

Regional Economics, Roberta Capello, Routledge, New York, 2007, xxi + 322 pp., Pbk, £32.50, ISBN 978-0-415-39521-2

This is a new textbook on regional economics, dealing with agglomeration advantages related to the location of firms and households, and to economic growth. The book makes clear that theories on agglomeration advantages have been widely used in economic geography and regional economics since Von Thünen's famous book on the spatial structure of the economy (1842), Marshall's approach of 'industrial districts' and his introduction of the concept of 'externalities' (1890), and Weber's (1909) book on industrial location. Being trained in location theory by the textbook by Dicken and Lloyd (1990) and subsequently being introduced to Krugman's revived discussion on agglomeration advantages by manuscript versions of Brakman et al.'s (2001) book on 'geographical economics' and the textbook by Fujita and Thisse (2002), my understanding of regional economics evolved from locational and geographical to economic perspectives. As many in the economic geographical literature refer to the supposed overlap of the old (locational) and new (Krugman-style) economic geography (e.g. Martin and Sunley 1996), this background is useful for commenting on the ongoing debates. But when teaching urban and regional economics, I realize that this is not such a common route for new students. It is therefore to be applauded that this actually *is* the route taken in the textbook written by Capello.

The book presents a systematic synthesis of vast literatures in spatial and regional economics. The book consists of four parts. Differing conceptions of space account for the division into these parts; and differing definitions of growth and development account for the division in chapters within these parts. Every theory discussed in the book is extensively accompanied by its advantages and critiques. Part 1 examines the traditional location theory, defined with *physical-metric* space. In this research tradition the focus is on explaining the choice of location of firms and the hierarchy of cities. Its theoretical basis is strongly oriented on microeconomics, with an accent on decision-making of firms to determine their optimal location in a world with transport costs and spatial differences in wages and opportunities to be profitable, and on the theory of monopolistic markets. It becomes clear that later conceptualizations (like endogenous growth theory and new economic geography) build on location theory, especially on the concept of agglomeration economies and externalities. Externalities occur if an innovation or growth improvement implemented by a certain enterprise increases the performance of other enterprises without the latter benefiting

enterprise having to pay (full) compensation. Spatially bounded externalities are related to an enterprise's geographical or local network context. The strength of local externalities is assumed to vary so that these are stronger in some sectors and weaker in others. Intra-sectoral externalities are labeled localization economies. These external scale economies apply when the industry in which the firm belongs (rather than the firm itself) is large. Under further assumptions on crowding (congestion costs that increase with population trigger dispersion), perfect product and labor mobility within and between locations and the influence of large agents, an urban system is composed of (fully) specialized cities, provided that the initial number of cities is large enough. Once cities exist, urbanization economies (applicable to all firms, regardless of their sectoral membership) become important. The chapters in part 1 are all characterized by the interplay of (concentration enforcing) agglomeration economies with (dispersion enforcing) transportation costs, and by a focus on space as production areas. In principle all the important location and urban hierarchy theories are there, explained clearly. A few remarks can be made. The monocentric city-model developed by William Alonso and Richard Muth in the early 1960's, and further developed into the "new urban economics" by Harry Richardson in 1977 focusing on commuting, are introduced (p.44-51), but surprisingly enough urban economics as a discipline that is heavily related to (even rooted in) regional economics, is further ignored in the book. The gravity model is a bit underdeveloped in chapter 2. Chapter 3 (and hence part 1) ends with a surprising plea for a new theory of urban systems based on city networks – suggested to be incomparable to other locational theories. But that is – based on exactly the previous three chapters in the book – not convincing: it should actually be tested whether agglomeration economies are higher and synergetic in complementary systems of (proximate) cities. Probably no fully new conceptualizations are needed for this. Since this has actually never convincingly *been* tested, I agree with the statement that "it is too early for the network paradigm to be called a theory" (p.80) – and it would be a better balance in the book if the paradigm was weighed and presented accordingly.

Part 2 of the book deals with *uniform-abstract* space and theories of regional growth at constant returns. Space in these theories is no longer physical and continuous, but abstract and discrete. It enables the use of macroeconomic models to interpret local growth phenomena. It also implies to assume unequal endowments of resources and production factors, unequal demand conditions, and interregional disparities in productive structures as the determinants of local development. Theories that take this view of space are growth theories developed to explain the trend of a synthetic development indicator – income for instance. The success of

the new economic geography models can be ascribed mainly to the fact that this regional application of mainstream economics provided insufficient explanations for the variations in the wealth and poverty of cities and regions. By tradition, the mainstream vehicle used in economic analyses is the theory of the competitive equilibrium, culminating in a framework of a competitive general equilibrium (GE) in which economic actors maximize their utility by producing and consuming goods while operating in a market environment of perfect competition. Moreover, all markets are closed and a system therefore prevails where every individual and society gets what it wants given its resource constraints. The book argues that this basic theoretical framework does not take location or space explicitly into account. It is argued that the theoretical framework does not allow for scale economies, imperfect competition (firms with market power) and indivisibilities or physical differences in locations (heterogeneous space). Again, all (demand-focused) theories, like economic base models, factor endowment models, comparative advantage models and the neoclassical Heckscher-Ohlin model of trade, are treated well. A remark concerns an interpretative statement on the divergence/convergence debate. Although understanding a theory's pitfalls and drawbacks is useful, it seems a bit too premature to state that the limitations of GE-models imply that "the distinction in divergence and convergence in development theories, so often stressed in the literature, has been superseded" (p.88). Different societal problems justify a focus on convergence and divergence as goals – and hence also as accompanying theories and models. A second remark is for the rather long discussion of shift-share analysis (p.95-99) – when in the conclusion it is stated that this technique is of limited value ("too descriptive") after all.

Part 3 examines diversified-relational space, and theories of development related to location theory. From the first chapter in this part (chapter 7) onwards, all chapters (also in part 4) are headed with the phrase "territorial competitiveness" as guiding conceptualization of regional economic growth. Realizing that "productivity growth" does not acknowledge all dimensions related to economic growth, I still prefer it over the concept of regional competitiveness. That is because its latent character is somewhat of a black box (compare Kitson et al, 2004). The concept of competitiveness is not unambiguously defined in the book either. Via growth pole theory and multinational corporations, we touch upon the models of innovation diffusion and Marshallian districts that endogenize space. This part of the book stresses the micro foundations of economic growth, because despite a burgeoning geographical and economic empirical literature, we currently fail to carefully analyze and identify the processes that underlie the relationship between agglomeration, firm performance and local economic

growth. Although the micro foundations (such as a specialized labor pool, presence of intermediate goods, and knowledge spillovers) that underlie the benefits of agglomeration have theoretically been specified, empirical evidence of the presence of these factors is scarce. Recently, however, we witness a surge of studies in various disciplines (economic geography, evolutionary economics, management science, network sociology) analysing the various mechanisms underlying knowledge spillovers and urban and localized development using micro-data (for an overview of this type of research see Combes et al. 2008, Henderson and Thisse 2004, Cheshire and Duranton 2004). Finally, endogenous development conceptualizations on regional competitiveness focus on collective learning (learning regions), relational proximity and other intangible assets determining development (p.196 and further). This comes conceptually really close to current discussions in economic geography (starting with Storper 1997), but surprisingly this is not mentioned or acknowledged in the book.

Part 4 discusses diversified-stylized space and theories of regional growth, including the new economic geography and endogenous growth theory. Paul Krugman revived the discussion on agglomeration advantages in the early 1990'ies; his theory was based on a generalised economic framework and an approach with advanced mathematical models. His ideas on agglomeration and the economic mechanism behind that phenomenon were more or less similar to those used in economic geography and location theory, but he used more advanced methods to enable the theory to be more general. He also paid attention to locational questions (interregional and international trade included) and the structure of the system of cities. Krugman called his approach 'new economic geography' (NEG), acknowledging the scientific value for economic theory of looking at spatial patterns and the spatial element in the economy and in economic theory. It is in many respects different from 'old' economic geography and location theory, more specifically in accepting general equilibrium models and disregarding specific attributes of cities, regions and international relations. Martin and Sunley (1996) pay attention to the differences in the weights of the factor levels of spatial scale and the acceptance of heterogeneous actors and non-economic (e.g., psychological and socio-political) factors. "Old" economic geography has a preference for the assumption of heterogeneity, empirical studies, and the applicability of the results in policy-oriented studies for specific cities, regions or international relations. Lambooy and Van Oort (2005) argue, that economic geography is inherently more open to heterodox economic theories, such as evolutionary and institutional economics. Four examples of this kind of heterodox aspects

(also mentioned in chapter 7 of the book) are: (1) the importance of *life-stages* of firms, technologies and sectors, or development paths of firms, sectors, cities and systems of cities; (2) specific *spatial structures* not showing (clear) relations with the forces of economic agglomeration as assumed in the new economic geography; (3) specific urban and regional factors *explaining* why agglomeration forces influence sectors and firms differently, depending on the period of economic development and the various technological trajectories; and (4) factors related to *forces* that cannot (yet) be explained with equilibrium approaches: e.g. the relation with institutional structures, path-dependent development, the way selection works out for new technologies and firms, innovation, the rise of new technologies and new regional concentrations of firms, spill-over mechanisms and (co-) evolution. Finally, it is remarkable that endogenous growth theory is discussed rather shortly in the book, and the spatial footprints of this theory on urban economic growth models (in the vein of Edward Glaeser's and Vernon Henderson's studies in the early nineties) are left out of the discussion (cf. Combes et al. 2008).

As new developments in agglomeration theory are in top-gear nowadays, there is to my opinion no dispute that this new textbook is needed. Yet, a number of (related) theories seem undervalued in the book: endogenous growth theory in relation to urban economic growth, urban economics in general, and economic (relational and institutional) geography. This is somewhat disturbing, as the book is otherwise a thorough presentation and discussion of existing theories. It also repeatedly presents a conceptual challenge for the next decade (p.90-91 and p.252-255). This challenge is that regional economics should “find a way to incorporate the territorial dimension into theories already able to merge physical-metric [*locational*], uniform-abstract [*new economic geography*] and diversified space [*relational geography*], (...) and to give space – through synergy, cooperation, relationality and collective learning – an active role in the economic growth process” (p.90, [*my interpretations*]). Not all theories can and should be forced to synergies (Lambooy and Van Oort 2005), but I subscribe to this challenge. A strong relation with urban economics and economic geography is very needed. Meanwhile, all existing theories keep their own value for societal issues and remain to have their own applicability.

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