Why Liquidity in the Municipal Market Will Soon Improve

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CDIAC Pre-Conference
San Francisco, October 21, 2015

The Municipal Securities Market

- Responsible for funding many essential government projects and activities.
  - Schools, hospitals, utilities, roads and more
- About 1.5M securities (many issuers, many of which often must make serial offerings)
- Securities often are complex with sinking funds and various options.
- Disclosure by issuers is limited in comparison to corporate disclosure. (Tower Amendment)

Secondary Trading in Munis

- Munis mostly trade OTC through dealers in a decentralized market.
  - Dealers and some larger institutions have access to various electronic trading platforms collectively known as ATS (Alternative Trading Systems).
- Tax preferences and the huge number of issues fragment the market.
  - Buyers and sellers rarely are at the same place and time.

Transparency

- Issuers have limited financial and risk disclosure requirements at registration and during the life of the issue.
- Essentially no pre-trade transparency.
  - No NBBO and thus no trade through rules
- Many traders cannot readily access or analyze post-trade prices.
  - EMMA Price Discovery Tool helps some.

Secondary Transaction Costs

- Secondary transaction costs are very high, especially for retail traders.
  - OTC market structure
  - Huge number of issues
  - Fragmentation across states
- Roundtrip transaction costs generally consume many months of accrued interest.
- Many retail investors buy funds to partially avoid transaction costs.

Agenda

Provide four suggestions to improve municipal bond market liquidity.

- Remember that liquidity makes bond issues more attractive to investors.
- Increasing bond market liquidity will increase sales prices and thus lower funding costs.

The Four Suggestions

1. Improve pre-trade transparency.
2. Issue simpler bonds.
3. Issue fewer bonds.
4. Improve financial and risk disclosure.

1. Improve Pre-trade Transparency

Disseminate an NBBO for Munis

- Several electronic markets are now aggregating electronic actionable quotes for many municipal securities.
- Most customers do not see these prices.
- **Proposal 1.A**
  A National Best Bid or Offer (NBBO) should be aggregated and disseminated to bond customers.

My Corporate Bond Evidence

- Interactive Brokers collects and produces a private NBBO for corporates and munis.
- I compared TRACE trade prices to the NBBO.
  - 46% of trades trade through a better electronic price.
  - About 40% of these trade throughs are riskless principal trades—essentially agency trades.
  - The markups dwarf normal commissions.
  - Transaction costs are huge.

Objections

- Too many munis would make computing and disseminating the NBBO unwieldy.
  - But much less so than the NBBOs that equity options markets currently disseminate.
- Dealers would be harmed if forced to quote continuously.
  - Why force them? Dealers need not quote. But those that do not will probably garner more order flow than those that do.

Order Display Facilities (ODFs)

- **Proposal 1.B:**
  The MSRB and SEC should mandate that brokers post all customer limit orders in an electronically accessible order display facility.
- Best execution standards (and the Manning Ruling) will prevent dealers from trading through these prices.
  - They will have to match the prices or fill these orders.

More about ODFs

- Access to customer orders will allow any dealer or buy-side trader to fill an order.
- Similar order handling rules in the equity markets vastly improved those markets.
  - Consider the evolution of NASDAQ.

The Dealer Response to ODFs

Western Civilization as we know it will end!

The Dealer Argument

- Dealer profits will fall.
- Dealers will withdraw.
- Liquidity and markets will dry up.
- Municipal funding costs will skyrocket.

The Truth About ODFs

- The existence of one or more ODFs whose prices constrain trades will indeed decrease dealer profits, and they will withdraw.
- But only because buy-side traders will be able to effectively offer liquidity to each other.
- Cutting out the middleman saves costs.
- Volumes will increase as liquidity increases.
- Funding costs will decline.

Can We Live with Fewer Dealers?

- Yes, if they are displaced because other traders provide their services at lower costs.
- What about during market crises?
  - Markets always exist at some price.
  - In extremis, most dealers disappear anyway.
- Electronic dealers who provide better service at lower cost will replace traditional dealers.

2. Issue Simple Bonds

Complexity Hurts Liquidity

- Municipal bonds often have bells and whistles attached that make pricing them difficult.
  - Various options and funding features are common.
- These features favor well-informed traders (investment banks and hedge funds) and hurt retail and most buy-side traders.
- Investment bankers claim that these features lower funding costs, but empirical evidence shows that they increase transaction costs.

Proposals

- **Proposal 2.A**
  To the extent that laws permit, issuers should issue simple bonds.
- **Proposal 2.B**
  Legislatures should make it easier for municipalities to issue straight bonds.
- The devil is in the detail. Some complexity is due to concerns about the misuse of funds and to a lesser extent taxes.

3. Issue Fewer Bonds

Too Many Securities

- Markets are most liquid when many buyers and sellers are interested in the same bond issue.
- Too many issues divide markets so that buyers and sellers in different issues cannot trade with each other, even when the issues are excellent substitutes for each other.
- Researching small issues is very expensive.

State Bond Banks

- **Proposal 3.A:**
  States should form bond banks similar to the Indiana Bond Bank.
  – But with broader scope.
- The Riverside County Mosquito Abatement District should not be going directly to the markets with a $750,000 bond issue.

Standard Bonds

- **Proposal 3.B**
  All issuers should issue just a few standard bonds.
  – Short, middle and long-term
- Reissue seasoned bonds to raise new funds.
- Refund maturing bonds by buying them in the open market to prevent liquidity crunches.
- The devil will be in the details, but the benefits are large.

4. Improve Financial and Risk Disclosure

Financial and Risk Disclosure

- Many municipal securities have essentially no credit risk, but some are quite risky.
- Investors must identify which securities are risky, and how risky those securities are.
- Risk averse investors pay less for securities that scare them.
  - They discount risky securities and also securities for which they are uncertain about risk.

Improved Disclosure

- **Proposal 4.A**
  Congress should repeal the Tower Amendment.
- **Proposal 4.B**
  The MSRB and the SEC should promulgate and enforce disclosure standards that would lower the costs of identifying risk.
  - The standards should be uniform across states but could vary by type of issuer.
  - Issuing securities though state bond banks would greatly reduce these disclosure costs.

Conclusion

A Telling Observation

- Exchange-listed bond trading was quite liquid in municipal bonds before the late 1920s and in corporate bonds before the mid 1940s.
- Transaction costs then were substantially lower than they are now.
  - See Biais and Green (2007).

Another Telling Observation

- Practitioners recognize that bonds represent interest risk plus some credit risk.
- Pure interest risk trades in highly liquid and transparent Treasury and futures markets.
- Pure corporate credit risk trades in highly liquid and transparent stock markets.
  - Muni credit risks generally are much lower.
- Why should the combination trade in opaque dealer markets?

The Long-View Perspective

- Bond markets are increasingly electronic, but the benefits primarily are going to dealers.
- Small changes by the MSRB and SEC can push bond markets into the 21st Century.
  - Dealers won't support pre-trade transparency—They make more money in opaque markets.
  - Brokers won't support ODFs unless required—They get too much payment for order flow.
  - But investors will benefit, and they will pay more for their bonds when first issued.

What You Can Do

- Nudge the MSRB and SEC to promote pre-trade transparency.
- Help your states and municipalities to
  1. Form state bond banks
  2. Issue (and reissue) just a few simple straight bonds.
- Encourage Congress to repeal or relax the Tower Amendment.

The Pre-conference Agenda

Five Sessions Explore Electronic Trading

The Five Sessions

1. How do the muni markets trade today?
2. What potential benefits can electronic trading produce?
3. How do current regulations impede electronic trading?

Luncheon address by Honorable John Chiang, California State Treasurer

4. What are ATSs now doing?
5. What can issuers do?

Some Further Reading

- "The Structure of Trading in Bond Markets"
  - Financial Economists Roundtable, May 2015.
- "Secondary Trading Costs in the Municipal Bond Market"
  - Lawrence Harris, and Michael Piwowar, *Journal of Finance* 61(3), June 2006.
- "Financial Intermediation and the Costs of Trading in an Opaque Market"
  - Richard Green, Burton Hollifield, and Norman Schürhoff, *Review of Financial Studies* 20 (2), 2007.

More Reading

- "Transaction Costs, Trade Throughs, and Riskless Principal Trades in Corporate Bond Markets"
  - Larry Harris, USC working paper, October 2015.
- "The Microstructure of the Bond Market in the 20th Century"
  - Bruno Biais and Richard Green, Carnegie Mellon University working paper, August 2007.