Price Formation in Limit Order Markets with Bilateral Trading Agreements

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More than half of the world's financial markets currently use a limit order book (LOB) mechanism to facilitate trade. For markets where trade is conducted through a central counterparty (CCP), trading platforms disseminate the same information to all traders in real time and all traders are able to trade with all others. By contrast, in markets that operate under bilateral trade agreements (BTAs), traders only view the LOB activity from their bilateral trading partners and cannot trade with anyone with whom they do not possess a BTA. In this paper, we examine how BTAs affect trade in the foreign exchange (FX) spot market. Using historical data from an electronic BTA LOB trading platform, we present a statistical analysis of how BTAs influence the prices paid by traders and highlight the challenges that BTAs pose for modelling. By performing model-based inference on the network of BTAs in this market, we estimate that most traders have relatively few BTA partners. We conclude with a discussion of how BTAs affect market stability..

Key Words: Complex systems; foreign-exchange market; high-frequency data; latent parameter estimation; stochastic modelling