The History of Bank Runs
Lessons for "Stable Funding"

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Outline

What causes bank runs?

Deep dive into two episodes

- Panic of 1893
- Deposit flows in 2008

Policy responses

What implications for “stable funding”?

Summary

- More likely during troubled economic times
- Contagion is real
- Actions of large depositors/investors are key
- The 2007—2009 financial crisis saw:
  - Novel forms of bank runs (repo, MMFs, ARC)
  - But also plenty of old-fashioned “deposit runs”

What causes bank runs?

- Necessary conditions
  - Fund productive assets with liquid claims
    - Institution and system are *always* illiquid
  - Free convertibility at par
    - Especially a feature under a gold standard
  - Sequential service constraint
- Triggers
  - Solvency concerns
  - Think that others might run
    - Others get their 100% of their claim, you get 0
    - Footrace or bank run? Why risk it?

Episodes

- These are <u>not</u> bank runs
  - Stock market crashes
  - Lines outside of insolvent institutions
- Bank run or generalized banking panic?
  - Individual bank failures not uncommon
    - Hundreds failed during the Long Depression (1873—79)
  - Banking panic—enough bank runs to force fire sales
  - Role of contagion
- Examine two episodes
  - Panic of 1893
  - Deposit outflows in 2008

Panic of 1893

- Friedman & Schwartz "the disturbed years from 1891 to 1897"
- Background of
  - Troubled real economy
  - Deflation
  - Doubts about the commitment of U.S. to gold standard
- Chain of events
  - Increased loan defaults → bank solvency doubts → bank runs → widespread suspension
  - Some banks reopened—evidence that problem was liquidity [Carlson 2005]
  - Evidence of pure contagion—runs on solvent banks [Dupont 2007]

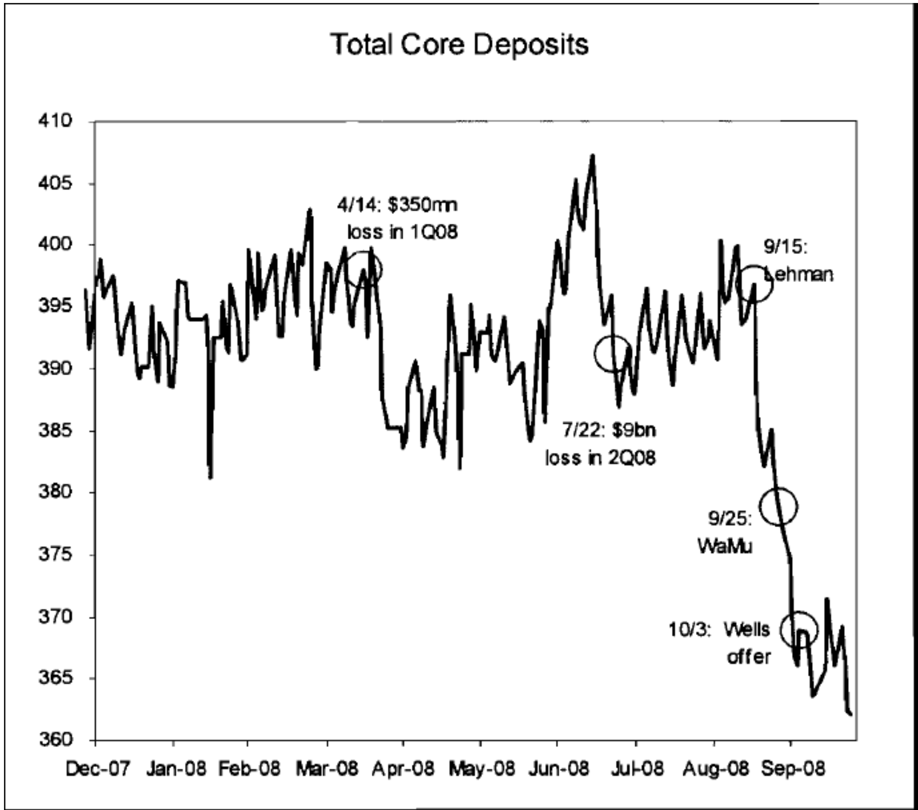
Deposit Runs in 2008

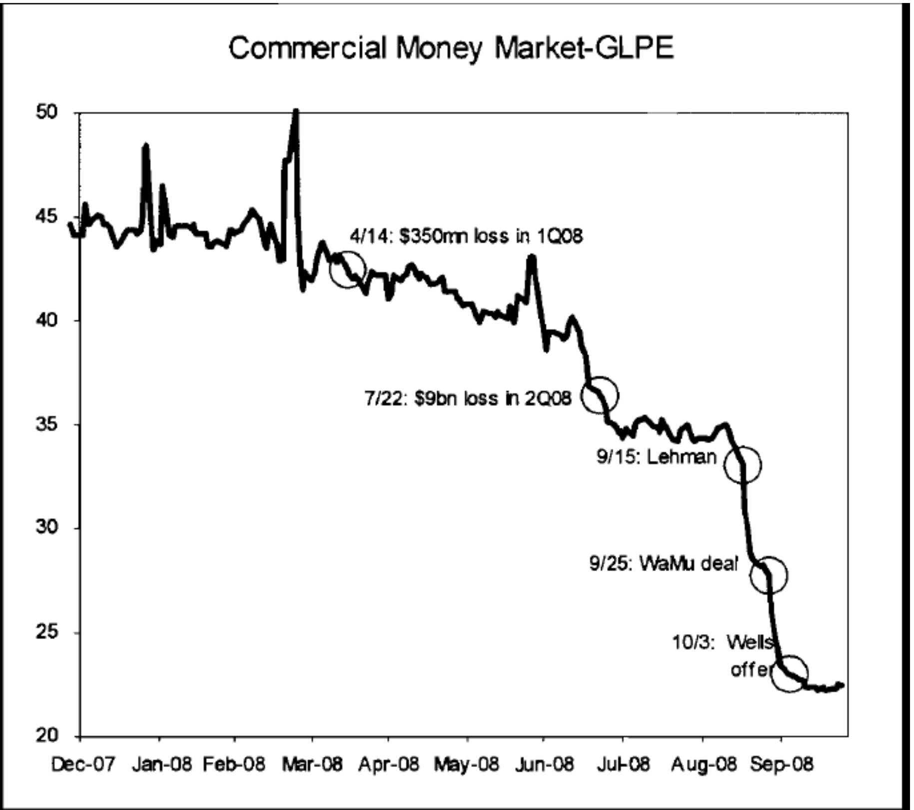
Jonathan D. Rose “Old-Fashioned Deposit Runs” Federal Reserve Board, Washington DC, Manuscript April 2013

- Backdrop of weakening economic activity
- Major banks seeing deposit outflows in 2008
  - National City (sold to PNC)
  - Wachovia (ultimately sold to WFC)
  - IndyMac (closed)
  - Washington Mutual (closed)
- Many other large and small banks saw outflows
- But there were broad inflows as well
  - Outflows from other banks?
  - Affirmative strategies to attract deposits e.g. higher rates
  - Outflows from MMMFs
  - Government programs: EESA, TARP, TAG

Major Bank Deposit Runs 2008

Institution	Start	End
National City	3/15	10/24 (PNC)
IndyMac	6/27	7/11 (closed)
Washington Mutual		
First episode	7/12	8/1 (approx)
Second episode	9/11	9/25 (closed)
Wachovia (Note: “Project Alvin”)		
First episode	4/15	
2nd & 3rd episodes	9/15	10/3 (WFC offer)

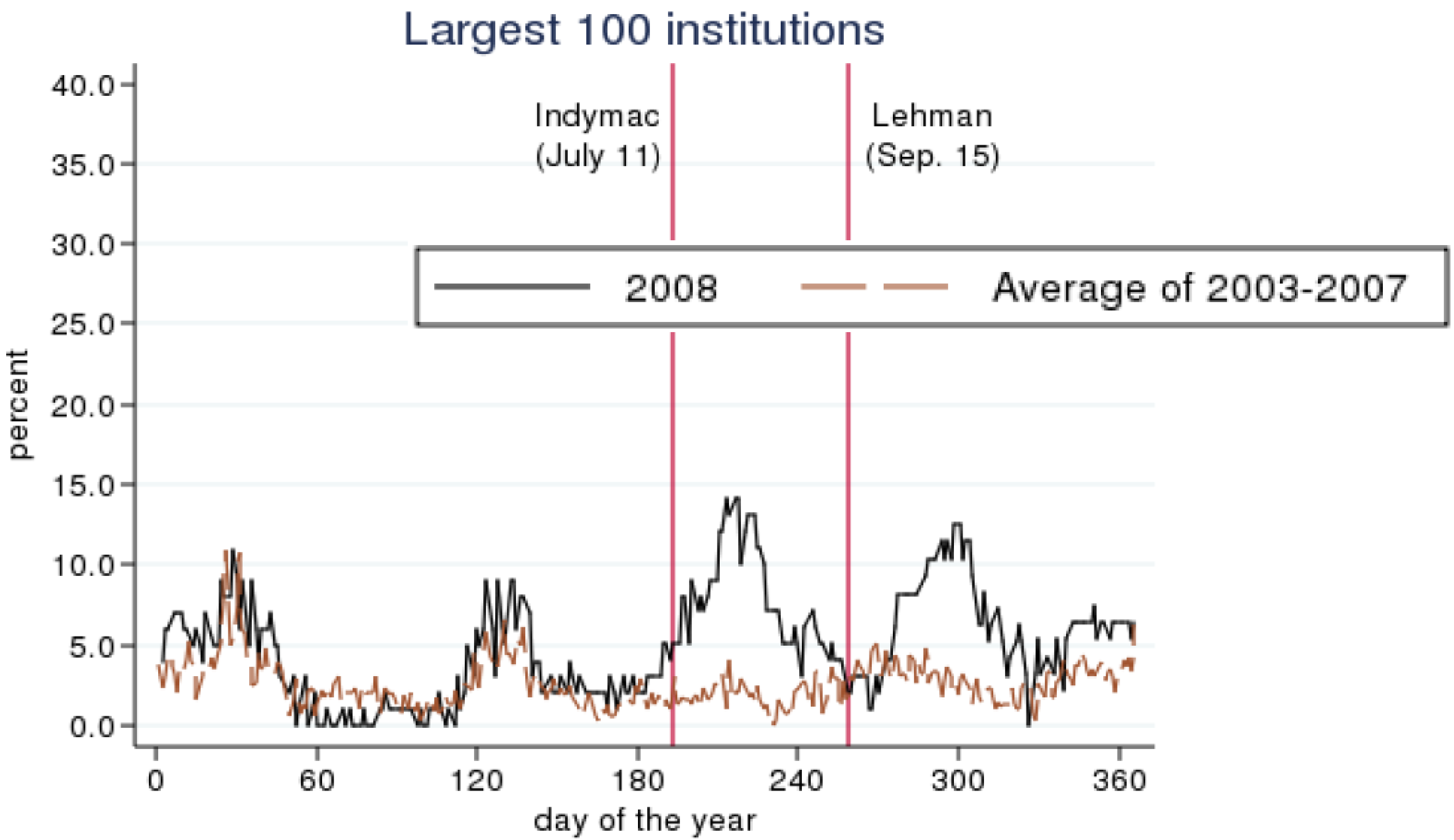




- Deposits began to plummet after the Lehman deal, led by MMDAs; data delay made this fact not well accepted for more than a week

From “Wachovia Case Study”, Federal Reserve Board; available on the Financial Crisis Inquiry Commission web archive hosted by Stanford University at: http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-11-12%20Federal%20Reserve%20Board,%20Wachovia%20Case%20Study.pdf

Percent of institutions with large *outflows* of savings and transaction deposits



Copied from Rose (2013) Figure 3, top panel.

Notes: A large outflow is defined as one exceeding five percent over 20 business days, sustained for 4 days in a row. The largest 100 institutions are defined by their total deposits as of June 30, 2008.

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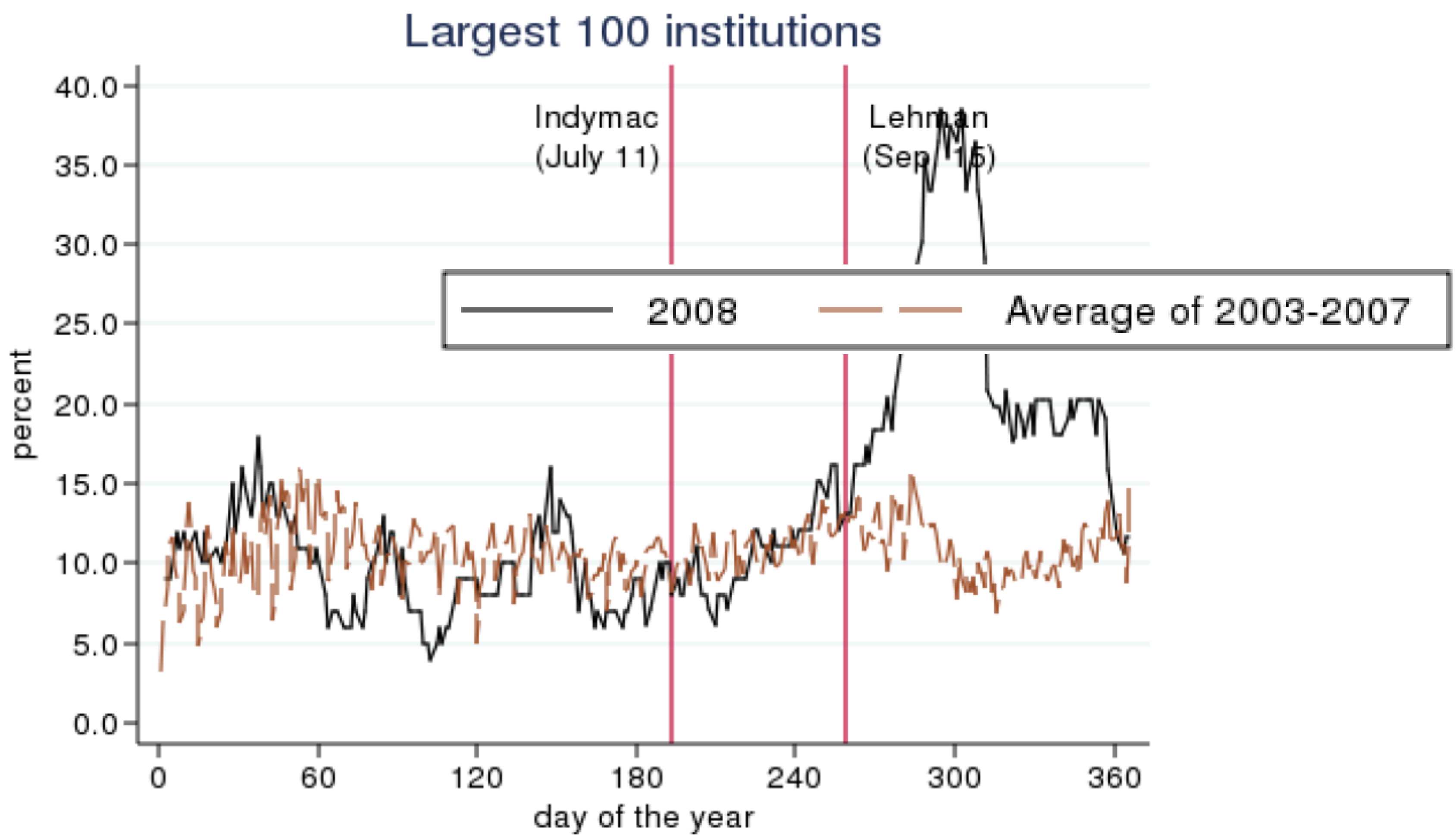

Copied from Rose (2013) Figure 4, top panel.

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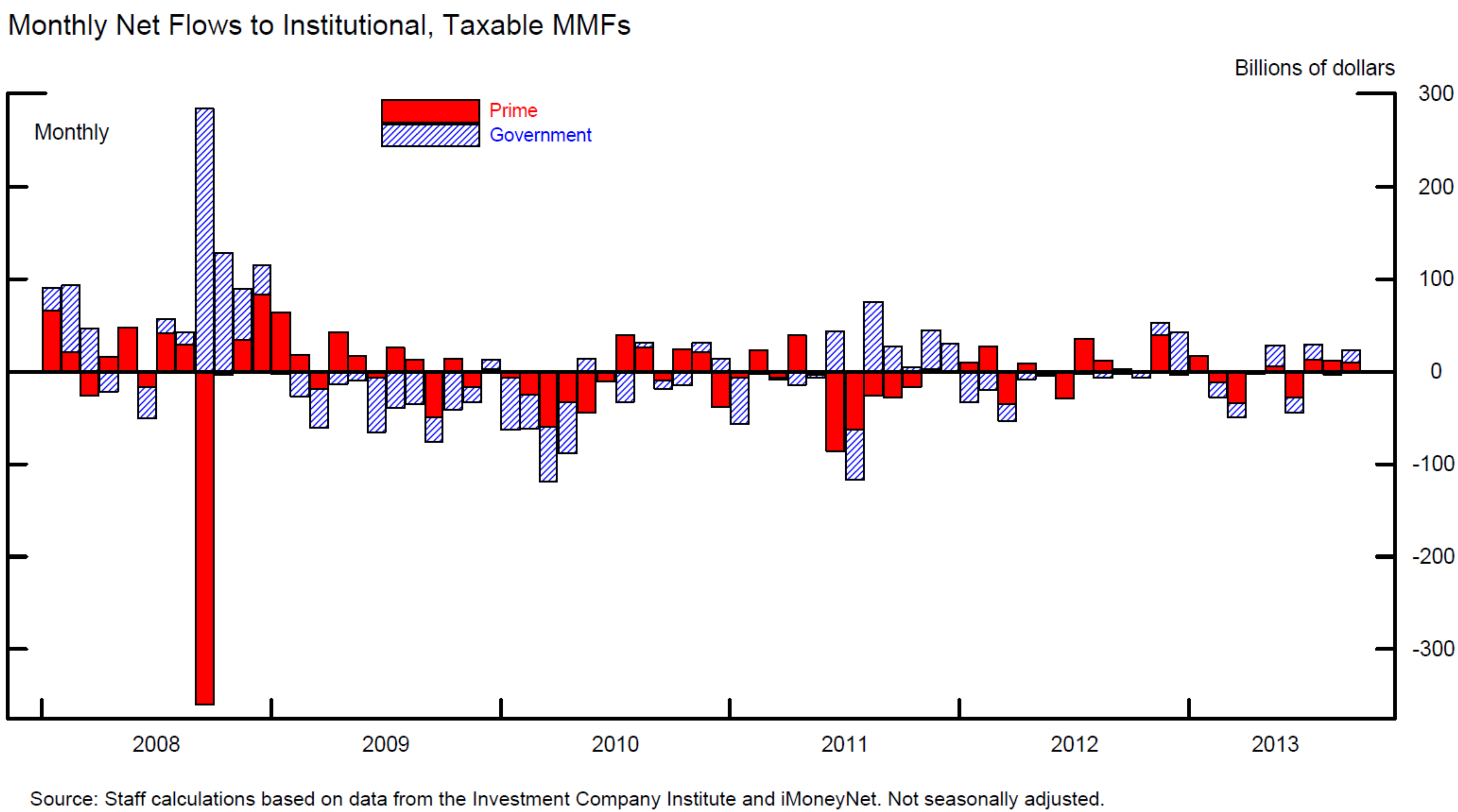
Importance of large depositors

- Rose (2013) argues that 2008 deposit runs were driven by large depositors, just was the case in the 1930s
- Domestic deposits 2008:Q2:
  - 98.5% of *accounts* were fully insured
  - 62.3% of *deposits* were insured (38.7% at risk)
- Anecdotes reinforce importance
  - Accounts could be on the order of $500MM
  - Corporate or institutional treasurers
  - Acute need for transaction services—make payroll
- Suggests FDIC’s unlimited guarantee on transaction accounts was helpful in stopping the run
- But large deposits also common in money market mutual funds…

Large depositors in MMFs



Policy Responses

1. **Have a lender of last resort**
- Never enough liquidity at individual institutions
- But has to be willing to act and able to lend to shadow banking system

2. **Deposit insurance**
- But has to be pretty large or
- Expanded in bad time as with TAG

3. **Replace demand deposits with shares worth about a dollar**
- Ends SSC but people still run --- e.g. MMFs

4. **Require transaction accounts to be back 100% by Fed Funds**
- Would increase cost of funds;
- Institutions could issue private money like MMFs

Lessons for Stable Funding

- Bank runs happen in bad economic times
- Driven by very largest depositors—risk averse, require transaction services
- Contagion to solvent banks is real
- If deposits stay in the system, can assets follow the funds, limiting the damage?