Municipal Bonds: Issuance and Investing

Government Investment Officers Association
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Overview of a Bond Transaction
Financing Participants

• **Issuer** – A state, political subdivision, agency, or authority that borrows money through the sale of bonds or notes

• **Bond Counsel** – Attorneys retained by the issuer/borrower to give an expert and objective legal opinion with respect to the validity of bonds and other subjects, particularly the federal income tax treatment of interest on the bonds

• **Financial Advisor** – Consultant who advises an issuer/borrower on matters pertinent to an issue, such as structure, timing, marketing, fairness of pricing, terms, and bond ratings

• **Underwriter** – Dealer which purchases a new issue of municipal securities for resale

• **Trustee** – Financial institution which acts in a fiduciary capacity for the benefit of bondholders in enforcing the terms of the bonds

• **Paying Agent/Registrar** – Entity responsible for transmitting payments to bondholders and maintaining records of the registered owners of the bonds
Financing Participants (cont’d)

- **Rating Agency** – Organization which provides publicly available ratings of the credit qualities of securities

- **Insurer** – Company which provides credit enhancement (for example, guaranteeing payment of principal and interest on the bonds)

- **Credit Enhancer** – Bond insurer, commercial bank, or other financial institution issuing an insurance policy or a supporting letter of credit in order to improve an issue’s credit rating

- **Liquidity Provider** – Commercial bank or other financial institution entering into a standby bond purchase agreement or issuing a standby letter of credit in order to improve an issue’s credit rating

- **Issuer’s Counsel** – Attorneys representing the issuer

- **Disclosure Counsel** – Attorneys serving as the principal drafters of an issuer’s disclosure document

- **Underwriter’s Counsel** – Attorneys representing the underwriter in connection with the purchase of a new issue of municipal securities
Investors have specific preferences for maturity length, credit rating, and bond structure, and varying levels of price sensitivity. Typical municipal bond purchasers include:

**Institutional Investors**
- Bond Funds
- Insurance Companies
- Arbitrage Accounts
- Bank Trust Departments
- Investment Advisors
- Bank Portfolios

**Retail Investors**
- Individuals
- Bank Trust Departments
Typical Steps in a Transaction

1. Assemble team
   - New MSRB Rule G-23 re: Financial Advisors

2. Evaluate capital needs and cash flow capacity

3. Develop a financing plan and schedule
   - Type of sale
     - Negotiated, Competitive, Private Placement
   - Structure
     - Source of repayment (limited or unlimited taxes, revenues, lease payments, etc.)
     - Amortization schedule
     - Serial vs. term bonds
     - Bond covenants
   - Credit Enhancements
     - Credit ratings
     - Bond insurance
     - Letter of credit (LOC)
4. Draft documents

- Accountants (inclusion/agreed-upon procedures)
- Authorizing resolutions/ordinances
- Feasibility studies
- Trust Indentures/Agreements
- Notices to bondholders/insurance companies/trustee
- Preliminary Official Statement
- Preliminary Blue Sky
- Bond Purchase Agreement
- Agreement Among Underwriters
- Selling Group Agreement

5. Due Diligence

- Compliance with Rule 15c2-12

6. Marketing
Type of Sale

- **Competitive Sale**
  - Bonds are advertized for sale (notice of sale)
  - Any broker-dealer or bank may bid at the designated date and time
  - Bonds are awarded to the bidder offering the lowest True Interest Cost (“TIC”)
  - Selling syndicate

- **Negotiated Sale**
  - Terms of the bonds and of the sale are negotiated by the issuer and the bond purchaser
  - Issuer and underwriter agree upon a yield level at which the underwriter will offer bonds to potential investors
  - Initial interest scale may be adjusted depending on investor demand

- **Private Placement**
  - Bonds are sold to one investor at negotiated terms (with maximum term subject to investor constraints)
  - Typically smaller transactions
Marketing a Negotiated Bond Issue
Underwriting Process

Create Investor Target Plan
Develop Syndicate
Create Allocation Policy
Establish Priority of Orders
Pre-Pricing
Order Period
Bond Pricing
Award Bonds
Closing
Pricing Considerations

- **Yield Curve**
- **Bond Structure**
- **Supply**
- **Economic Indicators**
- **Market Psychology**
- **Market Technicalities**
- **Credit**
- **Tax Status**

Yield Curves as of 3/8/2012

Sources: Thomson Municipal Monitor & U.S. Department of the Treasury
Day of Sale

- **Pre-pricing call**
  - Issuer, F/A and U/W discuss:
    - Market conditions
    - Comparable transactions
    - Proposed interest rates (coupons, yields)

- Issuer approves release of the bonds at proposed interest rates

- Order period begins – investor feedback

- Repricing: Adjustment of interest rates, if necessary

- Bond counsel and underwriter check that sales fit within legal parameters

- Confirmation of insurer premium (if applicable) and verification (if refunding)

- Issuer and underwriter sign BPA

- Underwriter tickets the transaction

- Close of Sale
Case Study: Henry County School District, Georgia

$100,000,000
Henry County School District
General Obligation Bonds, Series 2012

- **Marketing Date:** 2/7/2012
- **Credit ratings:** Aa2/AA+ (Enhanced) Aa2/AA (District Underlying)
- **Optional Redemption:** None
- **Market Environment**
  - MMD benchmarks near all-time lows
  - General lack of municipal supply
  - Lingering credit issues given European situation
  - Barbell demand
Case Study: Henry County School District, Georgia

Order Period Activity
Multiple orders for full maturities in 2013 - 2015
(6 to 8 times oversubscribed)
2016 and 2017 maturities nearly fully subscribed
Short term of issue – targeted marketing to bank trust departments and money managers

Pre-Pricing - Morning of February 7

<table>
<thead>
<tr>
<th>Maturity Date</th>
<th>Amount</th>
<th>Coupon</th>
<th>Yield</th>
<th>Price</th>
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<tbody>
<tr>
<td>12/1/2013</td>
<td>14,000,000</td>
<td>3.00%</td>
<td>0.41%</td>
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<td>12/1/2016</td>
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<td>3.00%</td>
<td>0.78%</td>
<td>110.379</td>
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<tr>
<td>12/1/2016</td>
<td>11,000,000</td>
<td>5.00%</td>
<td>0.78%</td>
<td>119.729</td>
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<tr>
<td>12/1/2017</td>
<td>2,000,000</td>
<td>1.00%</td>
<td>0.94%</td>
<td>100.336</td>
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<tr>
<td>12/1/2017</td>
<td>10,000,000</td>
<td>3.00%</td>
<td>0.94%</td>
<td>111.546</td>
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<tr>
<td>12/1/2017</td>
<td>10,000,000</td>
<td>5.00%</td>
<td>0.94%</td>
<td>122.757</td>
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<tr>
<td></td>
<td>100,000,000</td>
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Baird Pricing Offer - Afternoon of February 7

<table>
<thead>
<tr>
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<th>Coupon</th>
<th>Yield</th>
<th>Price</th>
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<td>12/1/2016</td>
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<td>12/1/2017</td>
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<tr>
<td>12/1/2017</td>
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<td>0.94%</td>
<td>111.546</td>
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<td>12/1/2017</td>
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<td>0.94%</td>
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<td>117.152</td>
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<td>12/1/2017</td>
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<td>0.94%</td>
<td>122.757</td>
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<tr>
<td></td>
<td>100,000,000</td>
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Maturity and Scale Adjustments
Demand supported a 5 bps re-price in 2013 - 2015
Bifurcation of maturities tailored to demand
(5 coupons in 2017)
Investors looking for specific dollar prices
Underwrote $3MM in unsold balances
Investor Distribution: Henry County School District

Breakdown by Type of Investor

- Money Manager: 38%
- Corporations: 8%
- Trust Department: 27%
- Fund Manager: 24%
- Retail: 0%
- Underwritten: 3%
Factors Impacting Bond Issuance
Factors Impacting Debt Issuance

- **Economic Downturn** – Reduced state & local revenues, slowed growth & development

- **Anti-Debt Sentiment** – Focus on reducing U.S. debt has spilled over to state & local government debt

- **Interest Rates** – Low rates typically increase refunding activity; less impact on “new money” issuance

- **Credit Spreads** – Have widened over past few years, increasing costs and reducing access for ‘A’ and ‘BBB’ rated issuers

- **Infrastructure Needs & Backlog** – Transportation and Water & Sewer are key growth areas

- **Reduced State & Federal Funding** – Elimination of BABs, cuts in Defense spending; K-12 and Higher Education impacted by state budget cuts

- **Hospital Consolidation & Deferred Capital Expenditures**
Municipal Market Flows

Tax-Exempt Bond Funds
Monthly Net Inflows/Outflows

- Financial Crisis
- Investors Seeking Credit Quality
- T-E vs. Treasury Ratios – Investors Seeking Yield
- Meredith Whitney Comments on Municipal Defaults Create Jitters

Source: Investment Company Institute
30-Day Visible Supply Has Declined Dramatically Since Q4 2010

The Graph Below Shows Visible Supply on a Daily Basis From October 2010 – February 2012

Source: The Bond Buyer
Current Interest Rate Environment

- Credit concerns over the Euro Zone have produced a consistent flight to quality
- Ratios of tax-exempt rates to taxable rates close to 100% throughout the curve
- General lack of municipal supply
- Municipals offer an attractive tax equivalent yield with strong credit quality
- Forecast wave of defaults yet to emerge yet there have been isolated cases (Harrisburg, Jefferson County)
Credit Spreads Have Dramatically Widened Over the Past Five Years

As of 8/10/07

<table>
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<tr>
<th>Spread to 30y AAA</th>
<th>30y Aa</th>
<th>30y A</th>
<th>30y Baa</th>
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<tr>
<td>Current - 03/02/12</td>
<td>11</td>
<td>28</td>
<td>43</td>
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<tr>
<td>Average Since 8/10/07</td>
<td>17</td>
<td>71</td>
<td>146</td>
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</tbody>
</table>

Source: Thomson Municipal Market Monitor
Estimated Future Issuance

Compared to Long Run Avg, Local Gov't Issuance Will Likely Be Low in 2012

Source: The Bond Buyer, “A Decade of Issuance.” (Jan. 2012)

Bond Funded Transportation Capital Expenditures by States Are Upward Trending

Source: National Association of State Budget Officers (NASBO)
Estimated Future Issuance

EPA Forecast Points to Increasing Capital Outlays for Sewer Enterprises
Estimated Necessary Capital Outlays Over Next 20 Years


EPA Forecast Shows High, but More Stable Capital Needs for Water Enterprises
Estimated Necessary Capital Outlays Over Next 20 Years

Estimated Future Issuance

Healthcare Debt Issuance Reaches Decade Low in 2011

2012 Water and Sewer Issuance Expected to Rebound from 2011

Sources: The Bond Buyer, Moody's
Investing in Municipal Bonds
Changing Landscape in Municipal Credit

Source: Walt Handelsman - Newsday
Municipal Bond Market

Current Market

- Low new issue supply drove returns in 2011
- Low Treasury yields producing attractive ratios in certain maturity structures
- Downgrades outnumber upgrades 5 to 1

Revenues

- States reported year-over-year revenue growth for 8th straight quarter\(^1\)
- 2011 revenue figures still well below 2008 levels

\(^1\)U.S. Census Bureau Data
Municipal Bond Market

Budget Concerns at all Levels of Government

- Federal aid to states in question
- Modest growth in sales tax revenue not offsetting sagging property values
- Concerns about potential changes in Medicaid payments

Outlook

- Challenging credit conditions to persist
- Downgrades to continue
- Emphasize quality

\[^2\] Center on Budget and Policy Priorities
Stronger state, local and essential service issuers have the flexibility and resources to weather future pressures

- Implemented recurring expenses cut measures plus tax and fee increases
- Many local governments can offset budget buts with reserves combined and budget flexibility
- Essential services (water, sewer, electricity) have stable revenue streams
- Unfunded pension plans are a concern, but typically they are longer term issues

Source: J.P. Morgan Asset Management
Weaker governments face a variety of pressures

- Relied on one-time budget fixes, including delaying some expenditures
- State budget cuts and lower assessed property values will put incremental pressure on local municipalities
- Unfunded pension could become a problem for communities with declining populations and weak economies

Source: J.P. Morgan Asset Management
Defaults of Bonds Rated by S&P

Data below is based on 16,845 rated obligations as of January 1, 2011
Includes the following credit types: general obligation, lease/appropriation/moral obligation, special tax (sales, gas, etc.), special district, water and sewer revenue, public power, airports, ports, toll roads and bridges, parking, various types of bond pools, transit, public and private higher education, auxiliary higher education debt, independent schools, hospitals (stand-alone and systems), continuing care, and physicians' practices.

<table>
<thead>
<tr>
<th>Source: Standard &amp; Poor’s</th>
<th>Number of Transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5  Tax-Secured Bonds</td>
</tr>
<tr>
<td></td>
<td>3  Appropriation Backed Debt</td>
</tr>
<tr>
<td></td>
<td>6  Utility Backed</td>
</tr>
<tr>
<td></td>
<td>4  Transportation</td>
</tr>
<tr>
<td></td>
<td>2  Higher Education</td>
</tr>
<tr>
<td></td>
<td>22 Healthcare</td>
</tr>
<tr>
<td></td>
<td>42 Total Transactions</td>
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## Municipal Returns by Quality

<table>
<thead>
<tr>
<th></th>
<th>Muni Index</th>
<th>AAA</th>
<th>AA</th>
<th>A</th>
<th>BBB</th>
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<tbody>
<tr>
<td><strong>2011</strong></td>
<td>10.70%</td>
<td>8.75%</td>
<td>10.28%</td>
<td>12.53%</td>
<td>11.84%</td>
</tr>
<tr>
<td><strong>2010</strong></td>
<td>2.38%</td>
<td>2.03%</td>
<td>2.05%</td>
<td>2.23%</td>
<td>3.75%</td>
</tr>
<tr>
<td><strong>2009</strong></td>
<td>12.91%</td>
<td>9.06%</td>
<td>11.72%</td>
<td>15.87%</td>
<td>26.09%</td>
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<tr>
<td><strong>2008</strong></td>
<td>-2.47%</td>
<td>1.61%</td>
<td>-0.76%</td>
<td>-5.97%</td>
<td>-21.33%</td>
</tr>
<tr>
<td><strong>2007</strong></td>
<td>3.36%</td>
<td>3.84%</td>
<td>3.52%</td>
<td>2.67%</td>
<td>-2.73%</td>
</tr>
<tr>
<td><strong>2006</strong></td>
<td>4.84%</td>
<td>4.63%</td>
<td>4.66%</td>
<td>5.26%</td>
<td>7.60%</td>
</tr>
</tbody>
</table>

| 3-year*    | 27.97%     | 21.01%| 25.73%| 33.30%| 46.31%|
| Annualized | 8.57%      | 6.56%| 7.93%| 10.05%| 13.52%|

| 5-year*    | 29.00%     | 27.68%| 29.17%| 28.68%| 11.96%|
| Annualized | 5.22%      | 5.01%| 5.25%| 5.17%| 2.28%|

Source: Barclays Capital

• As of 12/31/11

Barclays Capital Municipal Bond Index: Bonds must have a minimum credit rating of at least Baa, and outstanding par value of at least $3 million, part of a transaction of at least $50 million, issued after December 31, 1990, and have a year or longer remaining maturity.

Past performance is not a guarantee of future results. Indices are unmanaged, and are not available for direct investment.
Muni Yield Curves

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<tbody>
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<td>0.37%</td>
<td>0.25%</td>
<td>0.18%</td>
<td>-0.07%</td>
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<tr>
<td>2</td>
<td>0.62%</td>
<td>0.36%</td>
<td>0.26%</td>
<td>-0.10%</td>
</tr>
<tr>
<td>3</td>
<td>0.95%</td>
<td>0.58%</td>
<td>0.42%</td>
<td>-0.16%</td>
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<tr>
<td>5</td>
<td>1.63%</td>
<td>0.85%</td>
<td>0.68%</td>
<td>-0.17%</td>
</tr>
<tr>
<td>7</td>
<td>2.31%</td>
<td>1.19%</td>
<td>1.22%</td>
<td>+0.03%</td>
</tr>
<tr>
<td>10</td>
<td>3.16%</td>
<td>1.83%</td>
<td>1.85%</td>
<td>+0.02%</td>
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<tr>
<td>30</td>
<td>4.68%</td>
<td>3.55%</td>
<td>3.23%</td>
<td>-0.32%</td>
</tr>
</tbody>
</table>

Source: Municipal Market Data
Data as of: 2/29/2012
**Treasury/Muni Yield Curves**

*Assumes 30% Federal Income Tax Rate
Source: Bloomberg
Data as of: 2/29/2012

<table>
<thead>
<tr>
<th>Maturity</th>
<th>AAA Municipal</th>
<th>Treasury</th>
<th>Ratio %</th>
<th>Tax-Adjusted Municipal Yield*</th>
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<tr>
<td>1</td>
<td>0.18%</td>
<td>0.16%</td>
<td>113</td>
<td>0.26%</td>
</tr>
<tr>
<td>2</td>
<td>0.26%</td>
<td>0.29%</td>
<td>90</td>
<td>0.37%</td>
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<tr>
<td>3</td>
<td>0.42%</td>
<td>0.41%</td>
<td>102</td>
<td>0.60%</td>
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<tr>
<td>5</td>
<td>0.68%</td>
<td>0.86%</td>
<td>79</td>
<td>0.97%</td>
</tr>
<tr>
<td>7</td>
<td>1.22%</td>
<td>1.38%</td>
<td>88</td>
<td>1.74%</td>
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<tr>
<td>10</td>
<td>1.85%</td>
<td>1.97%</td>
<td>94</td>
<td>2.64%</td>
</tr>
<tr>
<td>30</td>
<td>3.23%</td>
<td>3.09%</td>
<td>105</td>
<td>4.61%</td>
</tr>
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</table>
AAA General Obligation Ratios and Spreads

Source: Bloomberg
March 2012
30 Day Visible Supply

30-Day Visible Supply
U.S. Total
Municipal Bonds

Source: Bloomberg
March 2012
Relative Value by Rating

Figure 6 – Muni Index Yield Curve by Credit Rating – Data Source: Bloomberg
Our Municipal Bond Strategy

Focus on High Quality Holdings
- Emphasize prerefunded issues (collateralized with US Treasuries)
- Prefer general obligation bonds (G.O.’s) and essential service revenue bonds (water, sewer, electricity, etc.)
- Avoid more aggressive sectors such as healthcare, industrial development or special use bonds
- Investors generally not adequately paid for taking significant credit risk in the municipal market

Focus on Intermediate Maturities
- Municipal yield curve relatively steep through 15 years
- Unattractive risk / reward profile in long end of yield curve
- Yields on very short maturities unattractive on a relative and absolute basis

Minimize Exposure to Callable Issues
- Call options generally under-valued in the municipal market
- Emphasize non-call structures with known cash flows (e.g. sinking funds)
- Higher total return prospects without giving up significant yield

This is not a complete analysis of every material fact regarding any company, industry or security. The opinions expressed here reflect our judgment at this date and are subject to change. The information has been obtained from sources we consider to be reliable, but we cannot guarantee the accuracy. Past performance is not a guarantee of future results and diversification does not ensure against market loss.
Questions