

Introductory Comments: Bloomfield and O'Hara, and Flood, Huisman, Koedijk, and Mahieu

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The following two articles, "Market Transparency: Who Wins and Who Loses?" by Robert Bloomfield and Maureen O'Hara (hereafter BOH) and "Quote Disclosure and Price Discovery in Multiple Dealer Financial Markets" by Mark D. Flood, Ronald Huisman, Kees G. Koedijk, and Ronald J. Mahieu (hereafter FHKM) are the first two experimental microstructure articles that the *Review of Financial Studies* (hereafter RFS) has published. We, the editors of the RFS, hope that they are not the last. Therefore, I take the unconventional step of introducing the two articles. The articles speak for themselves, of course, and they need no additional motivation from me. Furthermore, it is not my goal to either praise or critique the articles; you, the reader, will do that. It is hoped that this introduction will reveal my perspective as a (to date) nonexperimentalist editor. This should help inform the decision to submit future experimental microstructure articles to the RFS.

The two articles deal with transparency, and roughly speaking, both conclude that the decision between transparent and nontransparent markets involves trade-offs. I find this result interesting in and of itself. What is more intriguing is that the articles conclude, again roughly speaking, that there are opposite trade-offs. BOH concludes that transparency involves higher spreads and more "efficient" prices. FHKM concludes that transparency involves lower spreads and less "efficient" prices. I have stated the disparity in the conclusions as starkly as possible. In fact, the two articles consider different types of transparency, and allow different actions by the players. The opposite conclusions can be reconciled, but doing so illustrates the complexity of the issues that we need to be considering.

I once believed that the effects of transparency should be obvious. Increased transparency should lead to a greater commonality of information. Greater commonality of information means that adverse selection becomes less of an issue. Therefore, I thought, transparency should lead to infor-

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mation coming out faster (prices are more efficient) and spreads should be smaller (less fear of being picked off by informed traders). As a result of transparency, the informed will lose, the uninformed will win, but the uninformed will win more than the informed because there will be better risk sharing. Subsequent theory has suggested that it is not quite so simple. The opportunity for interdealer trade, and a lack of transparency, may lead to a lower initial spread, as dealers compete to get the order flow and its information to be used profitably in a subsequent round of trading. The experiments in these two articles suggest that there are these and other interesting things happening.

Subjecting the theories to empirical tests is difficult. Changes in transparency regimes are infrequent and, I would venture to say, hardly ever exogenous. Similarly, the firm's choice of trading venues cannot be considered exogenous. Thus the opportunity for a clear test with an exogenous change in institution is rare if not nonexistent. This is one thing that experimental markets can provide, which is one reason I find the results of this form of analysis useful.

While experimental markets can test received theories, they can also point in the direction of other theories and empirical tests. Dynamic microstructure models without pure exogenous "noise trade" can be devilishly difficult to solve. Experimental markets can provide modeling insights into what are important dynamic issues to consider. As theory informs empirical work, so too can experimental markets provide direction for empirical work on actual market data by suggesting effects to look for.

The point of the experiments in these two articles is to provide evidence on how agents interact with each other and how the institutional design affects these interactions. This is a general motivation. It is my impression, however, that this general motivation has not been translated into a commonly agreed upon approach to designing experiments. In particular, experimental designs vary widely in the degree to which the experimental institutions correspond to actual institutions and the extent to which behavioral restrictions are imposed on the participants (from robot to *laissez faire*). With simplified institutional structures and many robot participants, the behavior of the remaining individuals is isolated and is more easily understood. With more realistic institutions and broader behavioral freedom, more of the interactions between participants surface, but at a cost of complexity. It seems to me that there is room for a wide range of experimental approaches. The best alternative will depend upon the goals of the analysis.

While the two articles both consider pure dealer markets, other aspects of the experimental design differ markedly. BOH uses students as experimental subjects, while FHKM uses actual securities dealers. The articles also employ different reward schedules, and it is possible that the two populations of experimental subjects have different motivations. The BOH market consists of two dealers and the FHKM market of seven. FHKM uses robots

to trade against the dealers, but allows interdealer trading. BOH uses both robots and humans to trade against the dealers but does not allow the dealers to trade with each other. The FHKM trading session is continuous; the BOH trading session is divided into distinct trading rounds. I make no judgment on the superiority of any of the experimental design approaches made by either set of authors. I hope that further analysis will shed light on what the effects of these experimental design decisions might be, and which of the approaches might better reflect the important economic effects.