

DISCUSSION

BANK DEBT VERSUS MUTUAL FUND EQUITY IN LIQUIDITY PROVISION

MA — XIAO — ZENG

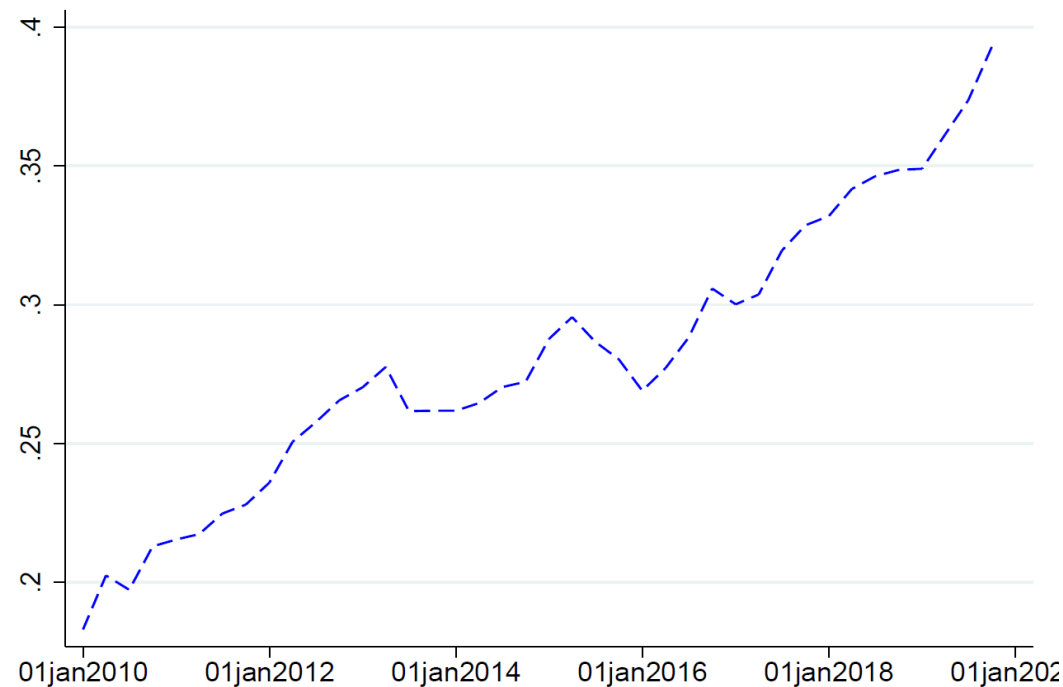
BY ITAY GOLDSTEIN, WHARTON AND NBER



PAPER'S BACKGROUND AND GOAL

- Traditionally, liquidity provision was done mostly by banks
 - Banks hold illiquid assets (e.g., loans) and allow investors to redeem on a frequent basis
- In recent years, other types of intermediaries, playing a role of liquidity providers, came to prominence
 - Most notably, investment funds investing in illiquid assets and allowing their investors to redeem on a frequent basis
 - Next slide shows growth in activity by investment funds in corporate bond markets
 - Unlike banks, the contract they offer investors is an equity contract, not a debt contract
- **Paper provides a unified framework to characterize and measure liquidity provision in banks (using demandable debt) and corporate-bond funds (using demandable equity)**

THE GROWING IMPORTANCE OF INVESTMENT FUNDS IN THE CORPORATE BOND MARKET

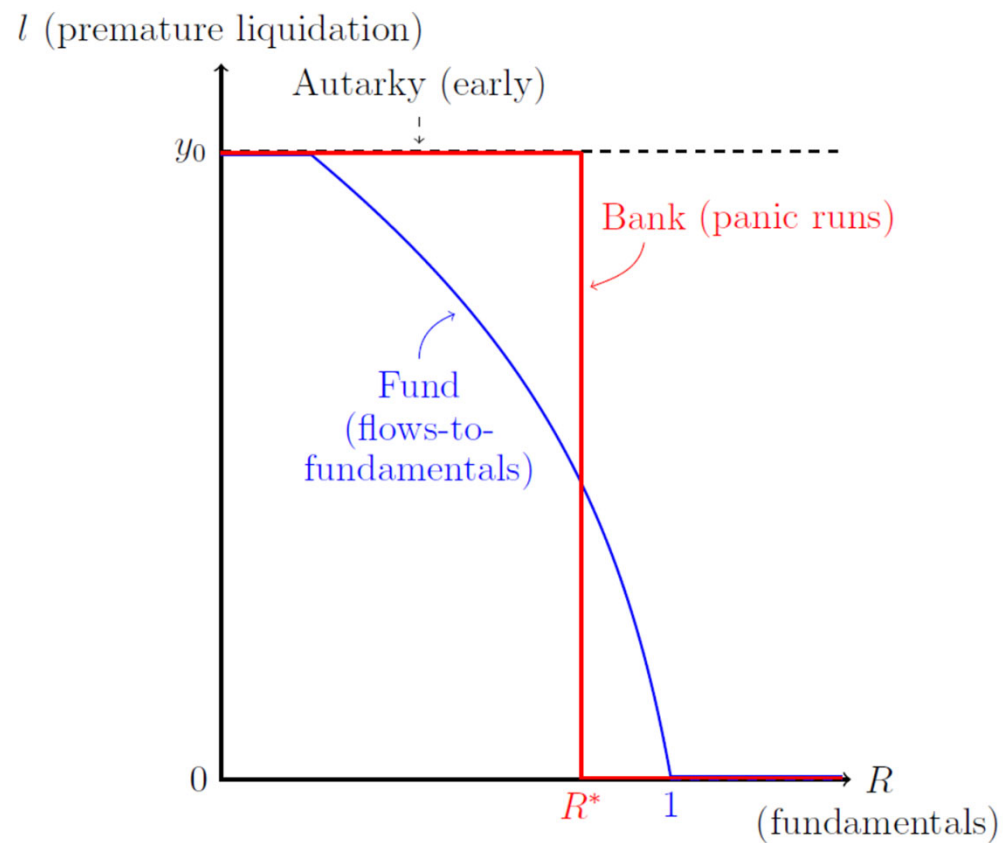


Aggregate Net Asset Value divided by Size of Market, Flow of Funds Data

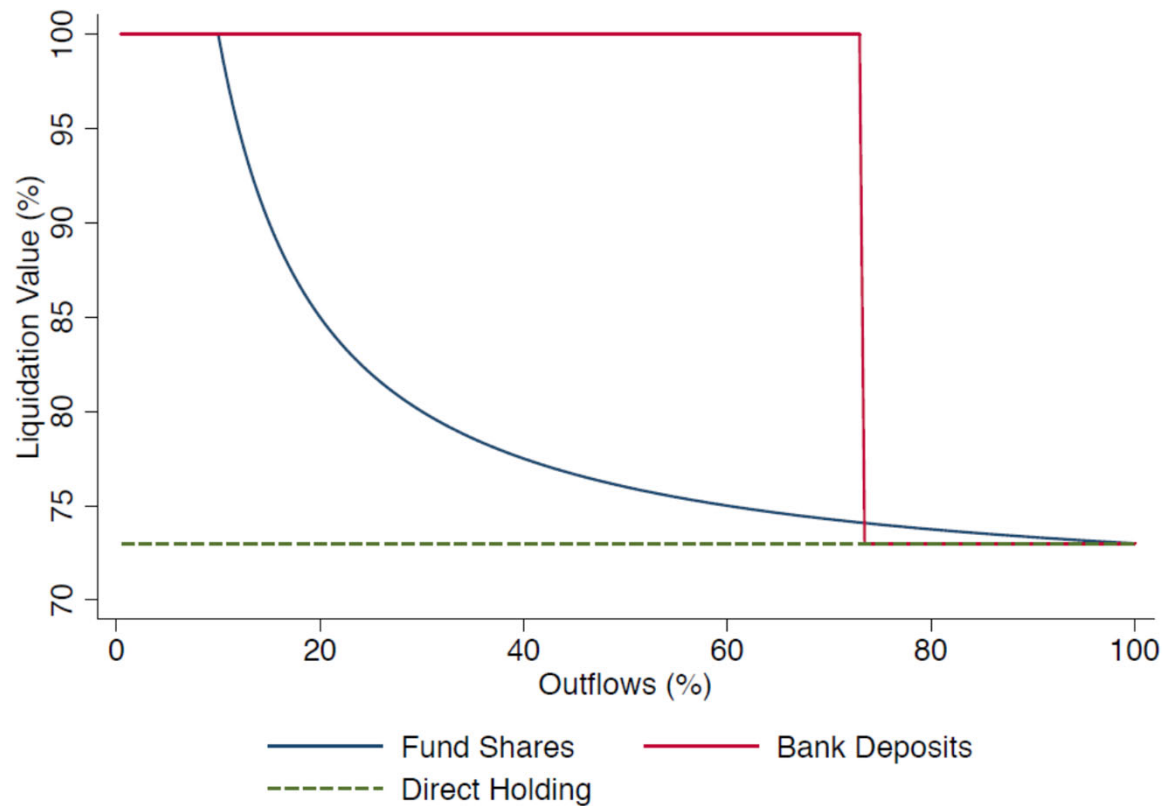
KEY INSIGHTS FROM THEORY

- **Both arrangements can create liquidity**
 - Common mechanism:
 - Liquidate liquid assets before illiquid ones
 - Allow redeeming investors to obtain a higher liquidation value than if whole portfolio is liquidated
 - As long as number of redeeming investors is not too high
- **But, there are limitations in both**
 - Banks' **debt contract creates a first mover advantage** and a run below some threshold
 - Funds' **equity contract creates sensitivity of flows to fundamentals**
 - Both types of outflows reduce liquidation value and so the measure of liquidity provision
 - See figures in next two slides
- **A-priori, it is unclear which arrangement creates more liquidity**
 - Measured as the difference between what investors expect to get upon redeeming vs. what they could get if held portfolio directly

PREMATURE LIQUIDATIONS UNDER TWO CONTRACTS



LIQUIDITY PROVISION UNDER TWO CONTRACTS



MEASUREMENT AND MAIN RESULTS

- Paper develops a **sufficient statistic for the extent of liquidity provision in equilibrium**, based on:
 - Liquidity of underlying assets
 - Liquidation value for redeeming investors, based on order of liquidations and distribution of outflows
- Taking this to the data, the paper concludes:
 - **Both fund equity and bank deposits provide liquidity**
 - **Bank deposits provide about four times the amount of liquidity as fund equity**
 - Banks hold less liquid assets
 - Banks are subject to smaller outflows
 - **The difference between the two has decreased over time**
 - Effect of post-crisis regulation

ASSESSMENT AND MAIN COMMENTS

- **Strengths:**

- Important topic
- Valuable conceptualization and measurement of liquidity creation
- Interesting and thought provoking results

- **Comments and suggestions:**

- Comments 1 and 2: Thinking about the differences and tradeoff between bank debt and fund equity
- Comment 3: Understanding the meaning and implications of key object of interest (liquidity provision)
- Comment 4: What do we learn from the data and what explains the differences between banks and funds?

COMMENT 1: FUND EQUITY AND FIRST MOVER ADVANTAGE

- A basic premise of the paper is that funds offer redeeming investors a higher liquidation value than that of the portfolio as a whole
- In my opinion, **the fact that this is done as equity does not easily solve the first-mover-advantage problem**
- The model does not take into account further implications that could arise:
 - E.g., thinking about next period, **paying with cash to redeeming investors today, depletes cash reserves for the future**, and building these cash reserves can be costly for remaining investors
- The paper alludes to **swing pricing**, but
 - Even under swing pricing, as long as the fund provides liquidity as in the above definition, first mover advantage will remain
 - Swing pricing was not present in the data the authors use
- **Overall, I think there is an inherent connection between liquidity provision, as it is defined in the paper, and first mover advantage, leading to fragility and runs**

COMMENT 2: BANK DEBT AND FLOWS-TO-FUNDAMENTALS

- The paper presents the flows-to-fundamentals phenomenon as a disadvantage of fund equity relative to bank debt
- **But, flows-to-fundamentals exist in bank debt as well, and a-priori it is not clear how the phenomena compare across the institutions**
- In the paper, it appears as if there is a region of fundamentals where flows-to-fundamentals arise in fund equity but not in bank debt, but this does not have to be the case
 - **It depends if the threshold for withdrawals in banks falls below 1**
 - This would depend on the payment banks offer for early withdrawal, the liquidity they choose to hold, etc.
 - As far as I can tell, the paper does not pin these down, and it is not clear where the threshold will actually fall
 - **In other papers, the threshold actually falls above 1** (might not be directly comparable)

COMMENT 3: THE KEY OBJECT OF INTEREST – LIQUIDITY PROVISION

- The **key object** derived from the model and measured in the data is **liquidity provision**:
 - How much more can an investor expect to get from an early redemption than if the portfolio was held directly?
- **It is not necessarily optimal to maximize liquidity provision, as defined here:**
 - Note that liquidity provision is maximized when investors do not demand liquidity
 - Maybe one should look at a measure that **combines the liquidity provided per investor with the number of investors taking advantage of this liquidity**
 - Ultimately we care, **not only about how much investors get at $t=1$, but also how much they get at $t=2$**
 - Sometimes, high liquidation value at $t=1$ comes at the expense of low value at $t=2$
 - The flows-to-fundamentals are described here as something bad because of the negative effect they have on liquidation value
 - But, **these fundamental runs are in many cases efficient**

COMMENT 4: WHY DO BANKS PROVIDE MORE LIQUIDITY?

- It seems that most of the effect in the data is coming from the fact that **banks hold more illiquid assets to begin with**
 - Also, some of it comes from the more modest outflows experienced by banks
- Other than the debt-equity dimension (for which the model does not have clear-cut prediction), other factors could be contributing to this result:
 - **Deposit insurance**
 - Paper looks at this, but I think can go deeper; this is a major factor
 - Other regulations/policies affecting banks
 - **Implicit guarantees; capital requirements**
 - Restrictions on types of assets held
 - **Mutual funds hold mostly securities; cannot easily invest in assets that banks invest in**
 - Type of investors
 - **Different clienteles invest in funds vs. banks**; they differ in demand for liquidity, sophistication, alertness, etc.