Book Review: Market Liquidity: Theory, Evidence, and Policy by Thierry Foucault et al

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The way in which securities are traded is very different from the idealized picture of a frictionless and self-equilibrating market offered by the typical finance textbook. **Market Liquidity** aims to confront many puzzling phenomena in securities markets and uses the analytical tools and empirical methods of market microstructure to understand them. These include issues such as why liquidity changes over time, why large trades move prices up or down, and why these price changes are subsequently reversed, and why some traders willingly disclose their intended trades while others hide them. Reviewed by **Luis Boscán**.



Market Liquidity: Theory, Evidence, and Policy. Thierry Foucault, Marco Pagano and Ailsa Röell. Oxford University Press. April 2013.

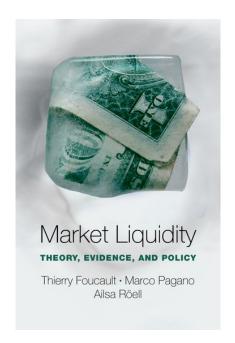
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As is usual with many textbooks, *Market Liquidity* grew out of the teaching resources developed and accumulated by professors Thierry Foucault, Marco Pagano and Ailsa Röell for courses taught by them over more than ten years at HEC Paris, Imperial College, Tinbergen Institute, and the Universities of Bologna, Mannheim, Naples, Princeton, Sydney, and Tilburg. With a wide audience in mind, ranging from advanced undergraduates to masters-level and even doctoral students, the book mixes real-world examples, intuitive explanations, and the mathematical language of empirical and theoretical economics in a single volume.

The book departs from the 'idealized picture of a frictionless and selfequilibrating market offered by the typical finance textbook' (p. 1) and focuses instead on the various informational imperfections that motivate securities prices



to deviate from fundamental values. These deviations, which the authors 'take seriously' (p. 2), are analysed from the perspective of a now well-defined body of literature known as market microstructure, which has emerged in the last thirty years. Divided in to three parts, the first five chapters are devoted to the presentation of the main theoretical and empirical models used in the field, while the second part (chapters 6-8) addresses the relationship between market design, liquidity and price discovery of securities. The last two chapters of the book study the link between market microstructure, asset pricing and corporate finance.

Because of its clear style, I found this book easy to follow. If the reader wants to have a basic understanding of the concepts without being too mathematically involved, this is the book to read. Interestingly, if the reader is seeking something at a more advanced level, this is also a good starting point. Few books in economics can claim to be both accessible and advanced at the same time and this is one of them. In addition, while the book is self-contained, there are plenty of suggestions for further reading at the end of each chapter, which will surely motivate the interested reader to continue research elsewhere.

However, although the book comes with a generous supply of exercises and authors suggest that 'hands-on-practice with the end-of-chapter exercises is the best way to master the material in the book', there are no sketches of solutions available in the book. Admittedly, there is a companion website (still under development) for *Market*

Liquidity with both student and instructor resources, but it remains unclear if solutions will become available in the future. For some reason, with very few and remarkable exceptions, most textbooks tend to ignore the efforts of independent learners. I advocate for a more open approach to knowledge dissemination that includes them.

As a researcher interested in energy markets, I came to this book seeking enlightenment from this particular area of financial economics and am glad to admit that, while the book always refers to securities and financial markets, its conclusions are general enough to derive fundamental insights applicable to any trading mechanism.

Take, for instance, the contentious debate about the financialization of global oil markets which even led Nicolas Sarkozy and Gordon Brown – amidst the financial crisis – to propose increased coordination between consumers and producers as well as tighter regulations of oil contracts. One interesting conclusion, derived from chapter 4, is that 'even very liquid markets ... have limited depth, so large orders can unsettle prices' (p. 133). Before agreeing to regulate anything at all, easily jumping to conclude that it is the markets that are to blame or that there are fundamental reasons (e.g. peak oil) that shape the evolution of oil prices, it is important to recognise that information asymmetries do have an impact: 'insofar as larger orders reflect more private information than small orders, they induce larger price movements' (p.133).

Another example comes from their analysis of the call auction (also known as single price auction) which is applied in most liberalized wholesale electricity markets. According to this mechanism, suppliers present a schedule of ascending bids which reflect their willingness to produce at different prices. Symmetrically, buyers bid in descending order specifying individual demand curves. An auctioneer finds the equilibrium price at which both curves intersect and settles this point as the *unique* reference price at which transactions will be settled, regardless of the price that the individual agent has bid. One relevant advantage of this trading mechanism is that it discourages physical withholding – a crucial element in the efficient operation of any electricity system – because the '...clearing price maximizes the (voluntary) trading volume, as it leaves no trading opportunity unexploited' (p.22). However, in this particular design '... market depth depends on the informativeness of the order flow ... but also on the number of dealers (which determines their market power)' (p. 144). Hence, '... even fine details of trading arrangements can affect market maker's profits, and market liquidity' (p. 144).

Are there other trading arrangements that could be implemented in the context of energy markets? Certainly yes and, in fact, many of these intensely debated topics are a natural response to challenges (e.g. integration of renewable energy) and opportunities (e.g. the development of a smart grid) faced by energy systems all over the world.

In any case, *Market Liquidity* is a book that reinforces one of the fundamental lessons of modern economics: that incentives matter.

Luis Boscán is PhD fellow at Copenhagen Business School's Department of Economics and his thesisfocuses on mechanism design applied to flexibility trading in electricity markets. Luis holds an MSc in Systems Modelling & Simulation (Universidad de Los Andes, Venezuela) and an MSc in Energy Economics and Policy (University of Surrey, UK), which he completed with the support of a Chevening Scholarship. Prior to beginning doctoral training, he worked for six years as Economic Analyst at the Central Bank of Venezuela, where a substantial part of his activities was devoted to the analysis of international petroleum markets. He tweets at @luisraboscan. Read more reviews by Luis.

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