Mutual Fund Liquidity Creation

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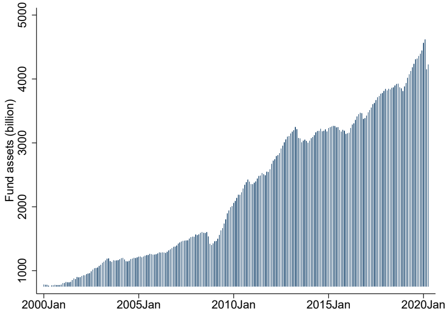
The Fixed Income Mutual Fund Sector

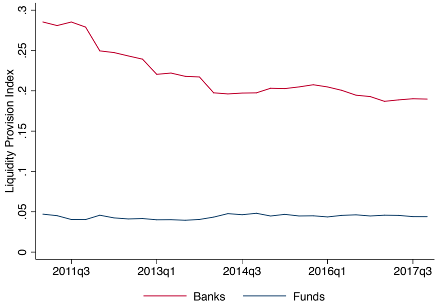
Figure: Total Assets of U.S. Fixed Income Mutual Funds



- Invest in (increasingly) illiquid assets like corp bonds and loans
- Issue shares redeemable at short notice

Corporate Bond Mutual Funds Provide Liquidity

- Corp bond mutual funds provide liquidity
  - e.g., Chen, Goldstein, and Jiang 10, Chernenko and Sunderam 17, Goldstein, Jiang, and Ng 17
- Corporate bond mutual funds provide 4 cents of liquidity per $1, while commerical banks provide 21 cents of liquidity per $1
  - According to the Liquidity Provision Index (Ma, Xiao, and Zeng 20)



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    - Let \$ Markup be the "cost" of liquidity creation in \$, we have

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\begin{aligned}
\frac{VLC}{Redemptions} &= \frac{\$\ Markup_c - \$\ Markup_a}{Redemptions} \\
&= \%Markup_c - \frac{Sales}{Redemptions} \times \%Markup_a \\
&= \underbrace{\left(1 - \frac{Outflows}{Redemptions}\right) \times \%Markup_c}_{\text{Flow netting}} + \underbrace{\left(\frac{Outflows - Sales}{Redemptions}\right) \times \%Markup_c}_{\text{Liquidity management}} \quad (2 \\
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3. Interesting cross-sectional and time-series determinants

1. What are the "Transaction Costs" of Liquidity Provision

- In this paper, value of liquidity
  - $=$ difference in markups
  - $=$ difference in trading costs
  - $=$ a form of bid-ask spread
- Conceptually, cost of liquidity provision
  - Need to invest in illiquid projects today
  - Investors "wake up" tomorrow and need to consume at short notice
  - Illiquid projects liquidated at fire sale discount to get cash

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- Are transactions costs and fire sale discounts the same thing? Maybe.
  - Transaction costs $\uparrow$ when dealers have more market power
  - Transaction costs $\uparrow$ when there is imbalance in demand and supply
  - Transaction costs $\uparrow$ when uncertainty and risk $\uparrow$
  - So prices are not always discounted, i.e., transaction costs $\uparrow$ not always map to fire-sale discount $\uparrow$

1. What are the "Transaction Costs" of Liquidity Provision

- Suggest to think more deeply about what transactions costs are and what they are not
- Importantly, can they be mapped into the value of liquidity creation?
- Can they really capture total costs, including to remaining investors?
  - Some transaction costs born by remaining investors because of stale NAV
  - But remaining investors also suffer
    - Rebuilding cash buffer is costly going forward (Zeng, 19)

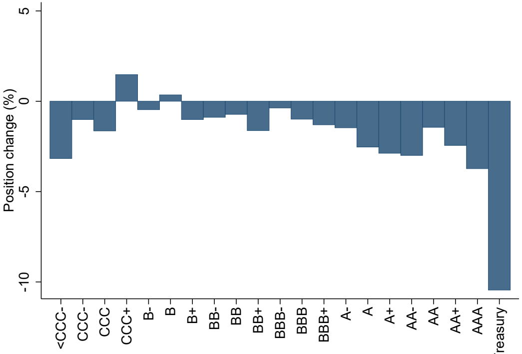
2. Order of Liquidation and Liquid Asset Holdings

- Very nice and careful matching of muni bond-level trade data to capture transaction costs of muni bond funds
- But what about non-muni bond holdings of muni funds?
  - Cash and money market instruments
  - Treasuries
  - Others?
- How are they identified and what are their transaction costs?

2. Order of Liquidation and Liquid Asset Holdings

Ths transaction costs of non-muni bonds matter because...

- Cash and cash equivalents are significant at mutual funds and first used to meet redemptions (Chernenko and Sunderam 17)
- For corporate bond funds, Treasuries are a second line of defense when cash is exhausted
  - E.g., Liquidation to outflow sensitivities during Covid-19



Afterthought: Liquid Asset and Liquidity Creation

What is the effect of liquid asset holdings on liquidity creation?

- Paper finds that more cash
    - $\uparrow$ flow netting (discourages outflows)
    - $\uparrow$ liquidity management (more cash buffer)
    - $\downarrow$ trade execution
        - "funds that are skilled at trade execution choose to hold smaller cash buffers"
- Is this the whole story?
- Suppose I have a 100% cash portfolio, like in a narrow bank, would there be any liquidity provision?

Conclusion

This is a very interesting paper! Definitely worth your read!

- Shows that muni bond funds create liquidity
- Quantifies and decomposes muni fund liquidity creation

Suggest to

- Think more about the economic mapping between transaction costs and liquidity creation
- Elaborate on non-muni bond holdings and their implications