Empirical model discovery and theory evaluation: automatic selection methods in econometrics, by David F. Hendry and Jurgen A. Doornik. MIT, 2014. 358p bibl indexes ISBN 9780262028356, $40.00.

Hendry (Oxford professor) has for over forty years steadily refined likelihood-based methods for econometric model-selection. Collaborating with Hendry for the last twenty years, Doornik (Oxford fellow and OxMetrics director) excels in computational econometrics. They are masters of their book's subject.

Addressing readers familiar with textbooks such as Hendry and Bent Nielsen, *Econometric Modeling* (2007), the authors succinctly explain procedures to (a) formulate a general unrestricted model (GUM) intended to nest an uncertain data-generation process (DGP), (b) reduce the GUM to a parsimonious model that explains the results of larger models, and (c) transform the parsimonious model to make forecasts robust to shifts in the DGP. Experimenting with the authors' software enhances understanding of those procedures.

Model selection involves multiple considerations. While emphasizing likelihood considerations, the authors acknowledge legitimate roles for analytical objectives and pre-existing information. When represented by utility functions and prior distributions, such objectives and information complement likelihood functions in selection procedures described by Sylvia Frühwirth-Schnatter, *Finite Mixture and Markov Switching Models* (2006), and Joseph B. Kadane, *Principles of Uncertainty* (2011). Those works, coupled with Hendry and Doornik's book, provide a balanced overview of model selection.

Summing up: Highly recommended. Graduate students, researchers, and practitioners.

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