Intermediation Networks and Derivative Market Liquidity: Evidence from CDS Markets

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Discussion by Bernard Herskovic (UCLA and NBER), November 2023

Very important market

- Two key players in OTC markets: dealers and customers
- Dealers provide liquidity and act as intermediaries

- Corporate bonds, sovereign fixed income, swaps
- This paper: Credit Default Swap (CDS) contracts

- Typical market structure: interdealer market and dealer-customer market
- The network structure of these markets matters for risk allocation:

Hollifield, Neklyudov, and Spatt (2017); Li and Schurhoff (2019); Eisfeldt, Herskovic, Rajan, and Siriwardane (2023); Eisfeldt, Herskovic, and Liu (2023)

This Paper

- How intermediation network and dealer exposure impact liquidity of the CDS market
- The model has an important prediction:
    - “networks with more dense connections produce greater **transaction volume**, and, controlling for dealer connections, accommodate higher gross **inventory** and tighter **bid-ask spreads**”
- Also:
    - “[Well-connected dealers] hold larger inventories and offer tighter bid-ask spreads”
- These are good testable prediction authors take to the data

This Paper

- Authors use rich data on single-name CDS contracts from DTCC
    - I commend the authors for working with these data. It's far from trivial!
- Network density is measured as network completeness: the fraction of links formed out of all possible links
- Use interdealer or dealer-customer network completeness to explain three variables:
    1. Volume: positive and significant relation
    2. Inventory / risk-bearing capacity:
        - (Complexity) Unconditionally: positive and significant relation
        - (Netting) Controlling for interdealer mkt completeness: negative and significant relation
    3. Bid-ask spreads and execution costs
        - Positive relation for dealer-customer network completeness and bid-ask spreads (nothing on interdealer b-a)
        - Negative relation for execution costs
- These are panel regressions with lots of controls

Comments

- Overall impression: two papers glued together

  …but they need each other [in its current form]

  Empirical analysis motivated by the model

  Model motivated by the possibility of being tested

  Suggestion: make the model and the data part of the same reasoning

  - Do you want to have a model that is tested in the data? Make the model spill out the testable equations to justify each control in the regression. Be very clear about the economic mechanism.
  - Do you want to document empirical facts and provide intuition about the results? Do the empirics first, then discuss a model built around the empirical results.
  - The current version is somewhere in between

Comments

- Dealers are monopolists with customers
- Dealers act cooperatively with other dealers:

    surplus sharing rule based on Shapley values

    Why? Collusion is different from cooperating

    A consensus is that the interdealer market is highly competitive

    There are still frictions (e.g., Eisfeldt, Herskovic, and Liu 2023)
- The hedging nature of CDS is absent
- More math rigor? Formally define all completeness measures in the model and provide more details on the proofs of the propositions.
- More intuition. What exactly are the economic channels?
    - Most of it seems to come from the inventory cost structure
- Data: Identification? Perhaps explore heterogeneous variation in single-name being centrally cleared?
- Be explicit about the source of variation given the fixed-effects and how it maps back to the model.

Remarks

- Great paper on an important topic!

- Lots of potential!

- Main concerns:
    - Model and data should go hand in hand
    - More rigor in the model with explicit intuition and predictions