

FIXED INCOME PRIMER:
**MUNICIPAL BOND
MARKET**

A primer on the municipal bond market

Contents:

-
- 1 Overview
 - 1 A History of the Market
 - 2 Credit Quality Ratings
 - 2 Types of Municipal Bonds
 - 3 Municipal Bonds with Special Investment Features
 - 5 Risks of Municipal Bonds
 - 7 Benefits of Municipal Bonds
 - 8 Summary

Overview

Municipal bonds (or “munis”) are fixed income securities issued by state and local governments. Munis are issued for such diverse capital expenditures as schools, roads and bridges, publicly owned electric generating facilities, and not-for-profit hospitals. Munis can be tax-exempt or taxable. Tax-exempt in this context means that interest on municipal bonds is exempt from federal income taxation, and may be tax-exempt at the state and local levels. Most outstanding municipal bonds are tax-exempt.

A History of the Market

Municipal bonds have a long history in the United States, dating back to the Civil War. During the Civil War, states funded the cost of fighting and almost all other expenses, including the construction of roads, public water supply, and sanitation. The Commonwealth of Pennsylvania issued \$3 million in bonds to defend itself against a probable attack, which did occur in 1863 at Gettysburg. Today, outstanding municipal bonds exceed \$2.4 trillion, with daily turnover of approximately \$20 billion. Approximately 80% of \$388 million issued in 2006 was sold through negotiated transactions, with the remainder marketed to underwriters through competitive bidding. The largest owners of tax-exempt securities are individuals and their proxies (i.e. mutual and money market funds). Property and casualty insurance companies and commercial banks are also large holders of munis. In recent years, hedge funds and other non-traditional buyers have become a new source of demand. Municipal bonds are attractive to many investors because the interest income can be exempt from federal income tax and, in many cases, state and local taxes as well. As a class, munis are second only to U.S. government securities in safety, and can offer opportunities for both retail and institutional investors to invest in highly rated securities.

Credit Quality Ratings

Most municipal bonds have one or more published credit ratings. Credit rating agencies, such as Moody's, and Standard & Poors rate bond issuers based on their ability to pay interest and principal in a timely manner.

Quality	Moody's ¹	Standard & Poor's ²
<u>Investment-Grade</u>		
Highest Quality	Aaa	AAA
Very Good Quality	Aa	AA
Good Quality	A	A
Medium Quality	Baa	BBB
<u>Below-Investment-Grade</u>		
Lower Medium Quality	Ba	BB
Low Quality	B	B
Poor Quality	Caa	CCC
Highly Speculative	Ca	CC
In Default	C	D

1. Moody's ratings from Aa to Caa may be modified by the addition of a 1, 2, or 3 to indicate relative strength within each strategy.

2. Standard and Poor's ratings may include a plus or minus to indicate relative strength within each category.

Types of Municipal Bonds

Essentially, the market views munis as belonging to one of two basic structures: general obligation bonds or revenue bonds. General obligation bonds are secured by the full, faith, and credit of a municipal government, including a pledge of its taxing power. Revenue bonds are secured by a more limited pledge of specific revenue sources (see below). Municipal securities also consist of both short and long-term maturities. About 75% of long-term bonds have fixed rates of interest, with the remainder having floating rates that are reset periodically. Interest on the vast majority of municipal bonds is paid on a semiannual basis.

- **General Obligation Bonds**

General obligation bonds are issued by states, counties, cities, towns, and school districts. They are secured by the full faith and credit of the issuer and supported by the issuer's limited or unlimited taxing power.

- **Revenue Bonds**

Revenue bonds are issued by state and local governments, as well as by state or local authorities. Principal and interest may be secured by revenues derived from tolls, charges or rents paid by users of the facility built with the proceeds of the bond issue. Examples of these include water revenue bonds, electric revenue bonds, college and university revenue bonds, and public power revenue bonds. Other revenue bonds are secured by a pledge of one or more taxes, such as an issuer's general sales tax.

Municipal Bonds with Special Investment Features

- **Taxable Municipal Bonds**

The federal government allows a certain amount of tax-exempt financing for private uses, such as single and multifamily housing, student loans, and not-for-profit hospitals. Sometimes, however, state and local governments will issue bonds outside of those limits where the interest is not exempt from taxation. Examples of taxable municipal bonds are those issued for local sport facilities, investor-led housing, and replenishment of under-funded pensions. Taxable municipals offer yields comparable to other taxable asset classes, such as corporates or agencies. In 2006, municipal governments issued \$30 billion in taxable bonds. Taxable bonds are taxable at the federal level, but may still offer a state and local tax exemption on interest paid to residents of the state of issuance.

- **Insured Municipal Bonds**

Bonds that are backed by municipal bond insurance are designed to reduce investment risk. In the event of a default, the insurance company guarantees timely payment of both principal and interest. Between 50-60% of municipal bonds issued each year are insured. Insured municipal bonds carry the ratings of the insurers, with most bond insurers rated AAA from all three rating agencies.

- **Callable Bonds**

With callable bonds, the issuer may retire all or a portion of the bonds at a premium, or at par, prior to maturity. Most callable bonds are only subject to such redemption after 10 years from the date of issuance. Generally an issuer might call a bond when interest rates fall to a point where it can save money by issuing new bonds at lower rates. Some bonds may also be subject to an “extraordinary redemption” provision, when they may be prepaid under certain circumstances, such as from unexpended bond proceeds, or from the proceeds of insurance upon the damage, destruction, or condemnation of a facility financed with the bond proceeds.

- **Pre-Refunded/Escrowed to Maturity Bonds**

An issuer may pre-refund a bond issue to a specified call date, or escrow bonds to maturity in an effort to benefit from a lower interest rate environment prior to the bonds being callable, or to eliminate certain overly restrictive bond covenants. The bonds would then be supported by the portfolio of securities in escrow. In most cases the escrow is backed by U.S. government securities.

- **Put Bonds**

This feature allows the holder to put the bonds back to the issuer at specified dates before maturity and receive full face value.

- **Floating Rate & Variable Rate Demand Obligations (VRDO)**

Interest on these securities is periodically recalculated according to an interest rate benchmark on predetermined dates. VRDOs typically offer investors either daily, weekly, or monthly liquidity given the existence of a put feature on any given reset date.

- **Zero Coupon Bonds**

Zero coupon bonds are issued at a deep discount of the maturity value and do not offer cash coupon payments. Instead, interest accrues to par at a stated rate throughout the life of the bond. As with current interest bonds, the interest accrual on zero coupon bonds is tax exempt.

- **Sinking Fund Bonds**

A bond issued with an accelerated amortization provision to retire debt pursuant to a set schedule.

Risks of Municipal Bonds

Issuers of municipal bonds have a superior record of meeting interest and principal payments in a timely manner. Default rates on municipal bonds are materially lower than comparably rated corporate bonds. For example, a recent study published by Moody's found that there have been only 41 municipal defaults since 1970. Moody's concluded that the 10 year cumulative default rate for investment-grade municipals was approximately five times lower than that of Aaa-rated corporate backed debt. In fact, lower rated Baa municipal bonds have had a lower default rate than higher rated Aa corporate bonds, according to Moody's.

- **Credit Risk (Default Risk)**

This refers to the probability that an issuer of a bond will be unable to make timely principal and/or interest payments on the issue.

- **Liquidity Risk**

Liquidity risk relates to the ease with which an issue can be sold at or near its market value. The primary measure of liquidity is the spread between the bid and the ask price. The municipal market is in general not a quoted market, and its over-the-counter nature makes munis less liquid relative to taxable investments. Given this profile, there could be significant variances between bid and ask prices. However, widespread individual and institutional ownership, as well as the breadth of the broker-dealer community making markets in munis, mitigate the reduced liquidity.

- **Interest Rate Risk**

Like most fixed income securities, munis contain interest rate risk, or the risk of loss in value when interest rates rise. When interest rates rise, new issues come to market with higher yields than older securities, making the older securities worth relatively less in value. Conversely, as interest rates fall, outstanding bonds will generally increase in value.

- **Inflation Risk**

Most municipal bonds pay interest on a fixed-rate basis. As with increases in interest rates, increases in inflation can reduce the present value of these expected interest payments, lowering the value of the bonds.

- **Reinvestment Risk (Call Risk)**

Municipal bonds may contain a provision that allows the issuer to retire or “call” all or part of the issue before the stated maturity date. In general, issuers tend to call their bonds in lower interest rate environments, where the investor would be forced to reinvest at lower rates. Call prices generally range from par to 102%.

- **Risk of Lower Federal Tax Rates**

Municipal bonds derive a considerable portion of their value because their interest payments are tax-exempt. The higher the marginal tax rate, the greater the value of the tax exempt feature. Should the Federal government lower individual and/or corporate income tax rates, the

value of outstanding municipal bonds may be somewhat diminished. Of course, any increase in marginal tax rates would be beneficial to municipal bonds.

Benefits of Municipal Bonds

- **Tax Exemption**

Under present federal income tax law, the interest income you receive from investing in municipal bonds is free from Federal Income Tax. In addition to the federal exemption, some state and local governments exempt municipal bond interest for investors that live in the state where the bond is issued.

- **Dependable Income Stream**

Most municipal bonds pay interest twice a year.

- **Strong Credit Quality**

The municipal bond market is very diverse, providing investment opportunities across the credit spectrum. Investors need to understand the particular credit characteristics of any potential investment before completing a purchase. Nevertheless, municipal securities as a class are second only to United States Government Obligations in safety.

- **Preservation of Capital**

Issuers promise to repay the full face value upon maturity. By holding municipal bonds to maturity, inflation risk, interest rate risk, and redemption risk are limited. Municipal bonds can also be bought with AAA insurance, which guarantees timely payment of both principal and interest.

- **Customized Structure**

Municipal bonds can be retired with a term maturity structure, a serial maturity structure, or a combination of the two structures. A term bond is an issue with all of the bonds in the series maturing on the same date. In a serial structure, bonds are retired in sequential maturity.

- **Diversification**

Municipal securities allow the investor to spread investment over a large number of issues in order to reduce financial risk.

Summary

Municipal bonds are issued by state and local governments, with the coupon interest on most issues exempt from federal income taxes and in many cases, state and local taxes as well. The primary investors in these securities are individuals, property and casualty insurance companies, and commercial banks. Once thought of as a stodgy asset class, munis are now attracting a new class of buyers including hedge funds, international investors, and other non-traditional buyers. With roughly \$400 billion in new bonds issued each year, municipal bonds can provide attractive investment opportunities for a variety of investor classes.

For more information:

Fixed Income & Stable Value
Greg Prisk
Executive Vice President
802.383.4104
gprisk@dwight.com

Insurance
Donald Hill
Senior Vice President
802.383.4062
dhill@dwight.com

David Richardson, CFA
Managing Director
802.383.4024
drichardson@dwight.com

John Loud
Vice President
802.383.4047
jloud@dwight.com

Consultant Relations
Lisa Trubiano, CFA
Senior Vice President
802.383.4066
ltrubiano@dwight.com

Anicia Mendez
Vice President
802.383.4067
amendez@dwight.com

www.dwight.com

100 Bank Street
Suite 800
Burlington, VT 05401
802.383.4000

One SW Columbia
Suite 1720
Portland, OR 97258
800.929.4427



© Dwight Asset Management Company 2007

This information reflects the viewpoint of Dwight Asset Management Company as of Spring 2007 and is subject to change. This report is provided for informational purposes only, is not a recommendation to make any investment, and should not be shared by recipients with other parties without the consent of Dwight Asset Management Company.