Patrick McCarthy. "Transportation Economics: Theory and Practice: A Case Study Approach." *Oxford, UK, and Malden, MA: Blackwell Publishers, 2001. ISBN 0-631-22180-8.*

Gust Blauwens, Peter De Baere, and Eddy Van de Voorde. "Transport Economics." *Antwerp: Uitgeverij De Boeck nv, 2002. ISBN 90-455-0218-6.*

'Transportation Economics' and 'Transport Economics'

by Robert Windle and William DeWitt

These two recent textbooks on transportation/transport economics are very strong additions to the field but with very different focuses and geographical settings. The McCarthy book, designed for use by economists, civil engineers, urban planners, etc., is effective in graduate level courses in economics and transportation, and could be used by advanced undergraduates as well. The Blauwens et al., book is a very broad general look at transport economics designed for "policymakers, entrepreneurs, and novice students." Both books give an overview of the transportation discipline, background statistics, supply and demand, costing, and regulatory/policy issues, with the McCarthy book focusing on the United States and the Blauwens et al., book centered on the European Union.

McCarthy: 'Transportation Economics'

"Transportation Economics," as the name implies, is a textbook that is primarily concerned with how economic tools have been applied to investigate the transportation industry. The book is perfect for an advanced undergraduate course or graduate level course in transportation economics. The author presents the economic theory relevant to a particular topic and then provides the results from several papers to highlight the application of the theory to transportation issues. The papers provide students with some background on the state of empirical research and therefore serve as a useful literature review. The papers also give students practice in interpreting empirical results as presented in journal articles.

It is this strong emphasis on presenting empirical research papers in the text that sets the McCarthy text apart from previous efforts in this area. Each paper is presented in some detail in the form of a case study and there are numerous case studies in each chapter. There are over 50 papers summarized in this fashion throughout the book. The summaries, typically 5 to 7 pages long, go into some depth on each paper presented, providing sufficient detail on each paper to allow one to understand how the economic theory drives the analysis. The summaries also provide the paper results in some detail, often including regression results, for instance. This detail allows for a much more in-depth discussion of the papers and how to interpret the empirical results.

The text is divided into 13 chapters. Chapter 1 provides some background information on the transportation industry in the

Journal of the Transportation Research Forum, Published in *Transportation Quarterly* Vol. 57, No. 4, Fall 2003 (157–160)

US. Chapter 2 is a brief review of the basic econometrics of regression analysis. The remainder of the text examines a variety of transportation issues. Chapters 3 and 4 look at measuring the demand for transportation services. Chapter 3 focuses on aggregate demand models where the object is to measure demand on a city pair or route level, for example. Chapter 4 investigates the use of discrete choice models to estimate demand at a more disaggregate level. Chapters 5 and 6 are concerned with the supply of transportation services. Chapter 5 discusses making decisions in the long run, while Chapter 6 investigates how short-run decisions may differ from long-run decisions. These chapters deal with economies of scale, scope, and productivity in the transportation industry. Chapters 7 and 8 cover market structure issues. Chapter 7 deals with measuring market concentration and its impact on consumer welfare. Chapter 8 is concerned with changes in market structure and examines primarily the impacts of mergers and economic deregulation. Chapters 9, 10, and 11 discuss the issues of infrastructure investment and the appropriate pricing of these investments. Chapter 9 deals with investments from the firm's point of view and from society's point of view. Chapters 10 and 11 cover pricing issues with Chapter 10 focusing on efficient pricing rules and Chapter 11 investigating specifically the issue of congestion pricing. Chapter 12 covers land use patterns including firm and household location decisions. Finally, Chapter 13 examines safety issues in the field of transportation including accidents, safety regulations, and health concerns from vehicle emissions.

Each chapter provides a summary of the relevant economic theory before providing a series of case studies. For instance, Chapter 5 includes a discussion of the production function, a firm's choice of inputs, measurement of returns to scale, measuring elasticities of substitution and input demands, properties of cost functions, and a description of flexible cost functions before introducing the papers to be reviewed. Chapter 5 then discusses three papers in depth that demonstrate the use of the theory developed at the start of the chapter. This is a marvelous way of introducing students to the link between theory and empirical research. Chapters 3 through 13 all follow this format.

The author also provides a series of review questions at the end of each chapter that are extremely useful in testing student's comprehension of the material in the text. These questions are generally numerical problems or questions about the interpretation of empirical results. The questions often present the results from a paper in transportation economics not covered in the text and ask students to interpret the results. For instance in Chapter 5, the question might report the coefficient estimates associated with a cost function and ask students whether the cost function exhibits economies of scale. This requires students not only to understand the theory, but also to be able to apply the theory to actual cost function results. This technique is used in the questions at the end of each chapter.

In conclusion, we are impressed by this text. It provides a comprehensive guide to the field of transportation economics, but more importantly gives students practice in applying this theory in empirical examinations of transportation issues. The book is especially valuable for graduate students (or for that matter any researcher) interested in pursuing research in the field of transportation economics since it covers the theory, the questions, and the tools that are being utilized in the field today.

Blauwens et al.: 'Transport Economics'

"Transport Economics" is designed by the authors to cover four very broad areas in transport for a general audience, primarily one that is learning about the transportation

discipline. The four sections of this book are the organization of the transport sector; the economics of transport management; transport supply and demand; and transport policy. The authors state their intention to create a book that is readable at an introductory but still high level, with supporting formulas and mathematics as appropriate. As with books of this nature, the authors have achieved their stated goal with a book that covers a very wide spectrum of transport economics issues but does not get into much detail in any one of the areas.

The section on the organization of the transport sector lightly covers the various modes in an introductory fashion, so the reader has a general idea about the modes but not much detail or strong grasp of how they function and compete from an operational perspective. The authors' macro discussion of transportation is well done. The chapter on transport sector regulation in the European Union can be an excellent reference for anyone interested in or studying the European Union. The current regulations and references for those regulations are well documented but undoubtedly will change over time.

The section on economics of transport management discusses costs, with a specific focus on wait time and routing, as well as insights for investing in vehicles. This section is complemented by a discussion of logistical costs and transportation within the logistical framework. And there is a discussion of pricing by the transportation firm. One concern with the pricing section is the lack of rigor in determining the value of service of logistics and—as a derivative—the value of service of transportation from a total logistics perspective. The authors reference "managerial intuition" in the pricing process, which is a reality in the use of any decision support system, but a more quantitative discusses pricing for transportation in the logistics framework would be helpful. In the transport decision discussion in this section, the range of combinations of modes could be expanded to reflect the growing realities of multiple mode solutions in today's global economy.

The third section of the Blauwens et al., book deals with transport supply and demand. This section examines trip generation and modal splits for solutions to transportation challenges. A chapter follows this on equilibrium in the market structure.

The final section covers transport policy and puts transportation in the context of regional, social, and employment issues for society and the political structure. There is a discussion of taxation and alternative measures such as user fees, as well as a broad discussion of infrastructure policy.

"Transport Economics" does a good job of fulfilling its stated goals as a broad introduction to transportation, its economics and policy. There are times in the book where the authors move a little too quickly to more sophisticated concepts and discussions without bringing the beginning person along, but this occurs only occasionally. The mathematical and equation inclusions, although well done, from time to time interfere with the flow of the concepts being introduced, a difficult balance to achieve. Overall, this is an excellent textbook for an individual being introduced to transportation and transport economics, especially in the European Union context.

As the industry and discipline of transportation comes back into focus through the realities of complicated and very long logistics paths within the supply chain, it would be helpful to have a textbook that deals on a global basis with transportation economics. Such an approach might include a thorough discussion of the role of inventory moving in transportation, historically an element of inventory that has had a lesser focus. With the growing use of ERPs (enterprise resource planning providers), there is a newfound focus on in-transit inventory, and therefore a need for a renewed and strong understand-

ing of transportation and its economics by those participating in global trade. Hopefully future revision of these books will give more focus to global transportation/transport beyond the boundaries of a country or trading region.

***Robert Windle** is a professor of Logistics, Business, and Public Policy at the Robert H. Smith School of Business at The University of Maryland, College Park. He has been at Maryland since 1988 after having spent six years working for a private economic consulting firm. He received his undergraduate degree from the College of William and Mary and his Ph.D. in Economics from the University of Wisconsin-Madison. Windle's area of specialization is applied transportation economics with a particular emphasis on the airline industry.*

***William J. DeWitt** is a teaching professor in Transportation, Logistics, and Supply Chain Management at the Robert H. Smith School of Business at The University of Maryland, College Park. He serves on the Transportation and Research Board's (TRB) Intermodal and Education committees; he is a certified member of AST&L, and has published in several journals (*Journal of Business Logistics, TRB Transportation in the New Millennium, Transportation Journal, Logistics Technology International, Defense Transportation Journal, *and* Business Geographics*), and worked more than 22 years at Burlington Northern Railroad, including vice president, marketing and sales.*