Bond Price Fragility and the Structure of the Mutual Fund Industry

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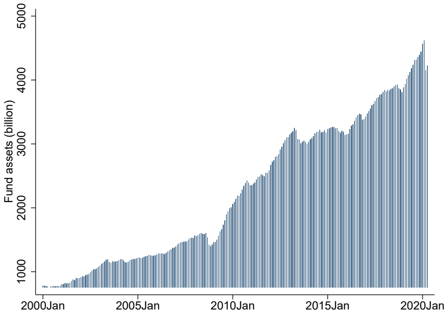
Fixed Income Mutual Funds

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

- Have rapidly grown in size

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



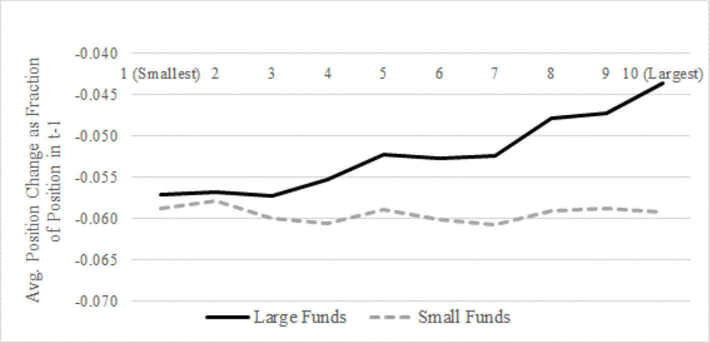
Fixed Income Mutual Funds

- What is the IO of the mutual fund sector?
- How do funds affect each other?
- Which funds are systemically important? Why?
- We don't know enough!

This Paper asks an Important Question

- How does the **concentration** of mutual fund ownership affect bond returns and volatility?

Panel A: Periods with Aggregate Fund Flows in Bottom Decile



Main Results

1. Large funds tend to hold larger shares of outstanding bond issues, fear of price impact makes them less likely to sell these issues
2. Bonds with larger ownership concentration (within bond funds) outperform during turmoil and have lower price volatility
3. Fed's Corp Bond Purchase Announcement removed the fear of price impact from selling eligible bonds
4. "Stabilization through concentration" has spillover effects to other funds

Overview

It is a very interesting paper with a rich set of results!

I only have a few big picture questions:

1. What drives the variation?
    - Why do certain funds hold large positions of certain bonds?
2. Bond-level Impact versus Portfolio-level Impact
    - If high-market-share bonds are not sold, what assets are sold instead?
3. Is stabilization through holdings concentration always good?
    - What about bond liquidity?
    - Fundamental shocks?

What drives the Variation?

- What drives a fund to own a larger share of an outstanding bond?
  - issue size
  - proportion held by mutual funds
  - What else?
  - E.g., the bond's liquidity (will come back to this)?

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- What drives a fund to own a larger share of an outstanding bond?
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  - E.g., the bond's liquidity (will come back to this)?
- Understanding the drivers of the variation can help
  1. Inform the identification
  2. Sharpen the economic interpretatio
     - Which type of bonds are benefiting from the proposed stabilizing force?

Bond-level Impact versus Fund-level Impact

"We find no evidence that large bond mutual funds increase the volatility of the bonds in which they do not hold large positions"

- If high-market-share bonds are sold less, what assets are sold more instead?
- At the fund level, outflows have to be met by selling something
- Suggest to look more into fund-level impact rather than just bond-level impact
- In the end, funds are managing portfolios as a whole

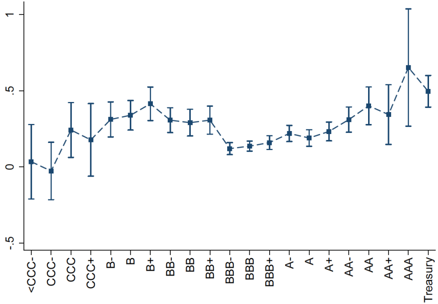
A Potentially Useful Measure: Liquidation-to-Outflow Sensitivity

- For bond i, held by fund j at time t,

$$Liquidation_{ijt} = \beta_{g(i)} Outflow_{jt} + Controls + \epsilon_{ijt},$$

where $g(i)$ is the group that bond i belongs to.

- As an example, we previously looked at liquidation-to-outflow sensitivity by liquidity/rating groups during Covid-19



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- Could consider to estimate liq-to-outflow sensitivities, $\beta_{g(i)}$, by the fund's share of the outstanding bond (categorical or continuous)

- Potential benefits
  - Compare propensities to sell between different portfolio constitituents
  - Quantify magnitude of the "concentration effect"
  - Estimate projected liquidations for different outflow scenarios

Big Picture: Is Stabilization Good or Bad?

- Recall the proposed channel is that funds...
  - with large positions of a bond in portfolio + larger price impact
  - sell that bond less in response to outflows/turmoil
  - stabilize that bond's return and volatility
- Could there be drawbacks of his kind of stabilization?
- In IO, concentration in ownership tends to have costs...

Big Picture: Is Stabilization Good or Bad?

In a world where each bond is only held by one/very few funds...

- Would there still be any trading? Would bond liquidity dry up?
- Would funds trade in the presence of fundamental shocks to the firm?
- Would we still have an informative notion of bond prices and volatility?

There may be limits to the extent of the benefits from concentration...

Conclusion

- Very interesting paper on the concentration of mutual fund ownership affects bond returns and volatility. Definitely worth reading!
- Suggestions
  - Look into the drivers of the variation
  - Consider porfolio-level adjustments
  - What are the implications of stabilization through concentration?