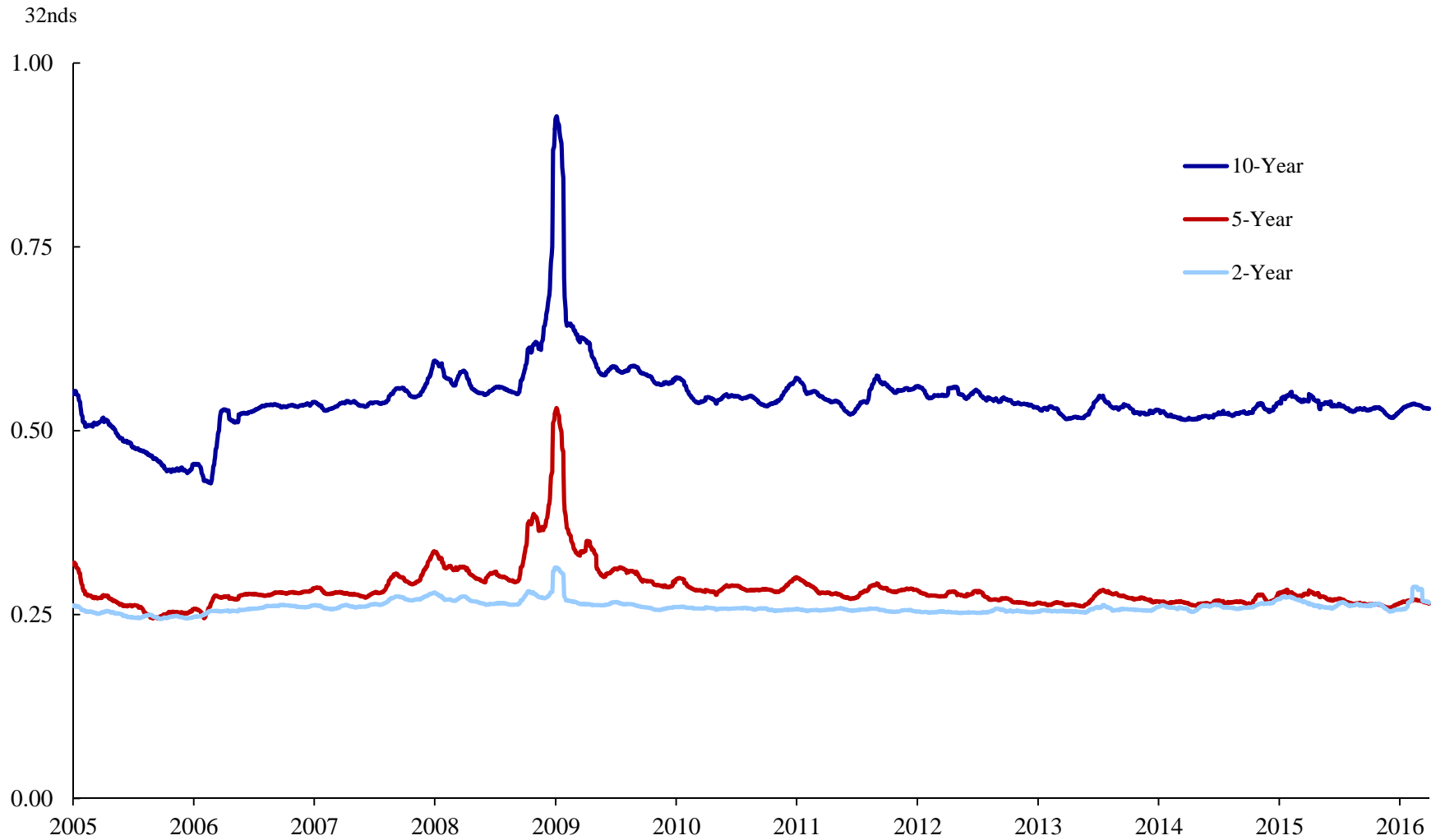


**Exhibit 1: Bid-Ask Spreads in the Inter-Dealer Treasury Market**

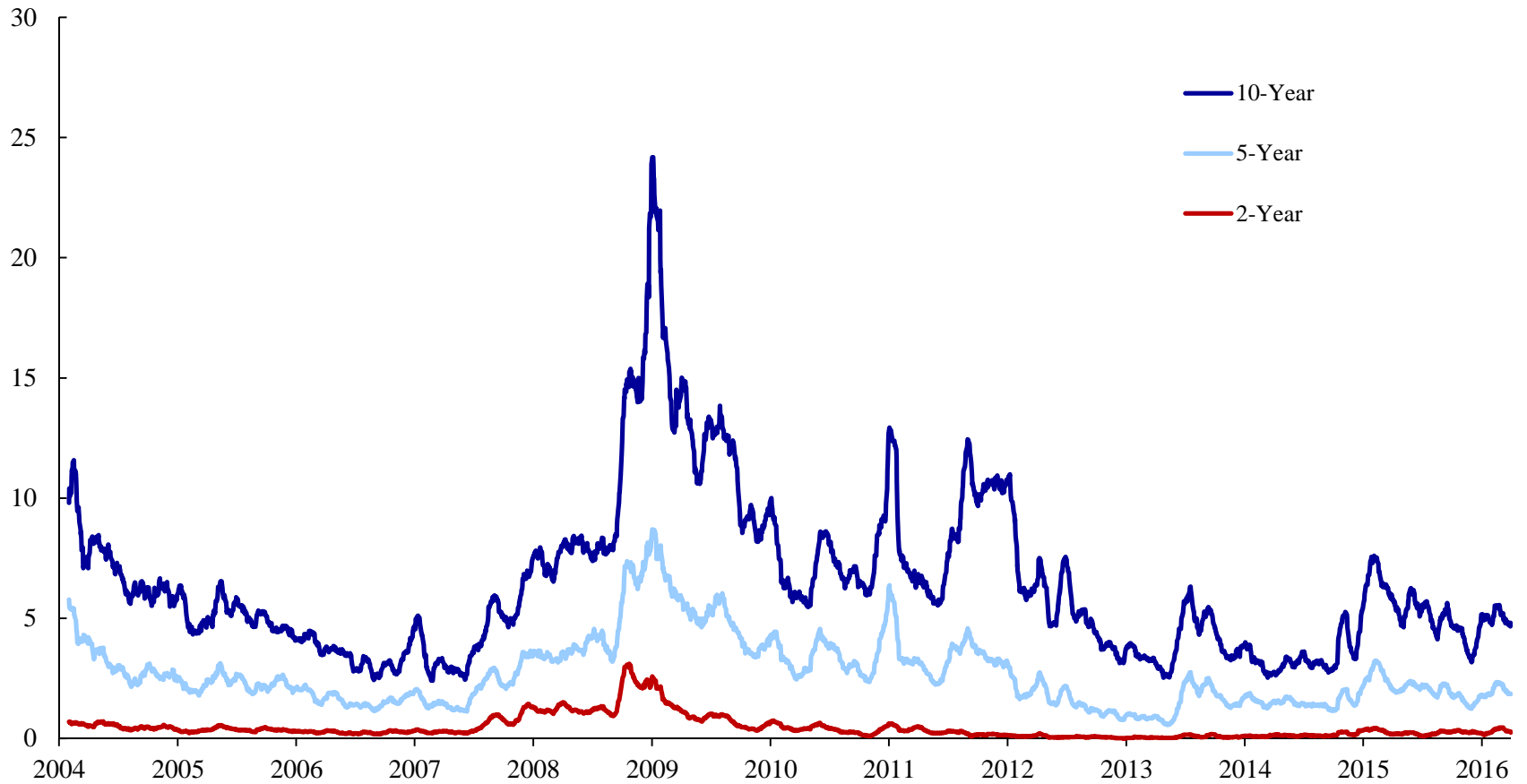


Source: FRBNY staff calculations, based on data from BrokerTec.

Notes: The exhibit plots 21-day moving averages of average daily bid-ask spreads for on-the-run notes. Spreads are measured in 32nds of a point where a point equals one percent of par.

## Exhibit 2: Treasury Price Impact

32nds per \$1 billion

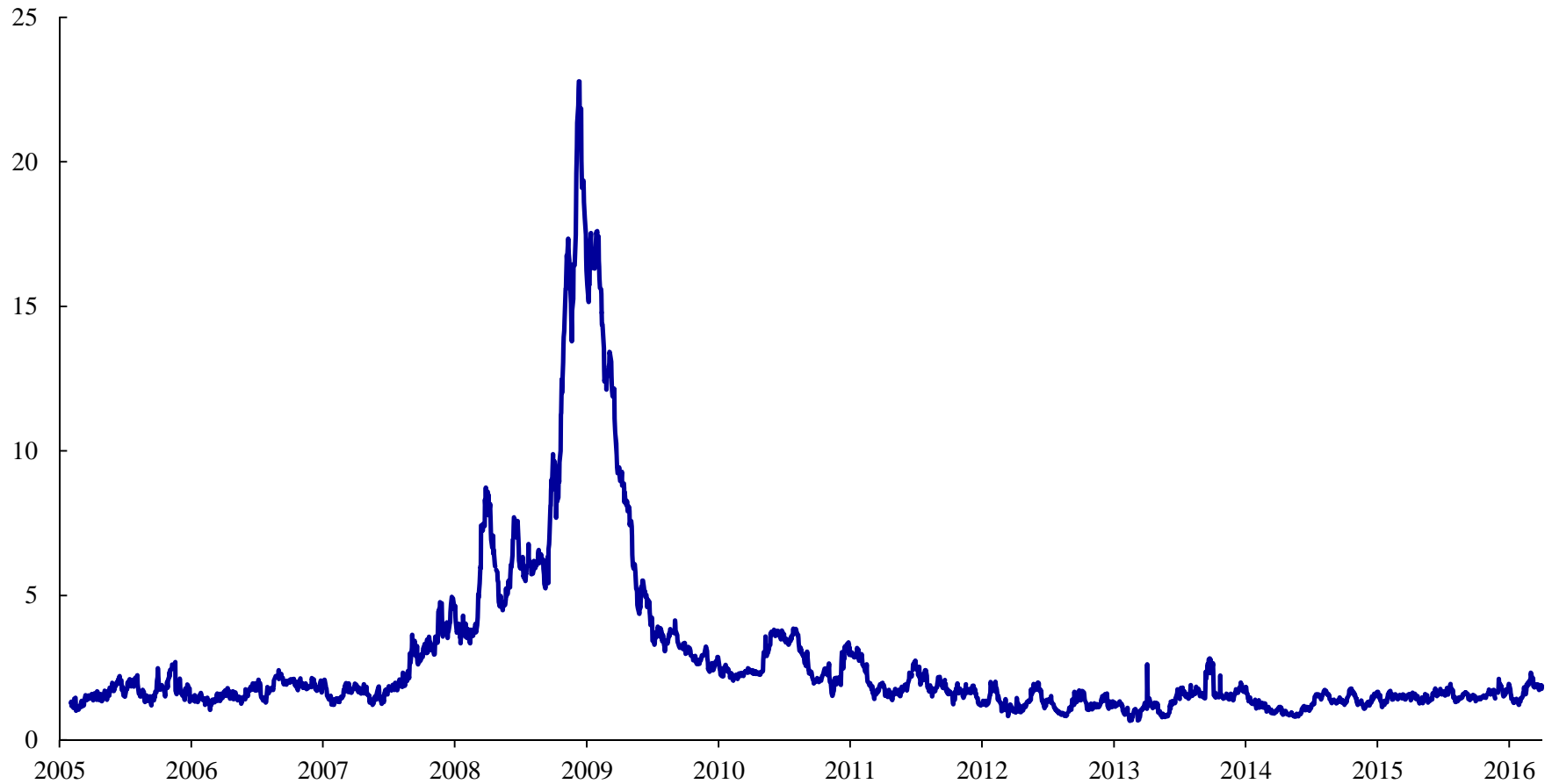


Source: Source: FRBNY staff calculations, based on BrokerTec data.

Notes: The chart plots 21-week moving averages of price impact, estimated from weekly regressions over 5-minute intervals for on-the-run, interdealer transactions.

### Exhibit 3: Treasury Yield Curve Fitting Errors

Basis points

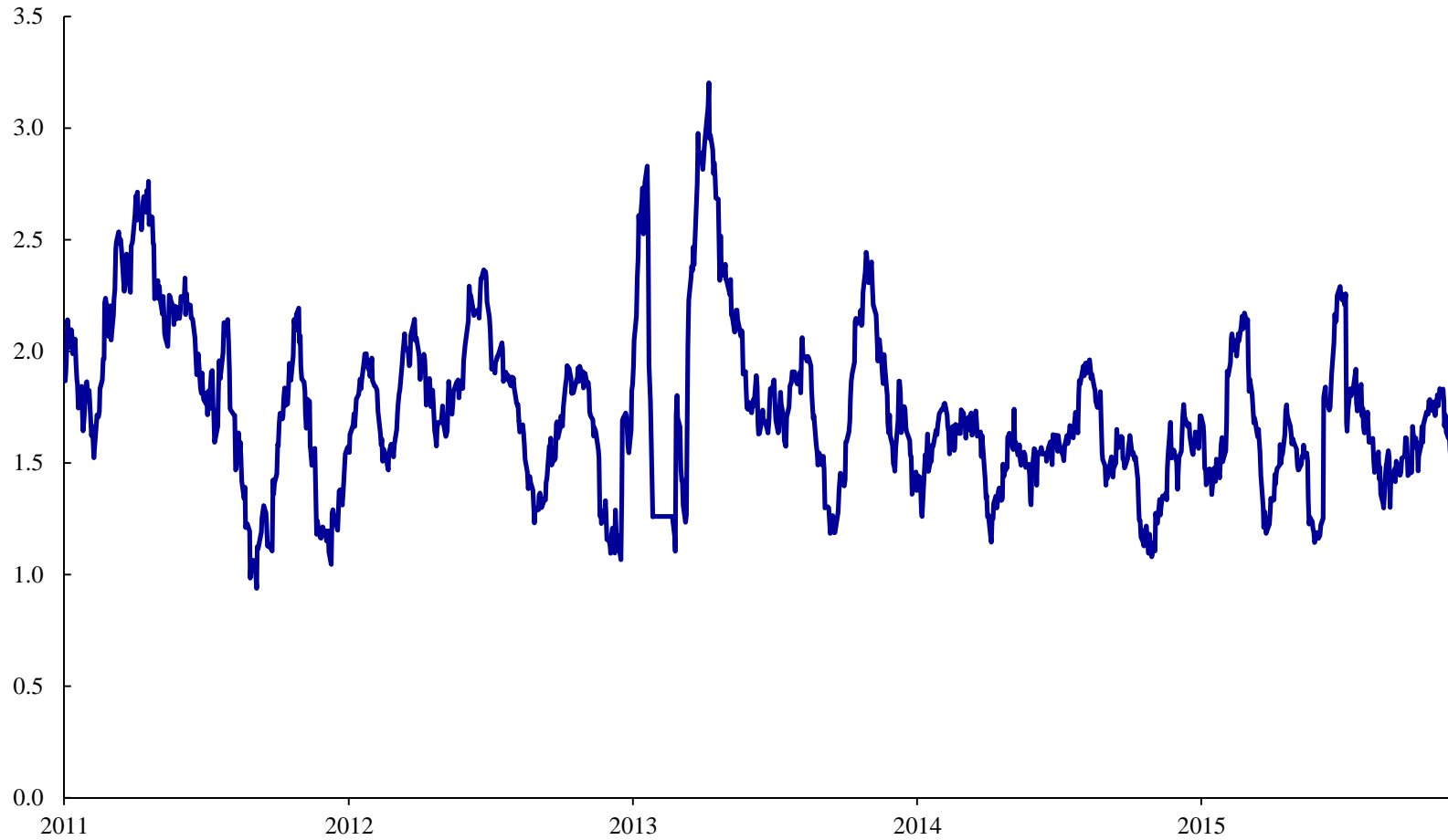


Source: FRBNY staff calculations, based on data from the Federal Reserve Board and BrokerTec.

Notes: The exhibit plots the 21-day moving average of absolute yield curve fitting errors for two- to ten-year coupon securities from the Nelson-SiegelSvensson model of Gurkaynak, Sack, and Wright (described in "The U.S. Treasury Yield Curve: 1961 to Present," *Journal of Monetary Economics* 54, [2007])

### Exhibit 4: Agency MBS Effective Bid-Ask Spread

Basis points

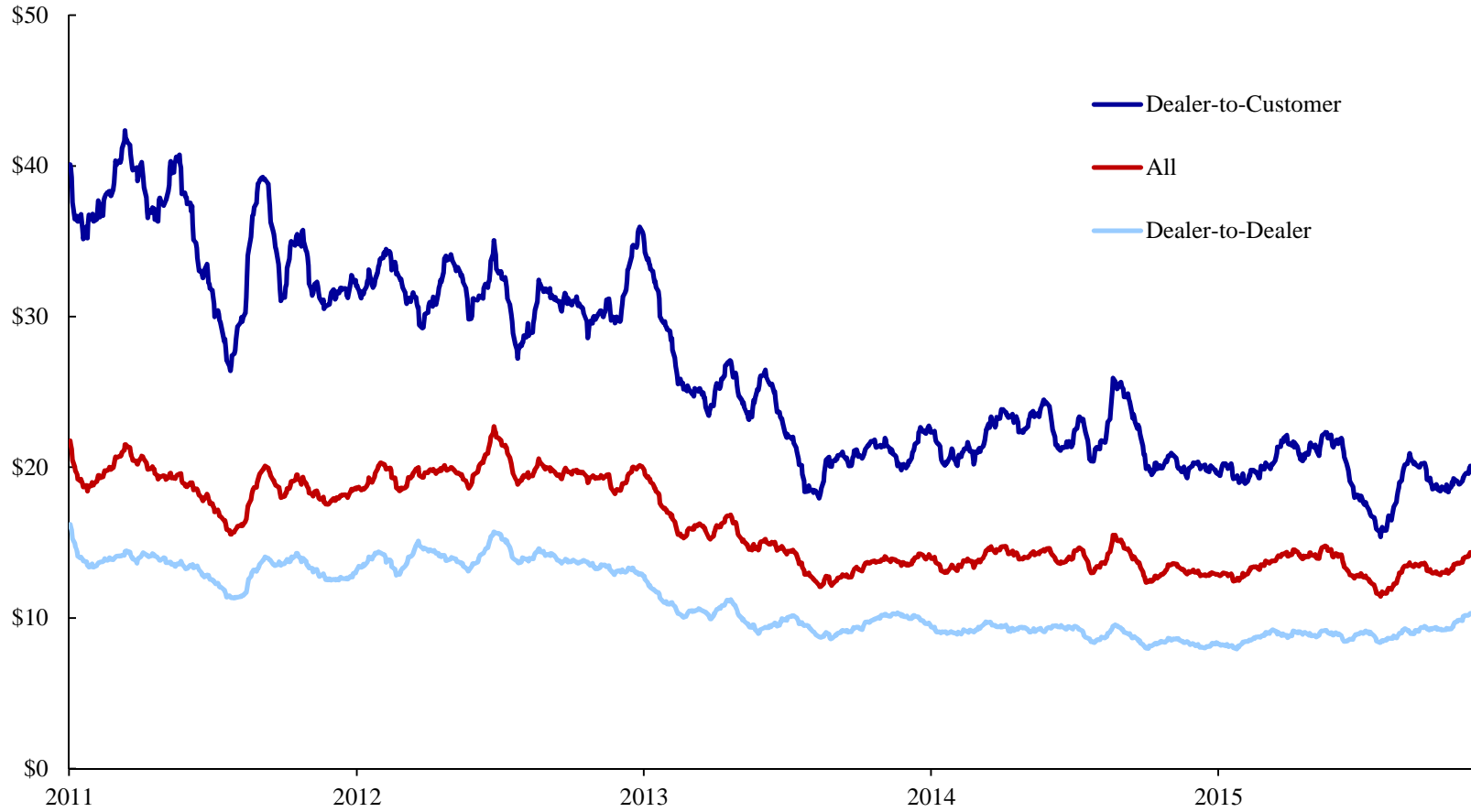


Source: FINRA, TRACE

Notes: This exhibit plots 20-day moving average of dealer-to-customer purchases and sales across 30- and 15-year TBA securities 2.0-7.0 percent coupons. The effective bid-ask spread is the daily average sell price minus buy price, divided by mid-price.

### Exhibit 5: Agency MBS Average Daily Trade Size

\$ millions

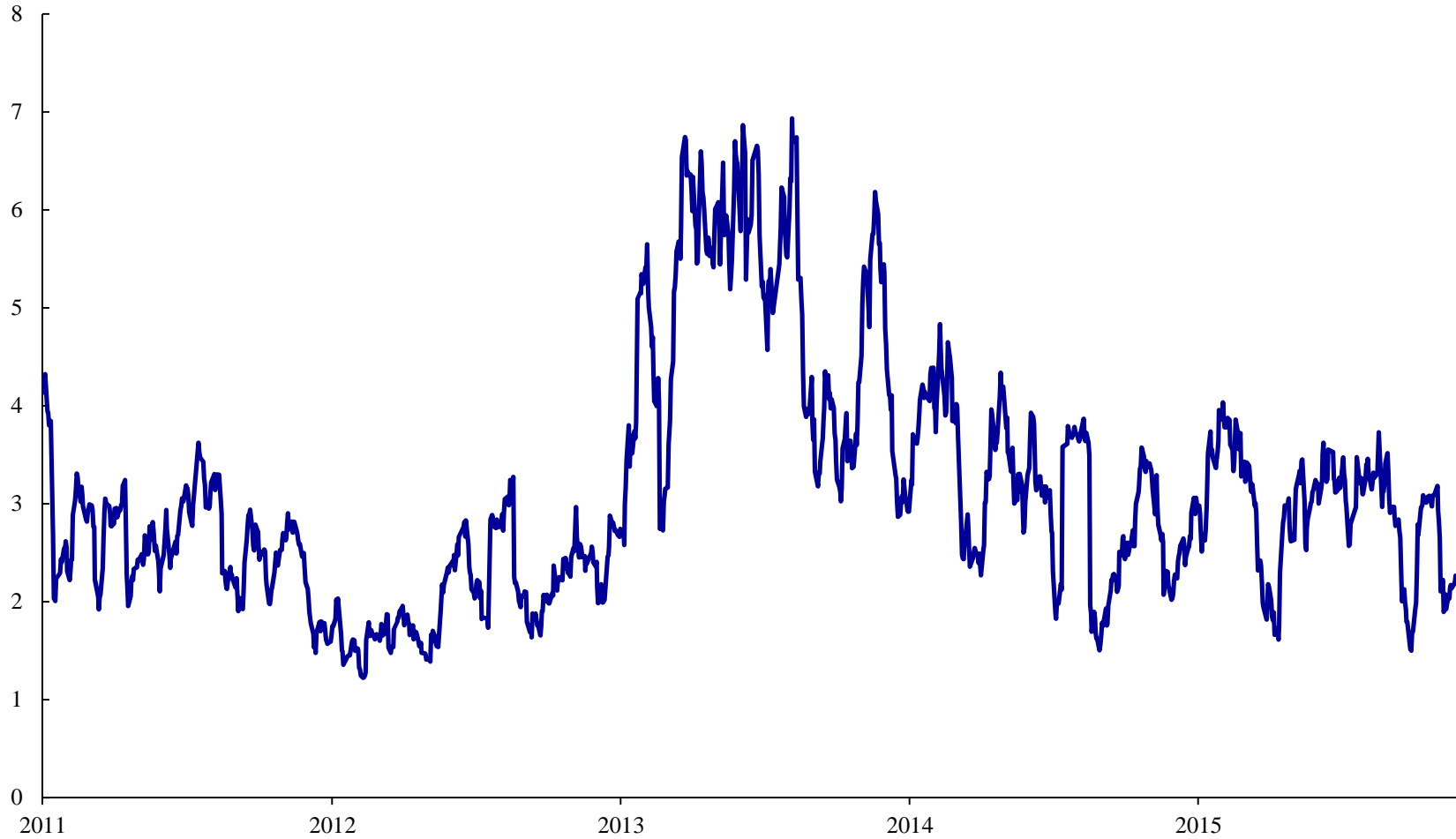


Source: FINRA, TRACE

Notes: This exhibit plots the 20-day moving average of sale and purchase sizes by market segment.

### Exhibit 6: Agency MBS Price Impact (Amihud Measure)

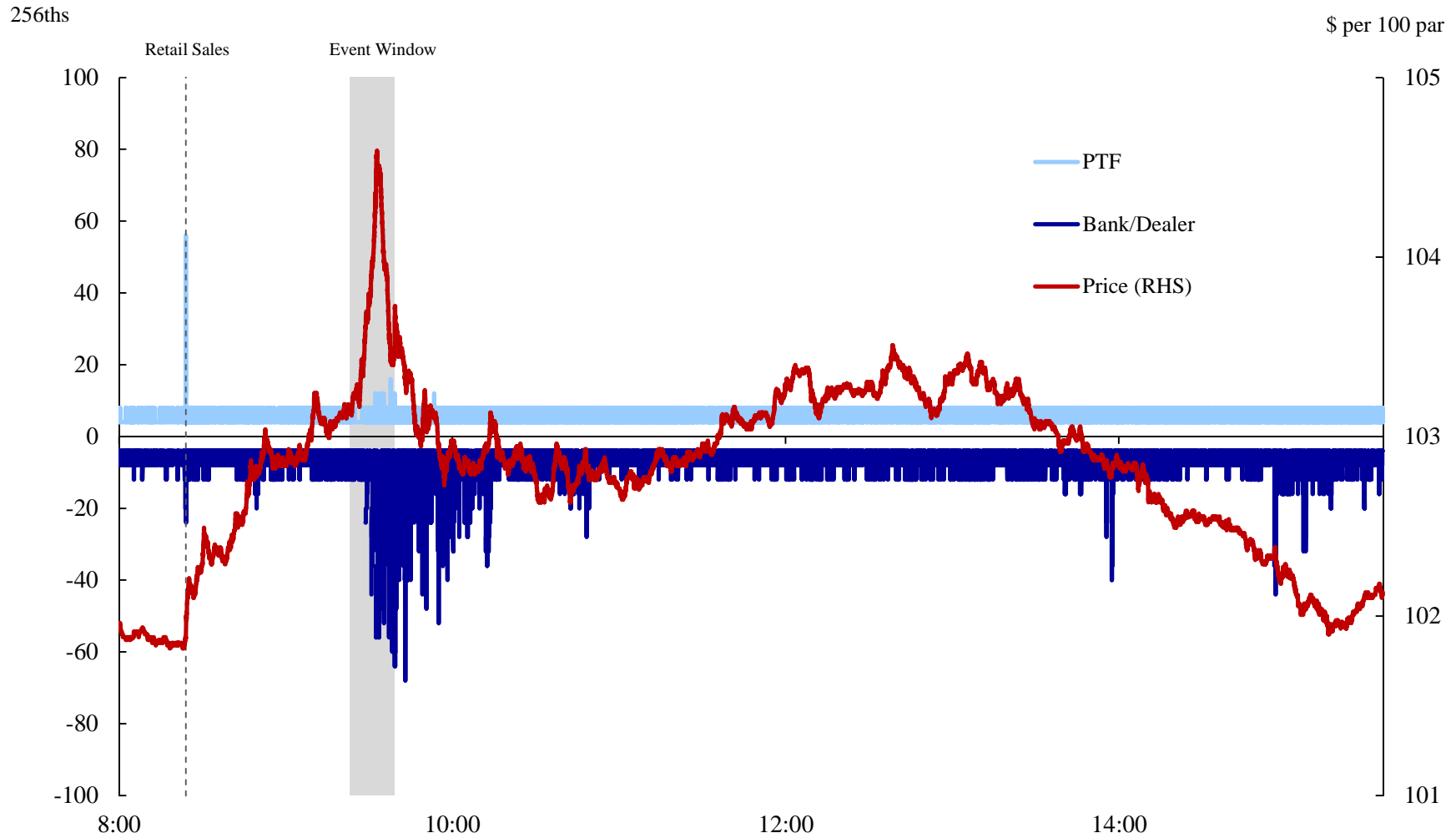
Basis points per \$100 million



Source: FRBNY Staff Calculations using FINRA and TRACE data

Notes: This exhibit plots the Amihud Measure of price impact, measured as the absolute value of daily returns divided by daily volume. Returns are computed from daily volume weighted average price across securities.

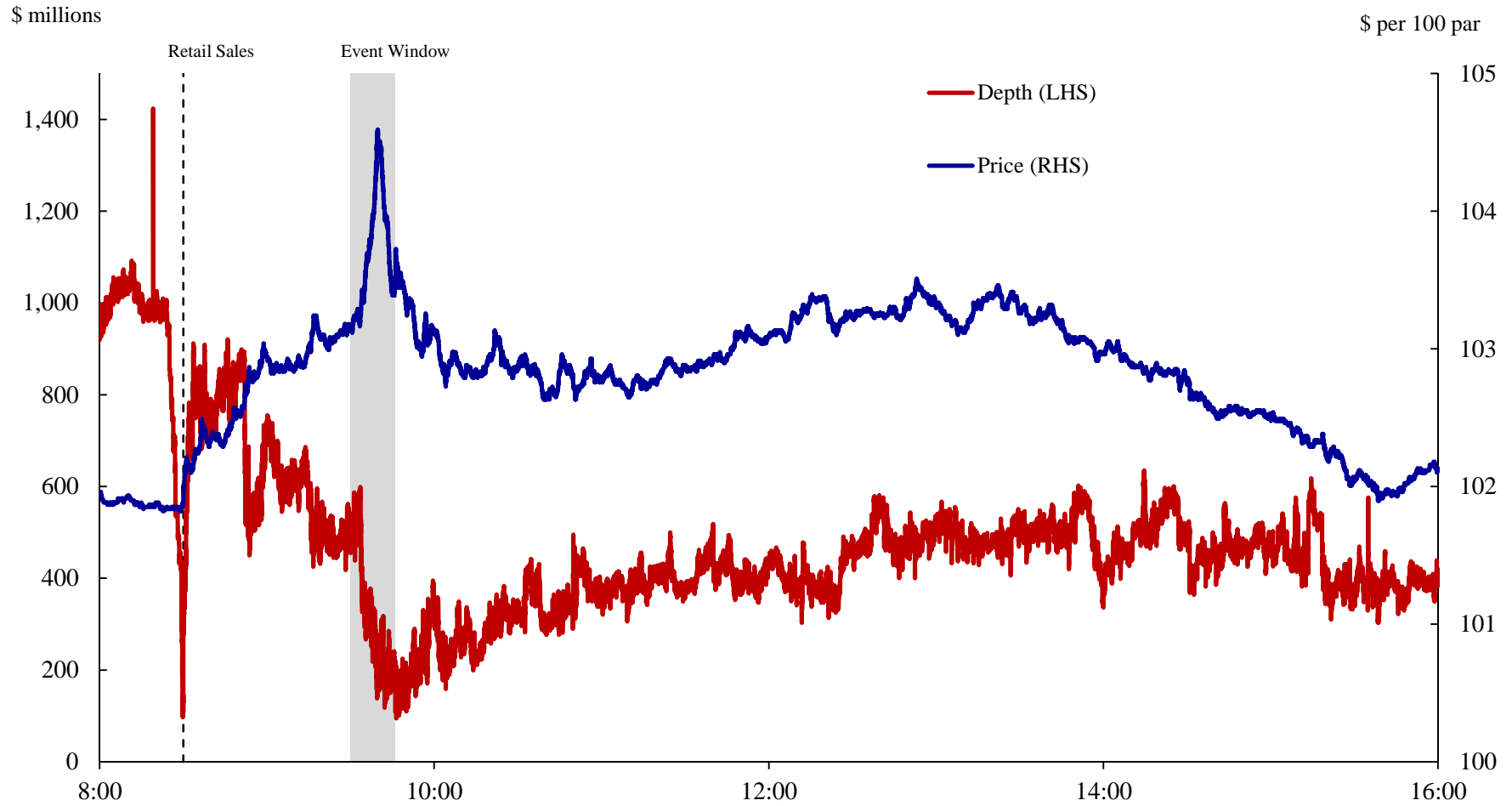
**Exhibit 7: Bid-Ask Spreads in 10-Year Treasury by Type of Market Participant, October 15th, 2014**



Source: BrokerTec

Notes: This exhibit plots bid-ask spreads offered by principal trading firms (PTFs) as a positive distance from zero and banks/dealers bid-ask spreads as a negative distance from zero. Underlying security is the on-the-run 10-yr Treasury note, and time increments are in seconds.

### Exhibit 8: Market Depth in 10-Year Note, October 15th, 2014



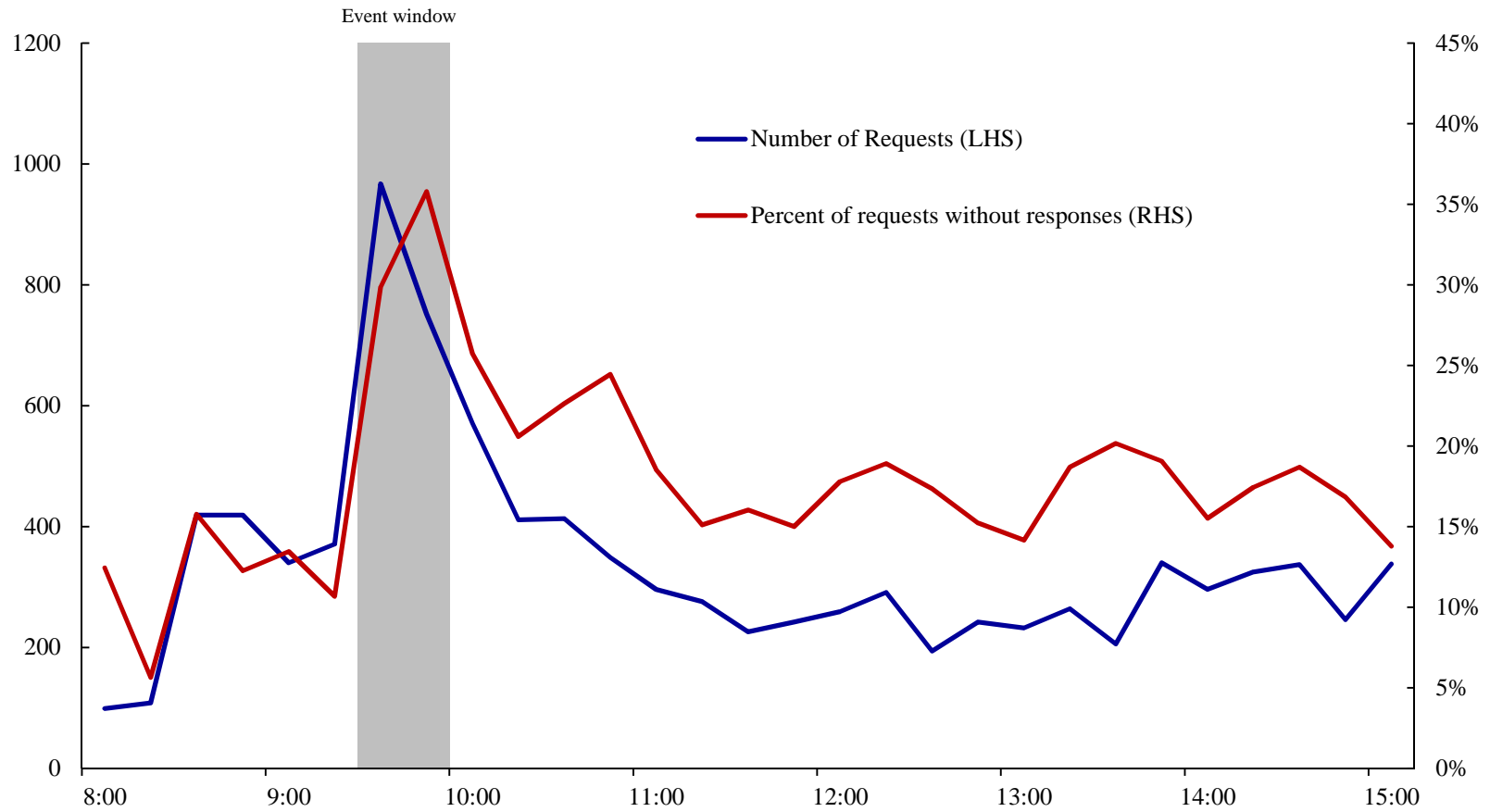
Source: BrokerTec

Notes: This exhibit plots the sum of order amounts in the top 10 layers of both the bid and ask sides of the BrokerTec limited order book for the on-the-run 10-yr note in 1 second increments.



### Exhibit 9: Dealer Responsiveness to Requests for Quotes, October 15, 2014

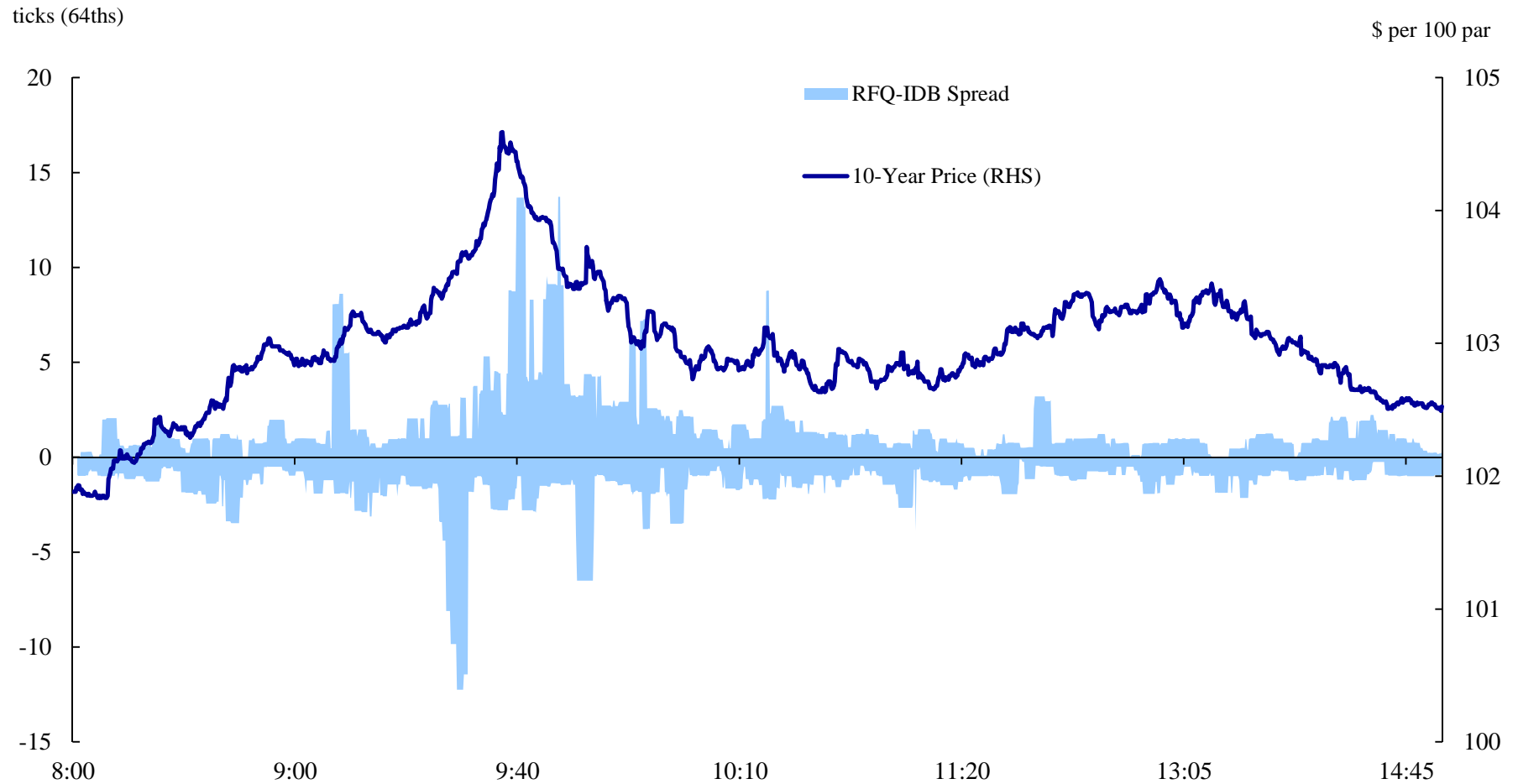
# of RFQs



Source: Bloomberg

Note: This exhibit plots the frequency of requests for quotes (RFQs) on the Bloomberg trading platform for the on-the-run 10-Yr Treasury against the proportion that did not receive a response in 15 minute increments

### Exhibit 10: Spread between Dealer-to-Client and Interdealer Market for 10-Year Treasury, October 15th, 2014

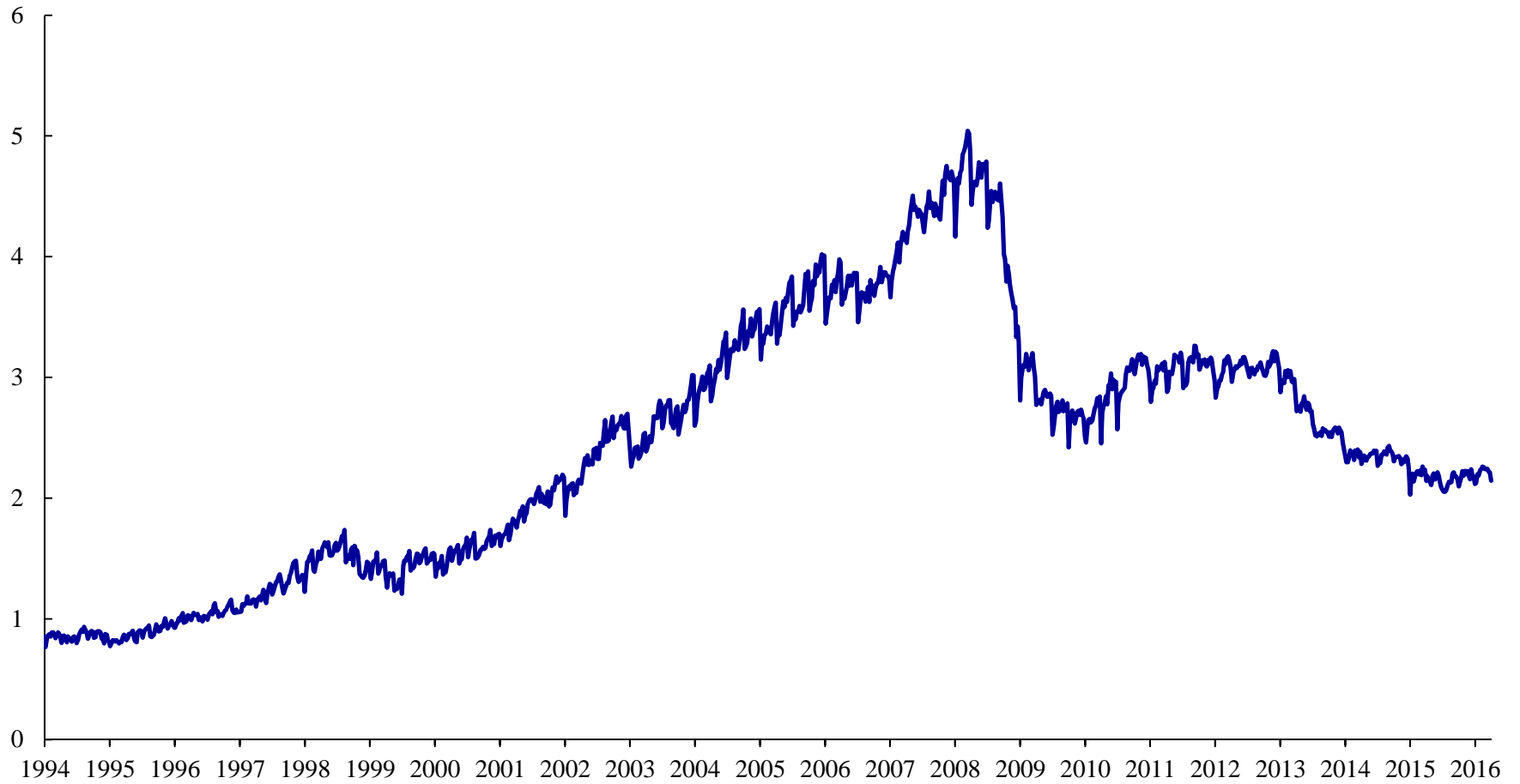


Source: TradeWeb, Bloomberg

Notes: The exhibit plots the maximum and minimum difference in transactions prices between dealer-to-client request for quote (RFQ) trading platforms and time-matched (at the second-level) transactions prices in the interdealer brokered (IDB) market for the on-the-run 10-yr over rolling 5 minute intervals. The line plot is the price of the 10-yr note in the IDB market.

### Exhibit 11: Dealer Repo Financing

\$ trillions

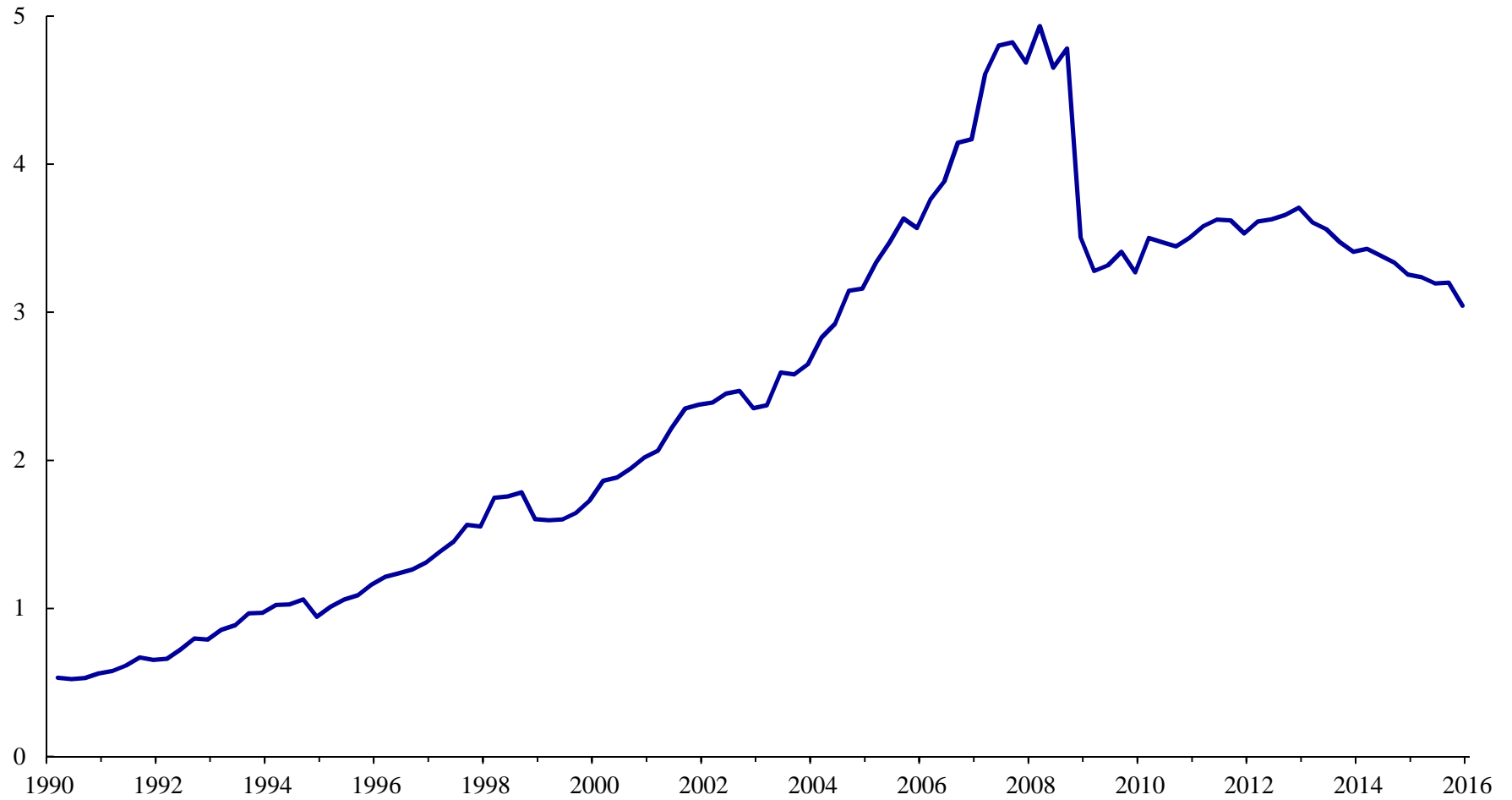


Source: FRBNY staff calculations, based on FR2004 data.

Note: The exhibit plots aggregate primary dealer repo financing (defined as securities out) for Treasuries, agencies, and agency MBS.

### Exhibit 12: Dealer Assets

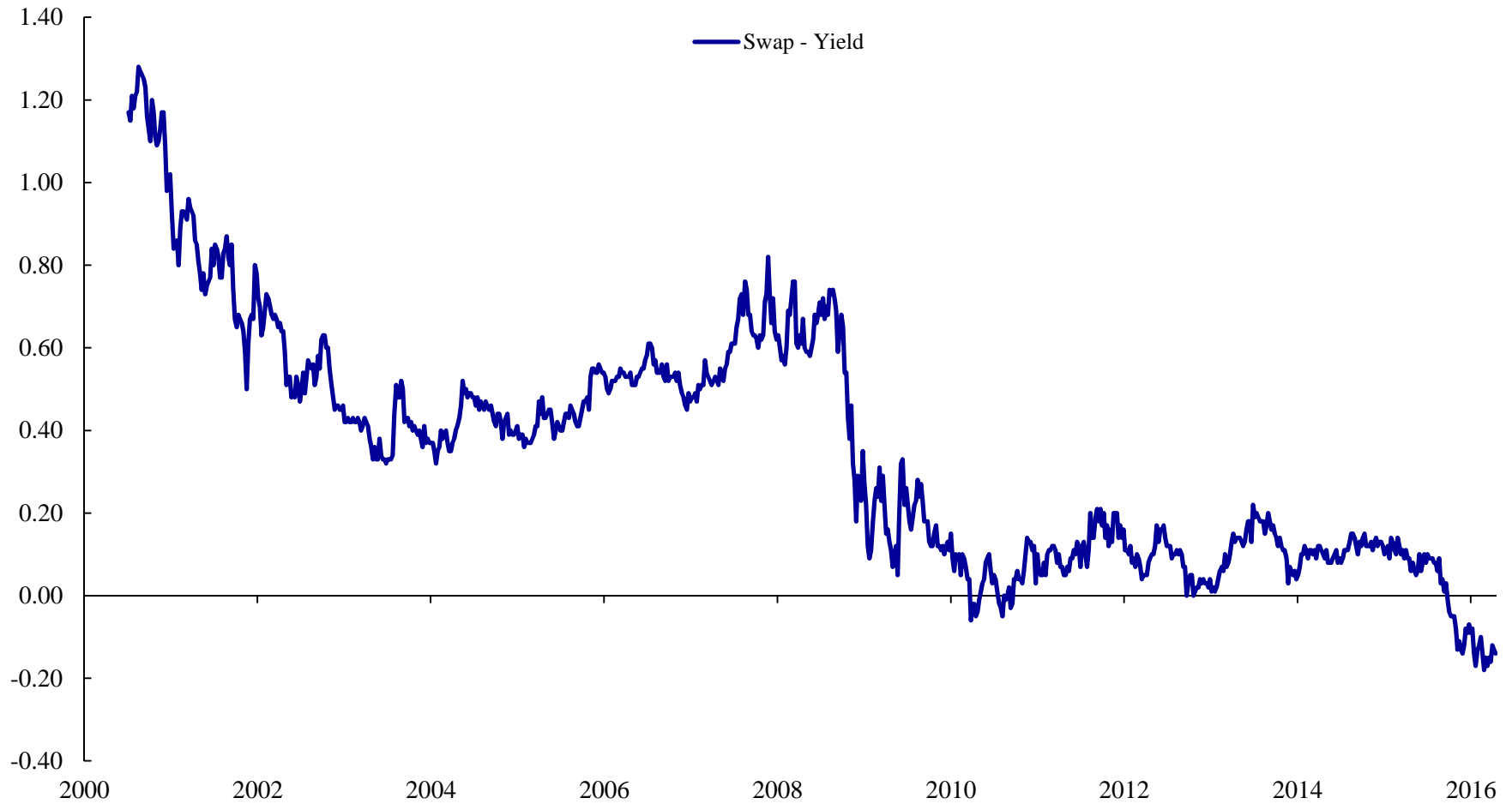
\$ trillions



Source: FRBNY staff calculations, based on data from the Financial Accounts of the United States (Flow of Funds), obtained through Haver Analytics.  
Note: This exhibit plots total end-of-period financial assets for securities brokers and dealers.

### Exhibit 13: 10-Year Treasury Swap Spreads

Percent (Annualized)



Source: FRBNY staff calculations, based on FRBH.15 data from the Federal Reserve Board.

Notes: The exhibit plots the spread between the 10-year mid-market par swap rate and the 10-year treasury note constant maturity yield.