About Municipal Bonds

11th Annual Financial Literacy Leadership Conference

Ritta McLaughlin, MSRB Chief Education Officer

September 14, 2018
Overview

- Key Facts about Municipal Bonds
- Know Your Protections
- About EMMA®
- MSRB Educational Resources
About the MSRB

- Congressionally chartered in 1975 and overseen by Congress
- Governed by a Board equipped to fairly and knowledgeably represent diverse industry participants
- MSRB rule proposals reviewed by the SEC for consistency with the Exchange Act
- Maintains specialized, interdisciplinary knowledge vital to proper regulation of the unique municipal securities market
Mission of the MSRB

- Promote a **fair**, **transparent** and **efficient** municipal market

- Protect investors, state and local government issuers, other municipal entities, obligated persons and the public interest
MSRB Activities

• **MSRB Rules**
  - For municipal securities dealers and municipal advisors
  - Not for issuers

• **EMMA®**
  - Municipal bond disclosure documents
  - Trade data

• **Education Center**
  - Objective, multimedia educational resources about municipal market
Municipal Bonds: Capital Formation for Communities

- Used by state and local governments to raise capital for infrastructure and other public-purpose projects
- Approximately 50,000 municipalities issue bonds
- Annual issuance averages $425 billion
- Approximately 1 million bonds outstanding
- Market value: $3.8 trillion
What is Bond?

- A municipal bond is a type of **debt security**

- States and local governments issue *debt* in the form of a *municipal bond* to raise funds which are generally used to finance public projects

- Municipal bonds are sold over-the-counter

- Municipal bonds can provide a predictable stream of income
Value of Tax-Exempt Municipal Bonds

Value to the issuer:
• Enables issuer to borrow at a lower cost than if its securities were taxable

Value to the investor:
• A tax-free investment may result in same income as a higher-yield taxable investment (if all else is equal, such as risk of default)
Value of Tax-Exempt Municipal Bonds (continued)

- Interest on municipal bonds are generally not taxed by the federal government.

- Income tax laws of most states also exempt interest on the bonds of issuers within those states.

- A state may also exempt interest paid by another state’s municipal bonds.

- Some municipal bonds may be taxable and in some cases an alternative minimum tax (AMT) may apply.
Illustration: Tax-Exempt and Taxable Bonds

Tax-free yield

\[
\frac{\text{Tax-free yield}}{1 - \text{marginal tax rate}} = \text{Taxable equivalent yield}
\]

- If a tax-free bond yields 4% and taxpayer pays a 33% marginal tax rate
  
  \[
  \frac{4.00\%}{1 - .33} = 5.97\%
  \]

- That is, a taxable bond would have to yield 5.97% to give the same after-tax income as the 4% municipal bond

Note: If your tax bracket is lower, the tax advantage is less.
The Municipal Bond Market

Capital Markets

Primary Market
Issuers sell securities for the first time

Secondary Market
Securities already issued in public or private offering are bought and sold among investors or traders
## General Types of Municipal Bonds

### General Obligation Bonds
- Backed by general credit and taxing powers of governmental entity
  - Local - Property taxes
  - States - Income and sales taxes
- More diverse credit structure
- Requires taxing authority
- Voter approval
  - Unlimited Tax – backed by full faith and credit
  - Limited Tax – only specific taxes are pledged
- Finances capital improvements

### Revenue Bonds
- Backed by specific revenue stream or revenues generated by a project
- Matches sources of payment for bonds to the project financed
- Users pay cost of project and financing
- Variety of revenues could be pledged to pay debt service
- Covenants could limit bonding capacity
# Municipal Securities Issuers

## Municipal Securities Issuance by Issuer Type

<table>
<thead>
<tr>
<th>Issuer Type</th>
<th>2017 Issuance Volume ($ billions)</th>
<th>Percentage of total volume (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Authorities</td>
<td>136.0</td>
<td>28</td>
</tr>
<tr>
<td>Districts</td>
<td>93.9</td>
<td>19</td>
</tr>
<tr>
<td>Local Authorities</td>
<td>76.4</td>
<td>16</td>
</tr>
<tr>
<td>Cities/Towns</td>
<td>67.5</td>
<td>14</td>
</tr>
<tr>
<td>States</td>
<td>54.1</td>
<td>11</td>
</tr>
<tr>
<td>Counties/Parishes</td>
<td>34.0</td>
<td>7</td>
</tr>
<tr>
<td>Colleges/Universities</td>
<td>19.9</td>
<td>4</td>
</tr>
<tr>
<td>Other*</td>
<td>2.0</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

*Indian Tribes, Cooperatives and Not-For-Profits

Source: Thomson Reuters
Municipal Securities Issuance by Sector

Municipal Securities Issuance by Sector
(January – December 2017)
$485 billion

- General Purpose: 27%
- Education: 27%
- Transportation: 14%
- Health Care: 10%
- Utilities: 9%
- Housing: 4%
- Development: 4%
- Electric Power: 2%
- Other: 3%
- Education: 27%
Majority Held by Individuals Directly or Through Mutual Funds

Types of Bondholders

- Household*: 43%
- Mutual Funds: 19%
- Banks and Savings Inst.: 14%
- Foreign Ownership: 3%
- Other**: 7%
- Foreign Ownership: 3%

Source: Federal Reserve Financial Accounts of the United States, as of December 2016

* May include both direct investments by individual investors as well as other accounts that do not fall into other tracked categories

** Includes non-financial corporate business, non-financial non-corporate business, state and local governments, credit unions, state and local government retirement funds, exchange-traded funds, government-sponsored enterprises, and brokers and dealers.
Know Your Protections – MSRB Rules

- Professional Competency
- Fair Dealing
- Standards for Advertisements
- Suitability
- Time of Trade Disclosure
- Fair Pricing
- Best Execution
- Trade Confirmation
Check Professional Qualifications

- Dealers must register with the MSRB before engaging in municipal securities activities
- Find a full list of MSRB-registered firms on the MSRB website

http://www.msrb.org
File a Complaint

• Submit complaints to the MSRB
  – 202-838-1330
  – complaints@msrb.org

• Submit complaints about non-dealer municipal advisors to the SEC
  – U.S. Securities and Exchange Commission
    Office of Municipal Securities
    100 F Street, NE
    Washington, DC 20549
  – Tips, Complaints and Referrals Portal

• Submit complaints about FINRA-registered municipal advisors to FINRA
  – FINRA's Investor Complaint Center
EMMA®’s Role in the Municipal Market

- Is the official repository for municipal market information
- Promotes transparency for the $3.8 trillion municipal securities market
- Ensures information about virtually all municipal bonds and their issuers is:
  - Free
  - Centralized
  - Public
What’s on EMMA®

**Official Disclosures**
- Official Statements
- Advance Refunding Documents
- Event Notices
- Financial Disclosures
- 529 Plan/ABLE Disclosures
- Municipal Asset-Backed Securities Disclosure
- Political Contribution Disclosures

**Security-Specific Data**
- Trade Prices and Yields
- Interest Rate Resets for Municipal Variable Rate Securities
- Credit Enhancement Documents for Variable Rate Securities
- Credit Ratings

**Market-Wide Data**
- Market Statistics
- Yield Curves
- Market Calendars
Recent Improvements to EMMA®

- Overall Redesign of Look and Feel
- Streamlined Homepage
- State Page
- Issuer Homepage
- Issue Details Page
- Security Details Page - Fixed Rate
- Security Details Page - Variable Rate
EMMA® Homepage

The official source for municipal securities data and documents

Click on a state to start your search

Learn
View EMMA? Find out more.

Evaluate
Access Issue-Calendar and other market tools.

Monitor
Sign up for myEMMA

EMMA and Municipal Market Transparency
The EMMA website is funded and operated by the Municipal Securities Rulemaking Board (MSRB), the self-regulatory organization charged by Congress with promoting a fair and efficient municipal securities market. EMMA is designated by the U.S. Securities and Exchange Commission as the official source for municipal securities data and disclosure documents. The website provides free public access to objective municipal market information and interactive tools for investors, municipal entities and others. EMMA supports municipal market transparency but is not a platform for buying or selling bonds.
Read more about EMMA and the MSRB.
MyEMMA® Alerts

The official source for municipal securities data and documents

Sign Up for MyEMMA

Name: First Middle Last
Email:
Password: Confirm Password:
State: Select State

You must provide accurate and complete information in registering, and promptly update it if it becomes inaccurate. By clicking on “Certify” below, you confirm that in registering for MyEMMA Alerts (1) the role you indicated is true and accurate and (2) if you intend to use MyEMMA Alerts in the course of your employment or business activities, you registered using only your work/business email address, and you agree to promptly update your role and email address if such becomes inaccurate.

Role: Select Role

With MyEMMA you get access to:

MyEMMA Dashboard
Alerts
Create and manage alerts to stay up to date with information about individual securities, groups of securities and 328 savings plans.

Customized Search
Limit searches to groups of securities and save frequently used search criteria.

Read more about MyEMMA.
## Consolidated Issuer Information

These pages provide a consolidated view of the information available on EMMA for each issuer. Pages listed as “customized” have been customized by the issuer and provide contact information to investors. Homepages, including those that have been customized, typically exclude market-related securities and may contain errors or omissions.

## Educational Resources

- To learn about additional methods for finding information, read about EMMA’s search features.
- For instructions on how to customize an EMMA issuer homepage.
- For assistance customizing a homepage or to report any errors or omissions, please contact us.

### Wisconsin

Below is the list of municipal securities issued by Wisconsin:

<table>
<thead>
<tr>
<th>Issuer Name</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>CITY OF MILWAUKEE</td>
<td>City</td>
</tr>
<tr>
<td>FORB HEALTHCARE INC.</td>
<td>Other</td>
</tr>
<tr>
<td>MILWAUKEE PUBLIC SCHOOLS</td>
<td>Other</td>
</tr>
<tr>
<td>MILWAUKEE SCHOOL DISTRICT</td>
<td>Other</td>
</tr>
<tr>
<td>SCHOOL DISTRICT OF WISCONSIN</td>
<td>Other</td>
</tr>
<tr>
<td>STATE OF WISCONSIN</td>
<td>State</td>
</tr>
<tr>
<td>VERNON MEMORIAL HEALTHCARE</td>
<td>Other</td>
</tr>
<tr>
<td>WISCONSIN HEALTH &amp; EDUCATIONAL</td>
<td>State</td>
</tr>
<tr>
<td>ABBOTSFORD WIS</td>
<td>City</td>
</tr>
<tr>
<td>ABBOTSFORD WIS GOV DIST</td>
<td>City</td>
</tr>
<tr>
<td>ADAMS SAN DIST NO 1 WIS</td>
<td>City</td>
</tr>
<tr>
<td>ADAMS CITY WIS</td>
<td>County</td>
</tr>
</tbody>
</table>
Security Details Overlay
Security Details – Fixed Rate
### Trade Activity | Trade Summary

#### Educational Resources
- EMMA Help: Trade Prices and Yields
- Using EMMA to Check Your Price
- Fact Sheet: Did I Get a Fair Price?
- Learn More: Buying and Selling Bonds

| Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date     | Trade Date   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  | Trade Date     | Trade Date     | Trade Date     | Trade Date八
### Trade Activity | Trade Details

#### Trade Summary

View real-time price and yield information for trades in this security.

- **Trade Summary**
- **Trade Details**

#### Trade Details

<table>
<thead>
<tr>
<th>Trade Date/Time</th>
<th>Settlement Date</th>
<th>Price (%)</th>
<th>Yield (%)</th>
<th>Calculation Date &amp; Price (%)</th>
<th>Trade Amount ($)</th>
<th>Trade Type</th>
<th>Social Condition</th>
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</thead>
<tbody>
<tr>
<td>04/25/2018</td>
<td>02:52 PM</td>
<td>116.807</td>
<td>2.840</td>
<td>04/01/2027 @ 100</td>
<td>25,000</td>
<td>Customer sold</td>
<td>-</td>
</tr>
<tr>
<td>04/25/2018</td>
<td>02:16 PM</td>
<td>117.138</td>
<td>2.609</td>
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<tr>
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<td>09:50 AM</td>
<td>120.181</td>
<td>2.840</td>
<td>04/01/2027 @ 100</td>
<td>50,000</td>
<td>Customer bought</td>
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<tr>
<td>04/04/2018</td>
<td>09:50 AM</td>
<td>119.851</td>
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<td>50,000</td>
<td>Inter-dealer trade</td>
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<td>03/27/2018</td>
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<td>117.894</td>
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<td>04/01/2027 @ 100</td>
<td>25,000</td>
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<tr>
<td>03/27/2018</td>
<td>03:00 PM</td>
<td>117.974</td>
<td>2.734</td>
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<td>25,000</td>
<td>Inter-dealer trade</td>
<td>-</td>
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<tr>
<td>03/26/2018</td>
<td>12:11 PM</td>
<td>117.918</td>
<td>2.741</td>
<td>04/01/2027 @ 100</td>
<td>25,000</td>
<td>Customer sold</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Educational Resources

- **EMMA Help: Trade Prices and Yields**
  - Using EMMA to Check Your Price
  - Fact Sheet: Did I Get a Fair Price?
  - Learn More Buying and Selling Bonds

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### Ratings

**CUSIP: 602236W2XO**

**City of Milwaukee General Obligation Promissory Notes Series 2017 N4 (WI)**

**Milwaukee, WI: Primary NTS-See 94 (WI)**

**Trade Activity** | **Ratings** | **Disclosure Documents** | **Final Scale** | **Compare**
---|---|---|---|---

**Fitch**

- **Long-Term Issue Rating**: AA (effective 04/20/2018)
- **Long-Term Issue Rating Alert Code**: R3 (effective 04/20/2018)
- **Unenhanced Long-Term Issue Rating**: AA (effective 04/20/2018)
- **Unenhanced Long-Term Issue Rating Alert Code**: R3 (effective 04/20/2018)
- **Short-Term Issue Rating**: NR
- **Short-Term Issue Rating Alert Code**: NR
- **Unenhanced Short-Term Issue Rating**: NR
- **Unenhanced Short-Term Issue Rating Alert Code**: NR

Access definitions for the ratings provided by Fitch Ratings.

*Last Updated: 04/20/2018 @ 3:50:00 PM ET*

**KBRA**

- **Long-Term Insured Debt Rating**: AA+ (effective 01/19/2018)
- **Outlook/Credit Watch**: Underlying Outlook/Credit Watch
- **STA (effective 01/19/2018)**
- **Underlying Maturity Long-Term Debt Rating**
- **Short-Term Insured Debt Rating**: Credit Watch
- **Underlying Maturity Short-Term Debt Rating**

Access definitions for the ratings provided by KBRLA Bond Rating Agency.

*Last Updated: 01/19/2018 @ 10:00:03 PM ET*

**Educational Resources**

- EMMA Help: Credit Ratings
- Evaluating a Municipal Bond’s Default Risk
- Fact Sheet: Seven Questions to Ask When Investing in Municipal Bonds
- Learn More: Preparing to Invest
Continuing Disclosure Search

View the official statement – similar to a prospectus – for information about the features and risks of this security. View available continuing disclosures for updated financial and other information.

**Official Statement(s)**

<table>
<thead>
<tr>
<th>Documents</th>
<th>Posted Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Official Statement - Official Statement (1.3 MB)</td>
<td>12/14/2011</td>
</tr>
<tr>
<td>Issuer Submitted Official Statement - Final Official Statement (1.3 MB)</td>
<td>12/14/2011</td>
</tr>
</tbody>
</table>

Download complete set of documents 2.6 MB

**Advance Refunding**

<table>
<thead>
<tr>
<th>Documents</th>
<th>Posted Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advance Refunding - WI Escrow (9.4 MB)</td>
<td>12/29/2017</td>
</tr>
</tbody>
</table>

**Continuing Disclosure**

Underwriter indicates that issuer annual financial information is contractually due to be submitted on December 27.

**Educational Resources**

- Video: Diving into the Documents
- Fact Sheet: Understanding Official Statements
- Fact Sheet: Investor's Guide to Financial Disclosures
- Learn More: Monitoring Bonds
Final Scale of Issue

View other securities in this issue, which are listed in the official statement.

Underwriting Spread Amount: Not Disclosed - Competitive Sale

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Principal Amount at Issuance ($)</th>
<th>Security Description*</th>
<th>Coupon</th>
<th>Maturity Date</th>
<th>Initial Offering (%)</th>
<th>Current LT Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>6023666H2</td>
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<td>5</td>
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<td>NR</td>
</tr>
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Security Details - Variable Rate
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