# Stability-Liquidity Tradeoffs in Post-Crisis Bond Markets

Nellie Liang\* Federal Reserve Board Nov. 17, 2015

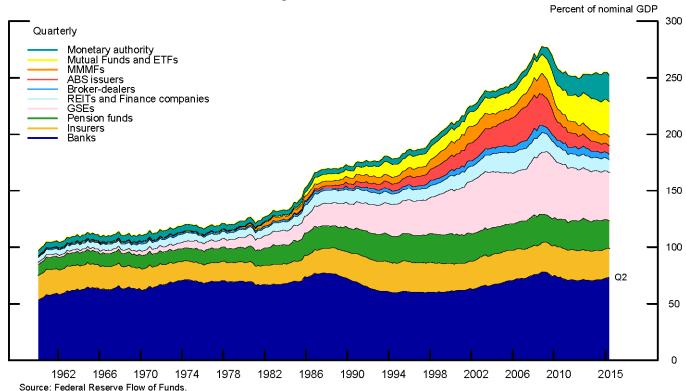
\*Views expressed are mine and do not represent those of the Federal Reserve Board or its staff.

#### Risks to market liquidity

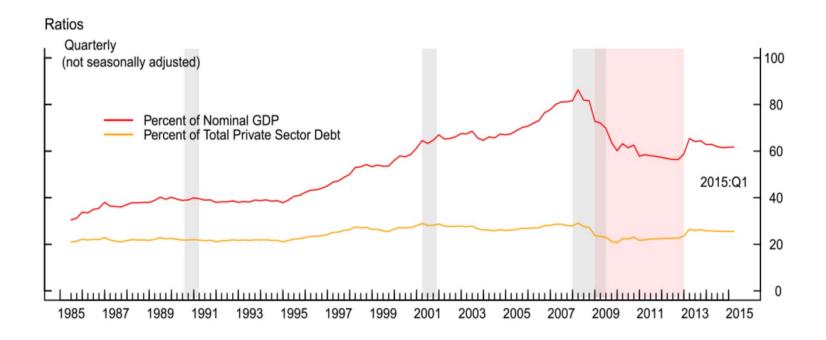
- Agree -- Changes are occurring and net effects on market liquidity are still playing out
- Changes at dealers and asset managers
  - Structural changes in fixed-income markets have reduced dealers' information advantages – TRACE in corporate bonds (since 2002) and growth of proprietary automated trading
  - Since the crisis: Dealer market-making reduced because of own risk management practices, new regulations, and low expected returns
  - Since the crisis: Increased risk of spike in demand for market liquidity if there are large redemptions from MFs with less-liquid assets

#### Credit intermediation more resilient

#### **Credit Market Debt Outstanding**

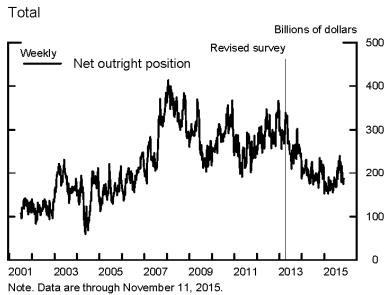


#### Runnable liabilities are lower



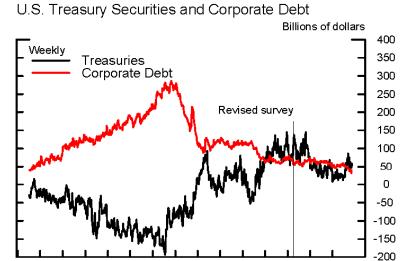
Includes uninsured deposits, repo, sec lending, MMFs, commercial paper, VRDOs, etc. See Bao, David, and Han (2015)

### Dealer positions: A measure of willingness to provide market liquidity?



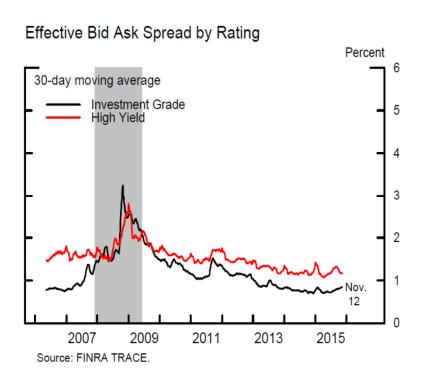
Total includes: U.S. Treasury securities; Agency MBS and non-MBS securities; and corporate securities.

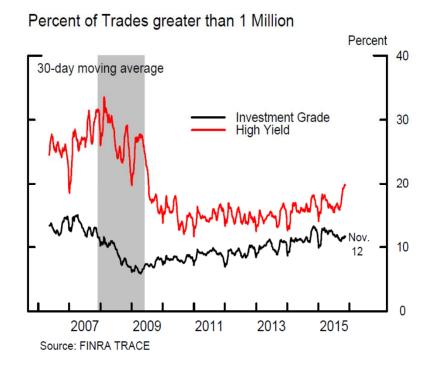
Source. FR 2004A. The FR 2004 was revised effective April 1, 2013.



Note. Data are through November 11, 2015 Source. FR 2004A. The FR 2004 was revised effective April 1, 2013.

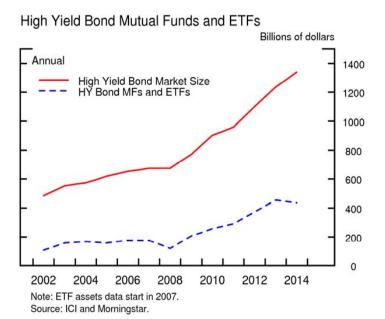
#### Market Liquidity: Corporate bonds

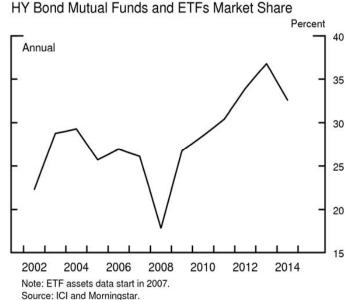




#### High-yield bond funds: Increased risk of liquidity demand for large redemptions







## Fund liquidity mismatch and first-mover advantage

- Fundamental mismatch on-demand redemption while investing in less liquid assets
- First-mover advantage funds mutualize costs of asset liquidations and costs borne largely by remaining investors
- Creates investor incentive to redeem ahead of other investors
- Could amplify redemptions and lead to greater asset sales than would occur if investors held assets directly
- Mix of MFs and reduced liquidity could amplify credit cycle
  - Severity would depend on sensitivity of redemptions and potential for fire sales

#### Regulatory reforms for fund liquidity risk

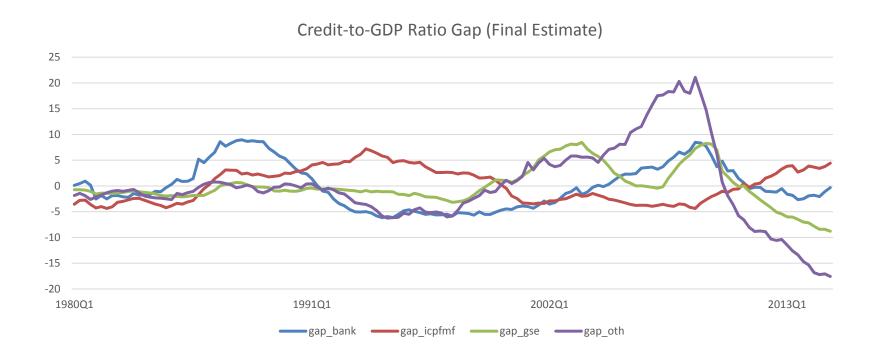
- SEC proposal (Sep 2015) proposal for liquidity risk management:
  - Assets reported by liquidity buckets and quarterly disclosure
  - Maintain a three-day liquid asset minimum a minimum fraction of assets that can be converted to cash in 3 days without significant price impact
  - Board oversight of funds' liquidity risk management programs
  - Disclosure of liquidity risk management practices (lines of credit, etc)
- Also, option for swing pricing MFs can adjust NAVs based on the size and direction of net flows to incorporate liquidity costs

#### Asset management activities

- MF intermediation has gotten more complex more illiquid assets and leverage (derivatives, sec lending)
- Proposals on stress testing and leverage expected from the SEC
- FSOC is reviewing potential systemic risks

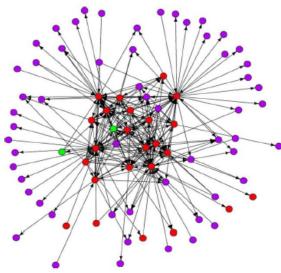
#### **END**

#### Credit-to-GDP gap, bank and nonbank



### Example – Credit Default Swaps

Interconnectedness of CCPs, Dealers, and Non-dealers in CDS



CDS contracts through DTCC in 2010. Non-dealers include banks, hedge funds, asset managers, insurers, pension funds, other. See Brunetti and Gordy, 2012, "Monitoring Counterparty Credit Risk and Interconnectedness in CDS." FEDS working paper.

CDS notional amount of protection, 2013

2013	Bought (\$B)	Sold (\$B)
Dealers	12,834	12,943
Bank (non-dealer)	206	221
Hedge funds	353	223
Asset managers	211	200
Ins, PFs, other	75	93
CCPs	1,378	1,378
Total	15,058	15,058

CDS contracts through DTCC in which one of the counterparties or the reference entity is an institution regulated by the Federal Reserve. See Campbell and Gallin, 2014, "Risk Transfer Using Credit Default Swaps," FEDS Notes.