Trading Venues over Network Linkages: Centralized vs. Decentralized Markets

Gabriela Stockler[1,2]

[1]Universitat Autonoma de Barcelona

[2]Barcelona Graduate School of Economics

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Discussant: Riccardo Silvestrini (ESE and TI)

Results

Main results of the paper:

1. Even with competitive markets, agents affect equilibrium prices by acting strategically in the multi-venue markets.

2. Given the network structure, the analysis simplifies to the study of the patterns of the linkages in the economy.

Pros

Honestly, I am new to this field, but I really liked the paper!

The contribution looks very interesting and promising, although the paper is still in a preliminary version.

In particular, I appreciated:

- Non-trivial results, e.g. demands and prices are non-monotonic in network connectivity or the importance of eigenvalue centrality.
- Interesting extensions, as monopolistic pricing or multiple sellers.
- Clarifying examples ($N = 3$, timing of the model...).

Suggestions and Questions

- *Nowadays essentially all financial assets are traded in multiple, contemporaneous and interconnected trading venues.*
  1. In your model the key element is that you have sequential markets, how about contemporaneity?
  2. Decentralization or restricted market? With a focus on the second, the timing of the model seems reversed (Treasury bonds, energy markets...).
  3. To sum up: more examples like the pre-IPO rounds.

- Clarity of the model and modelling assumptions:
  1. Metaphor of rolling a die with $N+1$ faces for the realization of the "seller" shock, in particular when $\phi = 1/(N+1)$.
  2. Equation 3 seems confusing since it never holds exactly as it is written.

$$w_i = m_i + P_1 a_i + (P_s \tilde{a}_{is} - P_i a_i)$$

Suggestions and Questions (II)

- Proof in Section 3 for no DM when $N \to \infty$.
  1. Is sufficient to say that $\phi \to 0$ when $N \to \infty$ due to the assumption of $\phi < 1/N$?

Small typos:

- *Fist* for *First* on page 2.
- *With drawl* for *withdraw* on page 3.
- The sum should be indexed to s instead of j in equation 2 on page 6.
- A tilde is missing on top of m_i on page 7.