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

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Background

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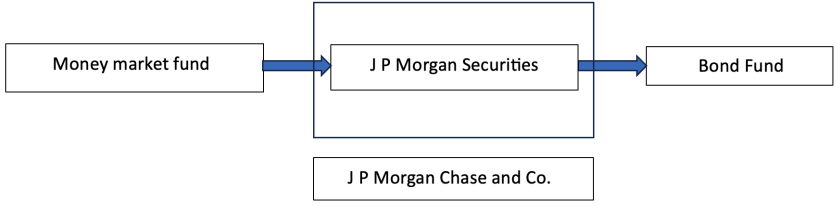
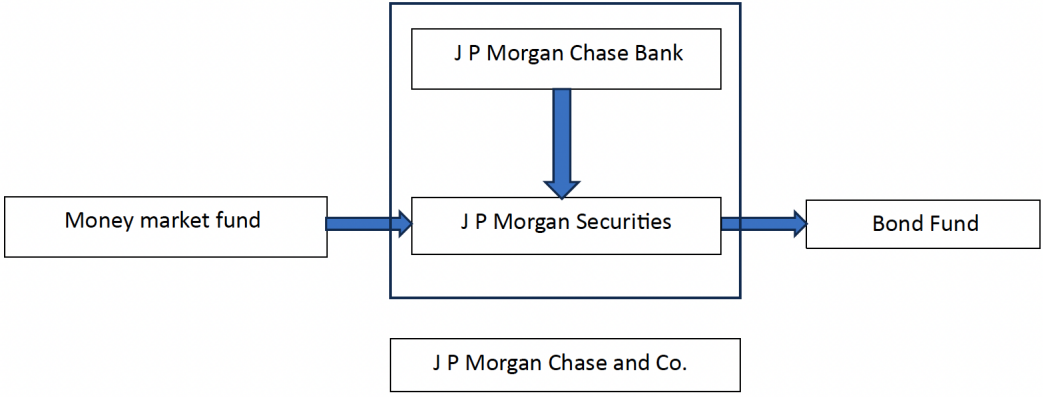


This paper: Can internal capital markets help?



Main findings

- Internal capital markets provide a way for dealers to alleviate capital constraints
- Cost of borrowing higher from an affiliated lender compared to an unaffiliated lender: Affiliation Premium
- Balance sheet costs give rise to affiliation premium
  - Dealers are willing to pay for the reduction in balance sheet cost
- Internal liquidity used for external liquidity provision

Comments

- Important topic: understanding the factors that ensure smooth functioning of repo markets is of first order importance
  - Monetary policy: The Fed conducts open market operations through the repo market
  - Benchmark for other lending rates: Short term rates such as secured overnight funding rate (SOFR) tied to repo rates
  - Fiscal implications: Dealers' ability to intermediate treasuries affects treasury yields
- Confidential transaction-level data allows authors to document new facts on repo pricing and volume in internal capital markets

Discussion: questions about the affiliation premium

Conceptual framework

- Internal borrowing equal to an amount θT generates a surplus at the BHC level that has three components:

$$\underbrace{-r^O(\theta T)}_{\text{opportunity cost of internal lending}} + \underbrace{rp^U(\theta T)}_{\text{dealer's saving on unaffiliate lending}} + \underbrace{[C(R+T) - C(R+(1-\theta T)]}_{\text{balance sheet cost saving}}$$

- Surplus split between dealer and affiliated bank using Nash bargaining assuming equal bargaining weights
- Affiliation premium positive if the dealer bears majority of the balance sheet cost

Comment 1: Distribution of balance sheet cost between the lender and dealer

- What determines the share of balance sheet cost borne by the dealer?
- Depository institution also has to comply with capital regulation
- Model currently doesn't allow the depository institution to use balance sheet space for originating loans
- Useful to include a discussion on the marginal value of balance sheet space for the dealer vs the affiliate lender

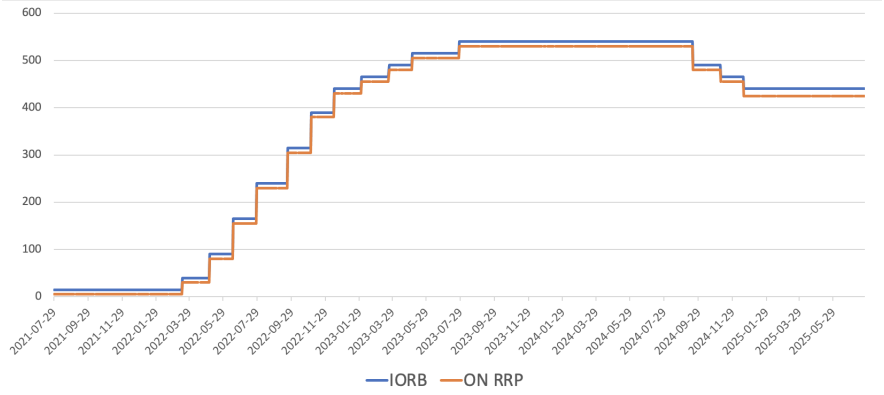
Comment 2: Opportunity cost of lending to dealers

- Affiliation premium is calculated as the difference in the cost of repo financing from an affiliated lender vs an unaffiliated lender
- Premium much larger for BHC affiliated banks
- Are these unaffiliated lenders banks or money market funds?
- Differences in opportunity cost of lending to dealers for banks and money market funds?

Comment 2: Opportunity cost of lending to dealers

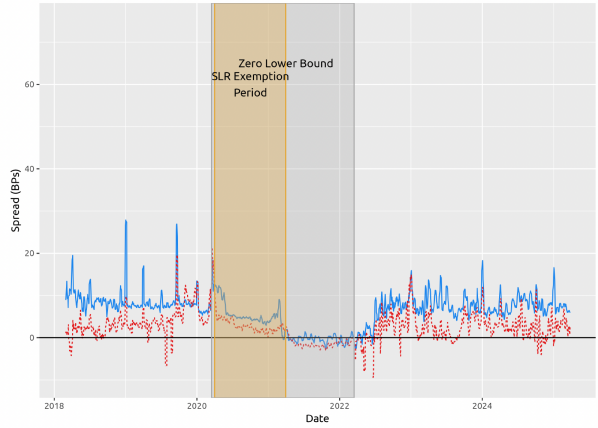
- Banks park excess reserves at the Fed and earn interest on reserve balances (IORB)
- Lenders such as money market funds can similarly invest cash at the overnight reverse repo facility offered by the Fed and earn the ON RRP rate
- IORB is the opportunity cost of funds for banks and ON RRP is the opportunity cost for MMFs

Comment 2: Opportunity cost of lending to dealer



- ON RRP is 10 bps lower than the IORB, significant given that the affiliation premium is 3-4 bps
- Suggestion: Decompose the affiliation premium by external lender type. Compare affiliated banks with external banks and affiliated MMFs with external MMFs

Comment 3: Affiliation premium and balance sheet costs



- Sample starts in 2018 when the SLR took effect. How large was the affiliation premium before 2018?
- SLR exemption period supports the causal relationship between regulation and affiliation premium but overlaps with other events

Comment 3: Affiliation premium and balance sheet costs

- The model generates predictions that can be tested in the cross section to make the connection between balance sheet costs and affiliation premium tighter
- Explore the effect of dealers' ability to reduce balance sheet costs through other sources
  - Bowman, Huh, and Infante (2024) show that dealers can net their trades in the bilateral repo market by engaging in repo and reverse repo trades with the same maturity and counterparty
  - Can dealers' participation in the bilateral repo market affect the affiliation premium?
- Interact balance quarter end/month end dummies with affiliated lender dummy

Comment 4: Measure of balance sheet cost

- Dealers' balance sheet costs are measured using the volume weighted spread between reverse repo and repo rate
- This spread reflects compensation for balance sheet usage
- Could this spread also reflect dealers' market power?
- Suggestion: Could you use a more direct measure of capital costs associated with the SLR? Buffer relative to the required SLR?

Conclusion

- Great paper! I learnt a lot
- More details on the affiliation premium in the model as well as the data would make the paper even better