Liquidity Flows to Bank-Affiliated Broker Dealers: Insights from Volumes and Prices

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Discussion by Amy W. Huber

The Wharton School

The 38th Mitsui Life Symposium

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- Dealers: intermediaries between cash lenders and borrowers in repo markets.
  - Cash borrowers in the Triparty repo market.
  - Cash lenders in inter-dealer and bilateral repo markets such as GCF, FICC, and uncleared private repo.

This paper

- Key question: who funds dealers, and at what cost?
  - Traditional focus: money market funds as sources of cash (e.g., Copeland, Martin, and Walker, 2014, Huber, 2023).
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- Puzzle: typical incentive is to lower price in inter-affiliate trades.
  - Regulation W: inter-affiliate trades cannot be below market price.
- Reconciliation: dealers' true cost of repo borrowing includes BHC's balance sheet (B/S) cost.
  - Affiliate lenders charge higher because inter-affiliate transactions save the dealers on balance sheet cost.
  - $\Rightarrow$ Affiliate pricing is not necessarily higher than the true "market price" of repo.

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- This paper: advantageous to access internal liquidity from affiliated BHC.
  - Discussion: reflect on (the sources and magnitude of) this "BHC Advantage".

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  - $\eta = \frac{1}{2}, \alpha > \frac{1}{2}$.
- Magnitude of the BHC Advantage likely captured by these parameters.
  - Useful to think through implications using general parameter values.

Model with general parameters

Nash equilibrium:

$$\underbrace{rp^A - rp^U}_{\text{affiliation premium}} = \underbrace{(r^O - rp^U)}_{\text{diff in outside option}} \cdot\eta + (\alpha - \eta) \cdot \underbrace{\frac{C(R+T) - C(R+(1-\theta)T)}{\theta T}}_{\text{“marginal” B/S cost}}$$

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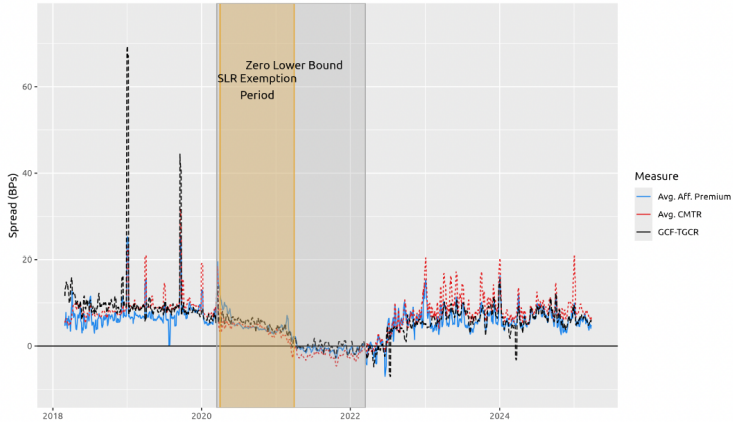
- How to estimate η?
  - Need to know (marginal) B/S cost from repo intermediation.
- Thankfully, several cross-market Treasury repo rate spread can be proxies.
  - CMTR: dealer-specific.
  - GCF-TGCR spread: market average.

B/S cost and model implications



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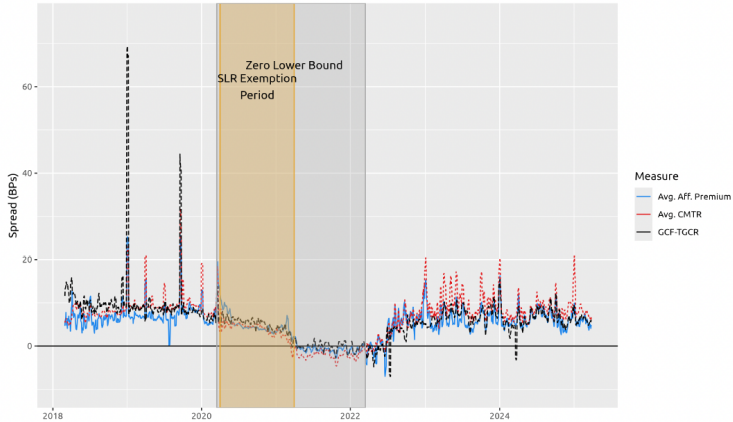

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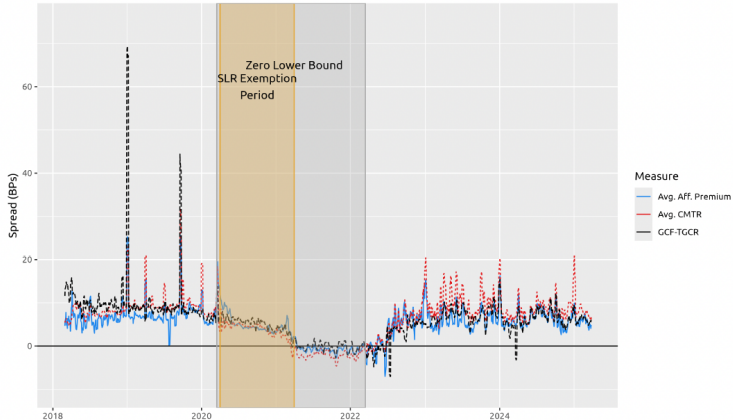

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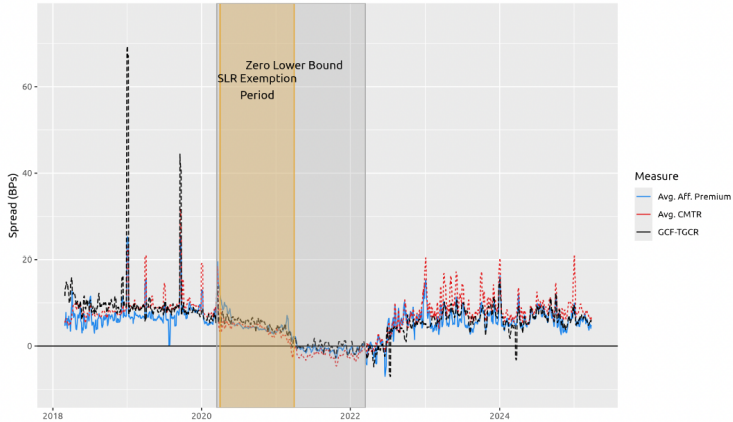

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Model with slightly modified B/S cost

- One possible modification:
  - Dealer bears all B/S cost associated with unaffiliate-repo, but no more.
  - Affiliate's B/S cost not changed by repo: no change in B/S usage when diverting funds from the Fed (reserve) to dealer (repo).
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- Removes need for exogenous α.
- Eye-ball structural estimation: $rp^A - rp^U \approx C'(x) \Rightarrow \eta \approx 0$.

What are the sources of the BHC Advantage?

- Is there a cost advantage?
  - Little advantage if $\eta \approx 0$: dealers pay for all of the B/S cost, just as they would if borrowed from unaffiliated.
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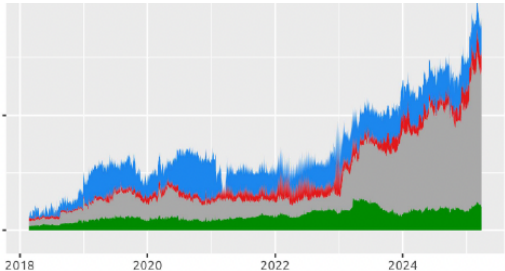
  - A rigorous estimation of η can help.
- Even if there were no cost advantage, there may be a quantity advantage.
  - Can dealers get more flexible repo funding from affiliate parties?
  - Can dealers get more repo funding than if affiliate parties did not exist?

Evidence on quantity advantage?

Figure 1: Borrowing from All



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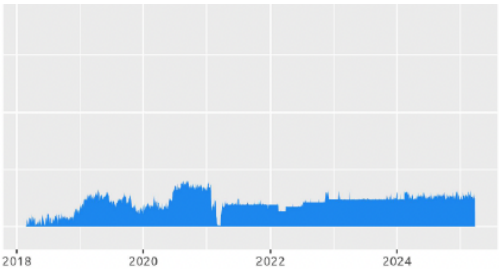

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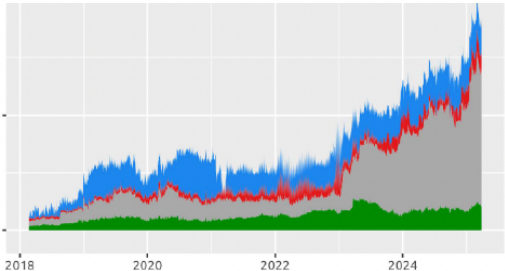

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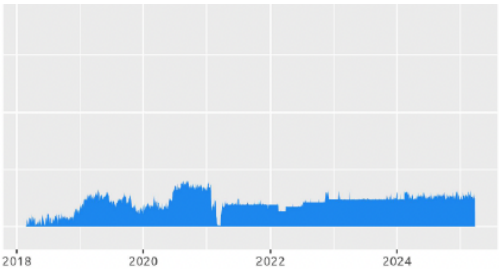

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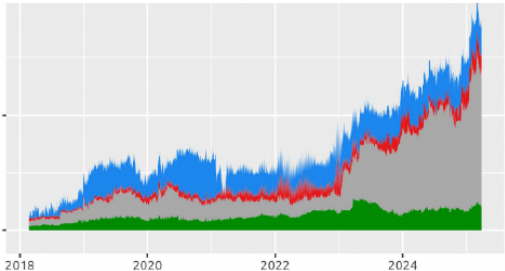

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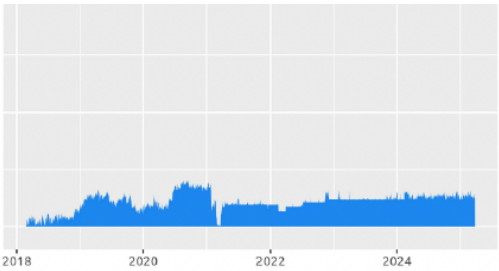

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- But these are equilibrium outcomes.
  - One suggestion: estimate the Affiliate's full problem, combine with Dealer's and MMF's problem, and explore counterfactuals.

Conclusion

- Amazing paper = cool facts + coherent explanation.
- Cherry on top: Can we learn more about the extent of BHC Advantage?
  - Pricing?
  - Quantity?
  - Not touched yet: seat at the table (barrier to entry).
- Exciting research direction. Best of luck!

Copeland, A., A. Martin, and M. Walker. 2014. Repo Runs: Evidence from the Tri-Party Repo Market. The Journal of Finance 69:2343–80.

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