# Comments on "Structuring for Leverage" by Joe Mason

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Brookings – Tokyo Club – Wharton Securitization Conference Brookings, October 16, 2008

<sup>\*</sup> Any views expressed represent those of the author only and not necessarily those of the Federal Reserve Bank of New York or the Federal Reserve System.

### Liquidity and the magic of securitization

- Credit assets have traditionally been illiquid
  - Try trading a single mortgage, or credit card receivable
- Securitization helped "liquify" these assets
  - Bundle, slice and sell
- Need to solve significant information problems to get this done
  - How is an investor to efficiently evaluate a tranche of an ABS?
  - Can't re-underwrite every credit in the pool
  - Credit rating agencies help address this information friction

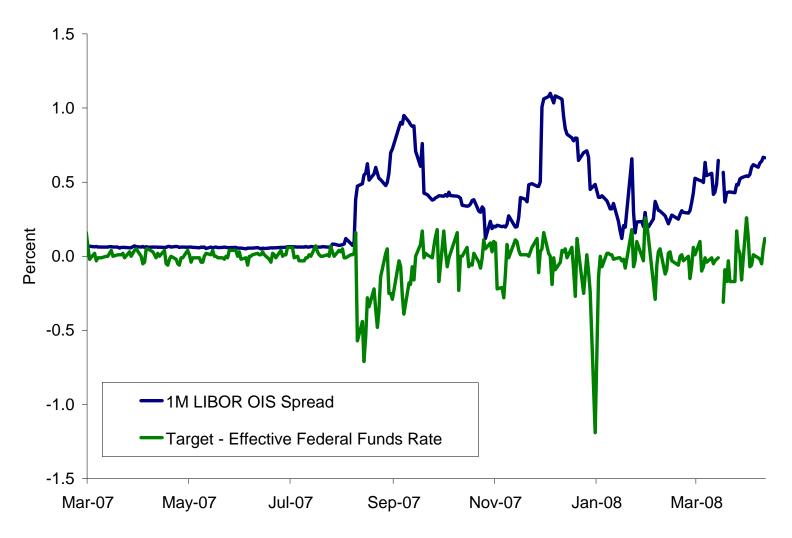
### Questioning the magic . . .

- When it works, very efficient way of allocating credit risk / capital
- Growth of securitization paralleled growth of repo markets
  - Efficient financing mechanism
- But what if market participants feel the need to reunderwrite every credit asset in an ABS/MBS?
  - Mis-assessment of risk
  - Mis-valuation
- Machine can grind to a halt

### **Mason: Structuring for Leverage**

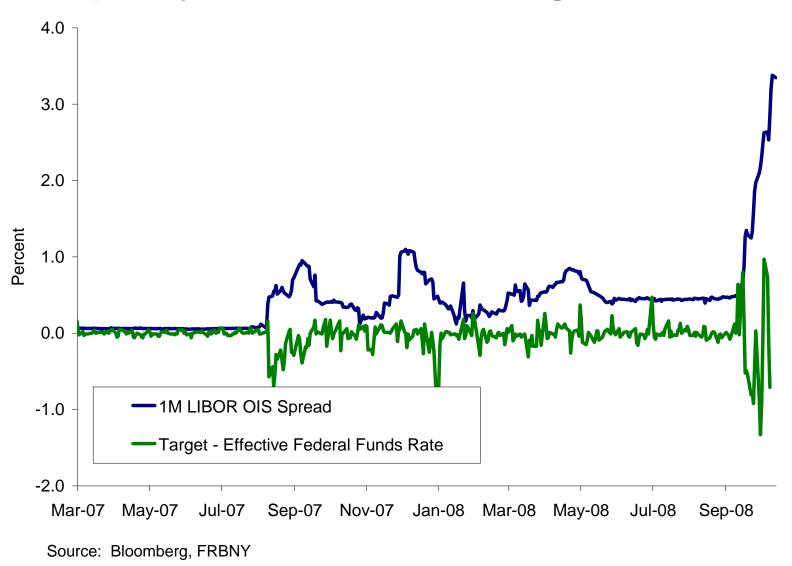
- Lucid, clear explanation of some of the riskier structured products: CPDO, SIV, and ARS
- New security vs. old securities in new clothes
- Embedded leverage
- Liquidity and credit risk
- Diversification, concentration, correlation
- Flexibility vs. hard wiring ("brain dead")

### Illiquidity in interbank funding markets



Source: Bloomberg, FRBNY

### Illiquidity in interbank funding markets



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### Problems addressed by new lending facilities

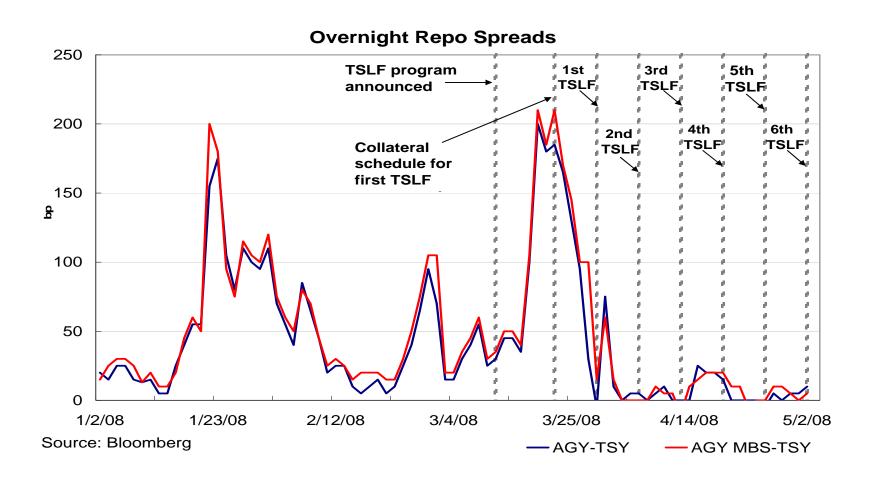
Choose		<b>Depository Institutions</b>	<u>Primary Dealers</u>
Q	Backstop Standing Facilities	Discount Window	Primary Dealer Credit Facility (PDCF)
P	Auction Facilities	Term Auction Facility (TAF)	Term Securities Lending Facility (TSLF)

- <u>TAF</u>: illiquid term markets and the stigma that accompanies discount window borrowing.
- TSLF: illiquid functioning in repo funding markets illustrated by abnormal rates and high haircuts.
- PDCF: the lack of market-based back-stop credit in repo markets.

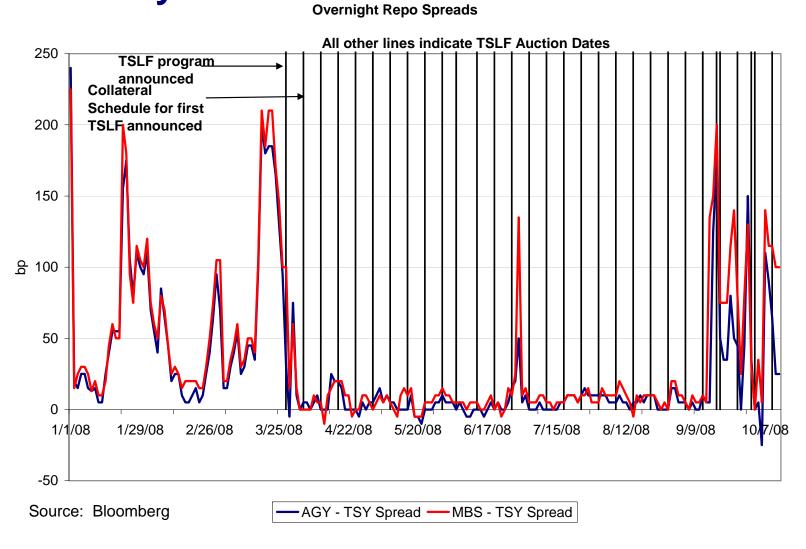
### What can you pledge at the TSLF & PDCF?

- TSLF: OMO collateral plus investment grade securities: private label RMBS, CMBS, Agency CMOs, ABS such as CDOs, CLOs, corporates, munis, MBS (R and C), ABS
  - So long as it can be priced by the clearing banks
- PDCF: above plus sub-investment grade securities plus equities
- Importantly, previously repo-able securitized instruments are no longer "stuck" on firms' balance sheets
  - Facilities designed as liquidity vehicles

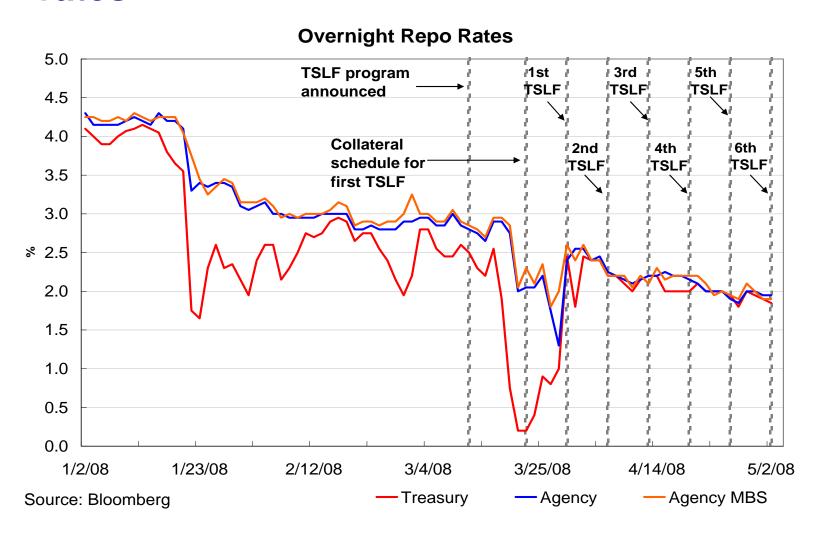
# High overnight agency and MBS spreads to Treasury



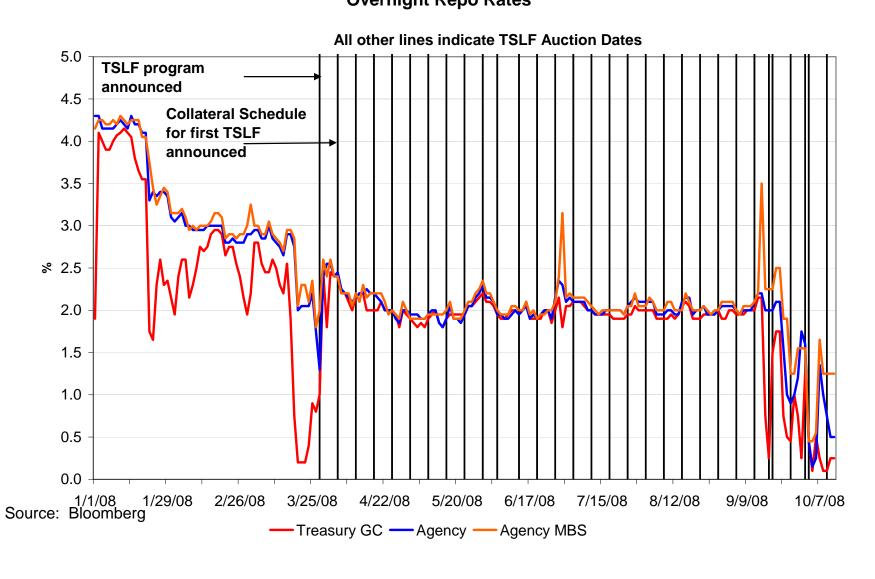
## High overnight agency and MBS spreads to Treasury



### **Abnormally low overnight Treasury reporates**



# Abnormally low overnight Treasury reporates Overnight Repo Rates



#### Yet more facilities.....

- Swap lines: illiquid money markets that became segmented across countries and time zones
  - BoE, ECB, and SNB will conduct tenders of U.S. dollar funding at 7-day, 28-day, and 84-day maturities at fixed interest rates for full allotment. Funds will be provided at a fixed interest rate, set in advance of each operation.
- Commercial Paper Funding Facility: illiquid functioning in short-term commercial paper funding markets.
  - Under the CPFF, the FRBNY will finance the purchase of unsecured and asset-backed commercial paper from eligible issuers through its primary dealers. The CPFF will finance only highly rated, U.S. dollardenominated, three-month commercial paper

#### **Thank You!**

http://nyfedeconomists.org/schuermann/

### Illiquid repo markets

The TSLF addresses the illiquid functioning in various repo financing markets, including abnormal rates, wide bid-ask spreads, and large and increasing haircuts on collateral.

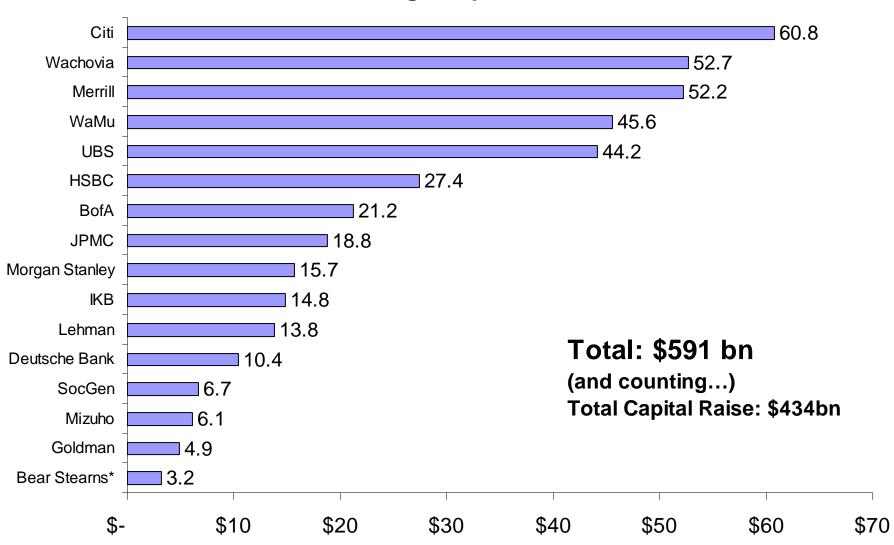
#### The TSLF

- adds Treasuries to dealers' portfolios, reducing their scarcity in the repo market.
- reduces the roll-over risk for dealers in their financing of the alternative assets used as collateral.
- format assists in setting the right price for the Treasuries lent.
- avoids any reserve management problems.

### Risk and subprime mortgages

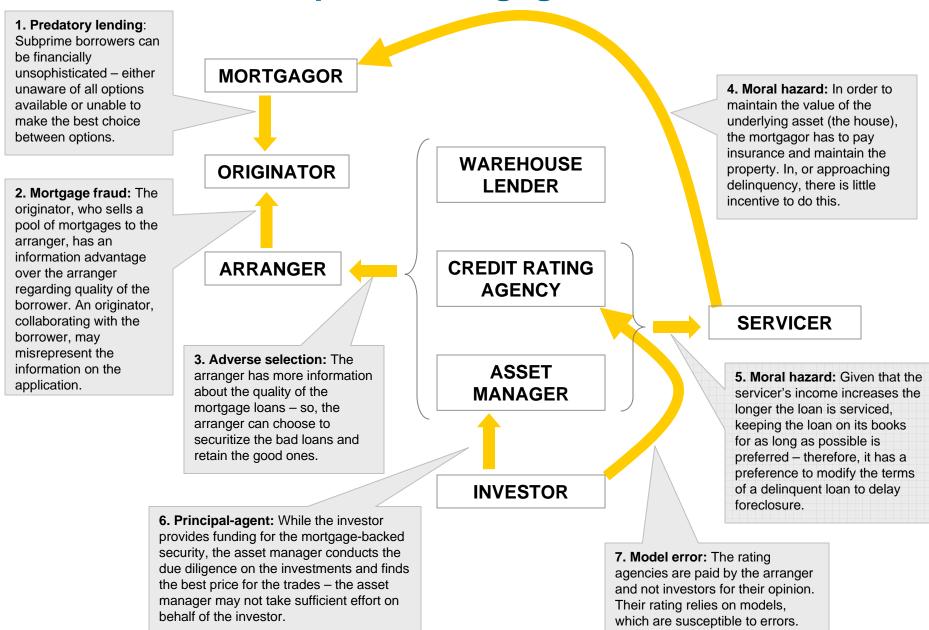
- During the recent subprime boom, everyone was betting on continued home price appreciation (HPA)
- Subprime mortgages have shown up under every rock – e.g. in most structured credit products like CDOs
- Effectively everyone has been long (and levered to)
   1 risk factor: HPA
  - If it goes down, everything goes down

### Bank Write Downs billions; through September 29, 2008



Source: Bloomberg

#### 7 Frictions in Subprime Mortgage Credit Securitization



Source: Ashcraft and Schuermann (2007): "Understanding the Securitization of Subprime Mortgage Credit"