STATEMENT OF MATTHEW F. ANDRESEN

ON BEHALF OF

HEADLANDS GLOBAL MARKETS, LLC

BEFORE THE

SUBCOMMITTEE ON CAPITAL MARKETS, SECURITIES, AND INVESTMENT

FINANCIAL SERVICES COMMITTEE

UNITED STATES HOUSE OF REPRESENTATIVES

July 14, 2017

Chairman Huizenga, Ranking Member Maloney, and Members of the Subcommittee, I am Matthew Andresen, CEO of Headlands Global Markets, LLC, ("HGM"), as well as CEO of Headlands Technologies LLC ("Headlands Technologies"), an affiliate of HGM. On behalf of HGM and Headlands Technologies, I welcome this opportunity to present our views on market structure in the secondary market for municipal bonds.

Recent regulatory efforts have brought about necessary and important improvements in the transparency and competitiveness of these markets. In this testimony, I will review some of those key achievements, as well as some areas that may be ripe for further improvement—including work that remains to be done to ensure that recently enacted rules are fully enforced for the benefit of all market participants. I will begin first with some background about myself, HGM, and Headlands Technologies, as well as the existing market structure in municipal bonds.

Before founding HGM and Headlands Technologies, I was co-CEO of Citadel Securities LLC ("Citadel"), an affiliate of Citadel Investment Group, LLC in Chicago, a large electronic equities market maker. Prior to Citadel, I was President and CEO of Island ECN ("Island"), the largest electronic stock market in the United States. Island grew from a start-up into the largest

market for the trading of Nasdaq-listed stocks, ETF securities, and many NYSE-listed names. In 2002, we sold Island to its largest competitor, Instinet. The electronic market was then sold to NASDAQ. Currently, I serve on the Securities and Exchange Commission's ("SEC's") Equity Market Structure Advisory Committee, advising the SEC on trading issues.

Our firm is a global quantitative trading company based in Chicago, London, and San Francisco. Founded in July 2009, Headlands Technologies develops and implements quantitative trading strategies in various financial products. It is one of the world's largest trading firms, accounting for significant volumes across global markets. HGM is a SEC registered, Financial Industry Regulatory Authority ("FINRA") member broker-dealer. It launched its municipal bond trading business in March 2014 and uses proprietary models to price bonds electronically. HGM is a widely-recognized participant in the municipal bond market, executing close to 700 trades per day, trading with over 400 counterparties, and ranking as a top participant on all major municipal bond alternative trading system ("ATS") platforms. This volume makes HGM a significant liquidity provider and one of the country's largest dealers in the secondary market for municipal bonds. HGM also engages in transactions directly with institutional counterparties and provides direct prices to certain municipal securities dealers.

Background on the Municipal Bond Market

Local government entities issue bonds in the municipal markets. According to Municipal Securities Rulemaking Board ("MSRB") statistics, approximately $458 billion in municipal bonds were issued in 2016.[1] Municipal bonds vary considerably in their terms and reflect obligations of a variety of local government entities across the country. Many carry tax advantages making them an attractive investment vehicle for retail investors. As such, retail

[1] See https://emma.msrb.org/MarketActivity/ViewStatistics.aspx (last viewed July 3, 2017).

investors hold an estimated 75% of municipal bonds either directly or indirectly (through mutual funds), making them significant purchasers of municipal bonds. Retail investors also trade in the secondary market. According to MSRB statistics, in 2016 approximately 47% of secondary market trades in municipal securities had a value of $25,000 or less, and 80% had a value of $100,000 or less – indicating active retail participation in the secondary market trading of municipal bonds.[2]

The secondary market for municipal bonds has historically been a dealer market. Thus, investors interested in either buying or selling a municipal bond would need to contact a dealer, who would provide pricing information. Although the MSRB has made great strides in providing detailed post-trade pricing data to the public, such information is of limited use to investors if the bond of interest has not traded recently, which is often the case. Moreover, due to the abundance and diversity of municipal bonds, investors may struggle to identify comparable bonds for pricing purposes. Accordingly, retail investors are often dependent on dealers for pricing information.

When dealers trade directly with their own customers, they do so either as a principal, meaning they are trading against their own inventory, or as a riskless principal, meaning they are engaging in offsetting principal buys and sells. Interdealer brokers have also historically been active in the municipal bond market matching buyers and sellers of bonds. They do not directly provide liquidity. Traditionally, interdealer brokers largely had dealers as their clients, but may also have institutional customers. Interdealer brokers may operate in voice or electronic markets.

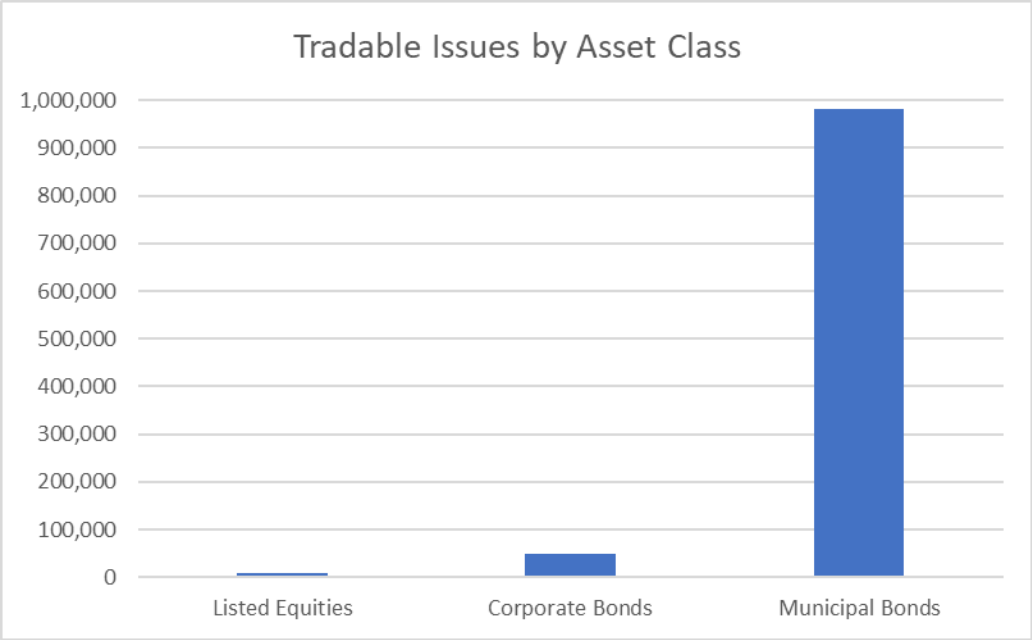
A dealer may also trade as riskless principal by trading bonds between its customers, with one customer buying and another customer selling. When trading with their customers as either a principal or riskless principal, dealers may include a markup or markdown within the price the

[2] Municipal Securities Rulemaking Board 2016 Fact Book at 37.

customer receives. This means the customer only sees one net price, and may not have visibility into the amount the dealer is charging to facilitate the transaction.

Recent Improvements in Municipal Bond Market Structure

I have spent a good part of my career trading in the equity securities markets, which are liquid and deep markets driven by both real-time customer orders and firm dealer quotes. Although similar pre-trade transparency consisting of firm, streaming quotes would be ideal for municipal bonds, we do not believe that is a practical solution given the vast number of municipal bonds (approximately 1,000,000 unique bonds compared to roughly 4,000 listed equity securities) and the infrequency with which most bonds trade. Rather, due to these unique characteristics, dealer intermediation and liquidity provision will continue to be essential elements of the secondary market for municipal bonds. The market has seen several recent areas of improvement in the transparency and competitiveness of these practices.



Secondary market trades in municipal bonds often occur through auctions administered by an ATS. ATSs, which have become prevalent in recent years, primarily bring together buyers

and sellers of municipal securities by administering auctions and posting dealer offers, but do not themselves take principal risk or directly add liquidity to the market. When selling a bond, investors and intermediaries initiate auctions to request quotes for a "bid price" (the price at which a dealer is willing to buy bonds that the investor is looking to sell). These auctions are known as "request for quotes" or "RFQs", and they create competition among liquidity-providing dealers. In theory, investors should look to sell at the highest bid received in a "bid wanted" auction. Of course, investors may choose not to sell if the best quote does not meet their desired price. Conversely, when buying a municipal bond in the secondary market, investors and intermediaries review dealer offers posted on the ATS platforms. In theory, investors should look to buy bonds that meet their criteria at the lowest possible offer price.

HGM is a significant participant on the ATSs. It provides approximately 10,000 bid wanted quotes per day. HGM's quotes end up representing the best price in approximately 25% of the municipal bond auctions in which it bids. On several of the largest ATS platforms, HGM is one of the top 3 bidding participants. Similarly, HGM provides meaningful sell side liquidity by posting offers in well over 3,000 unique bonds each day.

The ATSs have brought positive changes to the municipal bond markets through these auctions by increasing price transparency and liquidity and by helping buyers and sellers find each other. There are consistently more than 6 bidders per auction, and consistently half of bid-wanted requests are duplicated across various ATS platforms, meaning that dealers are seeking best prices and liquidity across multiple ATSs.

Other improvements came about as a result of the SEC's July 31, 2012 Report on the Municipal Securities Market.[3] That report provided an overview of the municipal securities

[3] Report on the Municipal Securities Market, U.S. Securities and Exchange Commission (July 31, 2012).

market structure and made several recommendations for improving the structure of the secondary market for municipal securities, including:

- providing more detailed interpretive guidance to assist dealers in establishing the "prevailing market price" for a municipal security, for purposes of determining whether the price offered to a customer (including any markup or markdown) is fair and reasonable.
- requiring municipal bond dealers to disclose to customers the amount of any markup or markdown on confirmations for riskless principal transactions.
- requiring municipal bond dealers to seek "best execution" of customer orders for municipal securities.

These recommendations have been or are in the process of being implemented. For example, since March 21, 2016, municipal securities dealers have been required to provide retail customers with "best execution."[4] The best execution rule requires broker-dealers to use reasonable diligence to ascertain the best market for a security and trade in that market so the resulting price to the customer is as favorable as possible under prevailing market conditions. Although the concept of best execution has been around in the equities market for decades, it was not until March of last year that best execution was required for the municipal bond market. Accordingly, the MSRB issued detailed guidance to dealers explaining how to implement that best-execution requirement in the municipal bond market.[5]

Further, the MSRB has amended its rules to require municipal securities dealers, starting on May 14, 2018, to disclose markups and markdowns when engaging in offsetting principal transactions with retail customers. Specifically, the disclosed markup or markdown must be

[4] MSRB Rule G-18.
[5] Implementation Guidance on MSRB Rule G-18, on Best Execution (Nov. 20, 2015).

calculated from the prevailing market price. The MSRB also has issued guidance to municipal securities dealers about how to determine the prevailing market price.

The combination of the best execution rule and retail markup disclosure rule are positive developments for which we applaud the SEC and MSRB. We expect these developments will have a beneficial impact on municipal bond pricing as dealers and investors adapt to these new rules and as they are appropriately enforced.

Areas of Possible Improvement

The current combination of "request for quote" auctions and electronically posted offers is efficient and works well in lower liquidity markets, like the municipal bond market. We believe, however, that there is continued room for improvement in the structure and operation of that market. For one thing, many trades are still internalized or conducted "blind" without being offered through any auction at all, and thus do not capture the benefits the auction process has brought to the market. In addition, several anticompetitive practices have developed that we believe limit the advantages of the existing market structure and exert detrimental effects on retail investors.

First, we want to address the practice of filtering. Filtering occurs when a broker-dealer handling its own retail customer's order (a "retail broker-dealer") requests a quote or starts an auction on an ATS, but uses automated tools on the ATS to filter out responses from specified dealers. Current MSRB guidance permits filtering only "for a legitimate purpose consistent with obtaining the most favorable executions for [retail] customers…."[6] But filters are still used in the market today in ways that are difficult to reconcile with the guideline. Dealers commonly engage in both *auction filtering*, where they restrict the set of liquidity providers permitted to participate in retail bid wanted auctions, and *offer filtering*, where dealers limit the selection of

[6] Implementation Guidance on MSRB Rule G-18, on Best Execution (Nov. 20, 2015) at 7.

offers made available to investors looking to purchase bonds. In both cases, these filtering restrictions on market participation have the same result—retail investors may not receive the best available price.

Moreover, the behavior of retail broker-dealers who utilize these filtering practices often belies any claim that they might have a "legitimate purpose" for employing them. For example, retail broker-dealers may often filter offers from certain counterparties, but allow those same counterparties to bid in bid wanted auctions. Similarly, retail broker-dealers will filter participants from retail bid wanted auctions, but opportunistically trade with those same participants in the voice market. As these filtering practices may prevent investors from receiving the best price, it is difficult to ascertain what "legitimate purpose" might motivate such behavior. Instead, such practices reflect a conflict of interest between broker-dealers and their customers. Though these restrictions may harm investors' execution quality, the practices clearly benefit the retail broker-dealers whom these investors depend on for pricing information. Auction filtering facilitates dealer internalization of customer sell orders by reducing the competitiveness of the auctions. Similarly, offer filtering facilities dealer internalization of customer buy orders by increasing the likelihood that these orders execute against the dealers' own inventory. Accordingly, a focus on whether the continued use of filters is "for a legitimate purpose" may be in order.

Second, we want to address the topic of auction competitiveness. As previously discussed, retail broker-dealers often sell bonds on behalf of customers via bid wanted auctions, during which market participants submit bid prices at which they would be willing to purchase a specified bond. Once an auction has concluded, the customer has the option to either sell the bond at the winning bid price, or pass if the winning bid price is undesirable. In theory, this is

how the process should work. In practice, however, there are many anticompetitive practices which reduce the effectiveness of these auctions and lead to inferior pricing for customers.

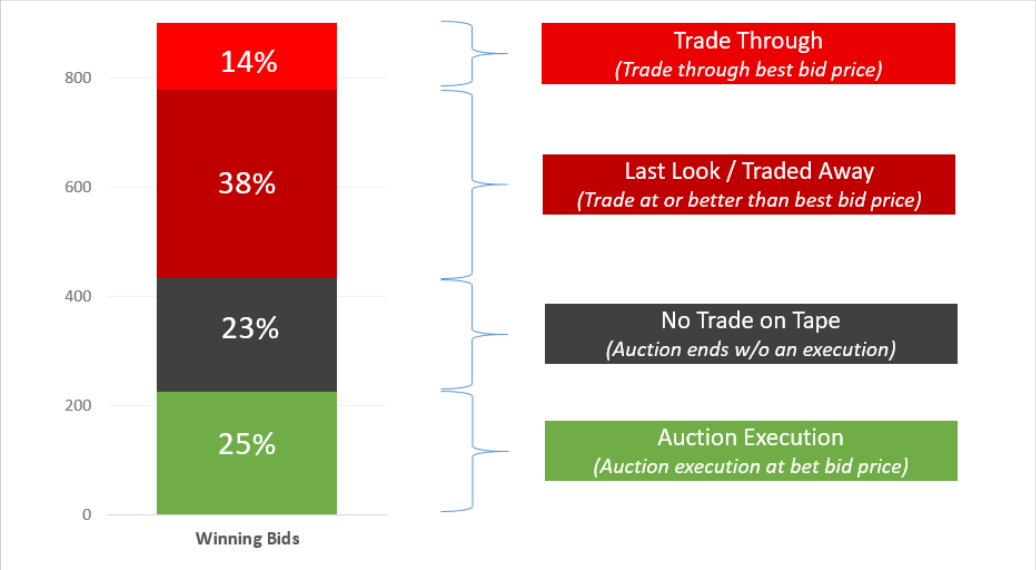
One such practice, known as a "trade through," occurs when a retail broker-dealer obtains prices for a customer via a bid wanted auction, but then internalizes the order by purchasing the bond from its customer for its own account at a lower price than the winning bid in the auction. In April 2017, this occurred on nearly 15% of auctions in which HGM submitted the winning bid. The price differential may result from the submitting broker-dealer including a "desk credit" – essentially a markdown – in the price at which it purchases the bond from the customer. This practice of internalizing orders and allowing for a trade through is harmful to customers because it results in bonds selling at inferior prices to those that were available at the time of the trade. We are hopeful that, once it takes effect next year, the new MSRB markup rule will help eliminate this internalization and trade through practice by revealing to customers the component of the trade price that reflects retail broker-dealer compensation on principal buy and sell trades.

There are also many cases of retail broker-dealers taking advantage of a process known as "last-look," wherein the dealer observes the prices submitted to a completed auction and decides to purchase the bond from the customer at a price slightly better than the winning bid, even though such practice appears to be prohibited by MSRB Rule G-43. In April 2017, nearly 40% of auctions in which HGM submitted the winning bid resulted in a trade with a different counterparty at an equivalent or better price; some of these were undoubtedly cases of dealers utilizing their last-look advantage. This process harms auction competitiveness by deterring aggressive pricing or participation by other dealers who know the submitting dealer may "step in front of" their winning bid prices or is otherwise using the auction process solely for price discovery purposes. An alternative approach would be to require the submitting dealer to place

its own prices in the competitive auction on par with all other participants, thereby removing its last-look advantage. This approach would put all liquidity providers on equal footing and encourage more aggressive pricing by auction participants, thereby improving pricing quality for customers. We believe that municipal bond investors would benefit from enforcement against the use of the last-look practice.

To highlight the overall impact of these anticompetitive practices, HGM is the winning bid on over 900 unique auctions each day; however, HGM only receives an execution on 25% of these winning bids.

Bidding Experience in Municipal Bonds



Source: HGM logs

Conclusion

In recent years, we have seen important strides in the competitiveness and transparency of the secondary market for municipal bonds, thanks in large part to the enactment of responsible rules and guidance. We are hopeful that the competitiveness and transparency of the secondary market for municipal bonds will only continue to improve as these rules are implemented into

practice and appropriately enforced by regulatory staff. We appreciate the Subcommittee's attention to these important issues, and we are grateful for the opportunity to join in the discussion as we work together toward continued improvements in enforcing those rules for the benefit of all investors and market participants.