

Deposit Withdrawals

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This is a fundamentally important paper

This paper empirically decomposes deposit withdrawals by three different motives:

- 1 Idiosyncratic uncertainty
- 2 Strategic uncertainty
- 3 Fundamental uncertainty

It thereby quantifies some of the most seminal building blocks of the intermediation literature with far-reaching implications.

Let me explain why...

This is a fundamentally important paper

Banks provide liquidity but suffer from runs (Diamond and Dybvig 89)

- Depositors do not know whether they need to consume early or not
- Intermediaries pool investors' idiosyncratic liquidity risks and allow for more productive assets to be held to maturity → liquidity provision
- However, depositors who do not need to consume early may withdraw early if they think everyone else will withdraw early too → bank run
 - More depositors withdraw → more productive assets liquidated at discount → bank more likely to default
 - Deposits *promise* fixed value → first-mover advantage to withdraw
- Runs more likely as fundamentals deteriorate (Goldstein and Pauzner 05)

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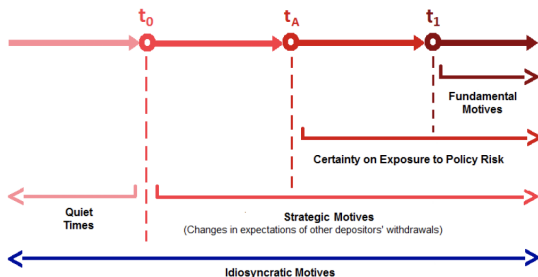
- Depositors do not know whether they need to consume early or not
 - =**Idiosyncratic uncertainty** → **why banks exist to begin with**
- Intermediaries pool investors' idiosyncratic liquidity risks and allow for more productive assets to be held to maturity → liquidity provision
- However, depositors who do not need to consume early may withdraw early if they think everyone else will withdraw early too → panic run
 - More depositors withdraw → more productive assets liquidated at discount → bank more likely to default
 - Deposits *promise* fixed value → first-mover advantage to withdraw
 - =**Strategic uncertainty** → **a cost of bank liquidity provision**
- Panic runs become more likely as fundamentals deteriorate
 - **Related to Fundamental uncertainty**

Essential to distinguish between various motives of deposit withdrawals because their implications are completely different

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Essential to distinguish between various motives of deposit withdrawals because their implications are completely different

- **This paper provides a convincing quantification**
 - Detailed (and rare!) account-level time deposit data
 - Smart and thoughtful use of event windows



- ① Relationship between strategic and fundamental withdrawals
- ② Asset illiquidity and strategic uncertainty
- ③ Destination of time deposit outflows

Strategic versus Fundamental Withdrawals

Strategic uncertainty

- Announcement effect on deposits with...
 - Maturity pre policy: strategic + liquidity
 - Liquidity effects taken out by counterfactual group
 - diff-in-diff coefficient = strategic uncertainty

Fundamental uncertainty

- Announcement effect on deposits with..
 - Maturity pre policy: strategic
 - Maturity post policy: strategic + fundamental
 - Liquidity effects taken out by counterfactual group
 - “diff-in-diff-in-diff” coefficient = fundamental uncertainty

What does the comparison between the diff-in-diff coefficient and diff-in-diff-in-diff coefficient mean, economically?

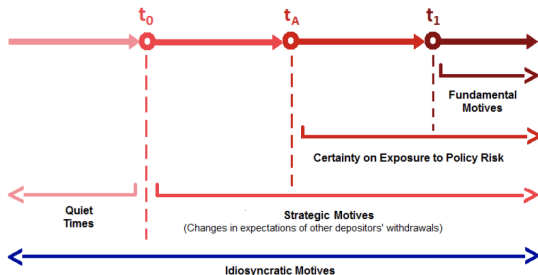
Strategic versus Fundamental Withdrawals

If for a given shock, out of 100 depositors, x withdraw for strategic reasons and y withdraw because of fundamentals

- Let diff-in-diff-in-diff coefficient map to y
- Does x map to the strategic withdrawal of deposits maturing in the interim period, i.e. the diff-in diff-coefficient, only?
- Or should x map to the sum of strategic withdrawals of deposits maturing in the interim and policy period?
- It should be the latter if the rate of strategic withdrawals is constant across deposits maturing at different horizons

Strategic versus Fundamental Withdrawals

- The staggered nature allows for a larger set of depositors to engage in strategic withdrawals than fundamental withdrawals.
- In general, if strategic and fundamental withdrawals were confined to the same time window, ratios in the rate of withdrawals could change.



- Suggest to rethink interpretation of coefficients and their magnitudes
- Not a critique about identification!

Asset Illiquidity and Strategic Uncertainty

Very commendable to extrapolate results!

- Current parameter: changes in sovereign CDS spread
- Another important parameter: illiquidity of bank assets
- Why?

Asset Illiquidity and Strategic Uncertainty

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- Current parameter: changes in sovereign CDS spread
- Another important parameter: illiquidity of bank assets
- Why?
 - Illiquidity of bank assets are the source of strategic complementarity
 - If no discounts from premature liquidations → no strategic incentives
 - ↑ bank asset illiquidity → ↑ externalities from depositors' withdrawals → ↑ strategic incentives to withdraw (Given same shock to CDS spreads)
- Not difficult to do
 - Use balance sheet data and weigh assets by liquidity (e.g. Berger and Bouwman 09, Bai, Krishnamurthy and Weymueller 17, Ma, Xiao and Zeng 20)

Destination of Time Deposit Outflows

Where do flows out of time deposits end up?

- 1 "Under the mattress"
 - Funds leave the bank → premature liquidations
 - 2 More liquid savings and checkings deposits
 - Funds remain with the bank → no/less premature liquidations
- Very different strategic incentives for remaining investors
 - Much higher if funds actually leave the bank

Destination of Time Deposit Outflows

- Would be an interesting dimension to shed light on, especially if heterogeneous across the various event windows
- Admittedly, not sure what is feasible in the micro-data

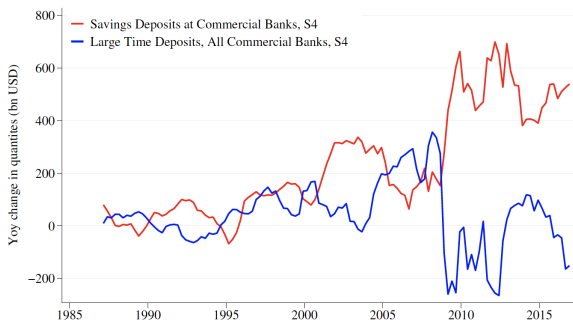


Figure: Change in Time and Savings Deposits in the US

Conclusion

- Fundamentally important paper - you should all read!
- Great data and very thoughtful execution
- Just a few suggestions to consider:
 - Discuss interpretation of coefficients for strategic versus fundamental withdrawals
 - Incorporate the degree of asset illiquidity in the extrapolation
 - Explore whether time deposit outflows are within or out of the bank