

# Experimental Research

FTS has its origins in research. It was originally designed by Professors John O'Brien and Sanjay Srivastava, and the first research paper using FTS came out in the Journal of Finance in 1991 ("*Dynamic Stock Markets with Multiple Assets: An Experimental Analysis*," by O'Brien, John; Srivastava, Sanjay; Journal of Finance December/1991, Volume: 46 , Issue: 5 , Pages: 1811-38). Since then, it has been used in a variety of studies, particularly for financial market experiments. Links to research papers base that use FTS are provided on our web site.

The FTS Interactive Markets continue to provide an easy to use and comprehensive framework for asset market experiments. It is quite straightforward to conduct experiments on information aggregation, speculative bubbles and overreaction to information, excess volatility and trading, and so on. The system also allows for different microstructures (call markets and continuous double auctions), as well as very general payoff structures, allowing for a wide range of incentives to be implemented in an experimental setting. If you want to conduct market experiments, please contact us, and we can help you set up your experiment.

Beyond markets, we also provide a "generic" experimental system, where you can run almost any experiment you like, including m auctions, game theory experiments, and so on. The system is designed as follows, and we use an auction to illustrate its capabilities.

- You set up the experiment in an Excel workbook. One worksheet contains common information, such as instructions, sent to all subjects. Another worksheet contains information to be sent to individually, such as a private value or signal for the object being sold in an auction. This area also specifies what input is required from the subjects, such as a bid for the object being auctioned.
- You run the experimental server and connect it to your workbook.
- The subjects all connect to your server using the client program.
- You send the common information
- You send the private information
  - Both the common information and private information appears in an Excel workbook for each subject; this workbook is automatically created by the system.
- The subjects enter their responses (e.g. bids) during some period of time that you choose.
- When the time is up, you "grab" all their responses, calculate the outcomes in your workbook (e.g. the price paid and who is allocated the object) and send this information back to everyone.

The information flow described above can also be made continuous; in fact, you can mix and match information that is updated constantly and that is updated manually. For example, if you are running a sealed bid auction, you only need to retrieve bids at the end of each round. If you are running an English auction, you may want to display the highest bid (or all bids) continuously.

Please contact us for information; again, we provide extensive support to help you set up and conduct your experiments.