**BOOK REVIEW** 



## Sonia Jaffe, Robert Minton, Casey B. Mulligan, and Kevin M. Murphy: Chicago Price Theory

248 pp., Princeton University Press, 2019, \$ 60.

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Published online: 7 May 2022 © The Author(s) 2022

Price theory takes a central place within the school of thought of Chicago economics. In "Chicago Price Theory", four economists from this intellectual tradition put forward a textbook on the topic. The book is based on the longstanding graduate course in price theory at Chicago, which—over the years—has been taught by economists such as Jacob Viner, Gary Becker, and Kevin Murphy.

The authors define Chicago price theory as "the analytical toolkit that has been assembled over the years for the purpose of formulating [...] explanations and predictions, and guiding the measurement [of how people behave]." From a theoretical perspective, the approach builds on two elements of neoclassical economics: optimizing behavior of consumers and firms, and market equilibrium through competition, implying price-taking behavior. Contrasting price theory to microeconomics, the authors emphasize the importance of interrelated markets. Their analysis often requires multi-industry models that might be hard to analyze using game theoretic methods but provide more tractability than general equilibrium approaches.

As pointed out in the introduction to the book, the direct application of the theory to practical economic problems is central to Chicago price theory. Thereby, the Chicago School traditionally uses a wide definition of what constitutes an economic problem. The book reflects this emphasis through many illustrative, and interesting, examples. In addition, the authors give plenty of "homework problems" that encourage the reader to practice the application of price theory to various economic issues.

The book consists of three parts. The first part deals with the consumer side of the economy. The second part adds the supply side and studies market equilibrium. The third part treats dynamic aspects of the economy such as technological progress and durable goods.

The treatment of consumer theory starts directly with the consumer's utility maximization problem and without any reference to an underlying decision theory.

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Utility maximization gives the foundation for the derivation of Marshalllian and Hicksian demand systems. It is at this level of aggregate demand where price theory is put to work, and the authors indicate that price theory may still apply in settings where the demand curve is not—at least not exclusively—the aggregate of "rational" consumer decisions. Still, the authors build on utility maximization in their following treatments of price indices—a rather timely topic—, consumer nudging—which amounts to a critique of claims that consumer theory is refuted –, and short- versus long run demand analysis—featuring the Chicago classic of addictive behavior interpreted as the consumption of goods that are complements over time.

The second part of the book is about market equilibrium. Perhaps surprisingly, this part does not start with the neoclassical treatment of firms' optimal production decisions. Rather, the authors first insert three chapters on market equilibrium without clarifying the underlying theory of firm behavior. The first of these chapters discusses market equilibrium with quality differentiation. Here firms are directly endowed with their indirect cost of producing a given quality level. The next chapter is a simple and beautiful elaboration of location choice and equilibrium rents in a model of a city as a labor market. It follows a chapter on the effect of learning by doing and on-the-job investment on wages. Only then firm behavior is formally introduced. Here, the authors include an interesting discussion of the incentives to acquire a comparative advantage in the market place. The following chapter presents an industry model with given aggregate demand and firms producing with labor and capital as inputs. After these two theory-laden chapters, the authors return to the application with an interesting discussion of the negative effects of prohibition and the potential benefits from the legalization of drugs. Given the recent wave of legalization of marijuana-related products in different states of the USA, this application serves as an example of the important impacts the Chicago school has had on policy in "non-economic" dimensions. The second part of the book closes with chapters on monopoly and an extension to multiple-factor models.

The third and final part of the book is concerned with dynamic aspects of the economy. The first three chapters of this part treat durable production factors such as many forms of capital that provide an input over some time period, depending on investment and depreciation. The following two chapters apply the theory to technological progress. The book closes with an exemplary application of price theory in the Chicago spirit: a study of investments in health and the possibility to calculate the statistical value of life from such optimal self-protection decisions.

For better or worse, the book is evocative of a lecture script. At slightly over two hundred pages, the book is refreshingly short and comes straight to the point. However, the authors typically provide very little discussion of modelling decisions and assumptions. The book also does not address the typical criticisms of Chicago price theory—such as the allegation of "economic imperialism" or criticisms regarding the use of incompletely specified models (Weyl 2019). In this sense, the book shows concisely how to do Chicago price theory but does not make the effort of convincing a critical reader why to do it.

In the introduction, the authors refer to the study of price theory at Chicago as a "process of immersion". Greatly facilitating the reader's immersion into Chicago

price theory, the book is complemented with a complete recording of the price theory course with lectures given by Gary Becker and Kevin Murphy. Both are obviously great teachers. The recordings are simple in that they show the lecturer and the blackboard. Unfortunately, the sound quality of Becker's lectures is rather poor. Moreover, questions asked from the audience are mostly not audible.

The book and the associated video series are great teaching resources for economists from the Chicago tradition. Most economists outside of this tradition may typically not want to base a course exclusively on this material. Nevertheless, the book may be very useful as an additional source for teaching a course in microeconomics at an advanced undergraduate or graduate level. In particular, many teachers may want to make use of the applied chapters of the book to complement their teaching of partial and general equilibrium analysis, thereby countering the authors' criticism that "many economics courses help you master models, and leave application [...] as an advanced topic". The chapters on addictive behavior and prohibition (Chapters 6 and 12) as well as those on location choice (Chapter 8), on-the-job investments in human capital (Chapter 9), and investments in health (Chapter 20) can be neatly integrated into a standard microeconomics class. In addition to providing students with an interesting perspective on these important societal problems, they allow the teacher to highlight Chicago economics as an important and impactful school of thought. Finally, the book's collection of homework problems may prove helpful to teachers who seek to diversify the kind of questions they ask in their problem sets.

To sum up, "Chicago Price Theory" is a concise treatment of its subject. The book is not intended to convince readers who are critical of this approach to economics. Nevertheless, the book contains interesting applications that may fruitfully complement courses in microeconomics and expose students—methodically and in terms of applications—to the important school of economic thought from Chicago.

Funding Open Access funding enabled and organized by Projekt DEAL.

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## Reference

Weyl EG (2019) Price theory. J Econ Lit 57(2):329-84

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