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Transportation Research Forum

Book Review: [Transportation and Economic Development Challenges](#)

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Book Review

Button, Kenneth, and Reggiani, Aura, eds. Transportation and Economic Development Challenges. Northampton, MA: Edward Elgar Publishing, Inc., 2011. ISBN 978-1-84980-167 6

Transportation and Economic Development Challenges

by T. Edward Yu

This book is a collection of nine research papers regarding transportation and development from a meeting of Network of European Communications and Transport Activities Research (NECTAR) in 2009. Driven by the rapid change in the institutional environment and technology development related to transportation systems, considerable challenges in transportation planning have emerged. The introduction chapter by the editors starts from the theoretical foundation of two classic economic growth models, the neo-classical model and endogenous growth theory, and their implications for the potential role of transportation in enhancing economic development. Also discussed are the challenges of identifying the causality between economic development and transportation networks and of assessing the economic impact of transportation policy given the availability of adequate data and models. Given the complexity of fully examining the relationship of transportation and economic development, the editors chose research papers for this volume that offer a wide range of academic approaches to address the challenges of planning transportation networks.

Chapter 2 discusses the emerging scale of economic and political systems, megaregion and megapolitans (clustered networks of American cities), resulting from the technological improvement and globalization trends. The authors provide a clear description of those two new geographic units and their historical development. The importance of connecting megaregions and interacting within a megaregion through comprehensive transportation planning is well explained and justified.

Chapter 3 revisits a classical question in public policy – what’s the relationship between transportation and economic growth? The author offers a solid discussion on the theoretical and conceptual frameworks of the linkages between those two and extends the literature review in this area up to 2009. The potential economic impact of the American Recovery and Reinvestment Act of 2009 (ARRA) is also briefly discussed. The author concludes that “transport infrastructure alone will not guarantee economic success, but that the positive stories of the effects of transport investment are more common than the negative ones.” This is echoed by a recent study that suggests investment in transport infrastructure does not create direct impact on national economic output in the United States but encourages the formation of private capital and other public infrastructure, which in turn supports economic growth (Tong et al. 2014). An interesting perspective of a political issue in transportation policy-making, political pathologies, is offered in Chapter 4. The author elaborates on the issue of conflicts between the interests of society and of the policy makers and the consequences on transportation planning decisions. This issue of political pathologies in transportation policy is critical since it may cause a longer-term impact on economic activities, such as trade, given the long expected life of those transportation infrastructures. The author suggests that institutional structures play an important role in addressing this political issue in decision making.

Chapters 5 and 6 address the question of the location and distribution of transportation services under economic development. The optimal number and location of rail stations and their catchment areas in urban areas is evaluated in Chapter 5. Using the Amsterdam rail system as a case study, the authors shed light on the importance of balancing the access time to stations and the travel

time by rail between stations in the decision of the number of stations. Chapter 6 pays attention to the planning of freight logistics under the surging e-commerce in South Korea. Increases in online business transactions stimulate transportation demand between businesses and customers and change traditional logistics flows. The authors propose a conceptual model considering the potential adaptations to address the challenges in hub terminal capacity and to improve efficiency in logistics flows.

Chapter 7 discusses the necessity of creating a standard to evaluate accessibility among geographic units. Using the German “Guidelines for Integrated Network Design” as an example, three components are included in the standard: functional structure and associated transportation networks, quality requirement/criteria for such transportation networks, and assessment of the quality of service within the networks. Although the data requirements for generating such standards would be extensive, this comprehensive system of standards could be a means to examine the basic mobility in a geographic unit for the development of an environmental and economic sustainable transportation system.

Chapters 8 through 10 use real case studies to illustrate the issues and/or concerns of transportation planning. Chapter 8 provides insight into the conflicts between agencies in two state highway projects (US-51 and US 101) of the Sacramento, California, region. The authors point out an important issue of the current situation in the nation: how the local/regional agencies make transportation planning based on the framework adopted by the state/federal agencies in the past. Chapter 9 studies the net impact of rezoning in New York City on the changes in residential development capacity between 2003 and 2007. The findings suggest that rezoning has a modest overall impact on the residential capacity of the city with a concentrated increase in the neighborhoods near rail transit stations. It is crucial to gain a better understanding of the relationship between rezoning and residential capacity in future urban development. The final chapter forecasts demand for waterside industrial lands in Flanders, Belgium. Seven scenarios of the potential impact of changes in economic growth, policy decisions, and inland navigations on the demand for waterside industrial lands are conducted using a freight model. In summary, this volume includes a variety of perspectives regarding the challenges of transportation network planning under changes in economic and political situations. The reader is exposed to alternative views when evaluating transportation planning issues in this book. Most chapters offer a detailed background discussion as well as insights on these challenges or issues, thus benefiting readers with different academic backgrounds.

The book would benefit from a more representative title. As the editors mention in the introduction chapter, this volume briefly covers “one side of the challenge, that relating to transportation networks.” (pp. 13). Thus, for example a title such as “Transportation Network Planning Challenges: Alternative Perspectives” may reduce the likelihood of misleading readers as to the topics covered. Also, although the nine chapters include very diverse approaches and perspectives to address the topic of accessibility in the transportation network, the effect of quality of transportation network on economic impact has not been explicitly studied. As Talley (1996) indicated, spatial accessibility and transportation quality-of-service are important in discussing the economic impact of transport systems. This volume would have benefited from inclusion of that aspect. Finally, the quality of the writing in the book is uneven. Some chapters are well written and easy to follow, while some experienced issues of repeating information, poor grammar, or lengthy sentences, which decreases readability and impedes subject comprehension (for instance, the second paragraph in Section 9.5).

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