

# An Introduction to the High Yield Municipal Bond Market and PIMCO's Approach to High Yield Munis

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## A Brief Description of the High Yield Municipal Bond Market

High Yield municipal bonds typically are issued to finance economic or industrial development, housing, environmental projects, and health- and retirement-care facilities. Like other areas of the municipal bond market, interest payments on high yield munis typically are exempt from federal taxes and, in some cases, state taxes. This tax benefit, combined with low default rates relative to corporate bonds with similar credit ratings, has been a major draw for tax-paying investors who are focused on income.

As the name implies, high yield muni bonds are at the lower end of the municipal credit spectrum. About 55 percent of high yield muni bonds actually are unrated, but those that are carry an average credit rating of B2. Because of the below-investment-grade nature of these bonds and variability of bond structures and projects, high yield munis truly are a professional's market, with a heavy burden on due diligence and in-depth credit analysis that comes in exchange for potentially higher returns.

A large number of high yield muni bonds are issued to finance healthcare facilities, like hospitals and nursing homes, or land deals which finance infrastructure ahead of new development. Other high yield munis are issued to finance such things as airport terminals, environmental remediation, charter schools, and projects related to utilities.

The high yield muni market has grown quickly in recent years due to low borrowing rates, robust residential real estate investment, environmental legislation, and demographic changes requiring increased medical care and retirement facilities. Higher issuance has come alongside heavy demand from investors looking for tax relief and income opportunities in a low-return environment for stocks and bonds.

Typically, the debt is issued by a government unit, which in turn makes a loan to a non-profit borrower under section 501(c)(3) of the federal tax code. Coupon and principal payments usually are supported by a special tax or revenue from the project, and can be secured additionally by mortgages or liens on the project's hard assets. High yield

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munis also may be issued to finance private projects that benefit the community, such as waste remediation, airline terminals or public utilities. In those cases, the debt is backed and paid for by a corporation.

## Benefits and Risks of High Yield Municipal Bonds

The primary benefit of high yield municipals is attractive income that is typically exempt from federal income tax and, in some cases, state income tax. Because of that tax exemption, individuals make up the bulk of high yield muni investors but the bonds are suitable broadly for all tax-paying entities, including property and casualty insurers and corporations.

Because high yield munis are at the lower end of the sector's credit spectrum, they can offer substantially higher yields with less historical return volatility than higher-rated munis. Additionally, like all municipal bonds, high yield

munis also can be an excellent way for investors to diversify their holdings.

High yield munis also offer the potential for capital appreciation. Projects financed in the high yield muni market typically have a speculative element to them – for example, they might finance the infrastructure for a new housing development or an airline terminal to meet projected travel demand. They can appreciate in value if the project's revenues prove to be stable over time. In that case, unrated bonds could become rated, rated bonds could be upgraded, or an issuer might refinance into a deal with better terms.

High yield munis also have generated higher after-tax returns with substantially lower historical default rates than high yield corporate bonds.

Still, investors should be aware of the risks inherent with high yield munis. Put simply, they are rated lower than investment-grade munis because their

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Index Correlations from November 1995 to September 2006

	Lehman Brothers Long Term Gov't	Lehman Brothers Mortgage	Lehman Brothers Municipal	Standard & Poor's 500	Lehman Brothers High Yield Municipal	Lehman Brothers High Yield
Lehman Brothers Long Term Gov't Index	1.00	0.81	0.86	-0.13	0.46	0.05
Lehman Brothers Mortgage Index	0.81	1.00	0.78	-0.02	0.38	0.09
Lehman Brothers Municipal Index	0.86	0.78	1.00	-0.08	0.61	0.15
Standard & Poor's 500 Index	-0.13	-0.02	-0.08	1.00	0.16	0.49
<b>Lehman Brothers High Yield Municipal Index</b>	<b>0.46</b>	<b>0.38</b>	<b>0.61</b>	<b>0.16</b>	<b>1.00</b>	<b>0.41</b>
Lehman Brothers High Yield Corp Index	0.05	0.09	0.15	0.49	0.41	1.00

Source: Ibbotson, Lehman Brothers

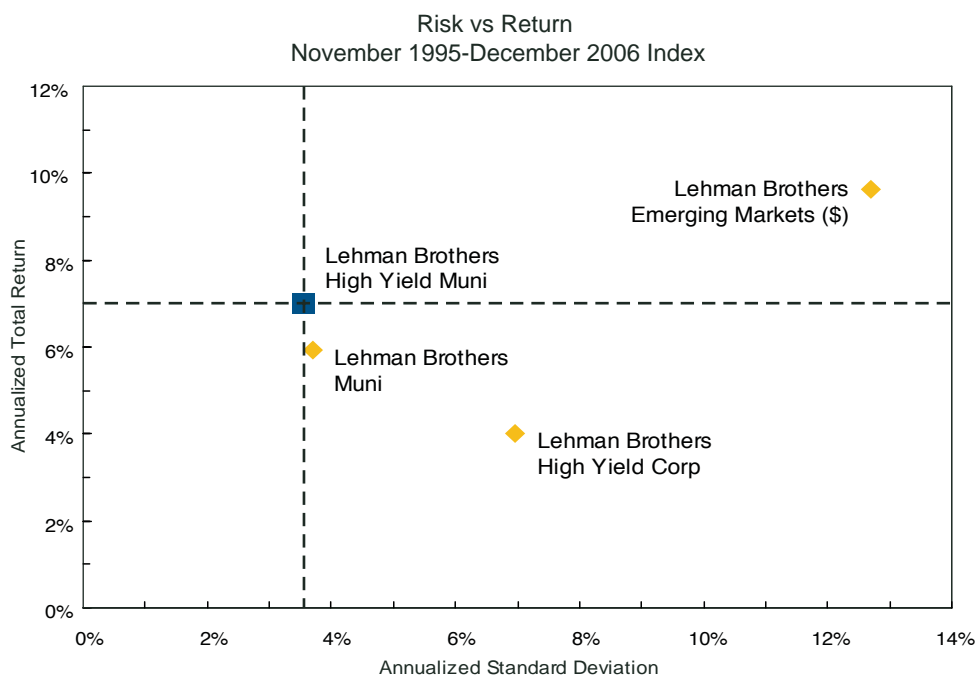
credit risk is higher. That puts an especially high burden of analysis on investors. High yield munis require a particularly robust “bottom-up” approach to evaluating the specific developer, the demographics of the community where the project is being placed, project cash flows, and the value of the collateral assets.

## Potential Diversification Benefits

Beyond the tax advantage and the potentially enhanced yields, high yield munis can be an excellent diversification tool for investors looking to spread their risks. High yield munis, like investment-

grade munis, have a low correlation with many other asset classes, particularly equities. Over the 10 years ending Sept. 30, 2006, high yield munis had a very low 15 percent correlation with the S&P 500, while high yield corporate bonds had a much higher 50 percent correlation.<sup>1</sup>

The reason for the lack of correlation between high yield munis and stock and corporate bond markets is that high yield munis finance projects with less cyclical revenue streams and with hard assets as collateral. Hospitals, for example, typically don’t see big shifts in the number of patients treated over the



Source: Lehman Brothers, PIMCO.

**Past performance is no guarantee of future results.** A 35% federal tax rate is applied against pre-tax income earned by the LB High Yield Corp and LB EM (\$) indices. Portfolio turnover is assumed to be 0% for simplicity and due to the fact that the indices’ reported turnover was low. Refer to Appendix for additional index information.

<sup>1</sup> Sectors represented by the Lehman High Yield Corporate Index and the Lehman High Yield Muni Index

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course of an economic cycle. Corporate high yield debt, on the other hand, finances the growth of companies and equity prices are dependent on that growth coming to fruition. There are many external risks to that growth – problems with cash flow, a slowdown in customer demand or a tightening among sources of additional credit – that can lead to a default. As a company approaches a distressed situation, its debt will behave more and more like equity since bondholders often are converted to equityholders in bankruptcy.

## Comparing Default Rates Between High Yield Munis and High Yield Corporates

It's important to understand that default rates on high yield municipal bonds are

distinctly lower than those on high yield corporate bonds, and even ones with similar ratings. In fact, the difference in default rates is striking, according to a study by Moody's Investors Service looking at default rates on 10-year debt between 1970 and 2005. The average cumulative rolling 10-year default rate for speculative-grade munis was 4.29 percent for the period, compared to a 32.71 percent default rate for speculative grade corporate debt.

Another subtle, yet highly significant difference in the risk profile of high yield munis is that they don't have the same degree of leveraged buyout risk that many corporate bonds have. LBOs, in which companies are acquired with a large amount of borrowed money, can hurt a company's credit rating instantly

Average Cumulative 10-Year Default Rates <sup>2</sup> 1970 to 2005		
Rating Category	Municipals	Corporates
Aaa	.00%	.56%
Aa	.06%	.58%
A	.03%	1.42%
Baa	.13%	4.89%
Investment-Grade	.07%	2.23%
Speculative	4.29%	32.71%
All Grades	.10%	10.14%
Average Recovery (1970-2000) <sup>3</sup>	66%	42%

2. Moody's Special Comment, Mapping of Moody's U.S. Municipal Bond Rating Scale to Moody's Corporate Rating Scale and Assignment of Corporate Equivalent Ratings to Municipal Obligations, June 2006. Default categories are based upon beginning-of-period Moody's ratings. Default percentages apply to only Moody's rated debt issues and exclude short-term debt and, for municipals, tax-exempt debt issued by corporations. Defaults were considered to have occurred where debt service requirements were either missed or delayed or where securities and cash exchanges resulted in lower asset values being held by debt holders. Recovery rates are based upon market prices for defaulted debt one month before and after default.

3. Moody's Special Comment, US Municipal Bond Rating Scale, November 2002. The 2006 study referenced above did not publish recovery rates, so the default rates from the 2002 study, which is based on Moody's study of defaults from 1970-2000, is used.

by ratcheting up its levels of debt. These events really can have a significant negative impact on corporate bond returns, particularly since many firms that are bought out are already rated below-investment-grade. For projects financed by high yield munis, there typically is no equity owner, so investors won't see the same type of releveraging events. Investors typically don't see LBO activity hit areas like housing infrastructure projects, retirement communities or charter schools.

### The Role of Collateral in High Yield Muni Selection

Since every high yield muni issue is different, it's important for investors to know exactly where they fit into the capital structure. High yield munis have relatively high recovery rates versus similarly rated corporate bonds, but investors should be aware of the nature and quality of the collateral securing their bonds and how senior the investors are in the capital structure. In addition to carefully analyzing the revenue source and the issuer, PIMCO places a big emphasis on high yield munis that are at the top of the capital structure by focusing on secured debt versus unsecured debt.

When considering capital structure and the collateral, investors must always ask the following types of questions:

How hard will it be to find new management for the hospital or turn the hospital into something else? Similarly, say, a power plant issued high yield munis for a pollution-control deal backed by a first-mortgage lien on the plant. If there is a default, are investors going to foreclose on a power plant? Probably not, but in the event of a bankruptcy, an investor wants to be the most senior, which puts him near the top of the food chain if assets are liquidated.

### Can a Portfolio of High Yield Municipal Bonds be Actively Managed?

With so many unrated issues and unique structures, the high yield muni market clearly is limited in liquidity, and trading often depends on research and negotiation rather than on the fast-moving screen trading that occurs in markets such as Treasuries. For each separate issuer, it's important to note the quality of the underwriter, the call structure, tax-exemption specifics and the liquidity.

Yet there are opportunities to generate capital gains within a high yield muni portfolio by taking positions that reflect interest-rate expectations, by seeking undervalued sectors, or by targeting prepayment trends that can be driven by interest-rate movements. As with all

bond sectors, PIMCO employs a top-down secular view to identify attractive sectors, but an extensive amount of bottom-up credit analysis also is needed to determine which bonds have the most potential to add value. In general, we look for securities that have the potential to be upgraded, which causes the value of the bonds to rise. Additionally, PIMCO seeks to generate excess returns by entering into positions that reflect our views on curve, duration, sectors, and individual credits. It should be noted, however, that capital gains incurred by trading municipal bonds may be subject to capital-gains tax.

### The PIMCO Approach to the High Yield Muni Market

Credit selection in the municipal bond market is different than with other types of bonds. High yield munis require more project-specific – and, thus, issue-specific – analysis for the simple reason that every project is different.

With corporate bonds, macroeconomic factors can affect a whole sector. For example, the level of demand for autos has an effect on all corporate bond issuers in the auto sector. But for high yield municipals, a hospital in one community might thrive while a hospital in another won't. As a result, the process of selecting high yield munis has a more

rigorous bottom-up element. Additionally, muni investors tend to buy and hold these securities and so one doesn't see the same degree of sector rotation necessarily that we see in corporates.

However, the macro-economic view does play a role in determining which areas of the high yield muni market might add the most value. Given expectations for a slowing economy and risks to the housing market, PIMCO is becoming more defensive and conservative with its exposure to bonds supporting single-family housing developments. A housing slowdown also may affect retirement communities, since many people finance the entrance fees for retirement communities by selling their existing homes. PIMCO still finds the sector attractive over the long term, but currently is being very selective and choosing only those bonds with more conservative credit features.

The basic PIMCO approach is to be well diversified among all sectors but, in general, to maintain higher quality than the average holdings of the Lehman Brothers High Yield Muni Index. The firm also aims to identify the bonds that provide attractive yield with price-appreciation potential and the projects most likely to weather an economic slowdown.

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Each sector of the bond market entails risk. An investment in high-yield securities generally involves greater risk to principal than an investment in higher-rated bonds. Municipals may realize gains and shareholders will incur a tax liability from time to time. Income from the portfolios that invest in them are subject to state and local taxes & may at times be subject to the alternative minimum tax. It's important to note that a portfolio concentrating in a single state is subject to greater risk of adverse economic conditions and regulatory changes than a portfolio with broader geographical diversification. Please consult your tax and/or legal counsel for specific tax questions and concerns.

The credit quality of a particular security or group of securities does not ensure the stability or safety of the overall portfolio. Diversification does not ensure against loss. Duration is a measure of price sensitivity to interest rates and is expressed in years.

Statements concerning financial market trends are based on current market conditions, which will fluctuate. There is no guarantee that these investment strategies will work under all market conditions, and each investor should evaluate their ability to invest for the long-term, especially during periods of downturn in the market.

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