



# Repo Resolution Authority

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Based on

**A Proposal for the Resolution of  
Systemically Important Assets and Liabilities:  
The Case of the Repo Market**

*(International Journal of Central Banking, 2013)*

# What is “systemic risk”?



- Macro-prudential view:
  - ✦ Common factor exposures
  - ✦ Runs from demandable debt claims
  
- Several entities experience distress or fail together as
  - ✦ Short-term creditors demand immediacy
  - ✦ Against long-term assets
  - ✦ But the system has limited capacity (capital?) to provide immediacy
  
- Externalities related to demand of immediacy:
  - ✦ Fire sales: credit freezes and contagion
  - ✦ Deposit rate hikes: gaming of tax-payer put and contagion

# Important issue: Safe harbor provisions



- All demandable claims involve immediacy of payments
- Immediacy important for moneyness / liquidity
- Demandable deposits had a built-in immediacy
- Secured borrowing by the financial sector has immediacy rights through “safe harbors” from bankruptcy
- Have we over-invested in liquidity / immediacy?

# Safe harbors with systemic exception?



- Prior to fiat money, there was often a shortage of money
  - ✦ Solution: Commercial bank clearinghouses
  - ✦ Suspend conversion of immediacy, adopt joint liability
- Problem: If there isn't adequate capital with joint liability providers, runs may not get stemmed
  - ✦ Solution: Government interventions to provide immediacy
  - ✦ In extremis, bank runs can morph into sovereign crisis (Ireland)
- Modern-day runs: Resolution difficulties stem from inability to suspend conversion of immediacy
  - ✦ LOLR takes on significant asset risk while providing immediacy

# Sale and Repurchase (Repo) Markets



- A repurchase agreement, or more popularly a repo, is a short-term transaction between two parties in which one party borrows cash from the other by pledging a financial security as collateral.
- Sale and Repurchase agreement, typically overnight
- Repo is NOT the same as Secured Borrowing
- Bankruptcy exemption:
  - In case of default, the repo financier has property rights over the collateral, typically to sell it in arm's length market
  - A secured borrower will be subject to at least a formal bankruptcy before getting access to collateral or being paid off

# U.S. Repo Market Milestones



- **1917:** Federal Reserve introduces repos; repo securities are subject to ***automatic stay***.
- **1984:** Congress enacts the Bankruptcy Amendments and Federal Judgeship Act of 1984 to exempt repos on Treasury and federal agency securities, as well as on bank certificates of deposit and bankers' acceptances from the application of automatic stay.
- **2005:** Congress enacts the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 to expand the definition of repos to include mortgage loans, mortgage-related securities, and interest from mortgage loans and mortgage securities; all mortgage-related repo securities become exempt from automatic stay.

# Repos and Systemic Risk



- Consider a mortgage-backed securities (MBS) repo
- Seller: Investment bank (Bear Stearns)
- Financier: Money market fund (Fidelity, Federated)
- Suppose an aggregate shock hits the economy
- Investment bank loses its capital and chances are high it will be unlikely to repurchase in future
- Financiers cannot invest / run well the MBS book

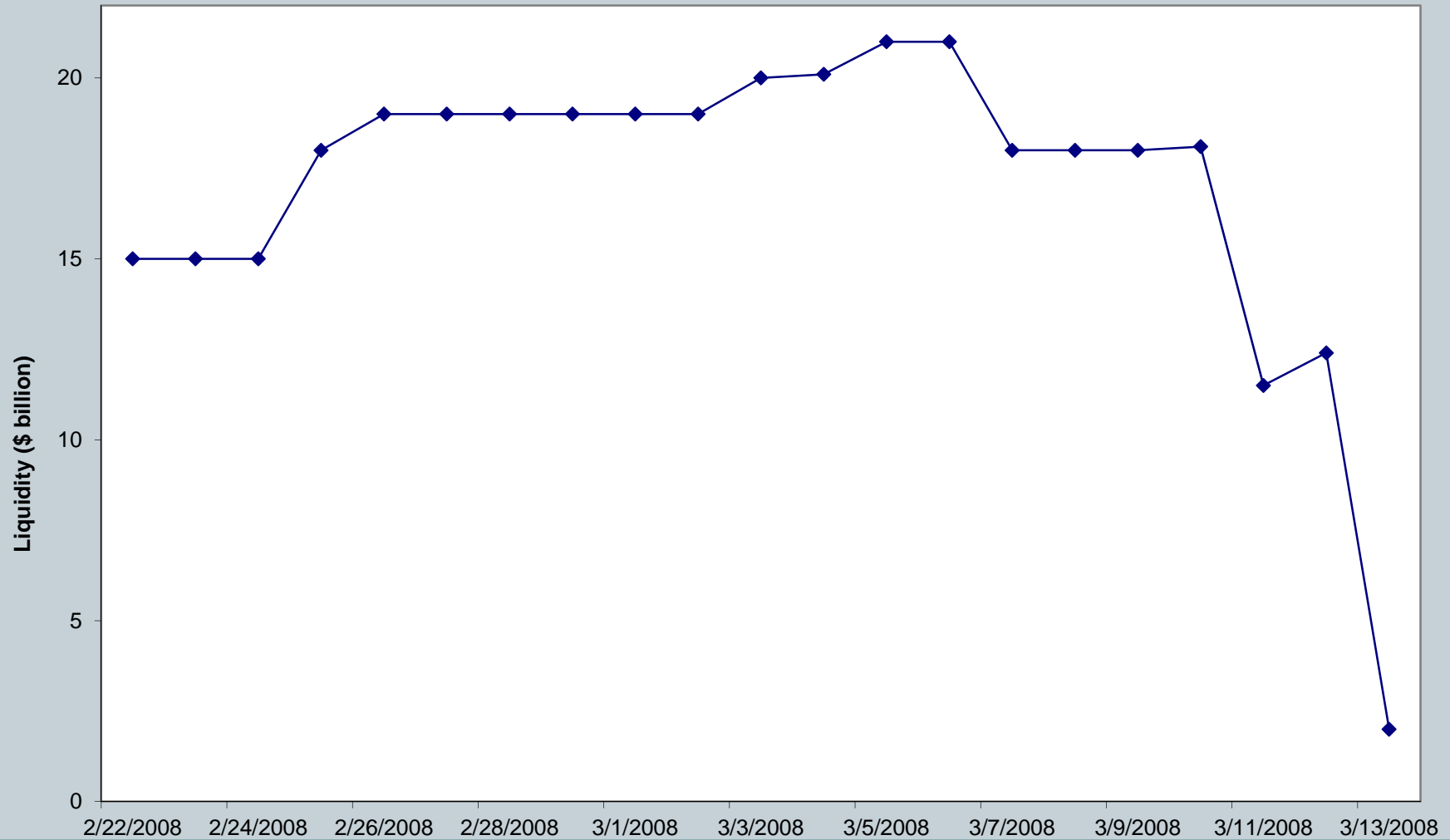


## Repos and Systemic Risk (cont'd)



- **Financiers will wish to sell upon borrower's default**
- **Better to “run” to draw down on available liquidity**
- **Borrower cannot file for bankruptcy to put a “stay”**
- **Repo collateral, and potentially other assets of borrower, may have to be sold in asset-sale markets**
- **Aggregate shock: So other financial firms in trouble too**
- **Fire sales, further redemptions, losses to “late” financiers, and, in turn, runs on repo financiers**

# Bear Stearns' liquidity pool in March 2008



# Repo “run” on Bear Stearns-2008



“...[U]ntil recently, short-term repos had always been regarded as virtually risk-free instruments and thus largely immune to the type of rollover or withdrawal risks associated with short-term unsecured obligations.

In **March**, rapidly unfolding events demonstrated that even repo markets could be severely disrupted when investors believe they might need to sell the underlying collateral in illiquid markets...

In particular, future liquidity planning will have to take into account the possibility of a sudden loss of substantial amounts of secured financing.”

- Chairman Bernanke’s remarks at BIS, May 29, 2008

# Proposals on the table



- **Deposit insurance**
  - How much can / should the government guarantee?
  - Guaranteeing most of financial sector “deposits” may not be a sustainable solution when government risk itself becomes high
  - Significant moral hazard problem
- **Automatic stay on repos**
  - Goes to the other extreme
    - Stay would hinder the liquidity of ABS, MBS repos
  - But suspends all conversion of repo collateral to currency
    - Avoids systemic risk
- **Stay is needed only in systemic risk states**

# Our Proposal: “Repo Resolution Authority”



**Ex post: Avoid disorderly fire-sales but ensure reasonable liquidity of financier claims**

- **Suspension of blanket safe harbors on repos**
  - Effective safe harbors in idiosyncratic failures
  - Effective suspension of safe harbors in systemic failures
- **Retain liquidation rights in RRA**
- **Make liquidity payments based on conservative recovery assumptions**
- **Claw-back or repatriate losses / gains from liquidation**

# Repo Resolution Authority (cont'd)



**Ex ante: Do not provide ex-post liquidity insurance without containing credit risk ex-ante**

- **Collateral eligibility, minimum haircuts**
- **Ex-ante fee for liquidity enhancement**
- **Solvency criteria for financiers to access liquidity**
- **Concentration limits on financiers/financier-asset pairs**

# Repo Resolution Authority



- **Combines liquidity provision and large-scale asset-liquidation roles**
- **Resembles a clearinghouse in many ways**
  - Especially in that is involved in both ex-post resolution and ex-ante risk controls
- **Resembles a lender-of-last-resort in some ways**
  - Mainly in the ex-post liquidity provision role
  - Has lower ability to create liquidity than a central bank
  - Could over time, however, acquire greater expertise in risk control

# Repo Resolution Authority (in detail)



Ex-post, when does RRA intervene?

1. RRA sets pre-specified conservative thresholds to invoke its authority to settle the repo claims
  - Solvency condition of borrower
  - Risk/illiquidity of the asset class
  - Matrix based on the two
2. Borrower can approach RRA to avail of a “pre-packaged” liquidation; RRA can invoke at discretion



## Implementation (cont'd)



3. RRA pays repo financier a conservative value (at a “haircut”) based on a reasonable projected value from liquidation of collateral (could be regularly announced schedule by asset class)
4. RRA takes over repo collateral and has a certain pre-specified period (with some flexibility) within which to liquidate it
  - RRA has “claw back” over financiers on conservative payment
  - If suitably discounted liquidation proceeds exceed (are lower than) the conservative payment, the repo financier is paid (has to pay) the difference

# Implementation (cont'd)



## 5. RRA through steps 3 and 4 resembles a LOLR cum liquidator

- Suspends rights to liquidate collateral
- Suspends partial conversion by applying haircuts

## 6. Isolated default situation:

- Collateral market likely to be liquid
- Full payment made in a day or two
- Effective treatment akin to safe harbor / bankruptcy exemption

# Implementation (cont'd)



## 7. Correlated default situation (systemic risk):

- Stay and orderly asset liquidation come into play
- Eventual average recovery for financiers may be greater!

## 8. Providing liquidity introduces risks for RRA

- Eventual asset liquidation values may be lower than conservative payment
- By the time of claw-back, financier may be insolvent / illiquid

# Implementation (cont'd)



## 9. Ex-ante risk controls:

- i. Exclude some hard-to-value (-liquidate) collateral classes:  
These repos are effectively subordinated in bankruptcy
- ii. Charge repo financiers an ex-ante fee for liquidity payment
- iii. Require that eligible repo financiers maintain minimum solvency criteria so that claw-back risk is managed
- iv. Impose concentration limit at the level of individual repo financiers based on borrower and asset-class exposure

# Pros and Cons of our proposal



## ○ Pros:

- ✦ Effectively suspends stay only in systemic scenarios
- ✦ Easily extendible as new asset and liability classes emerge
- ✦ Private sector has some expertise in this through CCPs, e.g.
- ✦ Cuts across institutions and shadow banks, so harder to “game”
- ✦ Can be harmonized internationally

## ○ Cons:

- ✦ Relies on ability of the RRA to estimate conservative recovery values
- ✦ Relies on adequate incentives for the utility to adopt ex-ante risk controls (haircuts, concentration limits, eligible collateral, ...)
- ✦ May need LOLR if risk controls inadequate or shock too large

# An interesting precedent...

(Kaufman and Seeling, 2002, Kaufman, 2004, 2007)



- **The Glass Proposal (early 1930s)**
  - Rapid payments to depositors as an alternative to deposit insurance (which Senator Glass opposed)
  - Establishment of a federal liquidating corporation
    - Estimate a bank's recovery value upon failure
    - Sell the bank (as a whole or in parts) over time
    - Pay the proceeds to the receiver in exchange for speedy disbursement to the depositors
- Fed attempted such a proposal in 1931 but it did not become operational
- NY State Banking Department implemented such an arrangement in 1933

# An interesting precedent...



- **Reconstruction Finance Corporation – 1932**
  - Loan funds to banks being liquidated or reorganized
  - Enable quick partial payments to liquefy uninsured depositors whose “freeze” in a systemic crisis was considered as significant reduction in money supply
  - Deposit Liquidation Board could borrow from the RFC using assets of the closed banks as collateral
  - The Board loaned on 80% of the liquidation value of assets, using projected values based on orderly liquidation period of 3-5 years in recovering markets
  - Gathered support but not enacted...
  - Authority included in FDIC Act but with reduced failures, legislative interest in liquefying deposits waned