Funding Stability and Bank Liquidity

Thomas Flanagan

Ross School of Business, University of Michigan

Motivation

Why do banks simultaneously invest in illiquid assets and issue liquid money-like liabilities?

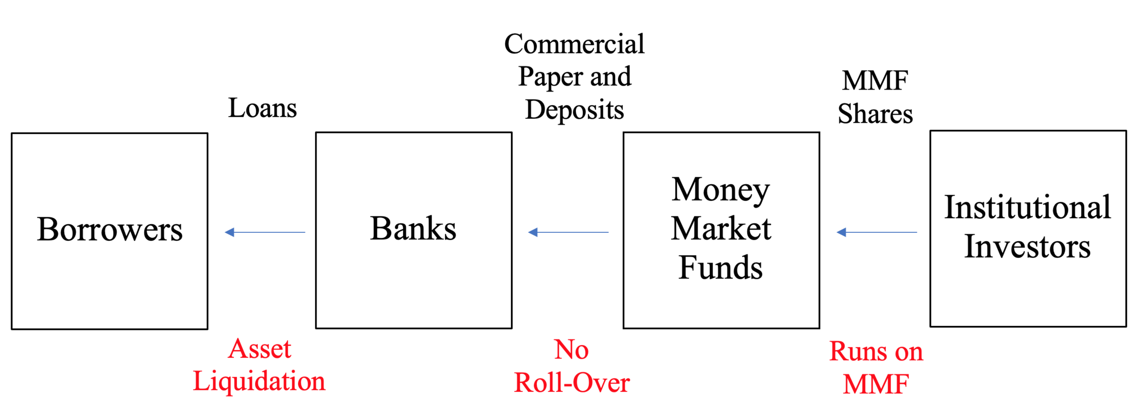
- Without insurance, money-like liabilities expose banks to run-like withdrawals of funding.
- Funding withdrawals can induce costly fire sales if banks if hold illiquid assets.

Testable implication: *Stable* funding increases investment in illiquid assets.

Empirical Setting

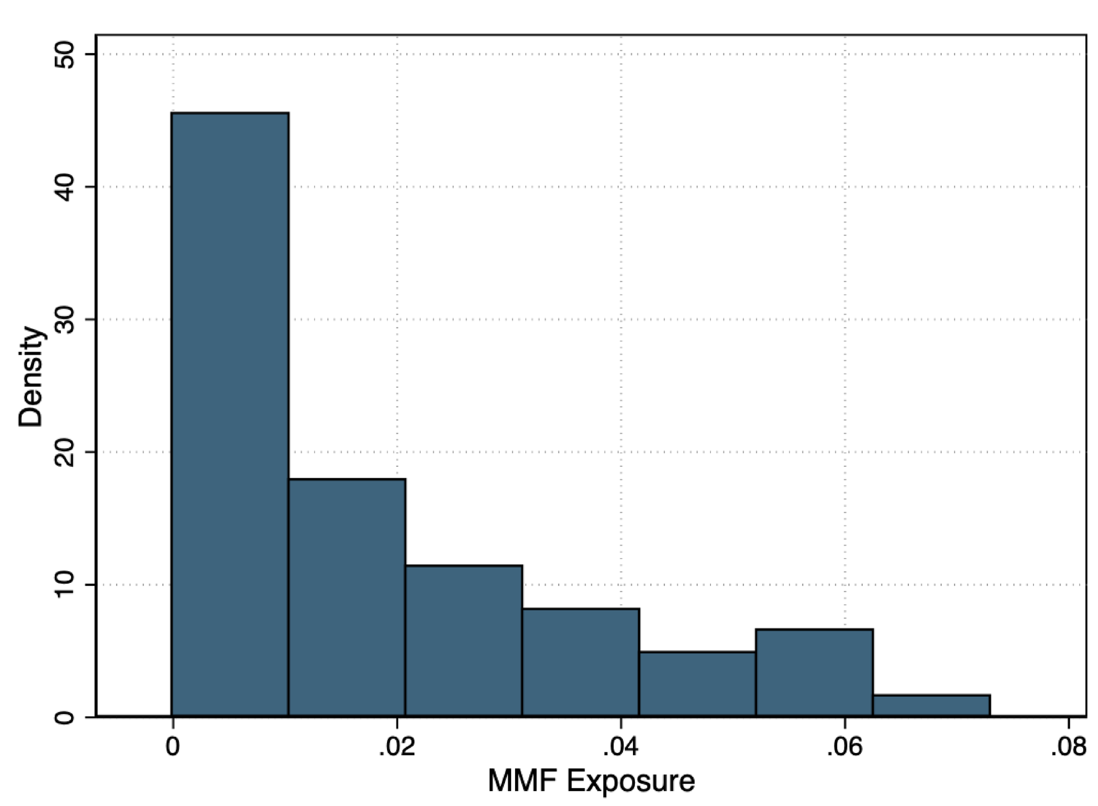
I exploit the 2016 money market fund (MMF) reform, which made banks funding structures more stable.

- MMFs invest in banks' short-term liabilities and are prone to runs by their investors.
- Exposes bank to rollover risk.



- MMF reform introduced new regulations, including redemption gates/fees and a floating net asset value (NAV) on institutional MMFs.

Heterogeneity in Bank MMF Funding



Theory

Hanson, Shleifer, Stein, and Vishny (2015)

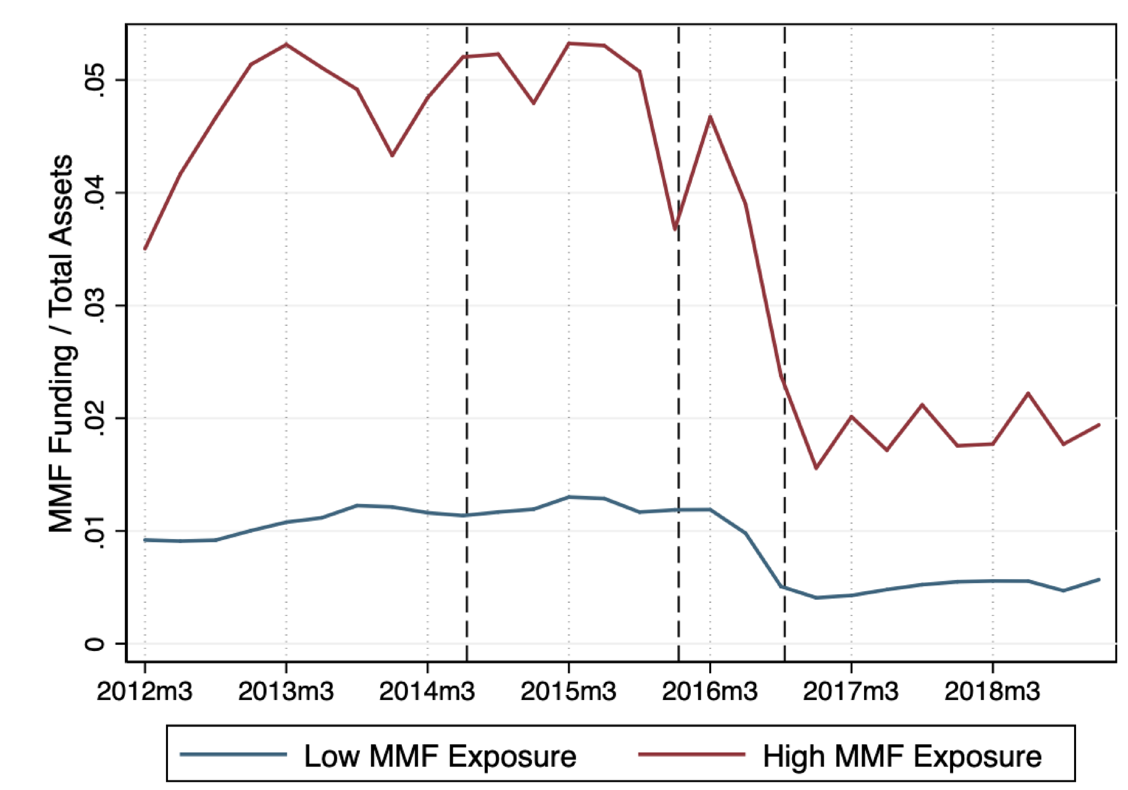
- Investing in illiquid assets poses substantial fire sale risk due to the threat of bank runs.
- Banks with stable liability structures from equity cushions/ government guarantees can attract 'sleepy' depositors that are unlikely to run.
- Stable liability structures enable investment in illiquid assets.

Empirical measure of asset illiquidity

- Fraction of lending on banks' balance sheets
- Syndicated loans that do/don't trade on secondary markets

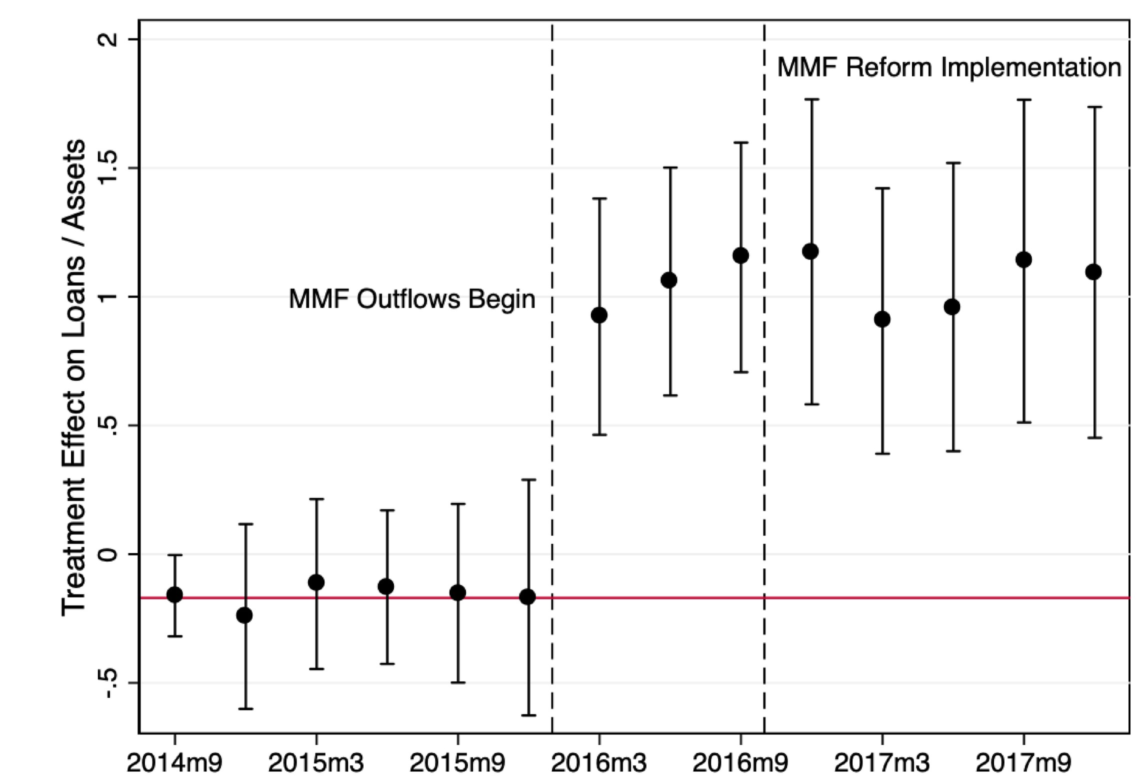
Impact on Funding Structures

High Exposure Banks Lost 3% of Their Overall Funding



Regression Point Estimates

Lending Increase Corresponds to Funding Outflows



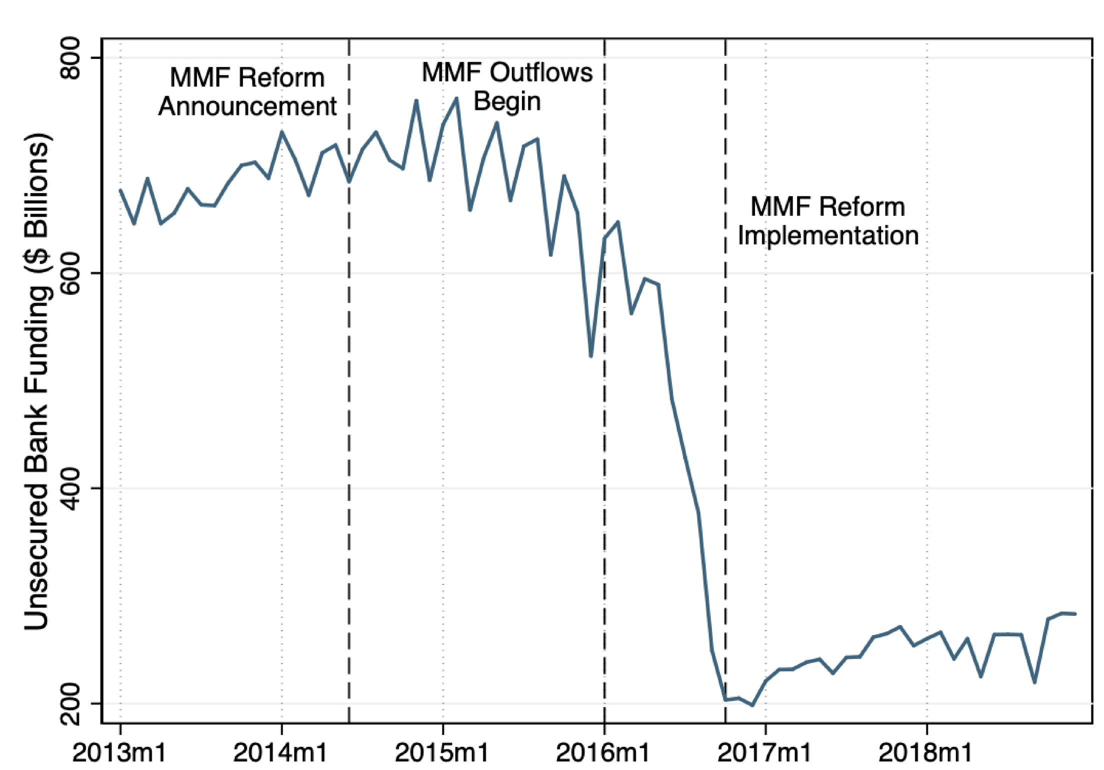
Broad Takeaway

Improved stability of bank funding from MMF reform led to an increase in the fraction of lending on bank balance sheets. This is consistent with the theoretical prediction that stable funding lowers the cost of investing in illiquid assets since fire-sales are less likely.

MMF Reform Improved Funding Stability

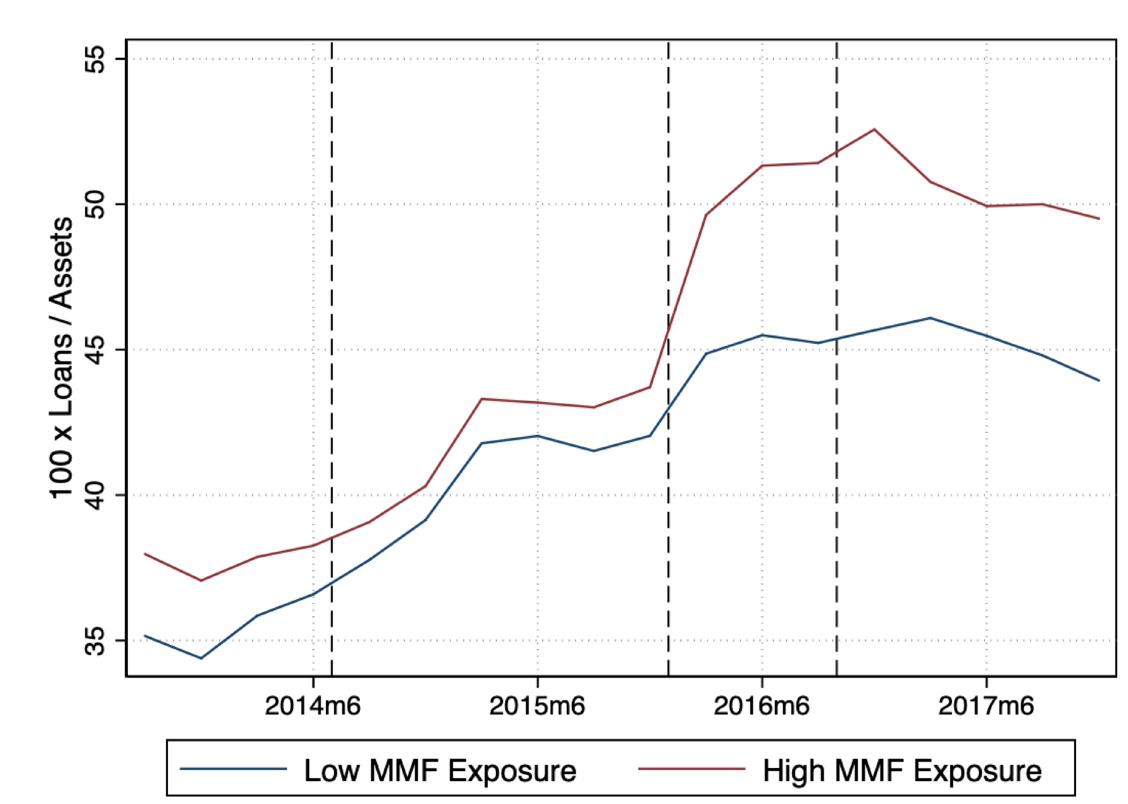
- Banks lost \$400 billion in unstable MMF funding. Banks did not deleverage - instead they found stable funding substitutes.
- Remaining \$200 billion more stable due to mitigated run incentives from reform regulations.

Banks Lost \$.4T in MMF Funding



Impact on Bank Asset Choice

Banks Increase Lending in Response to the Reform



MMF Reform → ↑ Stability of Funding Structure → ↓ Rollover Risk → ↑ Lending Fraction

Conclusion

- MMF reform improved the funding stability of banks by reducing availability of MMF funding and mitigating the incentives of MMF investors to run. This reduces banks' rollover risk.
- Banks subsequently increase the fraction of lending on their balance sheets.
- Supports the theory that unstable funding makes banks less willing to invest in illiquid assets because of fire sale risk.
- In this view of banking, stable funding, potentially from government guarantees on bank liabilities, is necessary for illiquid asset investment and credit provision to the real economy.

Contact Information

- Thomas Flanagan
- Email: tflan@umich.edu

MICHIGAN ROSS