Market Power in the Securities Lending Market

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Paper in a nutshell

- Empirical evidence of market power in the securities lending market

  1. High concentration

  2. High fees

  3. Underutilization of inventory

- A dynamic model that speaks to these facts. Calibrated. Quantitative Implications of fees on lenders' valuations and short sellers' alphas

Empirics. High concentration

- The top 2 lenders have a market 50-85% market share

C1. Securities lenders have market power vis-à-vis short sellers. Other ways to short sell: options, repo

- ∃ discussion of the options market, but it's focused on non-redundancy of securities lending market

- The results of the paper are stronger for smaller stocks where options and repo are not available/illiquid.

Fees and inventory utilisation

- 100% inventory utilization and positive fees are incompatible with the equilibrium

Think about market clearing

$$\underbrace{x_{short} + x_{long} = supply.}_{\text{security market}} \qquad \underbrace{x_{short} + y \cdot x_{long} = 0}_{\text{securities lending market}}$$

Here y is *inventory utilization*, a fraction of inventory x_{long} lent out to short sellers.

$$x_{long}(1 - y) = supply > 0 \Rightarrow y < 1$$

Fees and inventory utilisation

- 100% inventory utilization and positive fees are incompatible with the equilibrium

The typical solution in the literature is to impose a constraint on y

- E.g. due to matching frictions (e.g., Garleanu et al (2022))

- Or due to regulation. E.g., mutual funds can lend out < 1/3 of their total asset value (e.g., Nezafat and Schroder (2021))

Note: without constraints competitive lenders would want to lend out all of their inventory (more lent=> more fees collected)

Fees and inventory utilisation

- This paper does not impose any constraints

Why would a security lender lend out only, say, 50% of the inventory?
Because if lends out more, the fee will be smaller. Better lend less but at higher fees.

C2: this has implications for price elasticity in the lending market.
Back of the envelope: lending 100% instead of 50% should result in fee that is at most half of the original.
$Elasticity = -\frac{\frac{\Delta q}{q}}{\frac{\Delta fee}{fee}} = 2$. Koijen-Yogo: elasticity in equities is 6.
Compute elasticities and relate to existing estimates!

Empirics. Inventory utilisation

- Low utilization: market power or constrains/costs?

C3. Are cross-sectional and time series implicaitons similar in the market power story and constraints/costs story?

Empirics. Fees

- “we document that fees on lending contracts are elevated and non–competitive ”, where competitive fees=0.

C4. But competitive fees =0 only in your model. With constraints competitive fees can be >0.

It would be hard to estimate the competitive level of fees, so I would say your evidence shows that fees are economically significant.

Theory

Existing theory:

1. Nezafat and Shroder 2022. Static model. Asy info. Competitive, centralized markets

2. Atmaz and Basak 2022. Dynamic model. DO. Competitive, centralized markets

3. Evgeniou, Hugonnier, Prieto (WP 2022), Garleanu, Panageas, Zheng (2022). Dynamic model. DO. Competitive, Intermediated lending market

This paper

- Dynamic model, rich, calibrated, asy info, intermediated lending market with market power. Key distinguishing feature: exogenous SDF

Theory: exogenous SDF

C5. Does an SDF exist?

W/o frictions, no arb ⇒ ∃ SDF. But we have bid-ask spreads, lending fees, etc.

Also, why this specific form (e.g., no jumps)?

Theory: exogenous SDF

C6. The model ignores potential GE effects.

E.g. without fees, the dynamics of SDF might be different

Empirically, anomalies are concentrated in the short leg. With fees the returns become insignificant. (e.g., Muraviev and Pearson 2022).

Analysis perhaps applies more to small stocks, which are unimportant to SDF dynamics. Discuss implications for your cross-sectional analysis.

Theory: exogenous SDF

I don’t want you to endogenize SDF! Exogenous SDF generates a lot of tractability. Just discuss the consequences of this modeling choice.

Theory: alternative benchmark

Paper contrasts the results: intermediated lending market with market power vs centralized competitive market.

How about the intermediated competitive market? I.e., custodian lenders compete in fees a la Bertrand.

Conclusion

Very nice paper

- The role of market power in the securities lending market is an interesting and important question

Good luck!