Why Banks?
Bank Runs
Deposit Insurance
FDIC Regulation
2008 - ?? Crisis
Early Warning
Regulatory Arbitrage
The Current Run
Fed Action
Lehman Brothers
AIG
Bank Failures
Whither Repos?

Banks, Bank Runs, and Run-Arounds

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Individual Liquidity Risk

People would like to invest their money for a long-term, to take advantage of *returns to time*, but can't because of fear of liquidity shock.

Pooling can solve the problem:

- Standard insurance won't work since the liquidity shock is unverifiable.
- Everyone deposits their funds in a bank: checking account.
- The bank makes loans and keeps reserves to meet the liquidity demand.
- Note that the economy now has no liquidity risk.

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Opens the Door to Bank Runs

What if out of the blue, I fear that some of the people lining up to withdraw, did not suffer a liquidity shock?
I'd jump in line (since withdraws are first-come, first-served), so would everyone else.
Now the bank's reserves are inadequate, it must start liquidating its loans, and this throws the economy into a depression.

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FDIC

The only viable solution to this kind of bank run is federal deposit insurance. Any private insurance is subject to the same bank-runs problem.

Of course deposit insurance creates a new set of problems: *Moral Hazard*.

- Depositors lose incentive to monitor loan quality.
- Bankers in trouble have incentive to roll the dice.

Bank Regulation

Bank regulation can solve the moral hazard problem.
If you want to participate in FDIC, you accept restrictions on your activities.
Notable Failure: Savings and Loan Crisis of 1985 – 1995.

- Over 740 Thrifts.
- $160 Billion (Of which $124 billion from Taxpayers).
- Important Factors:
  - Arcane Regulations.
  - Lack of Federal System (Ohio and Maryland systems failed).

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Banks not now the issue

The first episode where a classical bank run had nothing to do with a bank: **Long Term Capital Management**:

- Beginning 1998: $5 Billion in Equity, $129 Billion in Assets, (+ $1.25 Trillion notional swaps).
- Lenders evidently unaware of the extent of leverage, and involvement of other lenders.
- Hedge Funds: Unregulated.
- August 1998 Russian event induces a run on LTCM.
- September 1998: Fed intercedes to stabilize financial markets.

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Circumvent Banks

Finance shifted to investment bank model (from commercial bank model)– In large part to avoid costs associated with regulations.
Picture:

- Liabilities (sources of financing): switch from deposits to Repurchase Agreements.
- Trend to shorter-term (overnight) Repos.
- Assets switch from loans to securities.
- Securities increasingly securitized loans.

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Repo Failures

In late 2007, the quality of the investment banks' assets (i.e., the underlying loans) becomes suspect.
Repo market dried up.

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Why did the Fed bail out Bear?

March 14, 2008 NY Fed arranges an emergency loan from JP Morgan – Chase to Bear-Stearns. JPM-C promptly announces a purchase of Bear. (With $29 billion non-recourse loan from the Fed.)

- This was the first non-bank failure in the current environment. The Fed is not a regulator of the Investment Banks. It lacked information.
- As the first non-bank failure, the Fed lacked a policy context.

The Fed acted:

- Created a new lending facility for investment banks.
- Review the role of Chapter 11 in preventing a run on investment banks.

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Fannie and Freddie

On September 8, the US Treasury placed the GSEs Fannie Mae and Freddie Mac under conservatorship.

- Despite link to federal government and special role, they had transformed into investment banks.
- Lax regulation.
- $5 Trillion in combined assets.

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Lehman Brothers

- On September 15, 2008, Lehman Brothers filed for Chapter 11 bankruptcy. This is the largest bankruptcy in US history. ($639 Billion –previous record: Worldcom $104 Billion).
- On September 16, 2008, Barclays plc purchased sanitized Lehman operations.

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Lehman Brothers: Fallout

The failure of Lehman Brothers changed the risk landscape. *Liquidity* risk becomes more important than traditional risk sources. Counterparty risk rises to surface (hitherto: largely ignored).

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AIG

- AIG valued sub-prime mortgages on its books more highly than Lehman.
- AIG big insurer of subprime paper (Credit Default Swaps). ($57 Billion worth.)
- Facing a downgrade which would have forced AIG into default and contagion effects through the CDS market would have been far ranging.
- On September 16, 2008, the Federal Reserve implemented a rescue package for up to $85 Billion. In exchange the Fed got warrants for 80% of AIG stock.
- Another $67 Billion added in November, 2008.
- March 2009: AIG announces $62 Billion loss for Q4 2008. Treasury announces additional $30 Billion in Aid.

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FDIC Success!

Over this past year, there have been an extraordinary number of bank failures. These have been contained through the FDIC.
Including Washington Mutual, on September 25, 2008, the largest bank failure in history, $307 Billion in assets.
No more free-standing investment banks:

- Bank of America acquiring Merrill Lynch.
- On September 21, Goldman-Sachs and Morgan Stanley received Federal Reserve approval to become bank holding companies.

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Where we are.

The Fed and Treasury using trial and error to replace and then stabilize the repo market.
(Many programs that sound like: Lending Facility represent the Fed replacing the private repo market.)