning, and rehearsal can be incorporated into regional policy, for example the Lahti Living Lab which promotes public sector innovation through collaborative processes (see Chapter 42 by *Philip Cooke*).

The *Handbook* is at its strongest in discussing regional innovation concepts. Concepts are introduced with a substantial degree of nuance. The Handbook thoughtfully considers more

precise terminology such as "neolinear" innovation to describe the various types of innovation actors and pathways, "transversality" for policies combining assets and collaboration partners to promote innovation in a region, and "innovation regime" to more inclusively refer to diverse institutions, organizations, and other elements beyond the technological. Issues with the concept of "learning regions" are discussed by *James Simmie* in Chapter 40 to include confusion as to whether it is an end goal in itself or a means to an end.

The reader is reminded that balance is important in considering regional innovation approaches. For example, while entrepreneurship offers many benefits in flexibility, innovation, and variety, large corporations also have had a substantial role in transforming regions in Finland and the Netherlands; although, regional growth can also decline with the fortunes of these large anchor firms. Likewise, there are many discussions of the benefits of clustering around specialized industries which are balanced by other pieces addressing the importance of variety toward generating innovation and growth (e.g., in Chapter 11 by *Simona Iammarino*). In addition, while regional innovation strategies inevitably emphasize the local, the *Handbook* dedicates several chapters to "worlds of production," open innovation, and foreign direct investment.

The diversity of authors and chapters offers a distinctive mix of conceptual approaches to regional innovation and growth and examples from regional efforts. More conceptual chapters draw from classical works by Schumpeter, Marshall, Jacobs, Arrow, Romer, Perroux, and the like. There also are a number of excellent schematics that visually lay out relationships between key actors and assets in a region in many of the chapters, particularly Chapter 2 by *Esben S. Andersen*, Chapter 13 by *Lisa De Propris* and *Olivier Crevoisier*, Chapter 19 by *Al James*, Chapter 33 by *Franz Tödtling* and *Michaela Trippl*, Chapter 34 by *Claire Nauwelaers*, Chapter 39 by *Martin Heidenreich* and *Knut Koschatzky*, Chapter 41 by *Vesa Harmaakorpi*, *Tomi Tura* and *Helenä Melkas*, and Chapter 42 by *Philip Cooke*. Some of these resemble Michael Porter's Diamond of Competitiveness but incorporate additional considerations such as the local atmosphere, opinion leaders, state and national legislation, mediating organizations, spatial configurations, and other regional innovation system structures.

There are also well written examples of regional practices especially in Italy, Germany, UK, Belgium, Finland and Sweden. With the exception of chapters on Israel and India, there is a strong European slant to the examples. U.S. examples are occasionally referenced (e.g., the eponymous discussion of Silicon Valley and the ongoing, yet perhaps ultimately fallacious, efforts of other regions to emulate practices and policies of that region).

Audiences already familiar with regional innovation and growth literature will find the *Handbook* to be a welcome addition. The *Handbook* is most useful at the advanced graduate student or faculty level. These audiences will likely find ideas for future research, for example in the table in Chapter 15 by *Ron Martin*. Although this book's publisher tends to be on the pricey side, the contributions of the *Handbook* make it a worthy addition to any university's library.