Municipal Bonds: How and Why to Invest

Why Buy Municipal Bonds?

- Tax-Exempt Income
- Low Historical Default Rates
- Very Little Competition from Larger Banks
- Municipal Bond Curve is Generally Positive
- Positive Convexity
- Reduced Duration & Volatility (when compared to taxable bonds)
- Attractive Relative Spread vs. Treasuries

Municipal Bond Defaults (1970-2011)

<table>
<thead>
<tr>
<th>Purpose</th>
<th># of Defaults</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>29</td>
<td>40.8%</td>
</tr>
<tr>
<td>Hospitals &amp; Health Service Providers</td>
<td>23</td>
<td>32.4%</td>
</tr>
<tr>
<td>Education</td>
<td>3</td>
<td>4.2%</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>4</td>
<td>5.6%</td>
</tr>
<tr>
<td>Utilities</td>
<td>2</td>
<td>2.8%</td>
</tr>
<tr>
<td>Cities</td>
<td>2</td>
<td>2.8%</td>
</tr>
<tr>
<td>Counties</td>
<td>1</td>
<td>1.4%</td>
</tr>
<tr>
<td>Special Districts</td>
<td>1</td>
<td>1.4%</td>
</tr>
<tr>
<td>Water &amp; Sewer</td>
<td>1</td>
<td>1.4%</td>
</tr>
<tr>
<td><strong>Total Non-General Obligation</strong></td>
<td><strong>66</strong></td>
<td><strong>93.0%</strong></td>
</tr>
<tr>
<td><strong>Total General Obligation</strong></td>
<td><strong>5</strong></td>
<td><strong>7.0%</strong></td>
</tr>
<tr>
<td><strong>Total Defaults 1970-2011</strong></td>
<td><strong>71</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Source: Moody’s Investors, 2012

Does this mean that we have no worries? Not quite . . .

In the same report that contained the above default rate data, Moody’s expressed concern about potential for increased general obligation defaults, due to non-debt obligations, i.e. pensions. They also said that a deep recession or U. S. government debt crisis could result in substantially higher default rates for municipal bonds.
How to Find Municipal Bonds

- New Issues – Competitive Bid Offerings

- New Issues – Negotiated Offerings
- **Bloomberg “Pick”**
  - Allows you to create customizable searches of municipal bond offerings
  - Combines primary and secondary offerings available

- **Bloomberg “Pick” – Main Page**

```plaintext
<table>
<thead>
<tr>
<th>OFFERINGS</th>
<th>Standard Selections</th>
<th>Custom Selections</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) All offerings</td>
<td>11) BQ AND INSURED</td>
<td>21) Name</td>
</tr>
<tr>
<td>2) By size</td>
<td>12) MAINE 2-7 YR</td>
<td>3) By maturity</td>
</tr>
<tr>
<td>3) By maturity</td>
<td>13) 3-7 BQ</td>
<td>4) By state</td>
</tr>
<tr>
<td>4) By state</td>
<td>14) 5-8 YEAR TAXABLE</td>
<td>5) Executable</td>
</tr>
<tr>
<td>5) Executable</td>
<td>15) Custom 5</td>
<td>6) Refunded (Pre-re and ETM)</td>
</tr>
<tr>
<td>6) Refunded (Pre-re and ETM)</td>
<td>16) BSB BQ MUNIS</td>
<td>7) Zero coupon</td>
</tr>
<tr>
<td>7) Zero coupon</td>
<td>17) BSB BQ SHORT</td>
<td>8) Insured</td>
</tr>
<tr>
<td>8) Insured</td>
<td>18) Custom 8</td>
<td>9) Bank qualified</td>
</tr>
<tr>
<td>9) Bank qualified</td>
<td>19) CHRIST LIST 1</td>
<td>10) Taxable</td>
</tr>
<tr>
<td>10) Taxable</td>
<td>20) Custom 10</td>
<td>11) MSR Industries Standard Selections</td>
</tr>
</tbody>
</table>

**Benchmarks Curve Settings:**
- Tax-exempt
- Taxable

**Bloomberg “Pick” – Setup Page**

1. `<GO>` to start monitor, `<GO>` to clear scenario.

**Custom Selection:**
- MSRB Trade Type
- Executable
- MSRB
- Executable
- AON
- Executable
- Insured
- Executable
- AON
- Executable
- Bank Qualified
- Executable
- AON
- Executable
- Tax-exempt
- Executable
- Callables
- Executable
- Registered
- Executable
- Book Entry
- Executable
- Unsold Balances
- Executable
- Zero Coupon
- Executable
- Notes
- Executable
- AMT
- Executable
- Floaters
- Executable
- Floaters
- Executable
- Bid Wanted Items
- Executable

**Alerts cleared every 3 months:**
- Feb, May, Aug, Nov
Municipal Bond Types

- **General Obligation Bonds**
  - Backed by the taxing and further borrowing power of the issuing municipality
  - Limited GO Bond – Municipality has a statutory limitation to raise taxes (sometimes requires voter approval)
  - Unlimited GO Bond – Municipality has no restriction on ability to raise tax rates

- **Revenue Bonds**
  - Issued to finance public works, such as water & sewer systems, turnpikes, colleges and universities, hospitals and airports, and supported by the revenues of project

- **Bank-Qualified Bonds**
  - Bonds are limited to $10 million annually per issuer
  - Receive benefit of 20% TEFRA disallowance for calculating tax-equivalent yield
Municipal Bond Types, cont’d

➢ Bank-Eligible Bonds
  o A municipal bond that is not bank-qualified but allowed under the 2009 Federal stimulus plan and treated as bank-qualified
  o To qualify as bank-eligible:
    ▪ Issued in 2009 or 2010
    ▪ Bond cannot be a refunding issue
  o Banks are limited to 2% of average adjusted total assets in BE bonds
  o Not subject to AMT

➢ Non-Bank Qualified/General Market Bonds
  o Bonds issued without the BQ parameter, subject to 100% TEFRA disallowance
  o Bonds become less attractive in rising rate environments and periods of higher cost of funds

➢ Taxable Muni Bonds
  o Municipal bonds issued for certain projects that are not exempt from Federal taxation
  o Treat them like high quality corporates

Bond Insurance & Guarantees

<table>
<thead>
<tr>
<th>Insurer</th>
<th>Moody’s</th>
<th>S &amp; P</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACA</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>Assured Guaranty</td>
<td>A3/ Stable</td>
<td>AA/ Stable</td>
</tr>
<tr>
<td>AGM (FSA)</td>
<td>A2/ Stable</td>
<td>AA/ Stable</td>
</tr>
<tr>
<td>AMBAC</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>BHAC (Berkshire Hathaway)</td>
<td>Aa1/ Stable</td>
<td>AA+/ Negative</td>
</tr>
<tr>
<td>BAM (Build America Mutual)</td>
<td>NR</td>
<td>AA/ Stable</td>
</tr>
<tr>
<td>CIFG</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>FGIC</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>MBIA</td>
<td>B3/ Review</td>
<td>B/ Stable</td>
</tr>
<tr>
<td>NPFG (Natl Re)</td>
<td>Baa1/ Positive</td>
<td>AA-/ Stable</td>
</tr>
<tr>
<td>Radian</td>
<td>Ba1/ Negative</td>
<td>B+/ Stable</td>
</tr>
<tr>
<td>Syncora (XLCA)</td>
<td>NR</td>
<td>NR</td>
</tr>
</tbody>
</table>

Ratings as of April 7, 2014
School Credit Enhancement Programs

- In short, the state will provide a backstop should the school district or municipality not make payment
- An important reason for knowing how the state itself is doing!
- State Aid Intercept
  - Most common enhancement used
  - The paying agent will notify state officials if funds have not been received from the district
  - Upon notification, State officials will forward funds sufficient to meet debt service
  - S&P and Moody's generally rate intercept programs one notch below the state's GO rating
- State Appropriation
  - These programs are supported by the state through appropriation of funds.
  - Upon notification by the paying agent, the States will forward sufficient funds for debt service from their General Fund or other funds in the event a district cannot make its debt service payment
- State Guarantees
  - States pledge their full, faith, credit and taxing power behind the school district's bonds in the event of a default
- Permanent Funds
  - States pledge permanent, nonexpendable trust funds to guarantee debt service on all qualified and approved school bonds

Calculating Fully Tax- Equivalent (FTE) Yield

- IMPORTANT!!! Know your state tax rates for municipal bond income
- Some states allow same tax treatment for all muni bonds
- Some states only allow favorable tax treatment for in-state munis
- TEFRA Adjustment
  - Reduction (in basis points) to a municipal bond's coupon before calculating the fully taxable equivalent yield
  - WHY? The calculation disallows (for tax purposes) a portion of a bank's interest expense
  - Exception: S-corporation banks are not subject to the TEFRA rule if they were not a C-corporation in the previous three years (7th Circuit Court of Appeals, 3/17/2010)
Calculating FTE Yield

Short-cut method to determine TEFRA adjustment:

TEFRA Cost of Funds × 20% × Fed Tax Rate

“TEFRA Cost of Funds” = \[
\frac{\text{Interest Expense}}{\text{Average Total Assets}}
\]

Calculating FTE Yield

Example:

Interest Expense $10 million
Average Total Assets $500 million
TEFRA COF = $10 / $500 = 2.00%
Federal Tax Rate 35%

2.00% × 20% × 35% = 14 bp TEFRA adjustment
Accounting & Tax Issues

- **Capital Gains Tax**
  - Bonds purchased at a discount will be subject to capital gains tax (principal proceeds only, not interest income)
  - Original Issue Discount (OID) bonds are an exception

- **The “De Minimis” Rule**
  - Bonds purchased at deep discount could be subject to ordinary income, not capital gains, tax rates
  - Applies if:
    - Bond is purchased at a discount
    - Discount is equal to or greater than a quarter-point per year until maturity
  - Then capital gains rules apply; otherwise the net gain is taxed as ordinary income

- **Alternative Minimum Tax (AMT)**
  - Relatively uncommon, but be aware!
  - Check your specific tax situation

- **FAS 115 Classification**
  - Held to maturity (HTM)
  - Available for Sale (AFS)
  - What about OTTI?
Managing the Municipal Bond Portfolio

➢ Opportunities
  o *Spreads are narrower but still attractive*
  o *Longer-term maturities (where appropriate)*
  o *Cushion calls can provide additional duration protection*

➢ Portfolio Considerations
  o *Diversification*
    ▪ *State*
    ▪ *Issuer*
  o *Bond Sizing*

➢ Need to do credit homework! Treat them somewhat like loans (particularly those not in your backyard).

Credit Analysis – Evaluating the Ability to Pay You Back

➢ Reviewing the Offering Statement
  o *Available from broker (can also be obtained online in many cases)*
  o *Important to check certain aspects of your “borrower” before investing*
  o *Critical step in your due diligence process*
  o *Also helpful to review continuing disclosure documents*

➢ Economic strength
  o *Tax base diversification*
  o *Building permit trends*
  o *Earnings mix (services, retail, industrial)*
  o *Population profile (growth, per capita & median income, employment)*
Credit Analysis, cont’d.

- **Financial strength**
  - General fund balances
    - Reserved vs. unreserved
    - Composition of funds
  - Municipal limitations
    - Fixed costs
    - Collective Bargaining Agreements & Contracts
    - Voter approvals
  - Revenue stream mix
    - Largest taxpayers
    - Revenue types
  - Budgetary considerations
    - Trends on reserve ratio (reserves/operating budget)
    - Reliance on special or one-time funding sources
    - Reserve or rainy-day fund?

- **State strength**
  - Economic
  - Financial
  - Credit rating trends
  - Other state-specific issues (CO?)

- **Debt profile**
  - Direct vs. indirect debt
  - Debt structure
  - Pension obligations & post-retirement benefits
  - Debt ratios
    - Debt per capita
    - Assessed value of property to full value
    - GO debt to full value
    - GO debt to assessed value
Online Resources

- MSRB Electronic Municipal Market Access – “EMMA” (emma.msrb.org)

- City Data (city-data.com)
- State and Local Government on the Net (StateLocalGov.net)

- Muni Net Guide (MuniNetGuide.com)