Nonbank Fragility in Credit Markets: Evidence from a Two-Layer Asset Demand System

by

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Motivation

Two important literatures:

1. Demand-based asset pricing,
   - e.g., Koijen and Yogo 19, 20
   - Demand by different institutions drive asset prices
   - More broadly, intermediary asset pricing, e.g., He and Krishnamurthy 13

2. Flow sensitivity and flow-induced fragility
   - e.g., Chen, Goldstein, and Jiang, 10; Goldstein, Jiang, and Ng, 17
   - Investor flows are sensitive to fund performance and determine fund size
   - More broadly, consumption-based asset pricing

   - **This paper: first framework to jointly consider both layers in determining asset prices**
     1. investor $\rightarrow$ institutions
     2. institutions $\rightarrow$ assets

Main Results

- Example: 2 sectors invest in 2 assets
  - Mutual funds have flow-sensitivity, insurance companies do not
  - HY bonds get a fundamental shock, IG bonds do not

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2. Contagion across assets
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3. Contagion across institutions
   - ↓ IG and HY bond prices →

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3. Contagion across institutions
   - ↓ IG and HY bond prices → ↓ **AUM of insurance company**

Contribution

1. Develop and estimate novel two-layer demand system framework

2. Quantify the extent of amplification and contagion in equilibrium

3. Counterfactuals to compare policy effectiveness at reducing amplification and contagion
   - Conventional monetary policy
   - Asset purchases
   - Lending to mutual funds
   - Redemption restriction

Important contribution to the literature
+
relevant policy implications

Main Comments

1. Magnitudes

2. Interpretation of Results

3. Spillover Effects to Other Markets

1. Magnitudes

- Flow-to-Performance: "A one percentage point negative monthly fund return leads to a net outflow in the magnitude of 31% of the fund's assets under management"

- This seems quite large.
  - Estimates in Goldstein, Jiang, and Ng, 17 are smaller, for example.

- Why is that?

1. Magnitudes - Time Fixed Effect?

- Under the logit demand system, time fixed effects absorb market size

- Interpretation of coefficient: if fund A has a 1 ppt lower return than fund B, fund A loses 31% of its AUM *to fund B*.

- May not necessarily imply: if fund return drops by 1 ppt, it loses 31% of its AUM in absolute terms
  - β^- does not consider correlated changes in fund sector AUM

- Related to
  - Micro flow sensitivities may not equal macro flow sensitivities
  - Cross-sectional variation may not equal time-series variation

1. Magnitudes - Time Fixed Effect?

- Which kind of sensitivity/variation are we after?
- E.g. Covid-19 application
  - how many investors switched from one fund to the other
  - how much investors switched from funds to other assets e.g. cash/MMMFs?

- This is a general issue not just for this paper

- But given the emphasis on quantification, suggest to discuss the interpretation of the magnitudes in relation to the results and application bit more

- (Another potential factor affecting magnitudes: return versus alpha)

1. Magnitudes - Returns versus alpha

- Flow-to-performance sensitivity is proxied for using flow-to-returns sensitivity
- Returns can be driven by both risk and performance/alpha
- Would results change a lot if fund alpha is used instead?
- With that said, I understand that using alpha also has caveats
  - Needs more power for estimation
  - Realized may not be equal to expected

2. What *Should* the Result be?

- What should the optimal amplification and contagion be. Is the first best really zero?
- Paper's results can mostly be taken in a positive sense
- But policy implications of which policy has the largest "price impact per unit injection" imply a normative assessment
- Suggest to think about different cases + their policy implications

2. What *Should* the Result be? It Depends!

- I think it depends on

1. Nature of the Initial shock
   - Fundamental e.g. cash flow shock
   - Non-fundamental e.g. fire-sale induced price drop

2. Drivers of flow sensitivities
   - Efficient allocation of capital to funds with more value-added
   - Coordination-failure induced flows

3. Cause of inealstic asset markets
   - Various limits to arbitrage

- E.g., If coordination-failure induced flows $\rightarrow$ zero is first best
- E.g., if fundamental shocks $+$ efficient allocation of flows $\rightarrow$ zero may not be first best

2. What *Should* the Result be? It Depends!

- If we consider Covid-19, coordination-failure driven flows seemed predominant
- Rigorously shown in Falato, Goldstein, and Hortacsu 21
- Suggestive evidence: bond fund flows > equity fund flows

Bond funds

Equity funds
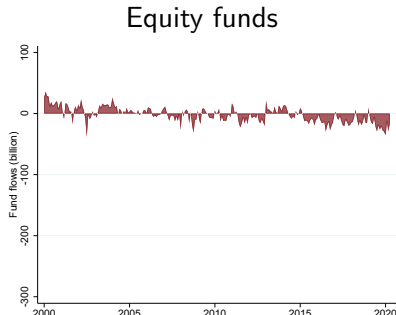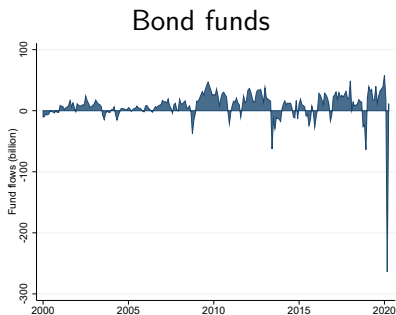
- But not every event is like Covid and not every market is like the bond market → should discuss interpretation in different cases

3. Spillover Effects to Other Markets

- Current focus is on the corporate bond market
- But not a closed system - mutual funds and insurances also hold other assets
- corporate bond funds also hold liquid assets like cash and Treasuries
- ↑ liquid assets buffer, all else equal →
    - ↓ flow/bond price amplification loop by mutual funds
    - But, ↑ spillover effects on liquid assets

3. Spillover Effects to Other Markets

- Funds disproportionately sold Treasuries relative to corporate bonds
  - Treasury markets were strained (He, Nagel, and Song 21)
  - Bond funds accounted for about a third of the total Treasury sales
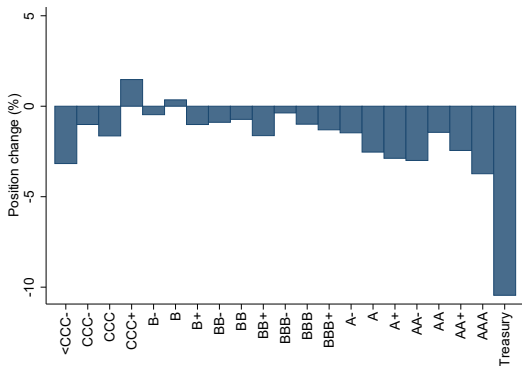
Ma, Xiao, and Zeng 22

Conclusion

- Important paper that develops novel framework for the joint determinantion of bond prices by institutions and investors

- Highly relevant policy implications given the rise of non-bank financial intermediation

- Suggestions
  - Explain magnitudes of estimates
  - Discuss the interpretation of the results
  - Consider spillover effects to other markets