

Book Review

Econometric analysis of model selection and model testing

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reviewed by E. G. Tsionas*

Although there is a lot of econometrics around - perhaps more than the average economist can digest! - a book on model selection and model choice was really badly needed. I am not sure whether this book fills the void but, nevertheless, this is a book the applied economist can benefit from. The central question is old and simple. Many models have been proposed, and we must choose the "best" one. How do we proceed?

This is a central question in most empirical analyses. The applied economist can benefit from the good review of model selection criteria in chapter 4. This is a superb exposition of all information criteria currently used in practice (Akaike, Schwarz etc.). I found this the best part of the book. The rest of it is more or less standard econometric theory and the authors' own empirical work. There is some new material in chapter 5, regarding information criteria in Box-Cox models and Monte Carlo simulations, which is particularly interesting and deserves some attention from the theoretical econometrician. The many tables might, however, discourage the applied economist, and the main points are not easy to digest. Chapter 6 continues in the same spirit and could have been omitted altogether.

Chapter 7 deals with the application of model selection in arbitrage pricing models. The chapter offers a reasonable introduction to such models. Chapter 8 goes to the heart of these issues and deals with model selection in these models. Surprisingly, we find an empirical application to Oman and standard likelihood-ratio tests for the order of VAR in cointegrating models. Finally, chapter 9 deals – much in the same way – with risk premia of listed stocks.

All in all, the book consists of two parts. First, an interesting and easy-to-read summary of existing econometrics on model selection. Second, the authors' empirical

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applications and publications, which may or may not be interesting to a general audience.

Overall, I believe that model selection and model choice in the presence of unit roots and cointegration is an open issue, which the book does not resolve. However, it is a very good introduction to anyone interested in the basics of model selection and model choice, and any applied economist wishing to apply information criteria in his or her work.