Do We Have A Liquidity Problem Post-Crisis?

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Brookings, November 15, 2016

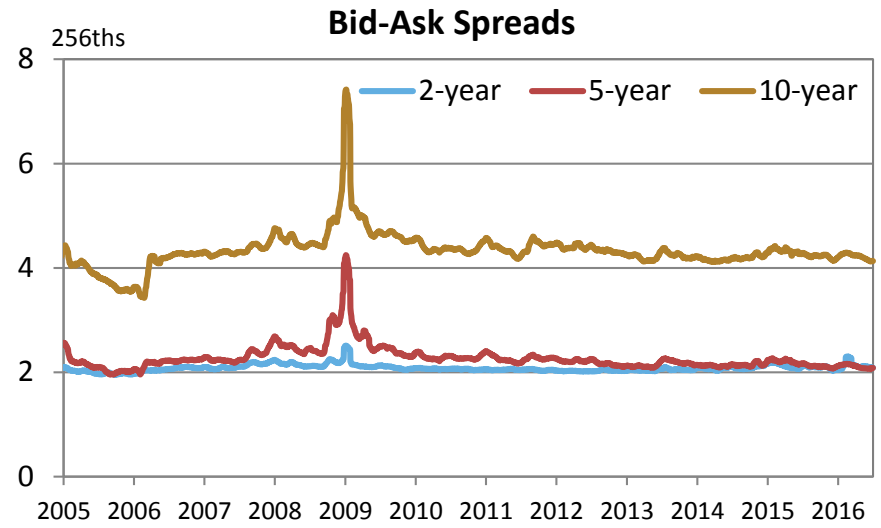
Liquidity Project at FRBNY

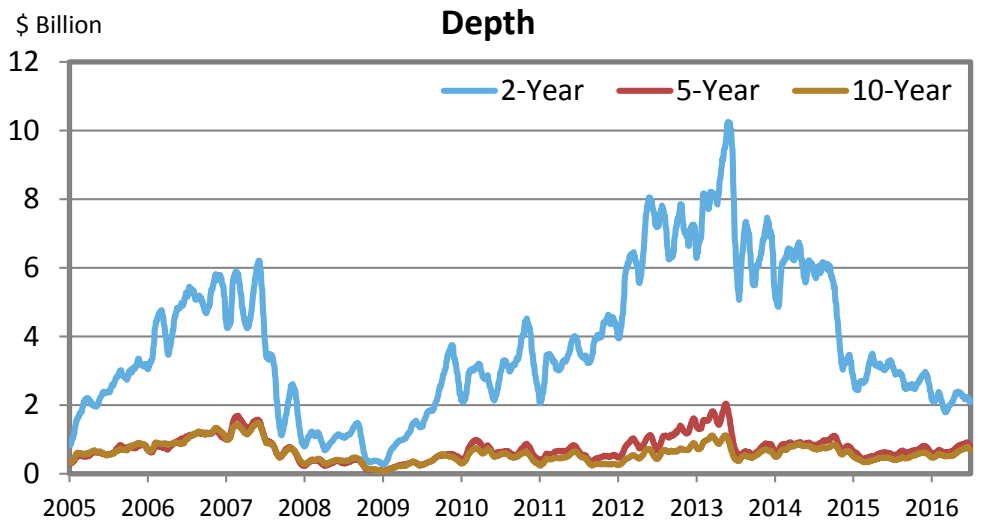
- Objective: Comprehensive, evidence-based assessment
- Definition of market liquidity:
  - The cost of quickly converting a desired quantity of an asset into cash (or cash into an asset) at an efficient price
  - Several dimensions: cost, depth, immediacy, efficiency

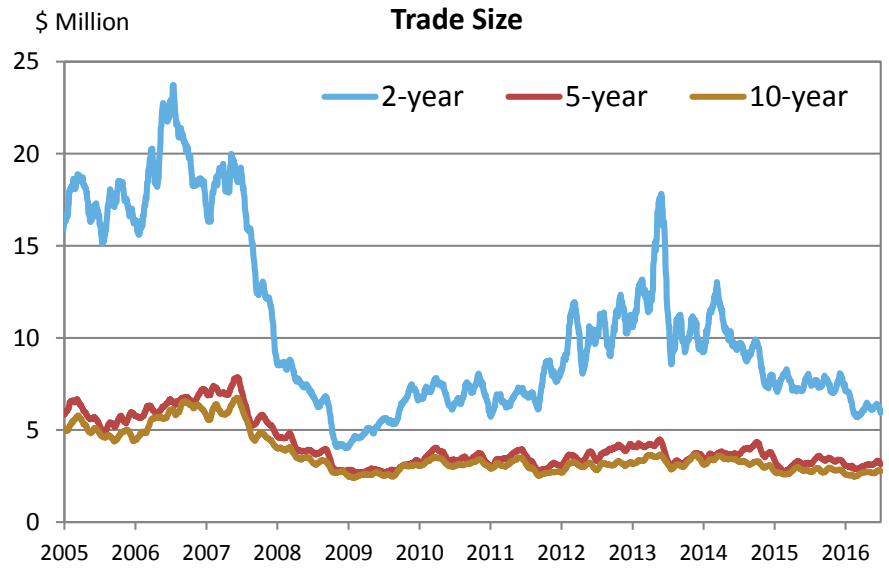
Measuring Mkt Liquidity

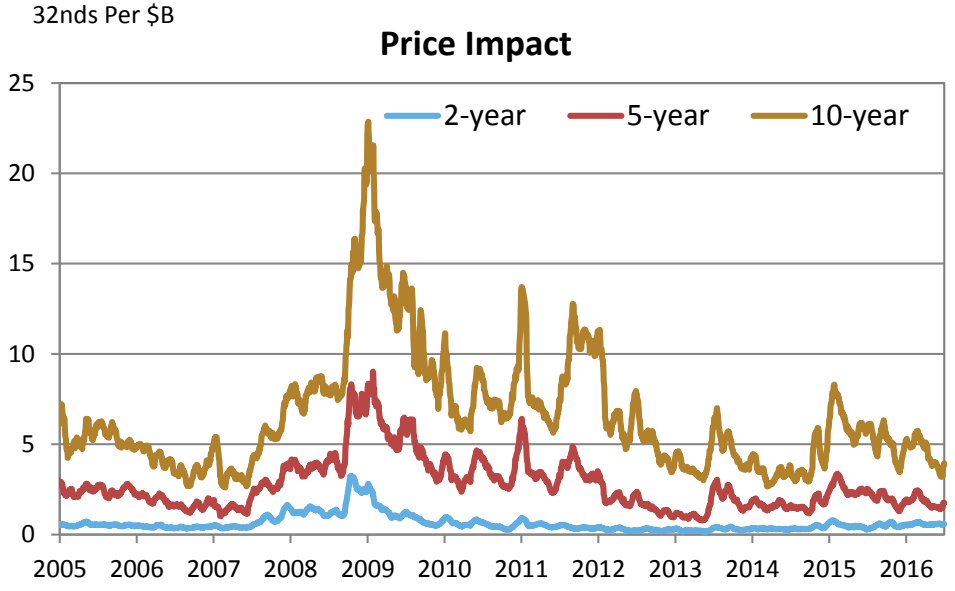
- Liquidity is dynamic, unobserved and multi-dimensional. Can only measure indirectly
- Common liquidity metrics:
  - Bid-Ask spread
  - Price impact
  - Trade size
- Focus on Treasury and Corporate bond markets

Treasury Market Measures



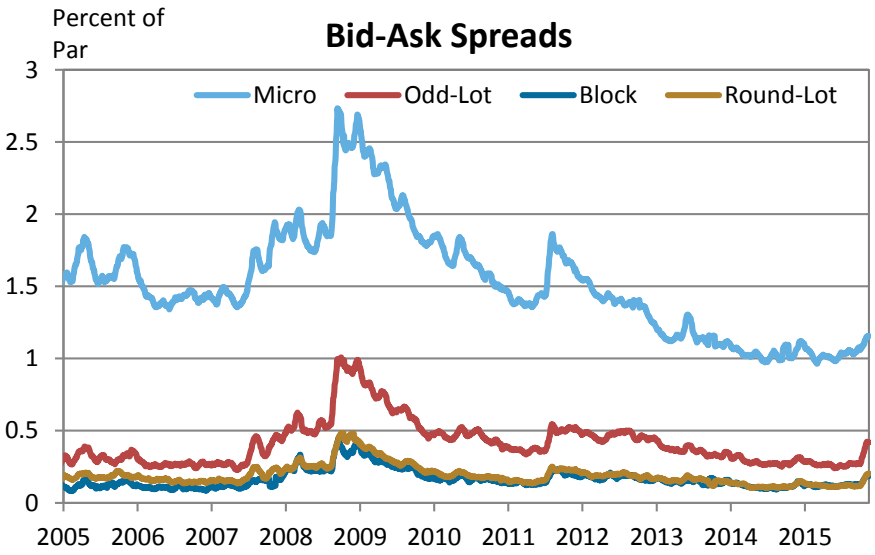


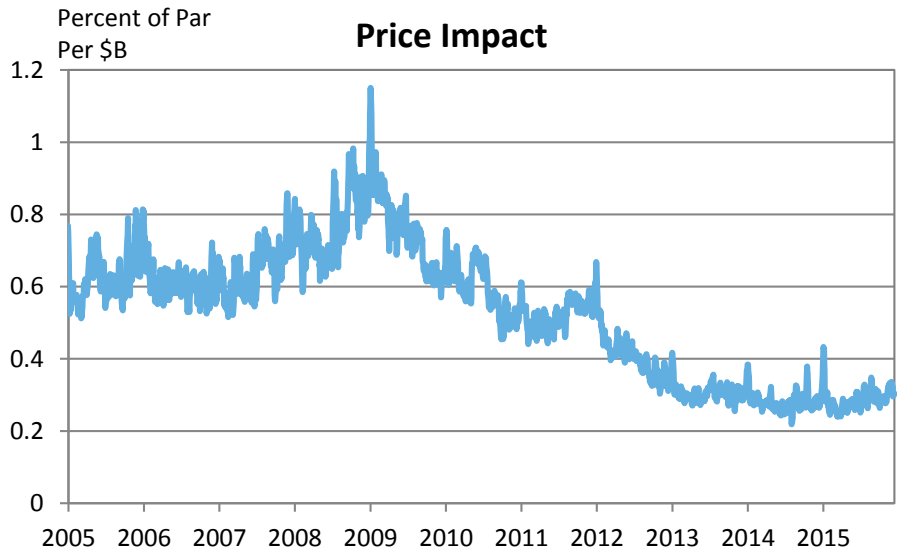


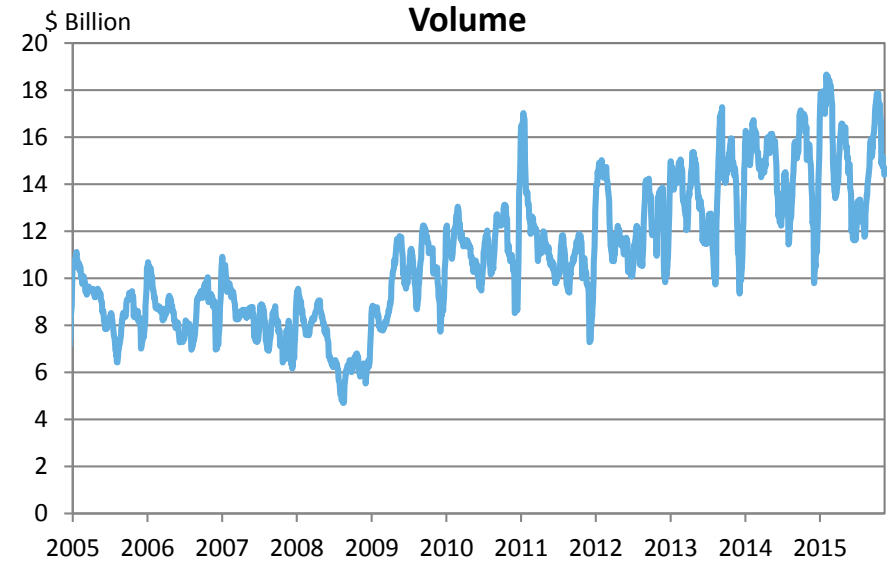


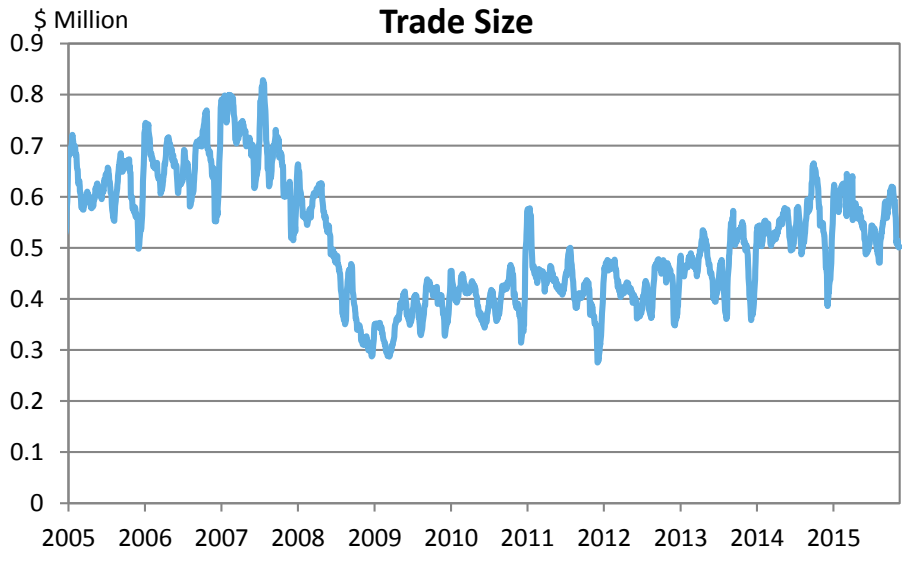
Notes: Adrian, Fleming, Shachar, Vogt (2016). Source: BrokerTec.

Corporate Bond Market Measures



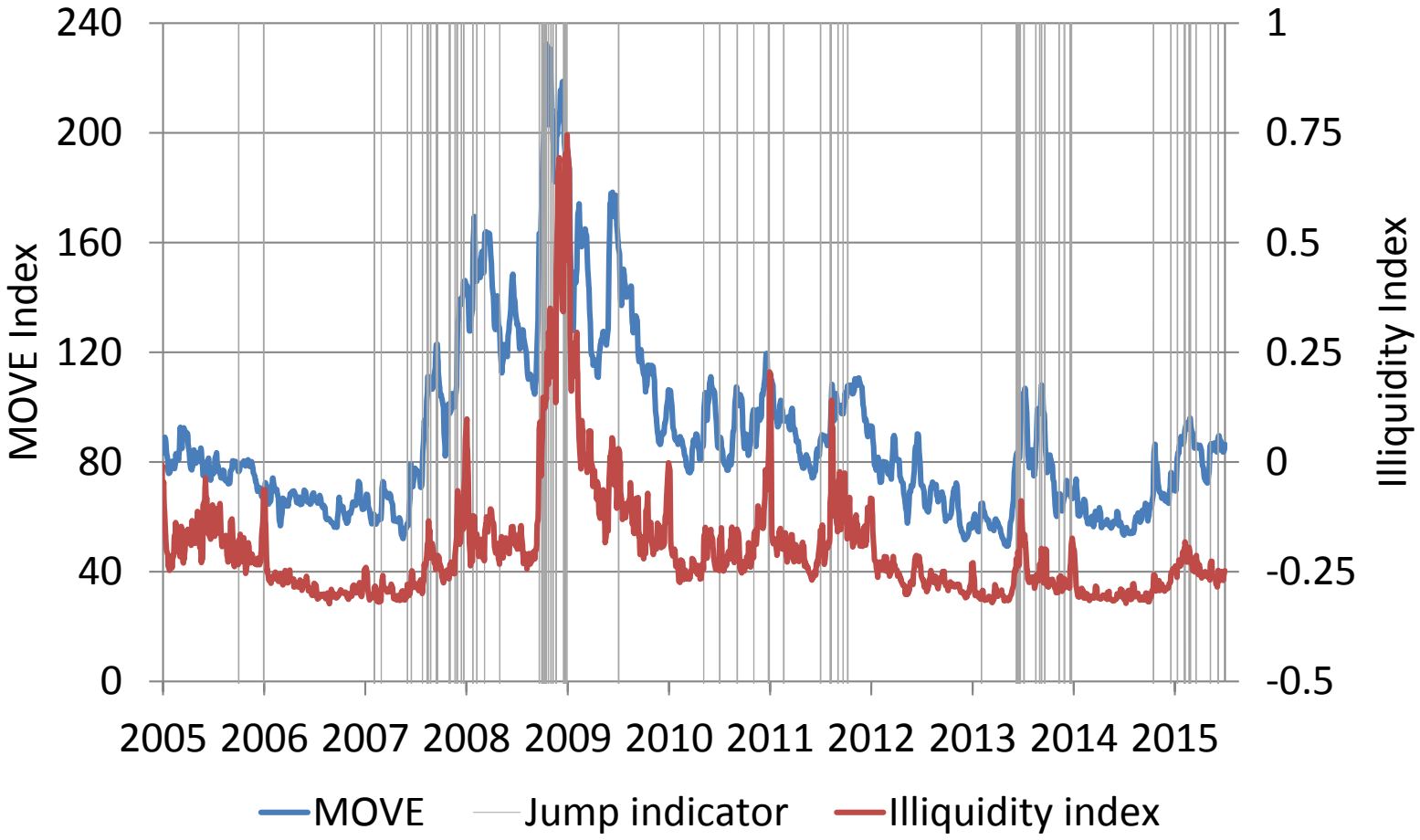




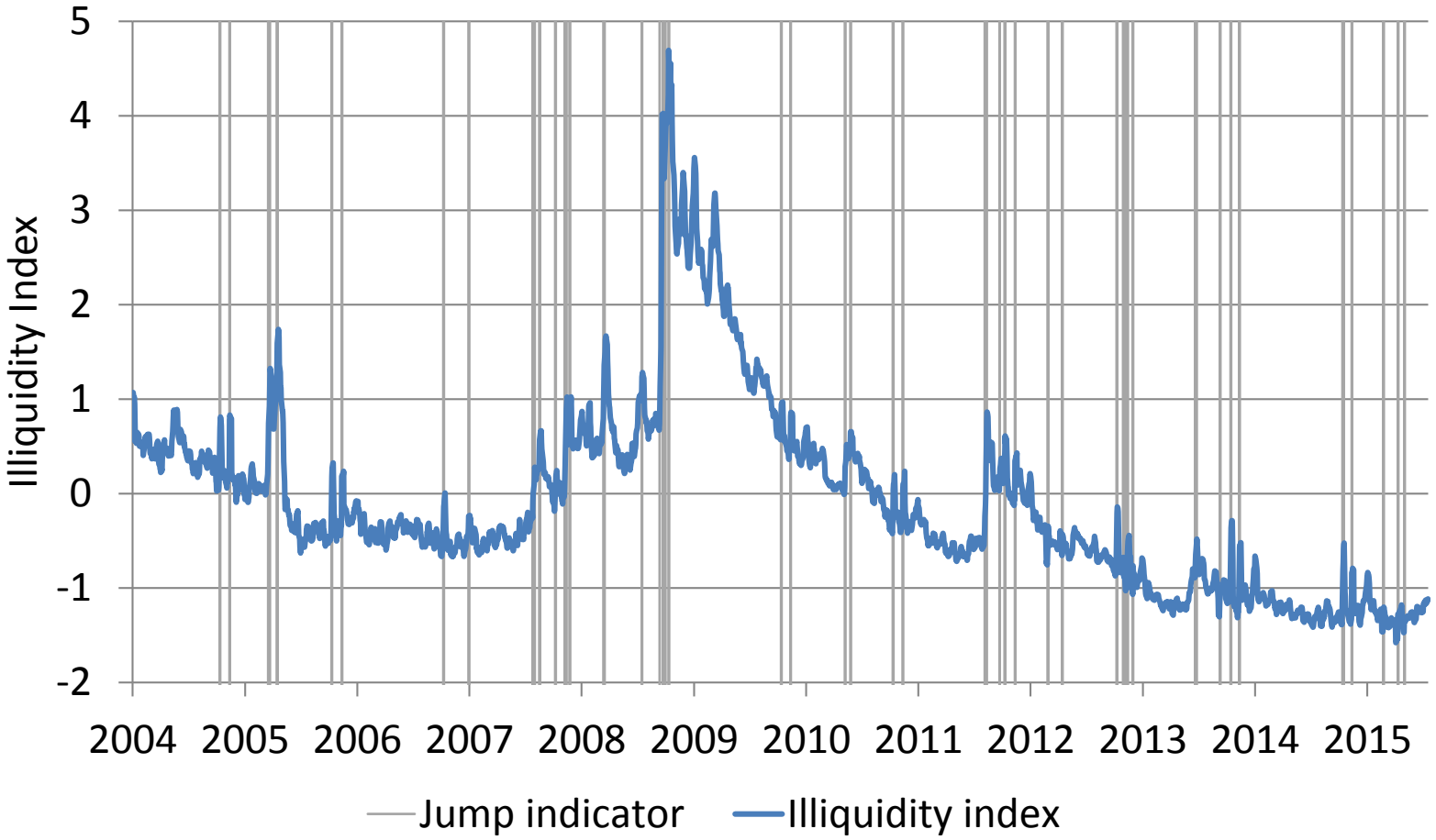


Notes: Adrian, Fleming, Shachar, Vogt (2016). Source: TRACE, Mergent FISD.

Treasury Liquidity, Volatility, and Liquidity Risk



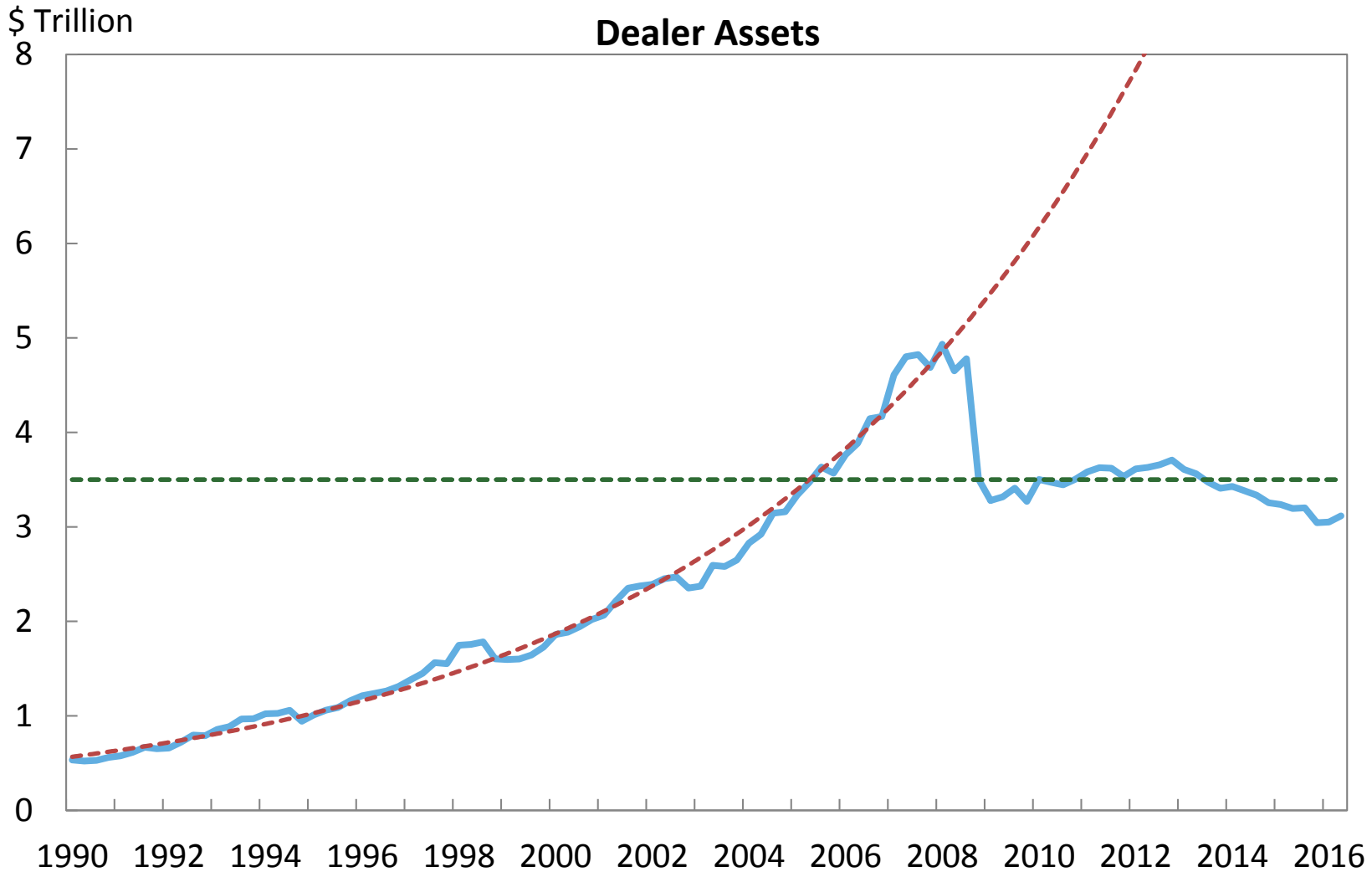
Corporate Liquidity and Liquidity Risk



Overall Summary

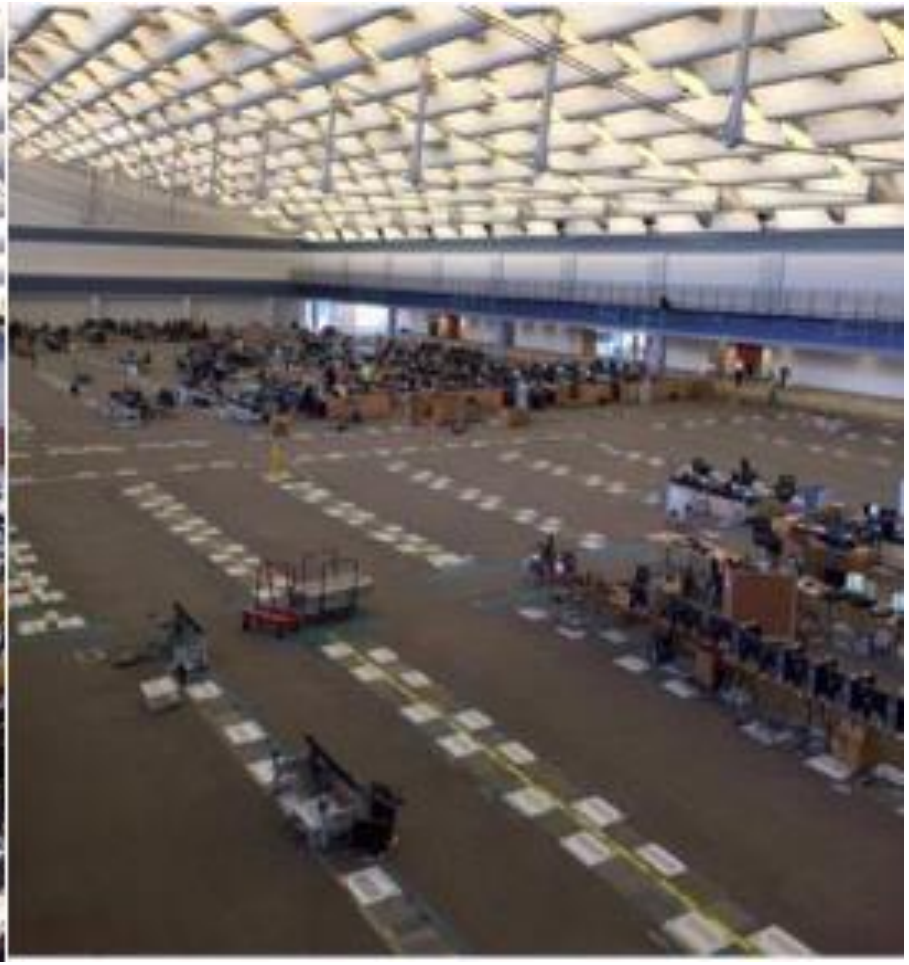
- Quantitative measures provide limited evidence of a deterioration in liquidity in Treasury and corporate markets
- Many limitations to existing measures because of inadequate data, structural changes, and methodological limitations
- Many reasons to think liquidity may have changed: liquidity provision and demand, market structure, policy environment

Appendix slides

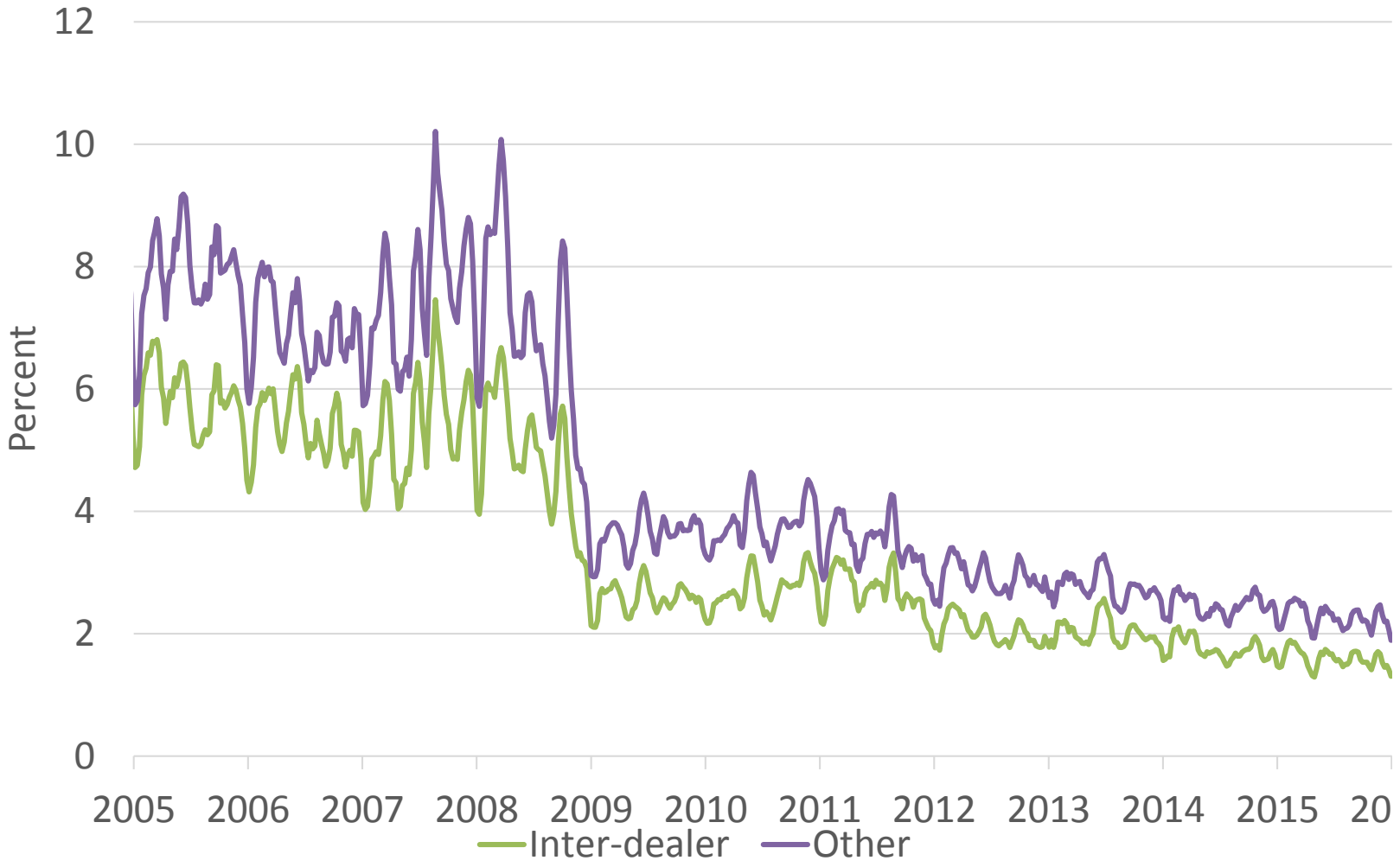


Notes: Total financial assets of security brokers and dealers at the subsidiary level in blue. Red dotted curve: growth trend 1990-2008. Green dotted: $3.5 trillion mark. Source: Federal Reserve Board, “Financial Accounts of the United States”.

UBS Trading Floor: pre- & post-crisis

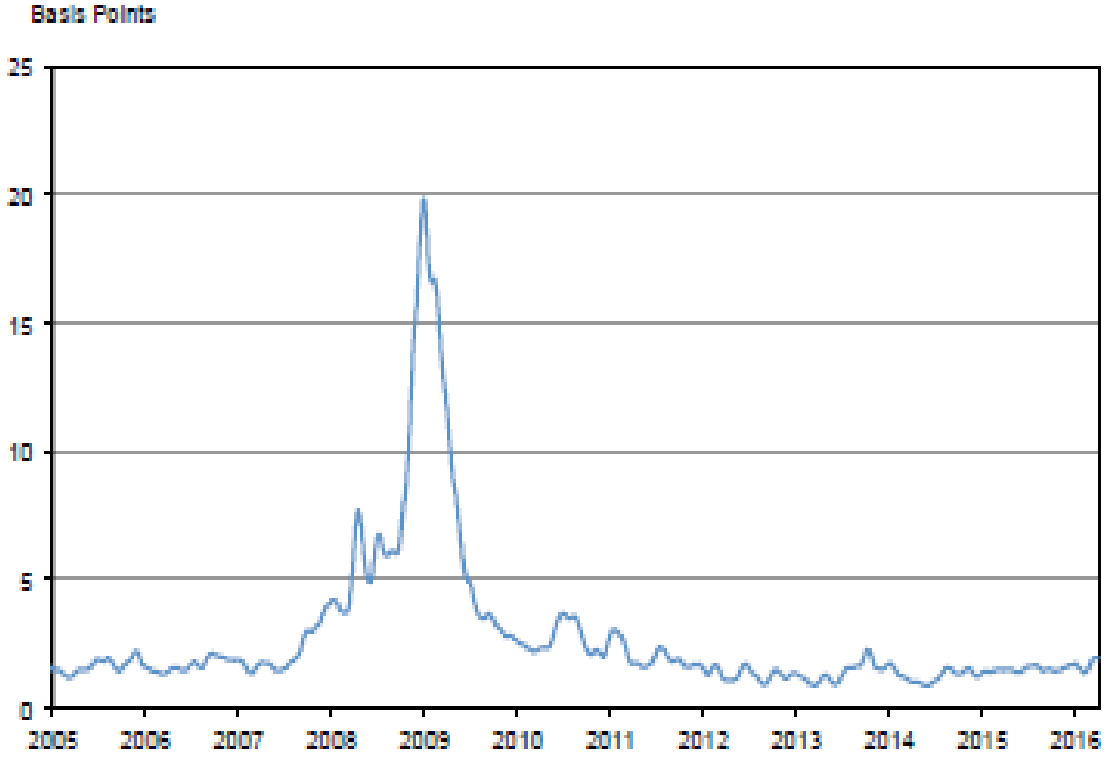


Primary Dealer Turnover Has Declined Sharply



Additional measures:

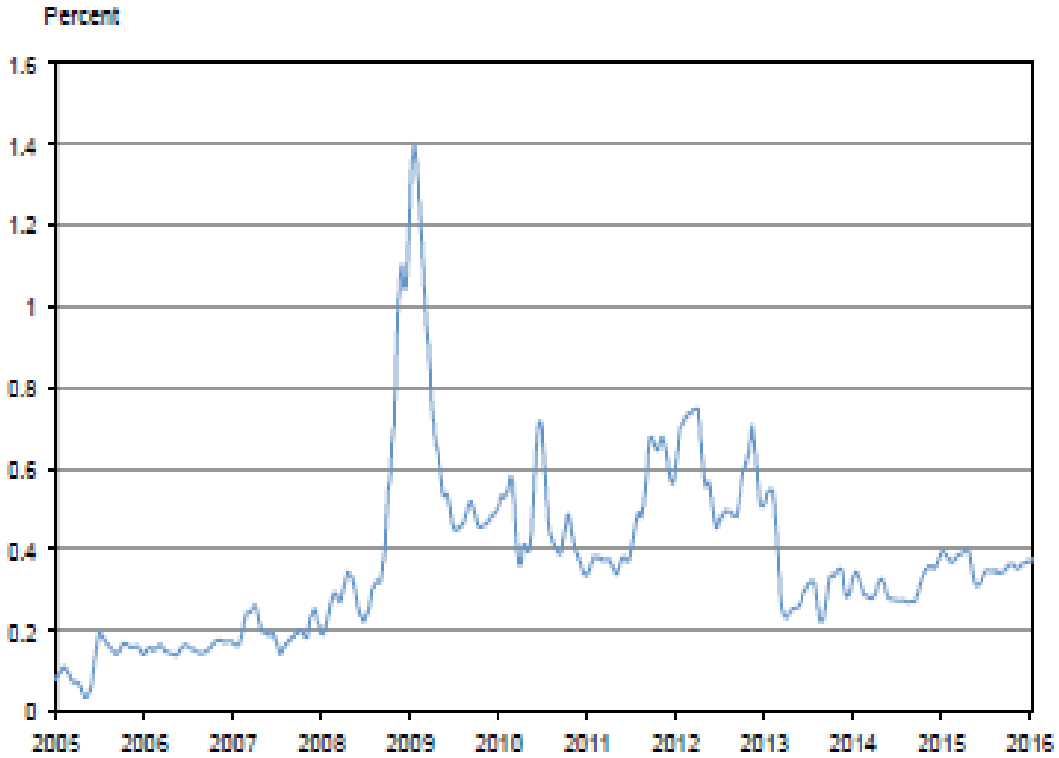
Figure 14: **U.S. Treasuries Spline Errors**



The figure shows the 21-day moving average of absolute yield curve fitting errors from two- to ten-year coupon securities from the Nelson-Siegel-Svensson model of Gurkaynak, Sack, and Wright. The figure is calculated on data from the Board of Governors of the Federal Reserve.

Additional measures:

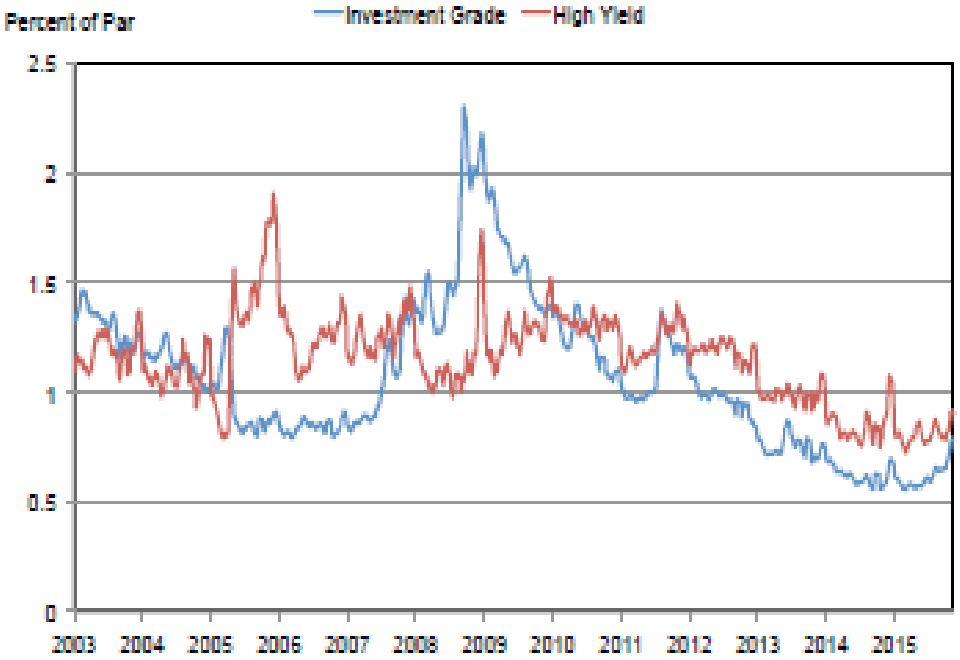
Figure 15: **The U.S. Treasury / RefCorp Spread**



The figure shows the 21-day moving average of the Refcorp spread, which is the difference in yield between 10-year Resolution Funding Corp and 10-year Treasury strips. The figure is calculated on data from Bloomberg, LP.

Liquidity: by credit quality

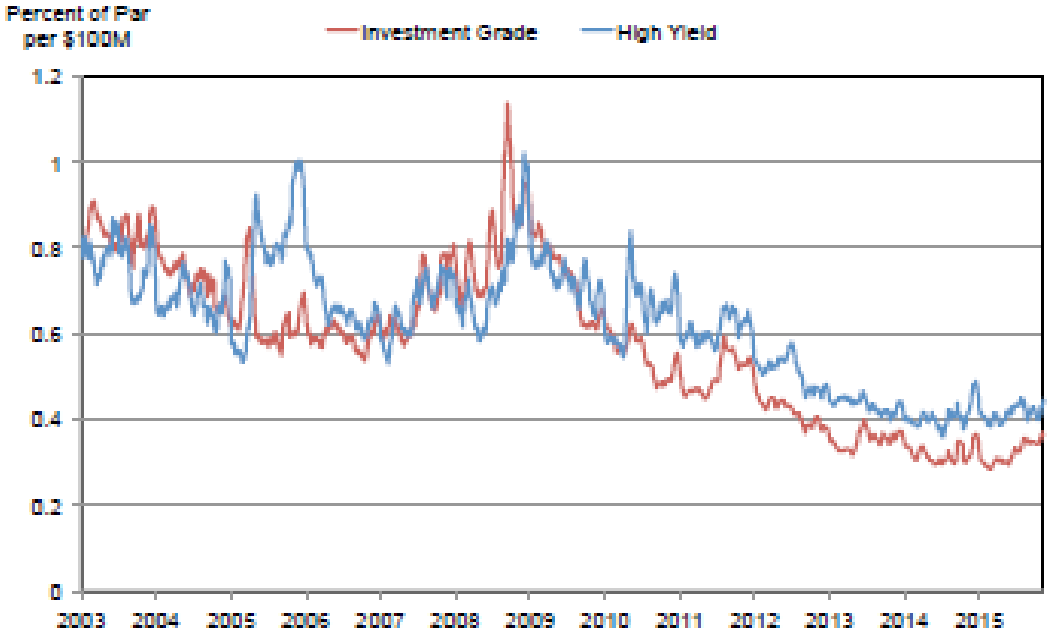
Figure 16: **Corporate Bond Bid-Ask Spreads by Credit Rating**



The figure shows 21-day moving averages of realized bid-ask spreads for investment grade and high yield bonds. The data is from TRACE and Mergent FISD.

Liquidity: by credit quality

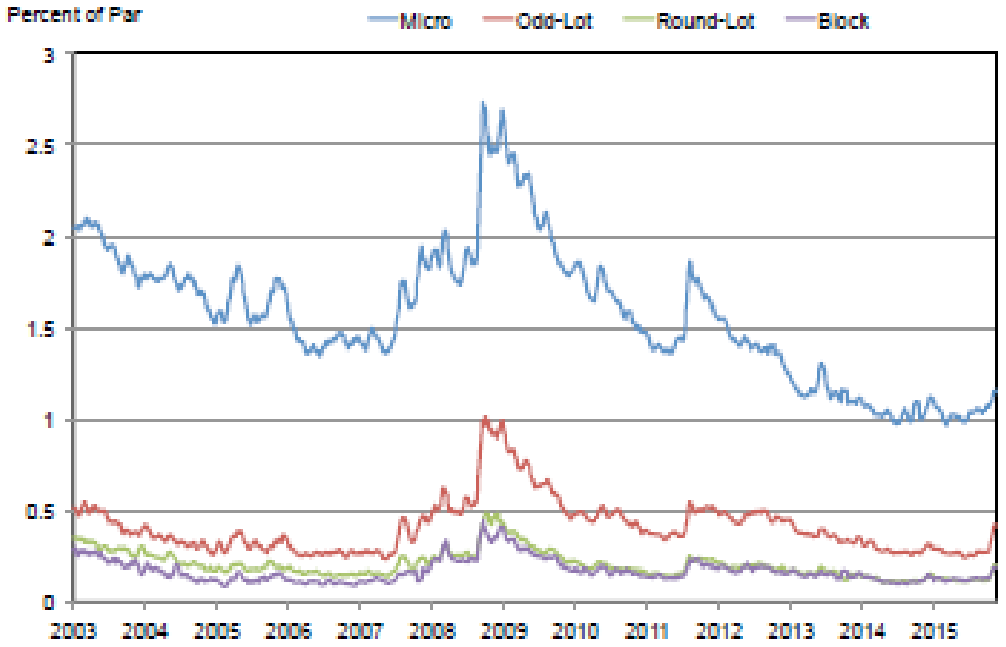
Figure 20: **Corporate Bond Price Impact**



The figure shows the 21-day moving averages of price impact. Price impact is calculated for each trade as the absolute price return divided by the dollar volume. These are averaged daily on an equal weighted basis for each bond and then averaged across bonds using equal weighting. The data is from TRACE and Mergent FISD.

Liquidity: by size

Figure 17: **Corporate Bond Bid-Ask Spreads by Size**



The figure shows 21-day moving averages of realized bid-ask spreads for four different trade size groupings: micro (under $100,000$), $odd-lot$(100,000 to $1 million$), $round-lot$(1-million to $5 million$), $and block$($above 5$ million). The data is from TRACE.